

IUCN launches Precautionary Principle project

The precautionary principle offers a response to uncertainty. It allows for action to address the threat of environmental harm, despite uncertainty as to the likelihood or magnitude of the threat. It has gained increasing prominence in recent years in a wide range of national and international legal instruments. It also stands at a nexus where trade, development, food security and conservation interests often clash. This has prompted a consortium of conservation organizations, under the umbrella of the IUCN, to launch a project examining the role of the principle in natural resource management and biodiversity conservation.

IUCN's Species Survival Commission, its Regional Office for Southern Africa, and the Environmental Law Centre have combined with Fauna & Flora International, Resource Africa and TRAFFIC International to implement the first phase of project entitled *Environmental Governance: Employing the Precautionary Principle in Natural Resource Management and Biodiversity Conservation*. The project has already held a successful meeting at the World Summit on Sustainable Development, and over the next 12 months it will be carrying out a situation analysis with particular emphasis on the timber and fisheries industries, developing several communications products (including a precautionary principle website) and securing support for the second phase of the project. The project will carry out case studies in the field of natural resource management, taking into account, in particular, the perspectives of developing countries. The aim is to produce guidance on the application of the principle to natural resource management and biodiversity conservation. For more details contact pprinciple@iucn.org

Barney Dickson
Fauna & Flora International
Great Eastern House, Tenison Road
Cambridge, CB2 1TT, UK
E-mail: barney.dickson@fauna-flora.org

Antiguan racer translocation

The last remaining population of the Critically Endangered Antiguan racer *Alsophis antiguae* has been closely studied since 1995, when the Antiguan Racer Conservation Project (ARCP) was formed to conserve

this species of harmless colubrid snake. The population was estimated at c. 50 individuals in 1995, and the species was restricted to 0.1% of its former range – the 9.9 ha Great Bird Island off the north-east coast of Antigua. The extirpation of the species from mainland Antigua and Barbuda has been attributed to the introduction of exotic animals, including the mongoose and black rat. About 50% of Antiguan racers found during the first census of Great Bird Island had been injured by rats, and it was thought that their presence on the island was a serious threat to the future survival of the species. A rat eradication programme was initiated, and all rats had been removed from the island by the end of 1995. The population of racers doubled to c. 100 in the following year. The rat eradication programme has since been expanded to include other offshore islands.

A monitoring programme of the Antiguan racer population and its habitat was also initiated in 1995, and the data generated by this consistent long-term monitoring is vital both for checking that management interventions have had a positive impact on the population and for informing future management decisions. This has been successfully combined with a public education campaign designed to raise awareness about the plight of the Antiguan racer both nationally and internationally (Daltry *et al.*, 2001, *Oryx* 35(2), 119–127).

The Antiguan racer population on Great Bird Island has increased as a result of an integrated programme of public education, conservation management, long-term monitoring, and invasive species eradication. However, no more individuals can be sustained on the island because of its small size. To increase the numbers of racers and reduce the threat of having all the individuals of a species confined to a single island, individuals from the Great Bird Island population will be reintroduced to suitable parts of their original range. In 2001 the first translocation of 10 Antiguan racers to a nearby island was successfully completed. A further translocation of 10 Antiguan racers took place in early October 2002 to an offshore island cleared of black rats by the ARCP in 2001. The 10 individuals selected for the 2002 translocation (5 male, 5 female) were fitted with radio transmitters and will be closely monitored.

Sarah McIntyre
School of Biological Sciences, University of East Anglia
Norwich, NR4 7TJ, UK
E-mail: s.mcintyre@uea.ac.uk

First evidences of the invasive behaviour of *Leucaena leucocephala* in Europe

Leucaena leucocephala (Mimosaceae) – also known as ‘horse tamarind’ – is a tree-species from Central America that has been widely introduced and subsequently naturalized around the world, including Pakistan, China, USA, Hawaii, Philippines and Australia. It is introduced mainly for fodder but also into gardens because of its tolerance of drought, grazing, and saline soils. This tolerance to adverse environments has enhanced naturalization in almost all the warm areas where it has been introduced. *L. leucocephala* is considered a significantly invasive organism (Lowe S., Browne M. & Boudjelas S. (2001) *100 of the World's Worst Invasive Alien Species*. Report of the Invasive Species Specialist Group, IUCN, available at <http://www.issg.org/booklet.pdf>).

Despite the potential threat that the species represents, it has been increasingly used over the last few years as an ornamental plant in Spanish coastal areas. We have detected – for the first time in Spain – escaped individuals in several areas within and in the vicinity of the south-eastern city of Almería. This area is characterized by high mean annual temperatures (18–20°C), hot summers, mild winters with rare frosts, and a total annual rainfall of 300–700 mm, parameters within the environmental range in which the species has become naturalized around the world. Moreover, the species has successfully invaded areas such as Iraq and the Arabian Peninsula that have many biogeographic relationships and landscape similarities with south-eastern Spain. Environmental authorities, landscape managers and planners in Spain need to be made aware of the threat that extensive use of this species could pose to the ecosystems of the Iberian Peninsula. Further importation and planting of ‘horse tamarind’ should probably be limited or prohibited.

However, in Spain there is no specific legislation or organization devoted to halting the spread of invasive exotic species. Only very limited efforts are being devoted to eradicate a few specific populations of alien species, mainly in National Parks, and generally directed or coordinated by the National Ministry for Environment (Ministerio de Medio Ambiente) or by the Ministries for Environment of Regional Governments (Consejerías de Medio Ambiente). An adequate strategy is required to reduce the potential impact of *L. leucocephala* and other invasive species in Spain, and this should probably include: (1) development by the Ministry for Environment of national laws preventing the introduction and use of selected alien species, together with the creation of quarantine networks, and the prevention, early detection and control of alien flora and fauna in National Parks,

(2) assessment of the current state of invasion of native ecosystems, with special attention paid to Protected Areas, by the Regional Ministries for Environment, and (3) regular examination and control programmes within urban garden habitats under the direction of City Councils.

E. D. Dana

Department of Plant Biology & Ecology, University of Almería

Almería, E-04120, Spain

E-mail: edana@ual.es

R. P. Randall

Weed Science Group, Department of Agriculture, Western Australia

Locked Bag 4, Bentley Delivery Centre, Australia 6983

M. Sanz-Elorza & E. Sobrino

Dpto de Producción Vegetal: Botánica y Protección Vegetal

Escuela Técnica Superior de Ingenieros Agrónomos

Ciudad Universitaria, 28040, Madrid, Spain

European zoos support the Atlantic Rainforest

In September 2001 the European Association of Zoos and Aquaria (EAZA) launched a campaign in support of the conservation of the Atlantic Rainforest. It was the second of EAZA's annual campaigns, which focus on conservation topics where zoos can make a difference. The first was the EAZA Bushmeat Campaign, which was launched in September 2000. It continued until September 2001, when nearly 2 million signatures were handed over to the European Parliament requesting action against the illegal bushmeat trade.

The Rainforest Campaign, which was officially closed in September 2002, had the following goals: (1) To raise public awareness about conservation needs and conservation programmes in the Atlantic Rainforest, (2) to raise public awareness about European Breeding Programmes and European Studbooks concerning species from the Atlantic Rainforest, with the four lion tamarin programmes used as models, and (3) to raise money for the Lion Tamarins of Brazil Fund (LTBF). The Campaign was coordinated by a committee, composed of Bengt Holst (Copenhagen Zoo), Kristin Leus (Antwerpen Zoo), David Field (Dublin Zoo), and Jeremy Mallinson (Durrell Wildlife Conservation Trust), with Jo Gipps (Bristol Zoo), then chair of the EAZA Conservation Committee. Ninety EAZA zoos from 20 different European countries participated, with activities ranging from poster exhibits to a total transformation of a zoo into a South American landscape. Links to conservation projects in the Atlantic rainforest were established and, in all countries, there were PR activities focusing on the problems of the Atlantic rainforest.

The fund-raising part was extremely successful. As of 16 September 2002 €145,877 had been collected, but

further donations are still expected, as it includes only the contributions from 60% of the participants. The total amount is expected to exceed €200,000 by the end of 2002, when most zoos will finish the official part of their campaign.

All financial contributions will go into the LTBF, begun in 1993 by the late Gerald Durrell of the Durrell Wildlife Conservation Trust, Jersey, and will be distributed according to the donor zoos' wishes and the general rules of the fund. Some zoos indicated a specific use of their contributions: Planting a Corridor (24), Adopting a Field Assistant (3), Adopting a Lion Tamarin Group (3), and Land Purchase (3). The adoption programmes involve an annual contribution of at least US \$5,000 per zoo. In return for their donations, the zoos receive regular reports from the field – short accounts of the daily activities of the field assistants working in the forest or of the groups of animals that are being monitored. These are then used by the zoos to provide authentic conservation stories for their visitors. In addition, Jonathan Ballou (National Zoological Park, Washington, DC) edits an annual newsletter, *Tamarin Tales*, which is distributed to all zoos participating in the lion tamarin captive breeding program or otherwise contributing to the LTBF.

Although now officially closed, many of the activities initiated by the campaign will continue. It is up to the zoos involved to maintain momentum and to strengthen the links established during the campaign. Conservation relies on long-term commitment, and it is hoped that the participating zoos will continue their support in the years to come. A campaign such as the EAZA Rainforest Campaign is of great value in creating new initiatives, the full effect of which, however, can only be measured in the years to come.

The next EAZA Campaign is being organized by Sarah Christie (Zoological Society of London), and will be in support of tigers. It was approved and launched by the EAZA Conservation Committee at their meeting in September 2002, hosted by Barcelona Zoo, and its aims are to raise public awareness and funds (US \$250,000) for research and conservation for the most threatened populations. It will continue until September 2003.

Bengt Holst
Co-chair, EAZA Conservation Committee
Copenhagen Zoo, Sdr. Fasanvej 79
DK-2000 Frederiksberg, Denmark

Kaki (Black Stilt) population increases following supplementation

The world population of Kaki *Himantopus novaeseelandiae*, a Critically Endangered New Zealand endemic wading bird, has increased from 61 to 84 over the last year

following the continued success of captive rearing and release of large numbers of young birds. Kaki are threatened because of the combined effects of exotic predators and habitat modification that result in widespread recruitment failure and high adult mortality. Numbers reached a low of 23 in 1981. Since 1999 all pairs of kaki in the wild have been intensively multi-clutched (up to four clutches per season), and as a result relatively large numbers of chicks are now being reared for release. The addition of iodine to the diet of captive birds destined for release, to prevent goitre, and the provision of supplementary food after release, have increased post-release survival rates to 80–100%, and recruitment rates up to 70%. In total in the last two seasons 135 chicks have been successfully reared to release age from 14 pairs per annum (7–8 wild pairs, and 6–7 captive pairs). This method of population supplementation is designed to move the species away from critically low population numbers, while efforts to protect kaki from the enduring impacts of exotic predators and habitat modification continue.

Richard Maloney
Kaki Recovery Programme, Department of Conservation
Private Bag, Twizel, New Zealand
E-mail: rmaloney@doc.govt.nz

Conservation in action: expanding the Addo Elephant National Park, South Africa

The South African National Parks (SANParks) are currently completing a project funded by the Global Environment Facility (GEF) to facilitate the expansion of the Addo Elephant National Park in the Eastern Cape of South Africa. The aim is to create a park of significant proportions to ensure that the unique biodiversity associated with the region is protected into the future. This Park, with its representation of five of South Africa's terrestrial biomes (Thicket, Nama-Karoo, Fynbos, Grassland, and Forests) and the largest South African proposed marine protected area with its off-shore islands, will be the most biologically diverse conservation area in southern Africa. The vision to achieve this goal is dependent on the creation of an expanded park that is ecologically, economically and socially sustainable whilst promoting an awareness of conservation through appropriate eco-tourism opportunities.

A series of specialist studies that assessed the conservation value of the region in the terrestrial, freshwater and marine environments, as well as a strategic environmental assessment, were recently completed to provide the framework for project implementation (see the web site <http://www.addoelephantpark.co.za>) as well as a full project application to GEF. The project focused on

the use of conservation planning methodologies to interpret baseline biodiversity surrogates, such as vegetation land classes, in order to set conservation targets and priorities. The environmental assessment consolidated the biological and socio-economic information, and facilitated a public participation programme. SANParks has used the findings from these studies in compiling an implementation plan to meet the conservation targets for the park.

In the past 5 years the park has more than doubled in size through additional land purchases financed through donations from the International Fund for Animal Welfare, the Humane Society of the United States, and the Leslie Hill Succulent Karoo Trust, and also through SANParks' development fund and recent direct Government support. It is through these contributions that the Park currently has an area of c. 130,000 ha. Further incorporation through contractual arrangements with private land-owners, as well as focused land purchases, could see the Park expand to over 350,000 ha, with an additional 120,000 ha envisaged within the marine environment. Development funding of approximately US \$30 million has been earmarked from GEF, South African National Parks, and donors, and government programmes such as Poverty Relief and Working for Water would support this initiative over the next 5 years. The greater Addo Elephant National Park has the potential to become a conservation flagship and economic engine for the impoverished Eastern Cape region, as well as an important example of collaboration between government and private enterprise – a unique conservation vision in the making.

Guy Castley and Mike Knight
South African National Parks, PO Box 20419,
Humewood, 6013, South Africa.

Urgent action needed for West African chimpanzees

More than 80 scientists, conservationists and policy makers from 15 countries met in September 2002 to set priorities for urgent action to protect West Africa's threatened chimpanzees. The meeting was convened in Abidjan, Côte d'Ivoire, by Conservation International's Center for Applied Biodiversity Science and West Africa Program, the Wild Chimpanzee Foundation, and Kyoto University, and resulted in a consensus regarding the priority sites and actions needed to assure the survival of chimpanzees in West Africa. Two subspecies, the western chimpanzee *Pan troglodytes verus* and the Nigerian chimpanzee *P. t. vellerosus*, occur in the western region of Africa. The majority of the western chimpanzee's habitat lies within the Guinean Forest Hotspot, one of the top five hotspots for threatened primates.

Workshop participants, including national experts from the region, synthesized existing knowledge of the species' distribution and population status, and identified the highest priority areas for chimp protection within the region's different habitat types. The priority areas are:

- Tai-Grebo-Sapo-Cestos moist forests in Côte d'Ivoire and Liberia;
- Fouta Djallon region in Guinea, Guinea-Bissau and Senegal;
- Manding Plateau dry forests area in Mali and Guinea;
- Gashaka-Gumti and Mambilla Plateau dry forest areas in the Nigeria-Cameroon cross border area;
- Haut Niger in Guinea;
- Nimba highlands in Guinea, Côte d'Ivoire and Liberia;
- Takamanda and Okwango mountainous forest area in the Nigeria-Cameroon cross border area.

If all chimpanzees in these areas were protected, it is estimated that this would represent c. 60% of the population in the region. A second set of sites was also earmarked as of very high importance for chimpanzee conservation:

- Guinea-Guinea Bissau Coastal Region;
- Outamba and Kilimi National Park and Guinea Border area;
- Lofa-Mano-Gola Forest area;
- Marahoué National Park in Côte d'Ivoire;
- Oban-Korup area in Nigeria and Cameroon;
- Ghana-Côte d'Ivoire border area;
- Comoé area in Côte d'Ivoire.

If protected in all these areas, it is estimated that they would collectively represent approximately three-quarters of the entire population of chimpanzees in West Africa.

Factors considered in setting these priorities included population size, habitat quality and degree of threat and, most particularly, cultural diversity. Chimpanzees are known to exhibit differences in behaviour throughout the region, such as preferences for nesting in palm trees and nut cracking behaviour, and these cultural phenomena were factored into the choice of sites to ensure that they would be represented. A list of priority actions was generated for each of the sites which, as many are transboundary, will require cooperation between governments and collaboration between numerous institutions. This is no easy task in a region often fraught with civil conflict and where neighbouring countries often have different official languages (French, English and Portuguese). However, at a local level human populations are frequently of the same ethnic group and often hold similar attitudes towards chimpanzees.

Some interesting but alarming facts arose from this meeting, including the finding that only about 5% of chimpanzee habitat is already officially protected

in West Africa. It also demonstrated a serious lack of knowledge about the population sizes of chimpanzees in many of the countries, such as Sierra Leone, Liberia, Ghana, Mali and Senegal. More reassuring is that in many areas of West Africa there are taboos against hunting chimpanzees because they are too closely-related to humans, because of the existence of traditional beliefs, or as a result of religious values. However, as the human population in West Africa rapidly increases, chimpanzees are often forced into a situation where they are competing for the same food resources and using the same sources of water. This can increase the potential for conflict between humans and chimpanzees, besides disease transmission, and may result in the collapse of many of the traditional taboos against hunting them.

There is much we still do not know about chimpanzees in West Africa and the workshop participants also generated a list of sites that they believed to be important, but where surveys are needed for confirmation. These were the Diéké and Ziama Forests in Guinea, the Wonegizi forest in Liberia, the Loma Mountains in Sierra Leone, Haute Sassandra and Mont Peko in Côte d'Ivoire, the Cross Border Area in Nigeria and Cameroon, south-west Nigeria and the Niger Delta, and areas west of the Sanaga River in Nigeria.

In addition to Conservation International's West Africa Program and Center for Applied Biodiversity Science, the meeting was co-sponsored by the US Fish and Wildlife Service, the Great Ape Survival Project, the CI Primate Action Fund and the foundation Step by Step.

Rebecca Kormos
Center for Applied Biodiversity Science
Conservation International, 1919 M Street NW
Washington, DC 20037, USA
E-mail: r.kormos@conservation.org

The establishment of the Lower Choper Nature Park, Russia

Partly as result of a recent project funded by Fauna & Flora International (FFI) an important new 'Nature Park' has recently been established near Volgograd (formerly Stalingrad) in the Cossack heartland of Russia. The project provided the essential data on the area's flora and its conservation status that convinced the local authorities of the urgent need to establish the new Park. Local conservationists see this as a significant step forward in the struggle to protect the area's remarkable biodiversity, which includes a number of threatened flower species. Much damage has been done to the area in recent years by intensified cattle grazing, the ploughing of pristine steppe, and the afforestation of sandy heaths.

The law founding the new Nizhnechopersky (Lower Choper) Nature Park was approved by the Duma (regional parliament) of the Volgograd region on the 11 April 2002. The law provides the legal basis for land use control and conservation of 80,000 ha in the Kumilzhensky administrative district, including the water resources and landscapes of the Choper river valley, the Shakinsky Forest and the Kumilzhensky Sands, and covers about 100 km of the lower reaches of the Choper river. It lies about 250 km north-west of Volgograd. The administrative centre of the Park will be located at Bukanovskaya Stanitsa, where the Choper joins the Don. Dr Tatjana Ponomareva, a distinguished ecologist, has been appointed the Park's first director.

The Park's operations will be funded mostly from the budget of the Volgograd regional government. The main aims are to ensure the conservation of the unique natural landscape and of threatened species of plants, as well as protecting historical and cultural sites. Other responsibilities will include ecological education, regulation of tourism, improving recreational facilities, and the restoration, where feasible, of damaged sites.

The Park will be divided into zones according to both the existing patterns of land use and settlement as well as the location of key features requiring protection. Reserved zones will be those where the landscape and its fauna and flora have been least damaged. These will include strictly protected zones where access will be restricted and only certain traditional activities of the local population will be permitted. Other zones will be for ecological tourism, as well as limited and regulated fishing and hunting. Activities such as mining, quarrying and agriculture will either be forbidden or strictly controlled.

It is the intention of the local government in founding this new Park that the most up-to-date science-based conservation methods should be applied, within the constraints set by very limited financial resources. A scientific advisory council is being set up that will guide the development of conservation policy and activities, an on-going research programme, as well as educational activities, which are seen as a core function of the Park. Further research is now needed to provide more detailed information to guide practical conservation planning and to provide baseline data for future monitoring of the effectiveness of the Park's programmes.

Gennady A. Firsov
Botanic Garden, Komarov Botanical Institute
Russian Academy of Sciences, St Petersburg, Russia

New and improved internet resources

The ALL Species Foundation (<http://www.all-species.org>) is a non-profit organization dedicated to the complete inventory of all species of life on Earth within the next

25 years. An important feature of the site is the Species Search Engine (<http://www.speciestoolkit.org>) that includes over 1 million species. Each entry provides a link to one of 12 databases for more information on the species.

Biodiversity Hotspots (<http://www.biodiversityhotspots.org/xp/hotspots>), provided by the Center for Applied Biodiversity Science of Conservation International, explains how biodiversity hotspots are designated and describes efforts to protect “these biologically rich areas around the world under significant threat of

destruction.” There is an interactive map that provides detailed descriptions of each hotspot, along with area maps, a glossary, and other resources.

Mammal Species of the World (<http://nrmnhgoph.si.edu/msw>) contains the names of the 4,629 currently recognized species of mammals, in a taxonomic hierarchy that includes Order, Family, Subfamily, and Genus. The list was compiled by an international team of contributors, under the auspices of the American Society of Mammalogists, Smithsonian Institution, Washington, DC, USA.