

QUARTERLY PUBLICATION OF THE EUROPEAN ASSOCIATION OF ZOOS AND AQUARIA

ZOOQUARIA

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ISSUE 75



Bonobo base
MAN'S CLOSEST RELATIVE
HAS A NEW ENVIRONMENT

Shark tales
AN ACCOUNT OF TWO
BREEDING PROGRAMMES

Tree lines
A BRAVE NEW TROPICAL
WORLD AT LEIPZIG



Southeast Asia Campaign
EAZA AND IUCN/SSC JOIN FORCES FOR 2012



ASA
THE NEW GLOBAL ALLIANCE TO SAVE THE WORLD'S AMPHIBIANS

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Zooquaria

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From the Director's Chair

Since the last *Zooquaria* in which I asked our members once again to make their voices heard on palm oil labelling in food products in the EU, we have seen the fantastic outcome of months of dialogue and campaigning from EAZA and other groups. On 6 July an agreed text of the food information regulation was strongly supported and passed in parliament and will be formally approved by the Council of Ministers very soon. Thank you to all those members and individuals who helped campaign on this issue by contacting local MEPs – it's a very fine outcome for the Ape Campaign and one where we helped play our part in highlighting such an important issue to European legislators.

This summer has been one of change at the EAZA office in Amsterdam. Sadly Eoghan O'Sullivan will be leaving EAZA to move back to Geneva to take up new challenges. I don't think anyone could have failed to notice the rapid improvements in communication from the office – via this magazine, the eNews and the website, and all that has been the work of Eoghan. He will be very much missed in Amsterdam and I am sure by many of you. The whole team would like to take this opportunity to thank Eoghan for everything he has done and the fabulous staff mate he has been. On a happier note a great new Communications and Membership Manager has now joined EAZA and you can read more opposite.

In this issue of *Zooquaria* we also look ahead to the launch of the new conservation campaign focusing on Southeast Asia that will be launched in Montpellier. Many members will recall the presentation by Dr Simon Stuart, Chairman of the Species Survival Commission, at our annual conference in Copenhagen in 2009, where he gave an overview of the perilous state of the large animals of Southeast Asia. It heightened the awareness among the EAZA community on this issue and we are delighted now to be partnering for the very first time with the IUCN/SSC in this joint campaign (see page 8). While many EAZA campaigns in the past have focused predominately on the threats to biodiversity from habitat loss (and this is still an important issue in the region, particularly with regard to oil palm plantations), this new campaign will focus on the escalating illegal trade in wildlife. Much of the demand driving this trade is from Traditional Chinese Medicine (TCM) practices. One high profile victim of the demand for TCM is the rhino, yet numerous scientific studies, including those carried out by the University of China, show no curative values in materials such as powdered rhino horn. 2011 has seen an astonishing and frightening increase in poaching of rhino in Africa to supply the Asian markets, with more than 200

animals killed to date (August 2011). This is compared to 13 animals in the whole of 2007. While the upcoming campaign focuses on Asia, the interconnectedness of the illegal trade cannot be underestimated. Our colleagues at Save the Rhino International have been highlighting this decline. Lucy Boddam-Whetham, Acting Director of Save the Rhino International, has stated that 'in the last three years, 800 African rhinos have been killed and experts agree that we are facing the worst rhino poaching crisis in decades'.

It is clear that illegal wildlife trade does not reflect solely the desperate acts of poverty-stricken people to bring in subsistence income. Rather it is masterminded by international criminal gangs, with small numbers of individuals making vast sums of money out of the slaughter of such species. EAZA members have long been concerned about the plight of rhinos and the highly successful rhino campaign in 2005 (with partners, Save the Rhino International) was testament to that concern. But now we face a threat to the animals in our care. Over the past 18 months there has been a growing series of thefts of rhino horns from museums, science centres and zoos across Europe. Europol, the European Police Force, believe that these thefts are primarily the work of an organised criminal gang 'of Irish ethnic origin'. While the thefts from zoos to date have been the educational materials that you often see on display, should we also be concerned that the live rhinos in our care could be targeted? With single rhino horns fetching up to €200,000 on the black market we need to be especially vigilant not only about how we securely house rhino horns used for educational purposes in our classrooms, but also the animals we nurture. Please do all you can to support the Southeast Asia Campaign from EAZA and IUCN/SSC and contribute to the prevention of illegal wildlife trade.



Dr Lesley Dickie
Executive Director, EAZA

NOTICEBOARD

NEW GECKO SPECIES
NAMED AFTER ZOO
DIRECTOR

ALTHOUGH BENT-TOED GECKOS ARE only rarely displayed in Zoological Gardens, *Cyrtodactylus* forms the most speciose genus of gekkonids to date, writes Thomas Ziegler, Aquarium Curator at Cologne Zoo. More than 130 species of this nocturnal and handsome gecko genus are currently recognised from tropical South Asia, Indochina, the Philippines, the Indo-Australian Archipelago, and the Solomon Islands. Vietnam has been one of the regions where the most discoveries of new *Cyrtodactylus* have been made. Until 1997, only three species had been recorded from Vietnam, and since then 20(!) additional species have been described from that country.

In central Vietnam's Phong Nha – Ke Bang National Park, close to the Laotian border, where Cologne Zoo has been engaged with biodiversity conservation and research projects for 13 years, three new *Cyrtodactylus* species have been discovered from that single forest site, which raises important questions for niche partitioning and speciation processes. From Laos, bordering Vietnam to its east, only a comparatively low number of *Cyrtodactylus* is known today.

To increase and promote biodiversity research and conservation in Laos, Cologne Zoo has signed a Memorandum of Understanding with both the National University of Laos (NUOL) in Vientiane, and the Institute of Ecology and Biological Resources (IEBR) in Hanoi. The Laotian-Vietnamese-German cooperation has so far resulted in the discovery of two new *Cyrtodactylus* species. The first was named in 2010 after Professor Dr Sengdeuane Wayakone, Director of the Office of



Planning and International Cooperation at NUOL, in recognition of his efforts to investigate and protect biodiversity in Laos (Nguyen et al. 2010). The most recent *Cyrtodactylus* description from Laos, published in June 2011 in the international journal *Zootaxa*, was named after Theodor Bernhard Pagel, director of the Cologne Zoological Garden, in recognition of his long-term support of biodiversity research and conservation in the Indochinese Subregion of Southeast Asia (Schneider et al. 2011).

Theo Pagel has been curator of 'The Rainforest', Cologne Zoo's tropical house focusing on Vietnam's biodiversity, and he was one of the founders of Cologne Zoo's nature conservation project in Phong Nha, before he became director. With biodiversity research and conservation projects in Southeast Asia, Cologne Zoo tries to link *in situ* with *ex situ* activities, and, based on its work with the Zoological Institute of Cologne University, to develop cross-national transfer of knowledge including training of young academics from both Germany and Asia.

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T. ZIEGLER



At the end of September, following the Annual Conference in Montpellier, I will finish working for EAZA and fully hand over the reins to a new Communications and Membership Manager, writes Eoghan O'Sullivan, Communications and Membership Manager, EAZA. Since taking up my position in June 2009 I've been honoured to work alongside talented and committed professional colleagues and to gain an insight into the world of zoos. I have learned that this community is filled with warm, friendly people who work very hard towards enabling zoos to fulfil their potential as leaders for conservation and education. As you read this I have already moved with my wife to Geneva, where I will take on a new professional challenge (and a new personal challenge, as fatherhood beckons later this year), but I will always keep an eye on the development of the zoo world in future.

My replacement, Michael Sullivan (bottom left), has



already started working at the Executive Office. Like me, he comes from outside the zoo community, bringing valuable experience from the associations sector, having worked previously for the Royal Institute of British Architects. He lived in the Netherlands for much of his youth, so settling into Amsterdam shouldn't be too difficult. You will have a chance to meet Mike in Montpellier where he will be chairing one of the plenary sessions.

Also now based at the EAZA office is Jaime García-Moreno, who has been appointed the Executive Director of the Amphibian Survival Alliance. EAZA is employing Jaime on behalf of the IUCN and you can read more about this new initiative in an article elsewhere in this issue of *Zooquaria*. I look forward to saying au revoir to many colleagues in person in Montpellier, and I thank you for having welcomed me into your community; I have benefited greatly from the experience.

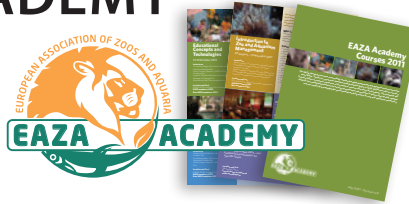
NOTICEBOARD

NEW OPPORTUNITIES
AT THE EAZA ACADEMY

WITH THE FIRST EVER EAZA ACADEMY prospectus launched in July, we are now very pleased to be able to offer an exciting and interesting set of applied courses for 2011 and beyond, writes *Myfanwy Griffith, Training Officer, EAZA Executive Office*. The prospectus contains a range of courses from management training and collection planning to educational technologies and conservation psychology. At EAZA we are ever mindful of sustainability, thus most editions of the prospectus will only be available on the EAZA Academy pages of the website and not published in print. This also enables new courses and updates to be added as they arise, so keep checking the website for new information.

In response to the survey we have kept course length to two or three days and where possible integrated an online learning element. We also took note of your comments relating to travel costs and locations. Two of the scheduled courses will take place in venues outside of the EAZA Executive Office and we plan to expand on this number in future.

The long term vision for the Academy is to link courses together into programme frameworks suited to the varied career paths available to people



working in animal collections. A table included in the prospectus indicates preliminary programme frameworks for animal staff and educators. We are also currently working with the EAZA Zoohorticulture Group to develop a programme framework suited to their needs. Courses planned for 2012 include animal training, exhibit design and *in situ* conservation to name but a few. We aim to release our 2012 prospectus shortly after the Annual Conference. So if you have comments on the programme frameworks, feel there is a relevant subject area to add, or would like to be involved in feedback on the content of new courses we'd love to hear from you at myfanwy.griffith@eaza.net.

Plus: Have you heard about the Segré Scholarships for EAZA Academy courses yet? These are made possible due to a generous donation from Foundation Segré and are open to employees of EAZA Members or Candidates for Membership. Find out more on the website: www.eaza.net/activities/academy.



WHEN KEEPERS AT PARKEN ZOO discovered that pygmy hippo Krakunia was pregnant, they were not initially sure when delivery was due, writes *Helena Olsson, Zoological Director*. Although the zoo normally uses a hands-off approach during animal pregnancies, on this occasion they needed to develop a safe working routine which involved touching Krakunia's teat to see when milk came. The idea was to help them predict the youngster's arrival, and, sure enough, a

ANTWERP JOINS EXCLUSIVE MASKRAY CLUB

The birth of a blue spotted maskray at Antwerp this year makes the zoo only the third European collection to have successfully bred the species. Antwerp has one adult pair of the maskrays, and participates in the studbook, and when it noticed that the female was pregnant, made immediate contact with studbook keeper Daniel Abed (WIEN-AQUA), and Max Janse of Arnhem who has bred the species before. With their help, they were able to see through the pregnancy successfully, with the pup being born on 20 February.

A female, the pup was placed in a tank out of sight of visitors, to minimise disturbance, and so that feeding could be monitored, and she's now growing into a very healthy youngster.



HOW TO MILK A HIPPO



few hours after milk first appeared, a healthy male pygmy hippo was delivered in February.

But then problems started. The baby was strong and healthy and tried to approach his mother in order to feed. She kicked him away and did not stand still or lay down, even though he tried to suckle on her. The keepers decided to try and get the colostrum out of the mother themselves, so they could feed the baby: one keeper distracted Krakunia while

another snuck up on her and milked some of the colostrum out before she reacted. They then bottle-fed the milk to the baby in the enclosure together with the mother. That gave him the strength to continue approaching his mother and finally after 12 hours, she went down into the pond and laid down on her side and the baby was able to suckle on her for the first time.

Two days later, she was rejecting him again, walking away and kicking him when he approached. The vet examined her and discovered that she had mastitis, so she was injected with oxotycin.

By now, Krakunia decided she'd had enough. She attacked everyone in the enclosure, and during the night kicked the baby around, barely taking a rest. By morning, the situation was serious, but no-one could go into the enclosure because she had become so aggressive. As a last try to calm her down without sedating her, the keepers took a hose and showered her with warm water. Suddenly she calmed down, went down into her pond with the baby and he was allowed to suckle! Once the baby started to suckle, the mastitis obviously improved and all was well.



SSH, KEEP QUIET... WE'RE SUPPOSED TO BE EXTINCT!

IF A SPECIES HASN'T BEEN SEEN ONCE in the 20th century, despite several organised searches, then the fair assumption is that extinction has struck once more. All of which meant that when a red-crested tree rat (*Santamartamys rufodorsalis*), not seen since 1898, suddenly popped up on a handrail in Sierra Nevada's El Dorado Nature Reserve right in front of two volunteers who happened to have a camera with them, it was as if it was laughing in the face of logic.

'He just shuffled up the handrail near where we were sitting, and seemed totally unperturbed by all the excitement he was causing,' said Lizzie Noble, one of the volunteers with ProAves, who was on site to monitor amphibians. (The other volunteer was Simon McKeown, son of the director of Fota Wildlife Park in Ireland. Sean McKeown believes the tree rat may have seen his son, a rare red-headed visitor to the region, as a rival!)

'The situation was almost comical,' says Roland Wirth of the Zoological Society for the Conservation of Species and Populations (ZGAP), which is funding three different teams to look for the tree rat. 'The species, only known from two museum specimens, had not been seen for 113 years, and live trapping, spot lighting and so on had drawn consistent blanks. Even interviews with local people provided just very vague responses at best.

'And then, one day, one of them simply walks out on the handrail at a lodge, sits there patiently to be photographed by two volunteers from all sides, and then calmly disappears back into the forest again.'

The discovery marks the beginning of a major effort by ProAves and Global Wildlife Conservation to save this newly rediscovered species.

BROUGHT BY THE STORK

THE HATCHING OF FOUR ORIENTAL white storks (*Ciconia boyciana*) in Vogelpark Avifauna is not only a great success for Avifauna but also a boost for the EEP programme for a species that suffers from poor breeding results.

In 1995 a pair of Oriental white storks arrived from Tianjin Zoo in China. The female is wild born (1991) and the male was captive born in Shanghai Zoo in 1992. Over a three-year period they laid several clutches of eggs, each infertile. Although the birds were believed to have been sexed in China before they came to Avifauna, the keepers were becoming sceptical. With good reason! DNA analysis revealed the birds were actually two females, rather than a pair.

It took till March 2005 before a suitable male was found to introduce to these two females: he came from Niendorf in Germany (non-EAZA).

By early April 2007 a clutch of three eggs was laid and it was decided to give them to a reliable breeding pair of white storks (*Ciconia ciconia*) to stimulate the Oriental white storks to lay a second

clutch. Two out of the three eggs hatched with the white storks and the pair proved successful foster parents. The second of the Oriental white stork clutches, however, was infertile.

In 2008 Avifauna decided to leave the Oriental white storks to incubate their own first clutch of three eggs, and one chick hatched on 20 April but died two days later. More infertility occurred in the following two years. In 2011 many copulations were observed and it was decided to take the first clutch of 4 eggs to an incubator to stimulate the storks to start a second clutch.

Two eggs hatched in the incubator and the chicks are growing rapidly.

Of the second clutch, left with the parents, the first hatched on 4 May and on the following day the second chick was seen, although the two other eggs turned out to be infertile. Both chicks are being fed by the parents very well so the keepers have decided to leave them on the nest, confident that they will reach adulthood with the good care of their parents.

Asian fusion

AS WE PREPARE FOR THE LAUNCH OF THE SOUTHEAST ASIA CAMPAIGN, ZOOQUARIA LOOKS BACK ON ITS GENESIS

Gary Batters (Banham Zoo) and Will Duckworth (IUCN/SSC): Campaign Co-chairs



FEMALE BANTENG, HUAI KHA KHAENG WILDLIFE SANCTUARY, THAILAND

© WCS-THAILAND PROGRAM

At its 65th session the United Nations General Assembly declared the period 2011-2020 to be 'the United Nations Decade on Biodiversity, with a view to contributing to the implementation of the Strategic Plan for Biodiversity for the period 2011-2020'. Following on from the 2010 International Year of Biodiversity the UN is hoping that this high profile decade will promote the implementation of the Aichi Biodiversity targets for 2020. EAZA wants to play its part as a leading zoo and aquarium association by officially partnering with the UN Decade and what better way to do so than by continuing with our highly successful series of campaigns.

In this, the first year of the decade we have already seen the Ape Campaign highlighting the threats faced by our closest relatives on this planet, and in September at Montpellier we will launch the Southeast Asia campaign, focusing on the most remarkable wildlife of the countries of the ASEAN region. ASEAN is a body similar to the EU and made up of the countries of Brunei Darussalam, Cambodia, Indonesia, Lao PDR, Malaysia,

Myanmar, Philippines, Singapore, Thailand and Vietnam. EAZA is particularly excited as this is the first time that we have jointly developed and implemented a campaign with the Species Survival Commission of the IUCN. The campaign was originally stimulated by the work of the SSC, which identified large animals (defined as being over 1kg) in Asia as being at particular risk globally of decline and extinction through a combination of factors, most prominently illegal trade and habitat loss. The campaign was suggested by the Cattle and Camelid TAG (chaired by Gary Batters), but it quickly became obvious that, with so many species threatened with decline in the region, the campaign should be extended.

The SSC enthusiastically responded to a suggestion by EAZA that the organisations could partner in this venture and Simon Stuart, Chair of the SSC, recommended the right man for the job, Will Duckworth, from the SSC to assist Gary in being a co-chair for the campaign. Will has a wealth of experience having worked in the ASEAN region for a number of years

in numerous biodiversity conservation projects. His experience has proved to be huge help in discussions on the campaign planning group.

The campaign, which will run from 1 October 2011 to 30 September 2012, will have four main aims:

- Raise awareness in the European public, European institutions and European business community of the amazing, yet threatened, animal species of Southeast Asia;
- Create a fund of €750,000 for Southeast Asian species conservation projects;
- Assist in reducing trade and hunting of Southeast Asian species at risk;
- Influence European consumer behaviour, demonstrating how this can positively impact on biodiversity conservation issues.

As with the Ape Campaign, the campaign planning group, acting on the expert advice of the IUCN, has chosen a number of initial campaign projects. Full details of the campaign projects will be presented on the dedicated campaign website (to be launched simultaneously with the campaign on 21 September), but will include species such as the saola, Sumatran and Javan rhino, the rufous-headed hornbill and a suite of other species and high biodiversity areas such as the Hukaung Valley in Myanmar. The campaign team are also delighted that the keynote speaker at the EAZA conference will be Dr Liz Bennett of the Wildlife Conservation Society. Liz is arguably the world's foremost expert on illegal wildlife trade in this region and her insights will no doubt inspire all participants to fully support this campaign.

The full campaign planning group has representatives from the following institutions: Banham Zoo (Gary Batters, Sara Goatcher), Cologne Zoo (Lothar Philips, Ruth Dieckman), ZooParc de Beauval (Aude Desmoulins), Allwetterzoo Münster (Martina Raffel) and the SSC (Will Duckworth). The campaign group would also like to thank Simon Stuart for his invaluable advice.

Why saola?

NO SAOLA CAN BE SEEN IN ZOOS, AND IT IS A SPECIES ALMOST UNKNOWN OUTSIDE PROFESSIONAL ZOOLOGY CIRCLES. WHICH IS PRECISELY WHY IT HAS BEEN CHOSEN AS THE FLAGSHIP OF THE NEW SOUTHEAST ASIA CAMPAIGN. WE ARE GRASPING THE CHANCE TO PROMOTE A MORE ALL-ENCOMPASSING RANGE OF WHAT BIODIVERSITY IS, VIA A SPECIES THAT COULD GO EXTINCT WITHOUT THE WIDER WORLD EVEN KNOWING OF ITS EXISTENCE

Bill Robichaud, Wildlife Conservation Society, coordinator of the IUCN Saola Working Group

Described in 1993 from central Vietnam, the saola (*Pseudoryx nghetinhensis*) was one of the most spectacular zoological discoveries of the 20th century. Among wildlife, the only comparable discovery was that of the okapi (*Okapia johnstoni*) of central Africa. Okapi and saola are alike in many ways: highly distinctive-looking, solitary large ungulates dwelling in deep tropical forest, coming very late to the notice of the outside world. But the saola was discovered nearly a century after the okapi, and so was an even more stunning discovery.

The saola is also considerably more threatened than the okapi. It is endemic to the Annamite Mountains of Laos and Vietnam and, since its discovery, it has declined to a status of Critically Endangered (2010 IUCN Red List), mainly due to intense hunting in its range. Because of the saola's elusiveness and the lack of investment in its conservation, precise population estimates are not yet possible; the best we can say is that probably between 10 and 400 remain.

In addition to its level of endangerment and genetic distinctiveness, there are two compelling reasons to support saola conservation:

1. Opportunity: Most endangered



terrestrial vertebrates in Southeast Asia are threatened primarily by their deliberately sought off-take for the wildlife trade, either for bushmeat or traditional East Asian medicine (eg turtles, snakes, pangolins, rhinos, primates, bears and large cats) or, often a combination of both. Ironically, the saola is one of the only large animals in the region without a significant price on its head. The Chinese never knew of it, so it does not appear in their traditional pharmacopeia. This gives great hope: unlike, for example, rhinoceroses, determined poachers are not racing conservationists to the last saola. However, the methods used by many poachers for the animals they

do seek are not precisely targeted and are incidentally driving the saola to extinction.

2. The Annamite Mountains:

The saola's home is one of the most remarkable and important ecosystems in the world. Since its discovery there, at least two new species of muntjac, a rabbit (*Nesolagus timminsi*), several birds and a mammalian family thought to be extinct for millions of years (*Diatomyidae*) have been found in the Annamites. This is in addition to the plethora of highly distinctive mammals already known and confined to the area (or nearly so), such as three species of doucs, the François's leaf monkey species-complex (*Trachypithecus francoisi*), two species of white-cheeked gibbon (*Nomascus leucogenys* and *N. siki*), and a remarkable civet with no close relatives anywhere in the world, Owston's civet (*Chrotogale owstoni*). The Annamites are also notably rich in endemism of higher plants, birds and fish. With successful conservation of the saola, as a flagship species, will come conservation of the Annamites, and the thousands of other species there.

In sum, for individuals or institutions looking to make a significant, incremental contribution to conservation of the earth's biodiversity, among species it is hard to imagine a more potent investment than the saola. To date, saola conservation has consisted mainly of some well-meant but uncoordinated, short-term, and weakly-funded efforts. This has not reversed the species' decline, and a change of course is required to avert its extinction. There remains a small window to save this extraordinary animal, but we must act soon, and act together.

For more information, listen to an interview with William Robichaud, Coordinator of the IUCN/SSC Saola Working Group at <http://www.santaferadiocafe.org/podcasts/?p=976>. You can contact William at saolawg@gmail.com, or +856-20-2004145.

SILVICULTURE

FIVE DEGREES OF IMPORTANCE

The first meeting of the IUCN/SSC Saola Working Group, in Vientiane, Laos in August 2009, identified priorities for saola conservation. There are five:

- Protection: immediately improved protection at key sites for saola, particularly in the collection of snares.
- Research: the foremost priority is development of a method to efficiently and reliably detect saola in the field (there is no known visual way of distinguishing saola signs, such as prints and faeces, from various other ungulates; the animal itself is almost impossible to see, and even camera-trapping demands massive resources to stand a reasonable chance of finding it).
- Awareness-raising: priority contacts are international donors, conservation NGOs, local residents in the saola's range, and range government partners.
- Mentoring: inspiring and training young national (Laos and Vietnam) saola conservationists.
- Fundraising: resources are needed to implement the other four priorities.

All together for the apes

AN OVERVIEW OF THE EXTRAORDINARY IMAGINATION AND DEDICATION SHOWN BY THE CREATORS OF EAZA APE CAMPAIGN EVENTS ACROSS EUROPE

Mirko Marseille, Campaign Coordinator, EAZA Executive Office

Around 160 EAZA member institutions have participated in the EAZA Ape Campaign. Throughout the summer, and especially during Ape Week (18-24 April), many zoos held ape-related events and educational activities. Activities ranged from chimpanzee face-painting and creating gorilla buttons and gibbon masks, to producing enrichment materials for orangutans and collecting old mobile phones. This article and the accompanying photos reveal a sample of the many campaign activities we were informed about.

The zoos in Lyon and Mulhouse offered visitors the opportunity to climb in and through trees the way gibbons do. Through this first-hand experience visitors learn to appreciate the way a gibbon moves through the forest, and why trees are necessary for its survival. Similarly, at Colchester Zoo in the UK, children were able to hang on a swing rope and compare their length of hanging time to that of an orangutan. One of the best examples of imitating ape behaviour was at Paignton Zoo where a sponsored research student lived like a gorilla for 24 hours! He stayed on the zoo's Gorilla Island and followed a strict gorilla diet including pepper, leek, spinach and passion fruit.

At La Palmyre Zoo in France visitors have been voting for their choice of name for a newborn buff-cheeked gibbon. In Copenhagen Zoo, 1,604 visiting scouts drew their hands on paper to give a symbolic hand to Africa's apes. For each hand the scouts donated 20 DKK (about €2.50). The hands are on display as a symbol of the scouts' support and interest in conservation.

Running for the apes was a popular theme as well: Chester Zoo staff dressed



as gorillas and keepers and ran the 10km Great Manchester Run in aid of the Ape Campaign. Zoo staff from Paignton Zoo and Copenhagen Zoo also completed sponsored marathons successfully.

Several zoos, including Kazan Zoo, Lisbon Zoo, Mulhouse Zoo and Welsh Mountain Zoo, organised ape knowledge competitions for their visitors. Likewise, Zoo de la Barben organised the 'Gibochoργο Expert Contest' (using a newly invented word incorporating gibbon, bonobo, chimpanzee, orangutan and gorilla).

Fota Wildlife Park in Ireland organised a competition that linked Fathers' Day activities with the Ape Campaign. Visiting fathers had to compete with each other with to see who could become Fota's first dominant silverback. Another competition, this time between chimpanzees and



bonobos, was held at Antwerp Zoo and Planckendael. The zoos organised 'The most intelligent ape in the world' competition between the chimpanzees from Antwerp Zoo and the bonobos from Planckendael. The chimps and bonobos have been competing with each other in five different games. The games require the apes to collect five peanuts from a collection box as fast as possible. The collection box actually is a kind of closed labyrinth game board with holes on the sides, and each game gets more difficult as the complexity of the labyrinth increases.

Zoo Zürich created a small information lounge at its Great Ape

TRANSFERRING FUNDS As the EAZA Ape Campaign is now coming to an end participants are kindly requested to start transferring funds to the Ape Campaign account as soon as possible. After the campaign's closing the EAZA Ape Conservation Fund will continue supporting *in situ* ape conservation projects. The total number of projects that can be supported depends on the funds available. It would therefore be much appreciated if you could start transferring funds to the Ape Campaign bank account as soon as possible, ideally no later than 9 September. Information about how to transfer your donations can be found on the Ape Campaign website.



CLOCKWISE FROM TOP LEFT: INFORMATION STAND AT LA PALMYRE ZOO; GORILLA GLASS ART AT PAIGNTON ZOO; RINGING THE ALARM BELL AT APENHEUL PRIMATE PARK; APENHEUL PRIMATE PARK; APE PAINTING AT KAZAN ZOO; DONATION BOX AT FOTA WILDLIFE PARK 1; HELSINKI ZOO; ORANGUTAN ARTWORK AT COLOGNE ZOO; COLCHESTER ZOO; INFORMATION STAND AT NEUNKIRCHER ZOO; WOW! GORILLAS IN CAMEROON (BRISTOL ZOO GARDENS); APE CAMPAIGN AT LISBON ZOO; SCOUT DAY AT COPENHAGEN ZOO; APE LOUNGE AT ZURICH ZOO

House. Visitors were invited to make themselves comfortable on an old sofa and, by activating a press button, to listen to the voices of eight different species of gibbon. For a small donation visitors were able to download a ringtone of the pileated gibbon's or the siamang's cry.

The events described above only represent a small selection of all activities and events that have been organised throughout Europe. It is amazing to see how most participating zoos have been able to offer original, appealing and above all fun-packed activities and events. We know that zoos need to dedicate most of their (human) resources to ensuring that the daily zoo business is running smoothly, especially in summer during high-peak season. Taking this fact into account it

EAZA APE CONSERVATION FUND After the closing of the Ape Campaign at the EAZA Annual Conference in September, the EAZA Ape Conservation Fund will become effective. It is expected that at the end of October 2011 invitations to apply for project funding will be sent to EAZA zoos and the wider ape conservation community. Based on the total amount of funds raised multiple application rounds will be opened up. Details about the application process will become available soon. Keep a close eye on the APEwise newsletter and the Ape Campaign website.

really is outstanding how participating zoos have committed themselves to contribute to raising funds and awareness on behalf of the apes. Over the past months EAZA zoos have reached out to innumerable visitors with education on the threats that apes face and how we can contribute to their survival. The creativity and dedication of the Ape Campaign participants will serve as a leading example in the upcoming Southeast Asia Campaign.

At the EAZA Annual Conference in Montpellier, Ape Campaign Awards (Ape Week Award, Fundraising Award and the Awareness Award) will be handed out to the zoos that organised the most creative, original, innovative, unique and imaginative ape-related activity or event. One thing can be taken for granted: the Ape Campaign committee will have an extremely difficult task in selecting the actual award winners!

Still time to save the tiger

EAZA'S TIGER CAMPAIGN WAS ONE OF THE MOST SUCCESSFUL – CAMPAIGN PARTNER 21ST CENTURY TIGER CONTINUES THE URGENT WORK

Esther Conway, Manager, 21st Century Tiger

Although the focus is on the EAZA Ape Campaign this year, do keep in mind the ongoing campaign of 21st Century Tiger. After 14 years at the forefront of zoo conservation efforts, there are many more opportunities for involvement.

The Russian Far East is a case in point – a huge landscape with protected areas for wildlife, but with a lack of institutional resources available for use. This is why backing the work of the Phoenix Fund is a priority for 21st Century Tiger. Run by the charismatic Sergei Bereznuik, Phoenix supports a two-pronged approach: demand reduction for tiger parts through education and awareness; and protection through anti-poaching and wildlife crime prevention.

The Russian Far East and adjoining Chinese border area contains the world's last wild Amur tigers, but an insatiable demand for tiger parts has seriously depleted numbers. About 500 remain in Russia and possibly fewer than 100 in northern China.

A major project run by the Phoenix Fund focuses on anti-poaching in Russia's Northern Primorye region. It operates across five districts and not only protects tigers but also preserves prey species and habitats from illegal activities. The Phoenix team works alongside the teams of the Hunting Management Department, public environmental investigators, forest managers and police officers to increase the protection capacity in the area.

According to Alexander Samoilenko, the Phoenix team leader: 'As a rule, poachers are nowadays equipped with all-terrain vehicles (4WD jeeps, snowmobiles, paragliders), firearms and communication devices much better than law enforcement officers are'.

This project achieved notable results in 2010, with nearly 100 patrols documenting more than 60 violations in hunting and logging, and seizing and handing over 15 illegal weapons to the police. They initiated criminal proceedings in five cases, but the team believes that the low fines currently set for wildlife crimes do not deter poachers and that more drastic measures



are needed. The good news is that the Russian Government appears to agree and is considering a bill for harsher punishments, including arrest and imprisonment.

Outside Russia, 21st Century Tiger backs projects in many countries such as China, India, Indonesia and Thailand. These programmes help combat poaching and other crime, conserve habitats, raise awareness and monitor populations, and are instrumental in supporting tigers' future survival.

21ST CENTURY TIGER AND YOU

In 2010, 21st Century Tiger raised more than €160,000 for tiger conservation, with zoos acting as major contributors. Any EAZA zoo can donate to 21st Century Tiger, whether or not they are part of the Tiger EEPs. Conservation support is a vital role for every zoo and 21st Century Tiger facilitates this. Tigers are charismatic, and can inspire your visitors to save not only the tiger but also their whole forest ecosystem.

More than 120 zoos have given over €1 million through 21st Century Tiger since 1997. Some, such as the Kolmarden Zoo Fundraising Foundation, contribute sufficiently to enable them to 'own' a project within the 21st Century Tiger portfolio (larger funders can take part in our Fully-Funded scheme, which has a lower limit of US\$15,000 a year). Other

zoos provide unrestricted funds for the general campaign.

In return, 21st Century Tiger provides an effective service for zoos wanting to support conservation projects. 100% of donations received go to carefully chosen projects that are thoroughly examined by a panel of international experts. Regular reports from all projects are available on the 21st Century Tiger website at www.21stcenturytiger.org, where hundreds of photographs are available for zoos to use in their education and interpretation material.

Each year 21st Century Tiger issues fundraising certificates for public display to all zoos that raise over £500, with platinum, gold, silver and bronze certificates depending on the amount. Apart from zoos and the corporate sector, 21st Century Tiger gratefully receives support from the public through direct donations and initiatives.

21st Century Tiger is a partnership between the Zoological Society of London (ZSL) and Global Tiger Patrol, raising funds for wild tiger conservation projects in the field. Having contributed over €1.8 million to more than 50 projects in seven countries since its establishment in 1997, it is amongst the top seven tiger-funding agencies globally. To find out more and to join other zoos in supporting wild tiger conservation email 21stcenturytiger@zsl.org or visit www.21stcenturytiger.org.

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This course is aimed at educators who want to gain a deeper understanding of visitor psychology and innovative ways to provide educational information.

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Animal Behaviour and Applications to Husbandry

2-4 November 2011

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21-22 November 2011

You will learn not only the background theory relating to collection planning, but also have the opportunity to develop an effective collection plan.



2012 Amphibian Ark calendars are now available!

The twelve spectacular winning photos from Amphibian Ark's international amphibian photography competition have been included in Amphibian Ark's beautiful 2012 wall calendar. The calendars are now available for sale, and proceeds from sales will go towards saving threatened amphibian species.



Pricing for calendars varies depending on the number of calendars ordered – the more you order, the more you save! Orders of 1-10 calendars are priced at **US\$15 each**; orders of between 11-25 calendars drop the price to **US\$12 each**; and orders of 26-99 are priced at just **US\$10 each**. (These prices do not include shipping).

As well as ordering calendars for yourself, friends and family, why not purchase some calendars for re-sale through your retail outlets, or for gifts for staff, sponsors, or for fund-raising events?

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Bronze figures



Liana Creeper vine



Fibre glass figures

What do we want?

THE EAZA AVAILABLE/WANTED LIST SHOULD PROVIDE OPEN EXCHANGE OF SURPLUS ANIMALS ACROSS EUROPEAN ZOOS... BUT IS IT BEING USED PROPERLY?

Radoslaw Ratajszczak, Director, Wroclaw Zoo

One of the very first services provided to EAZA members was a common available/wanted list, initially sent by post in a nice booklet form. There was a certain thrill in waiting for a copy that usually arrived on a quarterly basis. That publication was particularly important for zoos from 'behind the iron curtain', as for many years our zoos were effectively cut off from animal imports, having to rely on a few dealers who were brave and cunning enough to travel to Poland and cross the border (that took up to several hours). To make sure we weren't behind the rest of Europe, as the post could take up to two weeks to reach us, EAZA was always kind enough to send a copy to Eastern Europe a few days before circulating it widely.

At that time, access to the Internet was still rare and e-mail had just started to replace fax. Later of course, the well-known internet version became available, and served well for many years to come. Compared to current information technology, however, it is a rather dated program and that was probably the reason why it could not be integrated into the new EAZA website two years ago. *[Editor's note: Indeed that was a major factor in keeping the list on the old server. There were also security concerns and an element of 'if it ain't broke, don't fix it'.]*

The whole idea was conceived to strengthen cooperation between zoos, not only in coordinated breeding of species but also in animal exchanges free from financial burden. Moreover, it was instrumental in reducing trade via dealers. Some zoos used to list all their surplus stock, some just a few selected specimens; and some used this opportunity rarely, if at all. What, then, is the current status of the list and what can we learn from it? During the last six months only 156 zoos have added information to the list, a figure below 50% of our membership. Does this mean the remaining members have simply had no surplus animals during



this time? Usually, it is always the same zoos that provide weekly, or monthly updates.

Only nine of the zoos participating actively in the list had any surplus invertebrate species, while seven had fish, 15 amphibians, 64 reptiles, 99 birds and 142 advertised their surplus mammals. It is hardly believable that so few zoos have reproductive colonies of lower vertebrates and fishes. In reality, too, birds are outnumbering mammals in collections and due to multiple clutching in a year sometimes reproduce in large numbers - yet this isn't reflected in advertised availability of surplus stock.

GENDER DISCRIMINATION?

Quite often only males are offered, which might be explicable for some species. Nevertheless, numerous examples can be quoted where a zoo in fact also breeds a number of females, but they never show up on the list... and strangely enough, they find their way to zoos outside the EAZA.

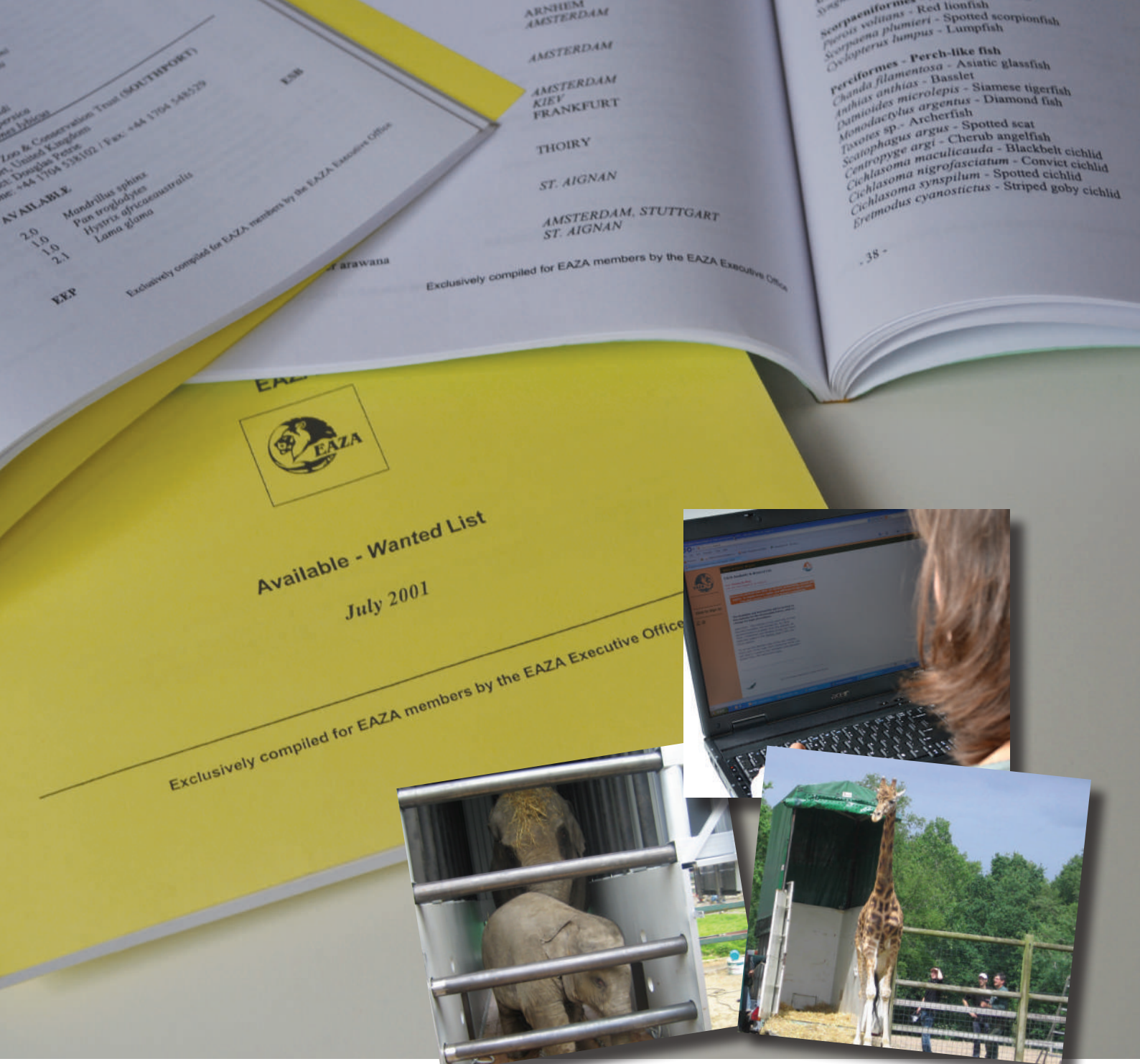
A number of zoos have apparently relegated responsibility for the list to individual curators. Within the same zoo some of them provide data regularly, some rarely, and others not at all.

It could also be debated whether species covered by an EEP or ESB should appear on the list at all. Some coordinators are strongly against it, some are in favour. In an ideally run EEP all animals surplus to a programme are covered by the plan and new holders are lined up. Unfortunately, we do not live in an ideal world and there are cases when a surplus EEP animal on the list arouses interest, and the list effectively helps in placing



that surplus. Not all zoos are up to date with the current situation within a given species. I know of a case where an EAZA zoo imported a male Indian rhino from the US (originating from the overrepresented line in Europe) while at the same time there were three males immediately available for transfer. In such cases entry to the available/wanted list is really helpful.

Currently, in Poland at least, we are witnessing a renaissance of animal dealers: more and more private zoos are popping up all around the country. Most are nothing more than roadside menageries or places to attract tourists to a restaurant or other commercial place. They all need animals and, surprisingly



enough, purchase them quite easily. I'm not only talking about species not covered by breeding programmes, but also EEP or ESB species, all of which can pop up in strange places. Does it have something to do with zoos' reluctance to put their surplus on the list? Additionally, most zoos routinely purchase lower vertebrates to augment their collections, while others have the species available free. ISIS was meant to be a source of information on animal collections, breeding etc. Unfortunately, lower vertebrates are still quite scarcely represented in the list and it is difficult to find via that source who is breeding what.

I asked some zoo directors and other staff why they don't use the list.

The answers were varied. The most common ones were:

- some species are put aside 'for friends only';
- shipping is too much trouble, especially of small animals;
- it is better to sell animals, as sending them to zoos means they go for free;
- it is cheaper to buy, especially reptiles, amphibians and fish, than to transport them from another zoo;
- there is too much of a burden with veterinary papers when shipping abroad;
- if someone is really interested, then he will find out and come to us directly;
- the surplus list is old-fashioned

and placed on a separate web page, making it more awkward to use.

A couple of years ago during one of our annual conferences, Artis Zoo presented its policy on animal acquisitions and dispositions, and this policy seems to have been strictly followed since then, despite staff changes. Generally speaking, all surplus animals (including invertebrates and fish) were to be put on the EAZA available list. If after at least three months there is no interest then the animals can be offered elsewhere. It would be really good if other zoos would follow that principle.

In the end, EAZA is all about free, voluntary cooperation and mutual respect.

Topical rainforest

WHY THE TROPICAL EXPERIENCE WORLD GONDWANALAND AT ZOO LEIPZIG HAS CONSERVATION AND EDUCATION BENEFITS IMPORTANT FOR OUR CURRENT TIMES





Jörg Junhold, Director, Zoo Leipzig

After three and a half years of construction the tropical experience world Gondwanaland opened on 1 July 2011, representing a major step in Zoo Leipzig's master plan, 'Zoo of the Future'. The 2.7 hectare construction site was added to the zoo's original site and the hall itself spans over 16,500m² with a height of up to 34.5m. More than 40 species inhabit the different exhibits and the tropical forest is made up of 500 plant species with more than 17,600 individuals. Visitors can explore the forest on a winding pathway or using a boat ride that includes a multimedia show inside a cave. A canopy walk of 90m in length at an elevation of 12m is also available. These are the impressive figures that together describe what the public has a chance to see.

At €66.8 million, the cost was the highest that Zoo Leipzig has ever spent on a new facility. This was only possible due to subsidies from the state of Saxony for tourism infrastructure development (€32.3 million) and subsidies from the city of Leipzig (€11.5 million) as well as donations collected by the Friends of the Zoo amounting to €1.5 million. The balance of €23 million has to be covered by the zoo.

Nonetheless, a couple of questions have been raised. Can such a high investment be justified in economically tough times, and will Gondwanaland pay for itself through entrance fees? And is high energy-consumption, as needed by a tropical hall of this dimension, the right message for visitors?

I would like to offer several thoughts in answer. First of all, a zoo is an institution that acts in an economic world even if it has a social and conservation mission. Not to invest means to lose the competitive ability to attract enough visitors and thereby to generate sufficient income. But I feel that there is a great chance to connect these necessary investments with the appropriate messages to our visitors. We have tried to do this in several ways:

- Gondwanaland will serve as an ambassador for the conservation of tropical rainforests and we have reinforced this through a



modern educational concept. This includes an emotional multimedia presentation about the evolution of life given during the boat ride and a broad number of interactive information points. These educational installations were co-funded by the German environmental foundation Deutsche Bundesstiftung Umwelt.

- We have started a new conservation project for the Sumatran rhino on Borneo together with the Leibniz Institute for Zoo and Wildlife Research Berlin and we are presenting this effort to visitors to Gondwanaland. As part of the exhibit we will collect donations for this conservation project. Additionally, we have started keeping and breeding many ESB and EEP species for the first time in Leipzig, and through this we help to support the goal of sustainable population management.
- We have taken several measures to save energy and resources in the building, such as the collection of rainwater for plant watering, the avoidance of artificial plant lighting through the use of a UV-

PREVIOUS PAGE: VIEW OF GONDWANALAND WITH THE CANOPY WALK SURROUNDED BY 12 METRE TALL TREES **INSET:** OFFICIAL OPENING WITH LEIPZIG'S MAYOR BURKHARD JUNG, DIRECTOR JÖRG JUNHOLD AND TWO LOCAL CHILDREN CHOSEN BY A RADIO STATION **THIS PAGE, CLOCK WISE FROM TOP LEFT:** A NETWORK OF INTERACTIVE INFORMATION POINTS IS INSTALLED ALONG THE WALKWAY AND IS POPULAR WITH VISITORS; WRINKLED HORNBILLS INHABIT AN AVIARY TOGETHER WITH SIX-FOOTED TORTOISES; WHITE-FACED SAKIS ROAM IN THE TREE LEVEL OF THE GIANT OTTER EXHIBIT TOGETHER WITH SILVERY MARMOSETS; VISITORS TAKE A 13 MINUTE BOAT RIDE TO ENJOY A MULTIMEDIA PRESENTATION ABOUT EVOLUTION OF LIFE AND DISCOVER THE TROPICAL RAINFOREST; **INSET:** THE ENTRANCE TO GONDWANALAND IS A TUNNEL SECTION EXHIBITING 'LIVING FOSSILS' LIKE LUNGFISH, HORSESHOE CRAB, KOWARI AND EASTERN QUOLL; **BELOW:** GERMANY'S ONLY KOMODO DRAGON IS 2.30 METRES LONG AND WAS BORN IN 2004 ON GRAN CANARIA ISLAND.



transmissible roof and the recovery of energy from the hot air in the top of the roof (which will save up to 30% of heating energy use). The rest of the heating is generated through district heating as a by-product of electricity generation and therefore a very sustainable source.

- We believe that the tropical hall will improve our visitor numbers substantially, especially during the winter, and by this justify the costs. This is based on our own experiences with newly opened facilities like the great ape facility Pongoland and the

African Kiwara-Savannah, as well as the experiences of other tropical halls which indicate that these have served as USPs (unique selling points) for the institutions in question. And I must admit that a part of the high investment amount was unpredictably caused by the increase of steel prices in 2009. Without this we would have saved around €10 million.

The huge public interest of the media and growing visitor numbers since the opening make me confident that we will reach our economic and conservation goals.

More than a get-together

THE BENEFITS OF FOCUSED WORKSHOPS FOR ADDRESSING COMMON PROBLEMS WITH RUNNING A BREEDING PROGRAMME

Achim Johann, Director, NaturZoo Rheine

When NaturZoo Rheine sent out invitations for a Gelada baboon EEP workshop in 2007, the response was extremely positive. It seemed that there was a high interest in this species, and that the zoos that kept it were keen to collaborate on best husbandry practices. A second workshop in 2010 drew a similar response, and when the Prosimian TAG sent out invitations for a nocturnal prosimians workshop this spring, the same pattern was seen.

One thing seemed clear: the zoos involved in these breeding programmes were seeing real opportunities in getting together with colleagues with a shared interest, to pool and discuss their problems and solutions.

There was a good mix of disciplines attending, too, ranging from curators, keepers and vets, to behavioural and physiological biologists. The presentations revealed common observations discovered in the behaviour and husbandry of geladas, as well as issues which needed discussion, thought and research. There were also highly valuable contributions from outside the zoo-world, such as a talk on enzymes in saliva which helped delegates work out adjustments to the animals' diet.

After the first workshop, plenty of work was done on defining the goal for this EEP, as well as explaining and confirming the best way of running the EEP to the participants. The basis for husbandry guidelines was founded, and needs for specific research revealed. In addition, transfer recommendations had been discussed and confirmed. An exchange of geladas with Bronx Zoo was



even initiated, resulting in the addition of the last more or less unrelated male gelada to the EEP. All participants viewed the workshops as worthwhile and that such meetings should be kept regularly.

Every three years seemed to be an appropriate time-span for this. At the second workshop we realised that in some way the programme had to start from scratch again as most of the participants were new to the group. By summing up the knowledge gained from the first workshop and the work subsequently done, the get-together brought the EEP further forward by updating husbandry experiences and also defining the programme strategies and politics.

At TAG level this type of workshop has been proving worthwhile, too. In March 2010 the Prosimian TAG core group met in Amsterdam to work on the RCP and define goals for the TAG and their individual programmes. As the focus on prosimian species is generally more directed to diurnal lemurs it was deemed appropriate to run a nocturnal prosimians workshop on the somewhat neglected taxa like lorises, galagids, cheirogaleids and the unique ayeaye. As expected there was only a limited interest in this workshop

from the TAG's core group. However, when the invitations were spread to representatives of selected zoos with nocturnal houses, as well as experts on the biology of the respective species from universities and elsewhere, the response was tremendous. The workshop formed and strengthened a network of expertise in linking zoos with universities and *in situ* conservation activists. All participants agreed that the workshop was of great value, and that another should be run in the future.

In economically difficult times zoo officials need to save money on all levels, and travel budgets are often among the first to be cut. Yet what these workshops have shown is that actually getting together for proper sharing of information and ideas is essential, and a most effective tool for communication which can barely be replaced by any other means. Work needs to be done in advance, and afterwards, while those invited should be selected for their wide breadth of knowledge which can then be shared. Two days is about right for a workshop, and if participants are encouraged to sort out their own meals and accommodation, then conference costs can be kept down. The value of these meetings is much greater than the costs anyway!



A tale of two sharks

AN ACCOUNT OF THE BREEDING OF TWO VERY SPECIAL SHARK SPECIES AT ARTIS ROYAL ZOO

Warren Spencer, Curator, Artis Royal Zoo

Overlooking the trams and tree-lined Plantage Middenlaan, Artis Royal Zoo's historic aquarium remains one of the most beautiful and magnificent buildings in the city of Amsterdam. Opened to great anticipation on 2 December 1882 it was the largest and most modern of its kind, instantly popular and bravely innovative. Although a new wing was added in 1995, essentially the classic look and feel of this building remains just as evident today, providing us with one of the most significant remaining institutions in the history of aquariums and aquaculture in the Netherlands and around the world.

Shark species were exhibited in the aquarium's Grote Zaal (Great Hall) upon opening, which began a great tradition of featuring these most alluring animals which continues to recent times. One species, the small-spotted cat shark (*Scyliorhinus canicula*) has remained part of the collection since the doors first opened to the public, and will continue to be a feature of our modern collection plans.

In modern times, appropriately sized shark species which displayed benthic behaviour were often chosen to represent this group of fish at the Artis Aquarium. Two of these are the beautiful California horned shark (*Heterodontus francisci*) and the curiously odd short-tail nurse shark (*Pseudoginglymostoma brevicaudatum*).

The California horned shark, so-named due to the stout spine at the front of the dorsal fin, is found off



FRED NORDHEIM

the western coast of North America and Mexico from California to the Gulf of California. There may also be populations off the coast of Peru and Ecuador. The species reaches lengths of approximately 58cm in the female and 55cm in the male, and what they lack in sheer size they surely make up for by being mesmerisingly attractive. This species first entered the collection in 1961 and at the time of its arrival there were few records of it being bred in captivity; this would perhaps be a significant challenge. Although a potential breeding male had been in the collection since 1990, a suitable female would not arrive till 1996 and only then providing a breeding opportunity.

Although infertile egg capsules had been produced since early 1999, it was only after recorded mating observations

during that April were a number found to be fertile. In 2000 on 27 March, staff were thrilled by the birth of five new pups. However, the birth was not straightforward as the pups seemed to find it difficult in captivity and almost impossible to break out of their capsule unassisted. After noticing this, the aquarists were quick to help them emerge successfully. It is thought that in the wild these screw-shaped capsules are quickly covered with various organisms that help to break down the strong outer casing allowing the pup to break out with less effort. In captivity this helpful strategy just doesn't work so assisted emergence is a crucial technique; one of which we have filmed and can be viewed at www.artis.nl/hornedshark.

I am also happy to announce that those pups reached adulthood



LEFT TO RIGHT: YOUNG SHORT-TAIL NURSE SHARKS; NEWLY-BORN SHORT-TAIL NURSE SHARK; CALIFORNIA HORN SHARK; SCREW-SHAPED EGG CAPSULE OF A CALIFORNIA HORN SHARK; NEWLY-BORN CALIFORNIA HORN SHARK

and subsequently bred themselves, providing very useful adult maturation knowledge that will form the basis of further articles.

The short-tailed nurse shark is found in the wild in two definite populations off the coast of East Africa and around Madagascar, although it is also believed to occur in Mauritius and the Seychelles. The maximum length is around 75cm for both males and females and the background colouration is dark brown above with a little lighter brown below.

There is so little known about this species in the wild that it is impossible to give a summary of its true natural behaviour, although under captive observation they could well be described by those that know them, as 'very interesting, but very weird'.

This shark displays a peculiar manner of posturing or resting during the day: upside-down, curled up and also on its side. Whether this is a predatory-based behaviour we just don't know, but when I observe this shark, I really have the feeling that there is something very special about it and that there are many mysteries and secrets to be unlocked with regard to its unusual behavioural traits.

The short-tailed nurse shark first entered the collection in 1966 and, amazingly, that female is still alive today, probably making her one of the oldest sharks in captivity. She has been at Artis for 45 years and was caught as an adult, and therefore she could very well be over 50 years old.

Unfortunately Artis didn't manage to acquire a male until 1996 and it was thought that the old female was no longer able to produce viable egg capsules. It wasn't until 2005 that a

good group of adults could be acquired making the chance of breeding possible.

Although egg capsules had been produced by the old female some 30 years ago, only when the new group had settled in and were starting to produce egg capsules, were 14 discovered to be viable. At a temperature of 24 degrees it took over five months for the eggs to hatch and on 13 December 2006 the first hatching took place. We believe this represents the first captive breeding of this species in the world.

Our future aspirations are certainly to continue to learn more about both species, in particular their nocturnal behaviour. Now that we have achieved

a level of confidence in repeatable captive breeding it is also prudent to monitor the captive populations via studbooks that we hope to propose in the near future. I'd like to thank and acknowledge the aquarists at Artis Royal Zoo both past and present, for their hard work, perseverance and achievement with these two projects.

The captive breeding and population management of marine species are crucially valuable endeavours. They ensure the sustainability of exhibit animals without the need to capture more from nature; where the continued loss of predators such as sharks to finning and ghost nets may become one of the major marine conservation issues which we will face.



Shark species were exhibited in the aquarium's Great Hall upon opening which began a great tradition of featuring these alluring animals

Europe's other primate

BARBARY MACAQUES ARE STILL BEING TAKEN FROM THE WILD AND SOLD AS PETS;
ZOO CAN HELP TO PUT A STOP TO IT

Siân S. Waters, Director, Barbary Macaque Conservation in the Rif (BMCRif), Honorary Research Associate, Royal Zoological Society of Scotland & ESB keeper Barbary macaque



FROM LEFT: INFANT MACAQUE CAPTURED BY LOCAL INDIVIDUAL AND RETURNED TO NATAL GROUP BY BMCRIF; BMCRIF EDUCATION AND AWARENESS INTERACTIVE LESSONS WITH VILLAGE CHILDREN; YOUNG MALE IN BOUHACHEM FOREST NORTHERN MOROCCO

Barbary macaques have been associated with humans for thousands of years. They have been found mummified in Egyptian pyramids and petrified in Pompeii and, of course, they have been resident on Gibraltar since the 18th century. This long association makes taking on the task of recording the European Barbary macaque population quite a challenge. The ESB was instigated by Apeldoorn and approved in 2009 but it has been a long road trying to get the studbook into shape. The ESB now lists 1,397 individuals with 409 (184.190.35) living in 26 of the EAZA collections that supplied data. This data set is not complete however, probably because Barbary macaques have been bred in captivity for many years and many collections do not have the historical data necessary to identify founders from so long ago. Additionally, some collections tend to take their Barbary macaques a bit for granted because they do so well in captivity and so their records are not kept in as much detail as they could be. These problems need to be highlighted because Barbary macaques are now a priority species for the Old World Monkey TAG RCP and will need careful management in the future. The species breeds very well in captivity but around 100 individuals in the current population are actually wild born. This includes 27 individuals who were brought into the ESB population in 2010.

The number of wild caught individuals is just a small indication of the level of illegal trade in wild infant Barbary macaques coming from Morocco and Algeria. This problem is so extreme in the Middle Atlas mountains of Morocco that the population there has crashed from 13,000 to 3,500 in the last 10 years (van Lavieren & Wich 2010). This trade has made the Barbary macaque an endangered species on the IUCN Red List.

Some EAZA members act as collection points for ex-pet Barbary macaques often found wandering in the streets of European cities having either escaped or been abandoned by their owners. Stichting AAP rescues unwanted or abandoned Barbary macaques and is currently rehabilitating more than

40 individuals with a long waiting list of macaques held by members of the public who wish to get rid of their difficult pets. The problem is Europe-wide but particularly bad in France and Spain. Research has shown that many buyers are Moroccan expatriates who visit their families in Morocco in their thousands every summer. The infants are on public display in market places in the larger cities of the south and are often an impulse buy for children: at least 300 infants are illegally exported from Morocco every year (van Lavieren 2007). However, a recent questionnaire aimed at macaque owners in Catalonia, who wish to re-home their pets, has revealed that the majority are Spaniards who have bought their monkeys from people travelling from Morocco. This means that there is an active trade within the EU in this species (S Waters & L Riera, unpub data) as the price doubles when the animals are sold within Europe itself and there is also an active internet trade in the species (L Riera, pers comm).

WHAT'S THE SOLUTION?

Reintroduction might seem to be the answer for all these ex-pets. Unfortunately, the only reintroduction of Barbary macaques in the north of Morocco in the early 1980s culminated in macaques being regarded by local people as pests due to their crop raiding behaviour. In 2009, BMCRif discovered that this population is itself a target for infant capture and trade.

The Moroccan authorities occasionally confiscate macaques kept as pets in Morocco but sheer numbers of cars passing through the ports each summer means it is not physically possible to search every vehicle and the infant macaques are often sedated and well hidden. The problem needs to be addressed *in situ* but, in the meantime, Europe can also play an important part in eradicating this illegal trade with its conservation, welfare and health implications. Building rescue centres in Morocco will help the situation within the country, where the culture of exotic pet keeping is growing, but will

make little difference to the scale of the smuggling that is currently taking place.

BMCRif is working with Barbary macaques and local people in northern Morocco where there is very small-scale capture of infants for sale to tourists and our work is supported by a number of EAZA collections. I have found that the northern populations are much larger and less fragmented than was originally thought. Unlike in some parts of the Middle Atlas the macaques in the north are not habituated. However, I am still concerned that those responsible for capturing infants for sale will move north to continue their lucrative business if macaque numbers continue to decline in the Middle Atlas. To avoid this and to increase information about the macaques and the environment in general, BMCRif's education and awareness officer is delivering very popular interactive lessons in local schools. We also have a network of local contacts who inform us immediately if they see anything out of the ordinary in the forest and its environs. Using this network, we have twice been able to rescue infants recently taken from the forest. We are able to return the infants directly to their natal groups due to our knowledge of the locations of many groups in our study site.

BMCRif also focuses on the welfare of domestic dogs in the area including a rabies vaccination programme and we organise an annual football tournament to deliver a fun conservation message. These events make a positive connection between the macaques and the local people which did not exist before we began our work and which needs to be made and strengthened to ensure the species' long term survival in the wild.

WHAT CAN EAZA COLLECTIONS DO TO HELP?

It appears that the majority of people who are most likely to buy an infant Barbary macaque live in Europe. In July, Zoo Barcelona, DEPANA and Stichting AAP conducted an information campaign at the Spanish port of Algeciras (where the majority of visitors depart Europe for Morocco) to discourage people from buying a macaque (or other wildlife such as tortoises) as a pet whilst in Morocco. The campaign materials are in Arabic, English, French and Spanish. They include a story about the fate of an infant macaque captured from the wild which is aimed at children (the leaflet and story can be downloaded on http://www.barbarymacaque.org/straits_campaign.html) which is proving very popular with Moroccan village children too.

All EAZA institutions can make a significant impact in the reduction of this trade by taking an active role in what they do so well - the dissemination of information. In this case, they can relay a message about the illegalities and problems of primate pet keeping and the realities behind that holiday snap taken with a monkey on their shoulder whilst abroad (focusing specifically on the Barbary macaque); through the information presented in the zoo itself; and through its many media contacts. A collection does not need to hold this species in order to take part in this direct conservation action. It is important to reach as many potential macaque buyers as possible.

This action needs to be taken now in order to drastically

lower the numbers of macaques being captured from the wild and smuggled out of Morocco. We currently have the possibility of imminent primate extinction on our own doorstep as every year infant Barbary macaques are captured in the wild for the pet trade. EAZA institutions can make a difference and BMCRif staff are always available to give advice and information on how we can work together in and *ex situ* to prevent this serious welfare and conservation situation from deteriorating further.

For more information visit www.barbarymacaque.org or contact sian@barbarymacaque.org

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References

van Lavieren, E, 2008. The illegal trade in Barbary macaques from Morocco and its impact on the wild population. *Traffic Bulletin* 21(3): 123-130; van Lavieren, E & Wich, SA, 2009. Decline of the Barbary macaque *Macaca sylvanus* in the cedar forest of the Middle Atlas Mountains, Morocco. *Oryx* 44: 133-138.



The bonobos come to France

LA VALLÉE DES SINGES BECOMES THE FIRST FRENCH ZOO TO HOUSE BONOBOS, IN FACILITIES UNRIVALLED ELSEWHERE IN EUROPE



Jean-Pascal Guéry, Zoological Director, La Vallée des Singes

It was back in 2004 that Jan Vermeer, then the Zoological Director of La Vallée des Singes, and now the Director of Germany's Metelen ZooPark, presented a new project to the Bonobo EEP species committee. At the time there was no real need to create a new group of bonobos, so things went quiet.

Until April 2009. Suddenly, the species committee of the EEP asked La Vallée if it could be ready to receive five bonobos before the year was out, in temporary facilities at first if necessary, but to be transferred to facilities matching those outlined in the project plan within just one further year. A challenge, to be sure, but there was only one possible reply: 'yes'. For our passionate team, this was the iconic species we all dreamt of. And now we had our chance of housing them.

By the November, we were ready to receive the first five (3.2) bonobos (Daniela, Kiremba, Diwani, David and Khaya) from Wilhelma Zoo, Stuttgart. A traditional sheepfold had been totally refurbished to house them, giving them an outside enclosure, so they could be shown to the public.

We still had to start work on the permanent exhibit, for which we wanted the best facilities for bonobos in Europe, and ideally even the world.

As for all enclosures at La Vallée des Singes, no money was spent on exotic decoration. All the funds go to the animals' welfare, to provide them with space, opportunities for climbing, hiding from visitors and other animals, and the chance to enjoy the enrichment of their surroundings. We wanted a building with plenty of space, and the flexibility to allow the keepers to manage the bonobos as if they were living in the wild, with a natural social system.

To achieve this, we built a facility with ten indoor enclosures and one big one outdoors, to give the bonobos the chance to spend time outside in a habitat representing the symbolic town

REACHING OUT Like most EAZA zoos, La Vallée des Singes always tries, via its charity 'le Conservatoire pour la Protection des Primates', to make a link between the animals we house, and their conspecifics in the wild. So we run a short film, in a specially dedicated room inside the bonobos' building, on a Congolese NGO named Mbou-Mon-Tour. Jean-Christophe Bokika has been working for a decade now to protect bonobos in his province, near the city of Bolobo, providing environmental education to local villagers, educating poachers, and starting habituation with several groups of bonobos. It is a very good *in situ* project for the species. I have been in close contact with JC Bokika since 2002, and La Vallée has been actively supporting Mbou-Mon-Tour since 2010. We have created a bonobo medal, the profits from its sale going to Mbou-Mon-Tour.

of Bolobo (thought to be at the origin of the animal's name), between forest and savannah. So the outdoor enclosure has one wooded part, and a grassy one.

All the enclosures at La Vallée are surrounded by water moats (except that of the Barbary macaques). The bonobos' island is more than 1 hectare in size, split into two sections (about 8,000m² and 3,500m²), separated from each other by a 5m high wall. In the near future, sliding doors will be installed in this wall to allow small subgroups of bonobos to move from one section to the other.

THE WORK BEGINS

Construction work started in the middle of September 2010, with everything needing to be ready for early April 2011. The Primate Park is usually closed from mid-November to mid-March, but to give us more time to finish everything, we decided to open on 2 April. This gave us only just over six months.

We set dimensions of 18m width, 7.5m in height and 30m in length for their new house, with two big exhibits each 7m high to allow visitors to see the bonobos when they're inside. The other eight dens were to be hidden from the visitors who would be above them on an upper level. We wanted a building that would show the need to preserve natural resources, so local wood – robinia, larch, pine, chestnut wood – was important for construction. An air pump was to be used instead of fossil fuel heating systems,

and waterless toilets introduced, while space was needed for interpretation to enable visitors to learn more about the bonobos' extraordinary life, and their proximity to us as a species.

There was plenty to achieve, but we managed it. Two days before opening, the five bonobos were transferred into their new home, full of big timbers, ropes and hammocks. At the end of April they were joined by Lingala, a young adult female from Apenheul Primate Park and a few weeks later Ukela, her young daughter Nakala and a sub-adult male Kelele all joined the group. All the introductions have been quite easy as the bonobos were true to their reputation: love was in the air!

It took a while for the bonobos to learn to deal with such a big and natural enclosure. Daniela, for example, the dominant female of the group, was born in 1968, and this was the first time in her long life that she'd been able to walk in grass, climb a tree, see frogs in the water and ducks in her enclosure. Initially, therefore, she spent her time close to the main building. We stretched a rope between the sliding door and a tree 25m away, and this boosted her confidence, and she soon managed to reach the wooded part of her enclosure.

Today, it's a real and inexpressible pleasure to see all the bonobos climbing around in the trees, gathering branches or wild plants for eating, and even starting to build nests on the ground.



ON A TOUS
98%
DE
BONOBO
EN NOUS

LA VALLÉE DES SINGES
ROMAGNE (86)

A graphic featuring a close-up of a bonobo's face. The text is arranged around the face, with the percentage '98%' being the most prominent element.

A new alliance for amphibians



IF GLOBAL AMPHIBIAN CONSERVATION IS TO SUCCEED IN SAVING THE HUNDREDS OF SPECIES AT RISK, A GLOBALLY COORDINATED APPROACH IS NEEDED

Jaime García-Moreno, Executive Director, and Phil Bishop, Chief Scientist, both of Amphibian Survival Alliance

JAMES REARDON

In 2004, The IUCN Red List of Threatened Species published the results of the comprehensive assessment of the conservation status of all known amphibian species – the first ever assessment for an entire class – and the picture was gloomy. A full third of all known amphibian species were threatened with extinction, and one quarter were insufficiently known to evaluate them. The number of Critically Endangered amphibian species more than doubled in 30 years – from 231 in 1980 to 495 in 2011 – and over 40% of all amphibian species have declining populations.

In response to this crisis, an Amphibian Conservation Summit was convened in 2005, which resulted in a well-formulated Amphibian Conservation Action Plan (ACAP) and the recognition of the need for a large, multifaceted, coordinated global response. The progression of the implementation of ACAP has been slow and intermittent, and a shortage of funds dedicated to amphibian conservation has made the execution of the ACAP extremely difficult. There have been some successes, such as EAZA's Amphibian Alarm campaign (during 2008 Year of the Frog) that helped support the Amphibian Ark (AArk), but overall the current investments do not match the ongoing problems.

The Amphibian Ark has led *ex situ* initiatives focusing on species that cannot be safeguarded in nature. Thanks to fantastic support from zoos, 100 amphibian species are now on board the AArk, and the amphibian community is extremely grateful for the role that zoos have played. However, there are at least 800 more species to go that require *ex situ* interventions – are we up for the challenge?



ARCHEY'S FROG, *LEIOPELEMA ARCHEYI*

In 2009, a coalition of organizations, including several zoos, agreed to set up an inter-institutional Amphibian Survival Alliance (ASA) – an umbrella organisation over the amphibian conservation practitioners of the world, that will coordinate and magnify conservation efforts to stop and reverse the on-going amphibian declines. The ASA will re-energise the amphibian conservation effort and will downscale the ACAP to a local level and engage in policy dialogues using the CBD 2020 targets as a framework for amphibian conservation. IUCN has recently appointed Dr Jaime

García-Moreno and Dr Phil Bishop to serve as Executive Director and Chief Scientist of the Alliance, respectively.

In addition, the ASA is supported by, and will be working in close collaboration with, organisations such as NGOs, research institutions and local communities. It will be looking for additional support from the zoo community, which plays a key role in conservation, education and outreach initiatives. To find out more information about the ASA please contact us directly at the following addresses: Jaime.GarciaMoreno@iucn.org and Phil.Bishop@iucn.org.



HOW TO GET INVOLVED

ASA is essentially an umbrella institutional alliance that was initiated with strong support from several zoos. It will be looking for additional institutions from the zoo community willing to engage with its programme to improve the condition of amphibians worldwide, through both *in situ* and *ex situ* actions, as well as engaging with governments to improve their policies with regards to amphibians. To this end, it will be seeking support from institutions that could make multi-year contributions – ideally over a minimum three-year period – in different categories:

- i) under €4,000 per year; ii) between €4,000 and €8,000 per year; and iii) over €8,000.**

These financial contributions will be essential for supporting the core operations of the ASA that will allow dialogue with the donor community to identify resources for implementation of ACAP. Equally important, these contributions should not replace support for the Amphibian Ark, whose operations remain a key element in the current *ex situ* strategy for amphibian conservation.

Two tribes or one family?

MARKETING AND EDUCATION - CAN THEY EVER CO-EXIST AMICABLY IN ZOOS?

Eoghan O'Sullivan, Communications and Membership Manager, EAZA

WAZA: VIT KAHLE



One of the victims of the economic storms of recent years was the zoo marketing conference that had been scheduled to take place in Denmark in 2009. We were pleased, therefore, to support WAZA in getting the ball rolling again with the 7th International Zoo and Aquarium Marketing Conference, hosted by the Zoo de Granby in Canada in June. In addition to promoting the conference to EAZA members we also hosted a special workshop, the Two Tribes session.

The workshop was based around the idea that the people working in the marketing and education departments of zoos are often seen as having conflicting ideologies, aims and even personalities: almost as if they come from two different tribes. To set the scene for the workshop we asked Rich Storton, director of marketing and communications at ZSL, to make a strong case for marketing as the single most important area of activity for a zoo. In his excellent presentation Rich was deliberately provocative, which wasn't a problem as it was followed by an equally provocative contribution from Granby Zoo's own education team.

Before asking the delegates to break up into groups to discuss the issues, we were given a glimpse of how it could work (should work?) in an ideal world. Anja Stas, KDMA's commercial director, presented the case study of the birth of the elephant Kai-Mook at Antwerp Zoo, a perfect example of how all of the zoo's departments can work together on a project that was as much a success for the zoo's education department as for the marketing department.

The delegates were then split into three groups or tribes: one of marketers, one of educators, and one that mixed the two together. They were given a

fictional scenario to address: a local philanthropist was offering the zoo a donation of €1 million with the stipulation that the funding had to be spent on a conservation project. Interestingly, both the marketers-only and joint-approach groups began by suggesting ways in which they could turn the €1 million into €5 before the project even began. The educators-only group accepted that they just had €1 million to work with. There's a message in there somewhere! We were pleased to receive lots of enthusiastic feedback from the participants. The pre-workshop presentations were greatly appreciated, in particular the vision of departments working in harmony. While many people acknowledged the existence of the two

tribes – or even more perhaps – there was optimism that through increased dialogue marketing staff and education staff can find ways of working together for the benefit of all.

I would like to thank everyone that participated in the session. It was heartening to see so many colleagues from Europe in attendance at the conference, where about a third of the 75 delegates were drawn from the EAZA community. I think this demonstrates a real hunger for more opportunities to share experiences in the field of zoo marketing. EAZA will continue to support WAZA's efforts in this regard while also working towards planning some EAZA-run activities in the marketing communications arena.

TEN THINGS WE LEARNED IN GRANBY

1. Social networking ≠ Facebook. Or rather, simply having a Facebook page doesn't mean that you're using social networking – you have to create and invest in a strategy.
2. Look to legacies! The best opportunities for donations in the coming years will be legacy donors.
3. Your visitors are your best ambassadors – create opportunities for them to promote your zoo, particularly through social networking.
4. A new biodiversity logo: the logo was the most visible and successful aspect of the 2010 International Year of Biodiversity and consequently an updated version has been created to represent the UN Decade on Biodiversity.
5. The IUCN is very enthusiastic about zoos making more use of Red List logos on signage – contact them for an info pack.
6. Women aged 25-45 with children: the key audience for zoo marketers.
7. Opossums don't update their Facebook status regularly, even cross-eyed ones! But Heidi (right) represented an unplanned mega-marketing event for Zoo Leipzig.
8. Prezi.com allows you to make slick-looking slideshows (but you still need good content!)
9. There's a superb animal collection at Granby Zoo, but it's the new Amazoo Yoplait Water Park that's really 'making waves' there this year.
10. *Ils parlent vraiment français en Amérique du Nord!*



Preparing for disaster

JAPAN WAS STRUCK AT GREAT COST BY AN EARTHQUAKE AND TSUNAMI EARLIER THIS YEAR. SO WHAT HAPPENED TO THE COUNTRY'S ZOOS AND AQUARIUMS?

Dr Kanako Nishimoto, foreign affairs officer, Japanese Association of Zoos and Aquariums (JAZA)

The massive earthquake and tsunami that struck the east coast of Japan on 11 March affected 12 JAZA member institutions. Most of our aquariums are built on the ocean shore and some institutions were flooded by the tsunami – yet as disastrous as it sounds, they were in fact prepared for such an event. I would like to use Marinepia Matsushima Aquarium, Aquamarine Fukushima and Yagiyama Zoological Park as examples of the measures our members had put in place, and how they were able to reopen once more.

Marinepia Matsushima Aquarium sits near the epicentre and was flooded by the tsunami. They had already built a barricade, installed a privately-owned electrical power facility, and had always kept 150 litres of gas for emergencies, along with long hoses for a variety of purposes. After the tsunami retreated, broken piping meant the site was engulfed in sludge, and reduced water temperatures due to malfunctions caused animal loss. They decided to dismantle the pumps and boil them to get the salt out (below). It took about a month until professional repairs could be done due to the lack of gasoline to



drive there. In the interim period they needed to get water from a pond located 2km away several times a day.

In Aquarium Fukushima, the first floor of the building was completely flooded and they lost 90% of the animals. The building itself is built to be earthquake-resistant, but the tsunami was greater than they had ever planned for and their facility was not able to cope. Their mechanical and electrical rooms were located on the first floor and some of the tanks were broken (top), so they asked



other institutions to evacuate their live animals. And because of a lack of water and power supply, they couldn't start restoration activities for six weeks. They are a long way from a full recovery and some of the functionalities, including the heating system, are not available yet, but they were able to reopen for business on 15 July.

It was not only aquariums on the coast that were hit; inland zoos were also affected by the earthquake. Yagiyama Zoological Park is the one closest to the epicentre, and although they weren't affected by the tsunami, the earthquake stopped water, power and gas supplies and damaged some facilities (below). In that season there's still snow in the area and they needed heat and warm water for the animals, but the heating system didn't work



without power and fuel. The power was recovered in three days, but the heating system was not available. They had to use cold water in pools and put all the kerosene stoves intended for human use at the reptile exhibits and chimpanzee enclosure. The temperature was typically set at 22 degrees, but dropped to only 15 degrees with the kerosene stoves. On the 12th day, the hippo couldn't move easily, and a 19 year-old male chimpanzee fainted (he is very sensitive and was probably stressed by the disaster). They put as much hot

water as they could in the hippo's pool to save its life. All the other animals including the elephants were fine during the emergency and in the cold, and all the animals were on display to visitors again on 23 April.

The situation differs at each institution, but there is one thing that all the affected institutions say: we need a secure way to get power and fuel during disasters. They also say disaster drills had helped: Japanese zoos and aquariums are required to hold disaster drills biannually, as well as annual animal evacuation drills. All the employees understood what they should do in emergency situations, and we had no human injuries across the zoos and aquariums.

Finally, I would like to thank EAZA for giving me the opportunity to write this article. I would also like to express my appreciation to all the organisations in Europe that have supported us, especially (as of 31 July 2011):

- Vienna Zoo (Schönbrunner Tiergarten)
- Tallinn Zoo
- Zoo Office Bern (Executive Office for the Association of Swiss Scientific Zoos)
- Dudley Zoological Gardens
- SAS
- Mr. Jürgen Ortmüller
- LE PAL SA
- Tierpark Hagenbeck
- Opel Zoo
- Zoologischer Garten Halle
- Nikolaev Zoo
- Moscow Zoo
- EARAZA (Euro-Asian Association of Zoos and Aquariums)
- And the institutions and individuals who donated through WAZA website.

It has not been easy and restoration and reintegration will take some time, but we will keep doing our best to be better than we were before. We keep updating the latest information on our website (www.jaza.jp/english.html) and our Facebook page (www.facebook.com/jaza.official). Please keep checking it and kindly continue supporting us. Thank you very much.

Last refuge for the Siamese crocodile?

THE IMPORTANCE OF CONSERVATION OF AN ENDANGERED SPECIES AT DANAU MESANGAT, EAST KALIMANTAN, INDONESIA

Nadja Niemann, Scientific Assistant to Director, Zoo Dortmund

Borneo, the third biggest island on the planet, stands out as one of the best known biodiversity hotspots of the world. Until the early 1960s about 90% of the country's landscape was covered with dense forest, and although these have been considerably reduced in size, they still contain 15,000 plant species, 1,350 species of land vertebrates and 210 mammal species of which 51 are endemic.

The Lower Mahakam river area in East Kalimantan contains a series of large seasonal lakes, and hundreds of smaller ones, forming a large wetland frequently interspersed with a mosaic of covered clumps and lines of trees. This includes Lake (Danau) Mesangat, located north-northeast of the river town Muara Ancalong in the Kutai Timur District of East Kalimantan. The lake is connected to several small river inflows and backflows from both the Kelinjau and the Telen/Kedang Kepala Rivers, and it expands into a large freshwater swamp during the wet season, with its surface covered by floating natural as well as exotic vegetation.

In the mid-1990s a group of scientists from the US National Museum, Smithsonian Institution and Indonesian Institute of Science found several live specimens of Siamese crocodile (*Crocodylus siamensis*) and false gharial (*Tomistoma schlegelii*) in the wetlands

ADULT SIAMESE CROCODILE AT EAST-KALIMANTAN



of Danau Mesangat, a rare example of sympatric occurrence of these two crocodile species.

This valuable area was bought by a large oil palm plantation company in 2008, but members of the Crocodile Specialist Group (CSG) contacted the company and received an agreement that ended the cultivation of palm oil plants in this area, with just a few small areas around Lake Mesangat replanted with palm oil trees. A conservation foundation, the Yayasan Ulin (Ironwood Foundation), was founded, chaired by the experienced zoologist and conservationist Dr Robert B Stuebing.

Nonetheless this susceptible ecosystem is under heavy pressure, from a wide range of threats, including unsustainable usage, the introduction of exotic species, drought-created fires and wildlife-human conflicts. We have established a permanent office in the village of Muara Ancalong to maintain close contact with the local people, to help to establish a sustainable community-based conservation project. The project aims to tackle the many threats this area faces, supported by sponsorship and encouragement from directors and curators at Dortmund and Cologne Zoos, Protivin Crocodile Zoo, the Tomistoma Task Force of the IUCN/SSC Crocodile Specialist Group and the Zoological Society for Conservation of Species and habitats (ZGAP) as well as many small private donors.

Dortmund Zoo has also built a new rain forest house for Sumatran orangutan, Malayan tapir and flying foxes, to give visitors an idea of the threats faced by the South Asian rainforest. A donation box with a poster describing the Mesangat project stands at the exit of the building, with profits sent annually to the project. For further information on this project or more details on Danau Mesangat conservation project or Lake Mesangat area please contact Ralf Sommerlad at crocodilians@web.de.

FLOATING MATS OF INVASIVE PLANTS AT DANAU MESANGAT; A JUVENILE FALSE GHARIAL





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

Exotic Europe?

IN THE FIRST OF A NEW SERIES OF COLUMNS THAT DIG DEEP INTO THE ZOO WORLD, ZOOBOY27 CALLS FOR A REASSESSMENT OF EUROPEAN FAUNA

Recently two Members of the European Parliament (MEPs) raised formal questions as to the conservation activities of EU zoos. Referring to the EU Zoo Directive, which obliges each zoo to contribute to conservation, they especially accused zoos of a lack of activities for the conservation of European biodiversity, ie of species endemic to Europe.

As a reaction the EAZA Executive Office produced a list of some 150 zoo-based conservation projects on a variety of European species and ecosystems. It was an impressive list, not only including such classic examples as Przewalski's horse, European bison, bearded vulture and lynx, but also covering much less charismatic species and habitats ranging from water voles, natterjack toads and dormice, to the Elsmoor Marsh.

Nonetheless, it is not at all surprising that the MEPs were not aware of many of these activities. For this, the member zoos, as well as EAZA as an organisation, are to blame. They have always largely neglected proper PR on European projects, and at most reached local media with their European conservation news. EAZA itself lacks a policy on European conservation, nor does it support media coverage on the collective European conservation activities of its members. In fact it is a shame that the list mentioned above is the first one of its kind ever produced; and even now it went only to two MEPs as a reaction to their questions. Why did EAZA never take a more pro-active stand in this regard? Isn't it a European organisation that should promote European conservation first of all? Admittedly, there was the European Carnivore Conservation Campaign, but so far that was all...

It seems that EAZA's sister organisation, AZA, does a much better job in 'selling' the role of North American zoos in saving animal species of their own continent. I once stayed for a single night in a small motel in the tiny city of St John in the middle of nowhere in Eastern Arizona (with the nearest zoo 400km away). Being asked at the bar 'what my profession was', I somewhat reluctantly answered that 'I worked for a zoo'. The reaction was surprising: 'Be proud of that! Zoos are doing such a great job to save the Californian condor, black-footed ferret and other native fauna!' To be honest: isn't the bearded vulture as impressive a bird

as the Californian condor? And why would the European mink be less valued than the black-footed ferret?

How can EAZA and its members keep complaining that they are not widely recognised as conservation institutions when they almost completely fail to promote their European work individually and collectively? They still do not seem to understand that European conservation activities are much better suited to raise their conservation image in Brussels and in the EU member states (including national authorities and conservation organisations), than all their work in Africa, Asia and other parts of the world combined (however important that may be). For the EU and its countries conservation is here, and not there...

On the other hand, the MEPs and particularly the EU officials and authorities are to be blamed as well. Why do they still not understand that EAZA and its members constitute the single largest EU-wide conservation oriented network with enormous potentials, especially for education and awareness-raising on the importance of European flora and fauna conservation? Why don't they use this unique network? Why don't they support it, instead of only questioning it? How often has EAZA knocked on all kinds of doors in Brussels, with hardly any success? Brussels seems to be far more interested in making the life of zoos more and more difficult (especially their work on breeding endangered species) by continuously increasing the number of restrictive regulations, than in their conservation potentials!

Biogeographically Europe is an entity, from Sicily to Scandinavia and from Ireland to the Ural Mountains (and even further on east). Therefore, by definition, Europe is not 'exotic' for EAZA, its member institutions, their visitors (who want to see elephants, gorillas and tigers), and its politicians. 'Non-exotic', however, does not at all mean 'not precious'! In spite of all European 'dividedness', the EU and EAZA should join forces to help save Europe's wildlife. If we can save Greece as an economy at the cost of several hundred billions, why couldn't we save the wolverine, midwife toad, great bustard, Białowieża Forest and so many other species and habitats on which our children's common European future and wellbeing depend?

How often has EAZA knocked on all kinds of doors in Brussels, with hardly any success?

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