

# Species

Newsletter of the Species Survival Commission

Number 48, July – December 2007



The World Conservation Union

# Species 48

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**Species** is the newsletter of the Species Survival Commission of IUCN—The World Conservation Union. Commission members, in addition to providing leadership for conservation efforts for specific plant and animal groups, contribute to technical and scientific counsel to biodiversity conservation projects throughout the world. They provide advice to governments, international conventions, and conservation organizations.

**Team Species** – Lynette Lew, Abigail Powell, Julie Griffin, Dena Cator and Carol Poole

**Layout** – NatureBureau

**Cover Photo** – *Ettingera elatior* by Dr Danna J. Leaman

Opinions expressed in this publication do not necessarily reflect official views of IUCN/SSC

ISSN 1016-927x

*Species* is printed on recycled paper

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# One Programme, One Voice

## A joint message from the SSC Chair and Head of the IUCN Species Programme

The last edition of Species focused on the growing awareness of increasing threats to species across the world. In addition to the pervasive impacts of habitat loss, many species are subject to targeted exploitation and differential vulnerabilities in the face of other pressures. Tackling these threats is extremely challenging – not least because it is usually difficult to build awareness around them as their effects are often intangible. The impacts of climate change, for example, are still largely unpredictable and will likely vary tremendously in time and space, and will not necessarily be visible to the naked eye. Such threats present extreme challenges when trying to demonstrate the direct effects on species and the consequent effects on man to decision-makers. In addition to assessing the conservation status of species, this in-depth understanding of threats and the ability to offer suggestions on how to respond to the threats is one of SSC's primary functions and something at which we particularly excel.

In the “redesigning” of the Commission for the next Quadrennium, the Restructuring Task Force has looked in detail at our primary functions and places where we excel, and has put forward a proposed structure that both optimizes the role of the Commission, while designing a more streamlined and purpose-built network. By focusing our efforts on three of our fundamental strengths: the assessment of species status, the analysis of threats, and the design and application of tools to mitigate these threats (conservation action) – more formally referred to as the “pressure-state-response model”, the redesign emphasizes the inherent strength of “form following function”. The Restructuring Task Force has been working extremely hard to ensure that the proposed redesign is a clear and rational approach to improving the functioning of the SSC as a whole and its delivery to our primary goal of reducing [the rate of] biodiversity loss.

The measurement of “status” – SSC's longstanding heartland through our custodianship of the IUCN Red List of Threatened Species™ – continues to improve through the increasing number of quality assessments, the dedicated work of the Species Programme and the strategic guidance of the Biodiversity Assessment Sub-Committee (BASC) of the SSC. This year, in addition to the intense daily

work of updating the IUCN Red List, the Species Programme undertook to revamp and update the Red List website ([www.iucnredlist.org](http://www.iucnredlist.org)) to improve its functionality and bring it more in line with the IUCN visual identity. This culminated in an extremely successful launch of the 2007 IUCN Red List on 12 September 2007, with press conferences held simultaneously in Washington DC and Paris. Press coverage of the IUCN Red List was up from last year and there was also media interest over a more extended period than previous years, with television coverage definitely improving. In the print media, the IUCN Red List launch was picked up by publications as diverse as *Marie-Claire*, the web-version of the *Economist*, the *New Scientist*, *Nature* and *TIME*.

Behind the scenes of the IUCN Red List, the BASC tackles crucial housekeeping issues such as the updating of Classification Schemes and advising the SSC on important policy matters, while assisting the taxonomic sub-committees to establish priorities for red listing and exploring ways to improve recognition for IUCN Red List assessors and evaluators. Measuring the “state” of major taxonomic groups also continues to advance through the various global assessments being undertaken – and we are all looking forward to the launch of the Global Mammal Assessment (GMA), a mammoth undertaking that has involved all the mammal Specialist Groups, organized and supported by Species Programme staff members. The GMA will be launched at the 2008 World Conservation Congress in Barcelona.

One of the “pressures” gaining increasing attention is the overexploitation of species through growing commodity markets around the world. SSC is increasingly called upon to define what “sustainable use” actually means and to analyse the most important factors in making use sustainable. But there are other questions for us to answer: What are the implications for species scientists? How does one engage in such a large and often controversial subject? These questions and more were debated at a recent meeting of the SSC Sustainable Use Sub-Committee. In this

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*How to respond to the threats is one of SSC's primary functions and something at which we particularly excel*

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edition of *Species*, we focus on sustainable use and bring you some of the thinking from the Sub-Committee and some examples of Specialist Groups tackling sustainable use issues on the ground. In addition to the Sustainable Use Sub-Committee, all of the taxonomic sub-committees held meetings within the last six months. The Plant Conservation Sub-Committee discussed the assessment of medicinal plants subjected to commercial and non-commercial harvest and the Marine Conservation Sub-Committee focused on the issue of bycatch.

“Response”, through conservation tools, guidance and advice has always been and will remain a vital part of SSC’s life. The SSC network is constantly

asked to provide information for the formulation of conservation responses, and we remain especially proud to be able to offer this service. Specialist Groups are highly valued for their skills in producing sound, science-based guidelines with practical application and we hope that this will be better facilitated through the SSC redesign. In particular, the current Species Conservation Planning Task Force has worked hard to update our

thinking on how to achieve conservation impact for species and to develop a new set of best practice guidelines on strategic conservation planning and an accompanying “help” manual for their application.

SSC’s October 2007 Steering Committee meeting adopted the proposed redesign of the Commission towards the “pressure-state-response” model and the Restructuring Task Force is currently finalizing the documents and preparing to present the redesign at the SSC Chairs’ Meeting in Al Ain in February 2008. We look forward to initiating the formal roll-out of the redesign at the World Conservation Congress in Barcelona in October 2008 for the 2009–2012 Quadrennium.

As in any approach, successful implementation of the “state-pressure-response” model requires a strong vision, administrative backstopping, ongoing fund-raising, and good communication; as well as a general, but vital network support component. Through the SSC Specialist Group Chairs’ Consultation (where we contacted as many Chairs as possible via telephone), we were able to look at our weak points, and are putting measures in place to meet concerns expressed. We are pleased to report that both the Species Programme and SSC Chair’s Office are working hard to address the many demands, including dealing with SSC governance matters, attending vital meetings on your behalf, work with the IUCN Regional Offices, IUCN’s global thematic programmes and other Commissions, planning for the 2009–2012 Quadrennium, assisting Specialist Groups on special requests, and improving our overall communications.

In terms of fund-raising, we continue to be as innovative as possible in a world that is focusing on so many other pressing issues. We hope to be able to share some of these innovative stories with you once they have progressed a little further. At every opportunity, we look for further ways of feeding funds through to the SSC Network. Staff-wise, the capacity of the Chair’s Office and the Species Programme has been augmented with a Senior Commission Officer, two SSC Network Support Officers and Marketing and Communications Officer. As for recent meetings, to name but a few, we have engaged in discussions at the World Commission on Protected Areas’ Category Summit, we met some of you at the Society for Conservation Biology meeting in South Africa, and we took part in TRAFFIC meetings – always bearing in mind the true cost in both carbon emissions and funds to attend these meetings.

Planning for the IUCN 2009–2012 programme is an ongoing and time-consuming exercise, but also one that is important in that it forces us to sit back and prioritize what exactly it is that we aim to achieve in the coming years. In addition to capturing the proposed targets that you will expect to see in our planning documents, we have responded to the need to coordinate more with the IUCN Regional Offices and other thematic programmes – including marine, forest, business and biodiversity, protected areas and policy. Through intensive and regular correspondence on many levels this has led to a definite step forward from previous planning processes, and will hopefully facilitate the implementation of the “One Programme” approach adopted by the IUCN members.

Thanks to the Environment Agency – Abu Dhabi, our most thrilling up-coming event is the first-ever SSC Chairs’ Meeting – which is to be held in Al Ain, United Arab Emirates, on 11–14 February 2008. We are thoroughly looking forward to engaging all the Specialist Group Chairs and stand-alone Red List Authority Focal Points at this meeting. The IUCN Director General, various senior IUCN Programme Heads, Commission Chairs and Regional Directors will be at this meeting – making it our most meaningful gathering to date in terms of strengthening our internal solidarity of purpose while building relationships across the different parts of IUCN. The purpose of this meeting is two-fold. Firstly, and most importantly, the meeting will enable the Chairs to share their issues, their triumphs and their wisdom and for us to assist them with the challenges they face. It will also provide us with an opportunity to honour those who have given so much of their personal time and energy to IUCN and SSC over the years and to express our gratitude and recognition for the unprecedented contributions to conservation from them and their members. Secondly, it is a means for us to create a platform for learning and capacity building that will ensure

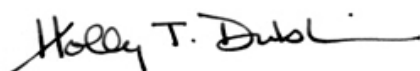
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*We have responded to the need to coordinate more with the IUCN Regional Offices and other thematic programmes*

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the persistence of the cumulative SSC knowledge into the future. The meeting will be a forum for interactive sessions on challenging subjects and an opportunity to deepen the understanding of IUCN's procedures and policy matters. It will be an occasion for the Chairs to discuss emerging and cross-cutting conservation issues such as the impacts of global climate change, invasive alien species, wildlife health, and the impacts of industry; and forge lasting linkages between their groups to tackle these and other challenges. We look forward to bringing you the main outcomes of the meeting in the next edition of *Species*.

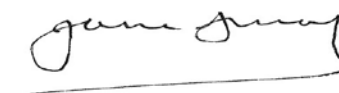


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Holly T. Dublin

Chair – IUCN Species Survival Commission

Thank you SSC Members, once again, for making the SSC what it is – 7,410 of you are registered on the IUCN Commission Registration System. You are probably one of the biggest, if not the biggest, global volunteer network serving the conservation cause – and the professionalism with which you continually measure the state of the world's species, investigate and analyse the pressures they face, and contribute to innovative conservation responses... all in this complex and rapidly-changing world... is a large source of our inspiration.



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Jane Smart

Head – IUCN Species Programme



# Spotlight on SSC's Specialist Groups

## The Megapode Specialist Group

The SSC now has over 100 Specialist Groups, Disciplinary Groups, Task Forces, and Working Groups working on a wide array of species groups and conservation issues. These profiles aim to highlight the diversity of the work being carried out by the Groups and the expertise, enthusiasm, and commitment of their members.

The second group to be profiled in the Species newsletter series is the Megapode Specialist group chaired by Rene Dekker. Founded in 1986, the Megapode Specialist Group has greatly contributed to our understanding of some of the planet's most unusual birds. In addition, they have highlighted the threats to the survival of the eight species which are currently threatened with extinction and outlined strategies for their conservation.

## The species

Megapodes are a fascinating, yet poorly known family of birds also known as brush-turkeys or scrubfowl that rely on environmental sources of heat for the incubation of their eggs. Many species, such as the Maleo, bury their eggs deep in volcanic sand or in sun-exposed beaches, leaving the eggs to hatch themselves. Others invest a lot of energy in the construction of a large mound of sand and leaf litter where decomposition creates the heat for the incubation of their eggs. All megapodes are emancipated from any parental care. This reproductive strategy leaves the eggs open to predation, especially by human communities. There are 22 species of megapode that fall into seven genera: *Alectura*, *Aepyodius*, *Talegalla*, *Leipoa*, *Macrocephalon*, *Eulipoa* and *Megapodius*. Eight of the species are considered to be at risk. The major threats to their survival are habitat destruction and unsustainable harvesting of eggs. Megapodes are found predominantly in Indonesia and Australasia with outliers on islands in the Indian Ocean and Polynesia. The majority exist on oceanic islands in moist tropical forest, although the most southerly megapode, the Malleefowl, is found in the semi-arid mallee habitat of South Australia.



Australian brush turkey, *Alectura lathami*

## Overview of the Megapode Specialist Group

The Megapode Specialist Group (MSG) was formed in 1986 to provide a forum for those interested in the study and conservation of megapodes. Since its inception, the MSG has published over 30 newsletters and run six international symposia. They have also published two Status Survey and Conservation Action Plans (1995 and 2000) in association with the World Pheasant Association, BirdLife International and the IUCN Species Survival Commission. In 1995, an Oxford University Press monograph on megapodes was published by

two of the MSG founding members, Darryl Jones and René Dekker. Much of the MSG's work has involved the most endangered of the 22 species, but extensive research into the biology of common species has also been conducted. The group is chaired by René Dekker with support from Darryl Jones and Gillian Baker. The key members profiled below have decades of experience in megapode conservation and biology, but few people have been able to get into the field in recent years due to career and family commitments. The MSG is thus very keen to hear from young researchers who would like to become involved in studying some of the most interesting birds on the planet.



Orange-footed megapode, *Megapodius reinwardt*



## Megapode Specialist Group Member Profiles

### René Dekker

In 1985 and 1986, René Dekker spent 17 months in Sulawesi involved in the conservation of maleo, Sulawesi's endemic megapode. The study resulted in a thesis on the maleo focused on incubation strategies of megapodes. With Darryl Jones (see below), René founded the Megapode Specialist Group to increase contacts between megapode researchers and to coordinate and stimulate



megapode conservation and research. From 1991 until 2005, René was curator of birds at the National Museum of Natural History in Leiden, the Netherlands, chairman of the MSG, editor of the Megapode Newsletter, author/editor of two Megapode Action Plans (with the World Pheasant Association) and author of a monograph on megapodes with Darryl Jones and Kees Roselaar. During these years he travelled to some of the most beautiful islands in the world such as Great Nicobar (India), Tanimbar, Ceram and Waigeo (Indonesia), Ambrym (Vanuatu) and Niuafo'ou (Tonga) to study or simply enjoy megapodes. Since 2005, René has been the Director of Collections at National Museum of Natural History in Leiden, having less time to focus on megapodes, but still trying to help and support the next generation of megapoders and help funding research and conservation projects.

### Darryl Jones

Darryl Jones undertook his discovery of the world of megapodes as an undergraduate at a small University in inland Australia, when he watched breeding Australian brush-turkeys for an ornithology course. This was the start of a life-long passion, which led soon after to a trip to Papua New Guinea as part of an expedition to study Melanesian megapodes. In 1983 he moved to Queensland, Australia, specifically to study the reproductive behaviour of Australian brush-turkeys in the rainforests of the coastal mountains. It was during this period - 1986 - that he was

invited by the late Professor Klaus Immelmann to attend a symposium on precociality in Germany. Also attending was René Dekker and so was formed a relationship which would lead to the



Megapode Specialist Group, the launch of the Megapode Newsletter, the organization of a series of the International Megapode Symposia, and the production of *The Megapodes* (Oxford, 1995). Since then Dr Jones has been involved in a range of studies of the same species but with an emphasis on their presence in human-dominated environments. In addition, he has supervised numerous doctoral students working on a wide range of megapode-related topics. Dr Jones is currently Director of the Centre for Innovative Conservation Strategies at Griffith University in Brisbane, Australia. Interestingly, Australian brush-turkeys have recently invaded the gardens of this university, providing an unexpected opportunity for further research.

### Marc Argeloo

Marc Argeloo started working on megapodes in 1990 in Sulawesi, following up René Dekker's work



on the maleo. After this one year project, funded by the World Wide fund for Nature (WWF) and the International Council for Bird Preservation, he



became more and more involved in conservation work in Indonesia. He worked for WWF, BBC and other organizations and companies, offering him many opportunities to observe different species of megapodes. As such, he had the opportunity to study the Moluccan megapode *Eulipoa wallacei* and Forsten's megapode *Megapodius forstenii* on the island of Haruku (Indonesia). In 1993, he conducted a search for the 'unknown' Bruijn's brush-turkey *Aepyptodius bruijnii* on the island of Waigeo (Indonesia) together with René Dekker, but failed to re-discover the species. From 1995–1999 he was programme-manager at WWF Netherlands, taking care of the cooperation between WWF Netherlands and Indonesia. Again, this gave him ample opportunities to observe other megapode species. In 1999 he started his own consultancy, focusing on organization and communication aspects of conservation work. After running a successful business, he was invited to become Conservation Director of BirdLife Netherlands. He has held this position since October 2003. Despite the obvious move from field to desk, his motivation is still based on his fascination for pristine forests, unspoiled mountain ranges, biodiversity, and how people perceive these natural wonders. Wherever possible he is supporting Indonesian students who want to conduct studies or conservation work on megapodes.

## J Ross Sinclair

Ross Sinclair has been interested in megapodes since first seeing a megapode mound in Papua New Guinea (PNG) in 1992. Not really believing a bird could build such a structure, he climbed a tree and sat there in amazement while two New Guinea



Megapodes (*Megapodius decollatus*) visited the mound to lay an egg. His amazement turned to utter astonishment when the next day two Brown-collared Talegallas (*Talegalla jobiensis*) did the same thing in the same mound. Ross got down from the tree and embarked on a career in conservation biology with megapodes prominent in his work. After an MSc studying three sympatric

species of megapode in PNG, he has worked on megapodes in Sulawesi and the Solomon Islands. For the last few years, Ross has been working for the Wildlife Conservation Society (WCS) in PNG, and is delighted to have infected some of his PNG students with a fascination for megapodes. He is currently on leave from WCS and based at the Institute for Zoo and Wild Research in Berlin where he is writing his PhD on developing a sustainable harvest plan for megapode eggs on Simbo Island, Solomon Islands.

## Gill Baker

In 1993 Gill was sitting beside a river in Sulawesi, Indonesia when the most splendid of all megapodes,



the maleo, flew over her head. She followed it, embarked on her first megapode study and has been captivated ever since. She has a particular interest in burrow-nesting megapodes and the conservation and sustainable management of their nesting grounds. More recently, she has applied her training in molecular biology to develop methods for un-invasive sampling of megapode populations. In 2005, Gill became a mother and is no longer active in the field, but is taking over from René Dekker in editing the Megapode Newsletter from 2007 and is keen to mentor and support scientists and students wanting to embark on megapode studies, especially those concerning the maleo, Moluccan megapode and genetic methodologies.



# Features



Sustainable use: a controversial but fundamental part of conservation

**Sustainable use** is at the core of IUCN's Mission and work, and cuts across the work of many specialist groups, staff, programmes and objectives. It is embedded in IUCN's Mission, which is to "to influence, encourage and assist societies throughout the world to conserve the integrity and diversity of nature and to ensure that any use of natural resources is equitable and ecologically sustainable". It has been a key message of IUCN since the landmark documents World Conservation Strategy (1980) and Caring for the Earth (1991), which recognized the essential role of nature and natural resources in meeting human needs, and the importance of their "sustainable use" in an overall conservation strategy. It is not an alternative to conservation, but part of conservation, a strategy for doing conservation, and a means to conservation.

## The Sustainable Use Specialist Group explores the issues

The Sustainable Use Specialist Group (SUSG) seeks to provide a central platform for thinking and debate on sustainable use within IUCN and to support the work of the Union. While many other specialist groups carry out work on sustainable use, the SUSG strives to bring together lessons to be learnt across taxa, across regions, and across contexts, contribute to policy development, carry out syntheses and analysis, and assist and inform where needed. The SUSG is a distributed network composed of Regional SUSGs around the world, plus a Global Concepts group focused on cross-cutting issues. Not all regions currently have active groups – the most dynamic groups are southern Africa, Europe, and South America (north and south). Some activities of the SUSG in recent years

include contributing to the successful development and adoption of the Addis Ababa Principles and Guidelines on Sustainable Use within the Convention on Biological Diversity, contributing to work on indicators on sustainable use within the CBD, an international symposium on Recreational Hunting, Conservation and Rural Livelihoods: Science and Policy in London in October 2006, and ongoing work on governance, biodiversity conservation and ecosystem management in Europe.

Sustainable use can often be a controversial concept. This is especially true among groups that oppose any consumptive use of wild animals, such as animal rights groups, but is also true among conservationists. This is in part because there are a range of different ideas packed into the terminology of "sustainable use", and possibly also because the term itself can be misused.

Most straightforwardly, sustainable use refers to making use sustainable. Use of wild resources – plants and animals, but also landscapes, biomes, ecosystems – supports human wellbeing all across the globe in all sorts of ways. From tuna to mahogany, ginseng to oregano, elephants to deer, people in developing and developed countries use wild resources for healthcare, food, income, building materials, and in culture, spirituality and recreation. Wild resources provide many of the ecosystem services discussed and assessed in the Millennium Ecosystem Assessment. But many wild plants, animals and ecosystem services are being used at unsustainable levels, leading to their long-term decline. Sustainable use focuses on the need to make human uses sustainable, ensuring resources are conserved, for their own sake or for future generations to use. In a broad sense, all conservation can be seen as sustainable use, as all conservation is about making our human use of the planet sustainable. But generally sustainable use in this sense makes a contrast to conservation activities focused on those strict protected areas prohibiting most human uses, and involves conservation focused on management of ongoing uses to enhance their sustainability.

For many, sustainable use, or conservation through sustainable use, also encompasses the idea that use of wild resources can directly contribute to conservation – that indeed, encouraging or expanding use can help and benefit conservation in some circumstances. The rationale underlying this position begins with the commonsense recognition that people conserve what they value. One way to ensure people value something is for them to derive benefits from it through use of various forms. Where people such as the local residents, landholders, the private sector and government agencies benefit from a wild living resource, they will more likely be motivated to conserve and sustainably manage it and its habitat, including investing in protection (from illegal use), research, monitoring, and education. Use can also provide the revenue streams to make such efforts possible or feasible.

So, for instance, conservation of wildlife can be helped by expanding well-managed recreational hunting, because of the economic incentives this provides to many people to maintain or rehabilitate land for wildlife, rather than clear it or use it for sorghum or cattle. Community use of coastal marine areas can be a more effective conservation approach than strict protection, because it creates a local constituency who are motivated to protect resources from unauthorized use by outsiders. On the flipside, banning use of wild resources can remove the economic value of natural ecosystems, erode incentives for conservation, extinguish the constituency in favour of conservation, and alienate local people and foster resentment of conservation. This becomes an ever-more important argument as pressure on land use increases across most of

the world, with emerging new pressures including biofuels and fast-growing carbon offset plantations.

Of course, use does not necessarily lead to conservation benefits. If the resource is currently not exploited and doesn't face any threats, using it will not improve its conservation status. For instance, an unexploited healthy fish stock will not be in a better position if it is used. If

the resource is open-access (there are no limits on who can use it), as much wildlife is, use will not provide any incentives to any groups to conserve it. Use of wild resources could provide benefits, but other more intensive land uses could provide even more benefits, meaning that the land is converted anyway. And there are many other reasons why benefits from use don't necessarily lead to conservation – people may be so poor that they have little option than to overuse the resource to meet immediate needs; it may be practically impossible to exclude outsiders from illicitly using the resource unsustainably; difficulty of monitoring may mean overexploitation happens by accident; and so forth.

This idea that use can actually help conservation, as well as hinder it, remains an unfamiliar one in many circles. How can killing help conservation? Particularly when it comes to consumptive use of charismatic animals such as elephants, rhinos, kangaroos or bears, many people are opposed to all use, and do not accept that the above arguments could be valid. Against this, there is now a growing body of evidence and case studies documenting conservation benefits of use.

*Dr Rosie Cooney, Member and Dr Jon Hutton, Chair, Sustainable Use Specialist Group*

## **The American Alligator: a sustainable use success story**

*The Mission of the Crocodile Specialist Group (CSG) is to assist the IUCN and SSC to meet their missions with regard to the conservation, management and sustainable use of world crocodilians. One of the goals of the CSG is: "Where uses and benefits to people are involved, to be guided by the Addis Ababa principles and guidelines for sustainable use (CBD), adopted by the IUCN at its 3rd World Conservation Congress in 2004." The sustainable use of Alligator mississippiensis in Louisiana is a long-term programme that clearly encapsulates this CSG goal.*

The Louisiana Department of Wildlife and Fisheries manages the American alligator (*Alligator mississippiensis*) as a commercial, renewable natural resource. The Department's sustained use programme is one of the world's most recognizable examples of a wildlife conservation success story.

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*All conservation is about making our human use of the planet sustainable*

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Louisiana's programme has been used as a model for managing various crocodilian species throughout the world. Since the inception of the Department's programme in 1972, over 700,000 wild alligators



Alligator hatchling, *Alligator mississippiensis*

have been harvested, over 5.2 million alligator eggs have been collected, and over 2.7 million farm raised alligators have been sold bringing in millions of dollars of revenue to landowners, trappers and farmers. Conservative estimates have valued these resources at over US\$495,000,000, providing significant, direct economic benefit to Louisiana.

### Historical perspective

Alligators have been used commercially for their valuable leather since the 1800s. This harvest was generally unregulated throughout the 1900s, until a gradual population decline resulted in severely reduced harvests in the early 1950s. In 1962, the alligator season in Louisiana was closed, and research studies, focusing on basic life history factors, were undertaken which led to development of a biologically sound management programme. Of tremendous importance was the establishment of a rigorous survey method to estimate and monitor population trends.

From 1962 through August 1972, alligators were totally protected. During this time a myriad of state and federal laws regulating harvest distribution and allocation of take, methods of harvest and possession, transportation and export of live alligators, alligator skins and their products was enacted. Similarly, in 1970 the Louisiana legislature recognized that the alligator's value, age at sexual maturity, and vulnerability to hunting required unique consideration and passed legislation providing for a closely regulated experimental commercial harvest.

The goals of the Department's alligator programme are to manage and conserve Louisiana's alligators as part of the state's wetland ecosystem, provide benefits to the species, its habitat and the other species of fish and wildlife associated with alligators. The basic philosophy was to develop a

sustained use management programme which, through regulated harvest, would provide long-term benefits to the survival of the species, maintain its habitats, and provide significant economic benefits to the citizens of the state. Since Louisiana's coastal alligator habitats are primarily privately owned (approximately 81%), our sustained use management programme provides direct economic benefit and incentive to private landowners, and alligator hunters who lease land, to protect the alligator and to protect, maintain, and enhance the alligator's wetland habitats. One of the most critical components of the management programme was to develop the complex set of regulations which required individual applications for each property to be considered for tag allocation, landowner permission, proof of ownership and detailed review of habitat quality related to alligator abundance, all of which combined to equitably distribute the harvest in relation to population levels.

During the period of total protection (1962–1971) alligator populations increased quickly and by 1972 the Department was ready to initiate its new sustained use management programme. On 5 September 1972 the alligator season was reopened in Cameron Parish and a total of 59 hunters harvested 1,350 alligators. The season was expanded to include Vermilion Parish in 1973, Calcasieu Parish in 1975, all nine coastal parishes in 1979 and statewide in 1981. In 2005, over 31,000 wild alligators were harvested by over 1,930 commercial license holders.

### Wild Alligator Management Programme

In 1970, the Louisiana State Legislature (Act 550) gave the Department of Wildlife and Fisheries full authority to regulate the alligator season in Louisiana. Since that time, the Department has annually inventoried alligator nest production throughout coastal Louisiana in order to assess the status of alligator populations. Results of annual alligator nest surveys are compiled to provide estimates of nest density by parish and by habitat type. Private and publicly owned lands (State and Federal Refuges, and Wildlife Management Areas) are compiled separately.

Each summer, over 3,500 miles of transects were flown, surveying 150,000 acres of

*The Department's sustained use programme is one of the world's most recognizable examples of a wildlife conservation success story*



Close-up of a wild alligator



wetland habitat. The sampling intensity covers approximately 3.4% of 2.4 million acres of private coastal wetlands, and 4.2–10.4% of some 567,000 acres of public coastal wetlands. During summer 2007 we estimated that 42,315 alligator nests were present in the coastal marsh habitat, a substantial increase showing recovery from hurricanes Katrina and Rita, and the catastrophic drought of 2006.

Nest density and alligator population estimates are combined with a detailed review of harvest parameters and a general assessment of environmental factors observed during each survey to determine final harvest level objectives. Over 50 individual alligator harvest quotas are developed annually in order to distribute the harvest in relation to alligator abundance in the various habitats across the state. Alligator hunters annually submit a description of the property on which they have permission to hunt. The Department assesses the habitat quantity and quality and determines the number of alligators that can be harvested by each hunter. This methodology ensures that alligators are harvested in proportion to their population levels and that the harvest will not negatively impact populations at any location. The currently approved quota system represents an allowable wild alligator harvest, which coupled with the state authorized wild alligator egg harvest programme represents a level of population utilization currently unparalleled in the world of crocodilian management.

Under this sustained use alligator programme, over 700,000 wild alligators have been harvested since 1972. The annual harvest takes place in September to specifically target the adult males and immature segments of the alligator population. Adult females, which typically inhabit interior marshes in September, would be more susceptible to harvest if the season was scheduled during the spring or summer.

In 1999, the Department initiated the “Bonus Alligator Harvest Programme” designed to better utilize alligators in the 4’–5’ size classes. Starting in 1999, trappers were issued an additional quantity of “bonus” tags to be used on alligators less than 72 inches in length. The number of “bonus” tags issued is 10% of the trapper’s regular quota. Some 3,200–3,300 bonus tags have been issued annually since 1999.

As the wild harvest expanded over the years, centralized processing facilities were established by dealers. The alligator meat has become a valuable secondary source of revenue to benefit trappers, landowners and dealers. Trappers bring their harvested alligators to the processing facilities, or dealers transport alligator carcasses from rural collecting points to the processing facility in refrigerated trucks. Refinements in the alligator skinning procedure and care of the hide have been developed to try to minimize damage in transport, skinning, and storage, to maintain and improve the quality of the raw hides. The Department’s goal is

to ensure that each alligator harvested is utilized for the skin, meat and other parts. The wild harvest in Louisiana has developed into a multi-million dollar source of income for the state’s landowners, trappers and dealers.

In conjunction with the US Geologic Survey, National Wetlands Research Centre, a computer based GIS/Arc View system was developed in 2000–2001. This GIS Alligator Tag Allocation System (GATAS) involves plotting digital files of each landowner’s property, with superimposed vegetative type delineations. This system allows Department biologists to accurately assess habitat quality and to automatically incorporate the new marsh types/vegetative changes when new surveys are flown.

### Farming/Ranching Programme

Early alligator farms in Louisiana were generally small, family owned operations; and often run more as a hobby/curiosity than a commercial enterprise. Extensive studies done by Department biologists showed alligators could be efficiently cultured and grown in captivity. Egg ranching (collection of alligator eggs from the wild) proved more economical and successful than captive breeding; private egg collection were first permitted, on a limited basis, in 1986.

Louisiana’s alligator ranching programme increased dramatically between 1986 and 1990. To ensure wild alligators were not depleted as a result of egg collection, and to ensure future recruitment of sub-adult alligators to the breeding population, the Department initially required a quantity of juvenile alligators equal to 17% of the eggs hatched by the rancher be returned to the wild within two years of hatching. In the first three years of the release programme (1988–1990) returns were limited to fewer than 15,000 alligators. Sizes at release were generally small, and averaged 36–38 inches.

In 1991, a variable return rate was established based on the estimated 17% survival from hatching to 48 inches predicted for wild juvenile alligators. Using the relationship of survival between size classes, we extrapolated return rates based on expected survival rates for alligators from 36 to 60 inches. More alligators must be returned if the average total length is smaller, and fewer animals are required if the average length is larger.

Our research and review of the ranching programme documented that the released alligators are able to forage for food in the wild, grow well, have high survival rates, and successfully nest in the wild. Thus, we decreased the return percentage to 14% of the eggs hatched, starting with the 2000 egg permit collection. Continued monitoring and stable/rising survey numbers led us to again decrease the return percentage to 12% of the eggs hatched, beginning with the 2007 egg permits (releases “due” to

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*Alligators are  
harvested in  
proportion to their  
population levels*

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be returned in spring/summer 2009). Thus, the management programme is adapted when available data warrants a change; although very close monitoring of the effects of this change will continue.

Enormous effort has been made by the Department to monitor the fate of the alligators released to the wild. In 2007 we released nearly 60,000 farm raised alligators into the wild to maintain wild alligator populations. Each alligator released is measured, sexed, tail-notched, tagged and recorded prior to release to the same area where they harvested alligator eggs. Although it is costly to the ranchers to fulfil the "returns to the wild" obligation, it is an integral necessity of the programme, considering the large number of eggs collected. In recent years, over 350,000 eggs have been collected when weather conditions/water levels led to excellent nesting efforts. In 2005, a record 507,315 eggs were collected; which averted high mortality that would likely have occurred from hurricanes Katrina and Rita.

Over time, many of the new, less experienced, and smaller farms were unable to compete with the more established farms, whose larger inventories and other factors led to their ability to maintain successful operations in years of more modest prices. The number of farmers/ranchers in Louisiana has levelled off at around 55 farms. However, the inventory on farms is far higher now (543,933 in December 2006) than when there were over 120 farms (318,000 alligators in December 1991).

The economic revenue to Louisiana citizens (landowners, trappers, ranchers, etc.) from the alligator programmes is valued at US\$40,000,000 - US\$50,000,000 annually.

### Nuisance Alligator Programme

The Louisiana Department of Wildlife and Fisheries operates a statewide nuisance alligator control programme. The nuisance programme is designed to remove problem alligators in order to avoid potential human/alligator conflicts. Through the process of nuisance alligator hunter appointments and annual renewals the Department maintains a statewide network of qualified nuisance alligator hunters. Nuisance alligator complaints are phoned into various Department offices, where complaints are recorded and then forwarded to a nuisance alligator hunter in the vicinity of the complaint. Nuisance hunters respond promptly and catch and remove the alligator as deemed necessary. Hunters are allowed to harvest the nuisance alligator and to process the meat and skin of the alligator for commercial sale. This process provides for immediate response to the problem alligator and for payment to the nuisance alligator hunter, thereby minimizing the programme operating cost to the Department. During 2005-2006, a total of 62 nuisance alligator hunters were enrolled

in the programme; they answered an estimated 6,000 complaints and harvested approximately 2,900 alligators.

### Summary

Louisiana's alligator management programmes have clearly illustrated that controlled sustained use of the species is feasible. The alligator is alive and well in Louisiana. The wild harvest has been in place over 30 years and the egg ranching programme for nearly 20 years and may appear to operate unchanged every year. However, constant adaptations are made to try to improve both programs. The annual nest production surveys lead to review of harvest quotas and possible changes for each parish as marsh types change and nesting efforts are affected. Constant requests by user groups (farmers, egg ranchers, trappers, landowners, buyers, dealers and other industry personnel) are received and considered as the Department strives to safely manage the alligator resource for the benefit of many user groups with varied interests.

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*The alligator is  
alive and well  
in Louisiana*

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Louisiana's alligator industry is unique. It has recognized the necessity of establishing a self-generated revenue source, to provide the necessary regulatory and management efforts to effectively manage the alligator resource. The Department will continue to protect the alligator resource while striving to ensure long term, sustainable harvest programmes.

*Dr Ruth Elsey and Mr Noel Kindler, Louisiana  
Department of Wildlife and Fisheries. Dr Elsey is also  
a joint Crocodile Specialist Group Regional Chair for  
North America*

### Over-exploitation threatens species and livelihoods

The 2007 IUCN Red List of Threatened Species indicates that habitat loss and degradation continue to be the main threat to species. However, a key threat that is often overlooked is the over-harvesting of species which threatens 25% of all threatened mammal species, 32% of threatened birds and is the primary threat to marine species. Over-exploitation not only threatens the species themselves but also the people that rely on them, whether this is for their basic livelihood needs or to generate income. The World Bank estimates that forest products provide around 20% of the income of poor rural families, half of which is through subsistence goods and half as financial income (Vedeld *et al.*, 2004). Traditional medicine provides primary health care for up to 80% of the African population (WHO, 2003). In addition, the global trade in fisheries (excluding aquaculture) is worth Euro 68.6 billion and Euro 154 billion for timber (wild and plantation) (Engler and Parry-Jones, 2007).

Although we have some idea of the scale of use of various species and the value of various wild commodities, there is no comprehensive information source on which species are utilized, harvest levels, for what purpose and by whom. As a result the economic importance of species to people's livelihoods has often been overlooked when developing policy and conservation strategies.

Since its inception in the early 1960s, the IUCN Red List has assessed the global status of species and is increasingly being used to monitor trends in the change of status of species over time. The assessment process currently requires the collection of background information on species distribution, population size and trends, habitat, ecology, threats, conservation actions. More recently, information on the level and purpose of use of species has also been collected. This information will not only help determine whether use is a threat to a species but will also give insight into which species are being used and why and also identify which groups of people are benefiting and whether the species is being used as a basic necessity or as an economic resource. As more utilization information is collected this resource can be used in the future to help guide policy and conservation strategies to ensure that any use is sustainable and that it is to the benefit of the species and those that depend on them.

*Thomasina Oldfield, Acting Senior Programme Officer of the IUCN Species Programme, Species Trade and Use Unit*

## Understanding the factors which promote the sustainable use of wild living resources

The Sustainable Use Project is a collaborative project which aims to further understand what factors, singly or in combination, are likely to promote the sustainable use of wild living resources through a global quantitative analysis of case studies. The project seeks to determine the conditions under which sustainable use can act as an incentive for further habitat conservation, so that wild living resources continue to benefit development and conservation in addition to contributing to long-term livelihood needs.

The first phase of the project collected and analysed biological, social and economic data from 106 case studies of wild resource use from 15 different countries in the Asia region, making it the largest dataset of its kind. The results showed that although effective enforcement was an important predictor of sustainability, the involvement of stakeholders in resource management and who hold tenure of the resource, were also significant

predictors. Traditional management of the species also exerted a strong influence on species use. Incentives to conserve the species/habitat were more likely to exist when resource tenure was communal, when stakeholders played a stronger role in managing the resource, and when there was an increase in livelihood capital over the course of the study period.

These results highlight the importance of social and economic as well as biological factors in influencing resource use, and begin to show how these factors combine to result in a biologically sustainable harvest. This is only the beginning of the story, and additional funds are being sought to add 300 studies from Latin America and Africa. This will not only provide a wealth of new information but will also allow us to create freely available tools to help policy-makers and resource managers to use wild living resources more sustainably.

*Rosamunde Almond, Programme Officer for the IUCN/SSC SUSG Sustainable Use Indicators project and Thomasina Oldfield, Acting Senior Programme Officer of the IUCN Species Programme, Species Trade and Use Unit*



Villagers harvesting wild medicinal plants in Sa Pa Province, northern Vietnam



# From the Specialist Groups

## African Rhino

While the African Rhino Specialist Group (AfRSG) does not actively promote the trophy hunting of rhinos, it has evaluated its effects on rhino populations and has provided advice based on international best practice for rhino conservation for policy formulation by African rhino Range States and other international authorities.

Since hunting of southern white rhino started in 1968, numbers in the wild have increased from 1,800 to 14,540 in nine African countries with another 750 in captivity worldwide. Live sales of surplus southern white rhino have helped reduce densities in populations where numbers were becoming too high, while at the same time generating significant revenue for formal conservation authorities as well as private owners. This has resulted in the creation of many new populations with good growth potential. Rhinos are charismatic megaherbivores and non-consumptive use of rhinos as ecotourism drawcards has also stimulated demand. Thus limited hunting, live sales and ecotourism together have created economic incentives to use land for wildlife rather than other less ecologically desirable land uses such as the production of sugar cane or timber. The creation of positive incentives for non-state land owners to conserve white rhinos has been particularly important. This is because all the state conservation areas in South Africa (the major range state) have now been stocked with white rhino and future expansion is now largely dependent on increasing numbers in privately and community owned areas. While the majority of southern white rhino are still conserved in State-managed reserves, an increasing number (3,400) are now conserved on private and community land.

Limited hunting of a small number of surplus male black rhino under a CITES quota has also started in South Africa. As was reported to CITES CoP 14,

while the primary rationale for this is to further metapopulation demographic and genetic conservation goals, this has also generated significant revenue much of which has gone to formal conservation agencies to help cross-subsidize their conservation efforts. However, when dealing with a *Critically Endangered* Species it is essential that conservation and not economics drive the selection of surplus males to be

hunted. To this end a revised black rhino hunting application assessment system has recently been drawn up by a Southern African Development Community Rhino Management Group Working Group, comprising South Africa, Namibia, Swaziland and Zimbabwe, which follows more closely the

guidelines drawn up on this by the AfRSG several years ago. While it still has to be formally adopted the proposed system has been favourably received by formal conservation agencies in South Africa.

*Dr Richard Emslie, Scientific Officer, African Rhino Specialist Group*

## Antelope

### Working to improve monitoring of large mammals in hunting areas

A team of Antelope Specialist Group (ASG) members is developing an initiative to improve the monitoring of large mammals in Hunting Areas (HAs) within West and Central Africa. In these regions, HAs play a major conservation role by (i) often encompassing larger areas than National Parks and by (ii) acting as buffer zones and ecological corridors around and between National Parks. HAs of various legal status (*Secteurs de Chasse, Zones d'Intérêt Cynégétique, Zones Villageoises de Chasse*, etc.) lie either inside Protected Areas (PAs) gazetted as IUCN Category IV and VI, or outside PAs in areas classified as *zone ouverte* or *zone banale*.

The intention of this initiative is to provide support to HA managers and wildlife authorities to help (i) measure the sustainability of the consumptive use of game species in HAs and (ii) assess the contribution of HAs in conserving non-game species of particular conservation concern.



Giant eland, *Taurotragus derbianus*, females on a hunting block in the northern Central African Republic with one of them collared

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*Limited hunting, live sales and ecotourism together have created economic incentives to use land for wildlife*

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With support of the *Fondation Internationale pour la Gestion de la Faune* (IGF Foundation), appropriate management tools have been tested for use by local stakeholders themselves, mainly HA managers (safari operators, professional hunters, hunting guides, etc.) who freely act as observers on a voluntary basis. Two different protocols are implemented:

1. The so-called “*carnet de brousse*” (bush notebook):

This protocol aims at monitoring uncommon species of large mammals, either game or non game species (herbivores: bongo, giant forest hog, giraffe, sitatunga; carnivores: cheetah, leopard, lion, wild dog). By uncommon, we mean species for which usual census methodologies appear difficult or even impossible to use because of the low occurrence of both direct and indirect encounters. Outstanding observations are fed into a GIS database providing updates and trends of distribution areas, mean group sizes, mean group composition, etc. More than a hundred observers have sent more than 2,000 observation forms so far.

2. The “*counting while hunting*” method:

This protocol is used for monitoring population trends of common wild large herbivores, with particular emphasis on four species of interest for ASG: African buffalo, giant eland, roan antelope and hartebeest (western and lelwel). After being trained, wildlife managers themselves apply a simple census method during the course of their daily activities for a limited period of time. Data collection forms are transmitted for data analysis to the IGF Foundation. The “*counting while hunting*” method has been validated by proper comparison with the classical line transect method. Population trends provide a solid basis for setting and adjusting hunting quotas. The method is inexpensive because it does not require extra logistics or additional human resources. Finally, this method is also participatory by directly involving the stakeholders in charge of wildlife management in the field.

*Dr Philippe Chardonnet, Co-Chair, Antelope Specialist Group*

## Bison – Europe

### European Bison Advisory Centre established to coordinate captive breeding of European bison

It is a little known fact that at the beginning of the twentieth century there were no wild European bison and only 54 in captivity. Today, thanks to extensive protection and reintroduction measures, there are 30 free ranging populations with a total of 2,100 animals. Out of the total population, 1,300 individuals or 40% currently live in captivity. These



European bison, *Bison bonasus*

captive animals have an important role to play in the conservation of European bison by contributing to the genetic variability of the species which is inherently very low due to the small number of founding members.

Some of these captive animals are included in the European Endangered Species Breeding Programme (EEP) for European bison, created by the European Association of Zoological Gardens and Aquariums (EAZA), a programme designed to promote the *ex situ* conservation of European bison by coordinating transfers and the captive breeding of zoo animals.

Why is the European Endangered Species Breeding Programme (EEP) for European bison not enough?

Currently, one of the major shortcomings of the programme is that only a limited number of institutions are part of EAZA and are taking part in the EEP. Only 469 animals or one-third of whole captive population, are currently included in the EEP. Simulated predictions of genetic diversity losses within ten years reveal a much greater rate when only EEP animals are included in breeding programme as opposed to the entire population.

European Bison Advisory Centre

In the beginning of September 2007 as part of the implementation of the European Bison “Status survey and Conservation Action Plan” the Bison Specialist Group – Europe established the European Bison Advisory Centre (EBAC). The main task of the EBAC will be to coordinate the breeding of all captive European bison and to contribute to the reintroduction process. It will also disseminate information on the current bison numbers, provide

*At the beginning of the 20th century there were no wild European bison and only 54 in captivity*

recommendations about possibilities of animal exchanges and provide technical information on issues such as enclosure requirements, animal group size etc. ... Finally, the EBAC aims to raise awareness of the importance of genetic variation among breeders and facilitate communication among breeders, between breeders and vets and other experts. The main office of the European Bison Advisory centre is located at Warsaw University of Life Sciences (Poland). Several regional offices are due to be created across Europe to coordinate transport, communication with breeders and education of local communities in the region.

To facilitate worldwide communication and spread the information, the Bison Specialist Group – Europe website (<http://ebac.sggw.pl>) was created to present all the information of the EBAC. Information available includes: the numbers of bison in all captive enclosures divided into genetic line and sex, a database of Bison spp related publications, links to useful online resources and an interactive section where breeders and experts can access detailed information captive bison (name, pedigree number, sex, line, details about parents, date and place of birth).

EBAC's establishment was financed by the European Bison Friends Society (EBFS) – the Polish NGO ([www.smz.waw.pl](http://www.smz.waw.pl)) created for fund-raising and support of all European bison conservation actions. For more information about the project, please visit the website. We'd appreciate all support, comments and help!

*Dr Wanda Olech-Piasecka, Co-Chair, Bison Specialist Group and Iza Bukowczyk*

## Deer

### Sustainable use issues at the heart of an international deer conference

Deer in the genus *Cervus* provide an interesting case study of how guidelines for the sustainable use of species can be established. The number of species contained in the genus *Cervus* varies between 6–20 species depending on the methodology used to analyze differentiation patterns (morphology, ethology, ecology or molecular genetic). These deer species have a broad geographic range throughout most of the Northern Hemisphere (Europe, northern Africa, Asia, and North America), but over-hunting and habitat destruction have reduced their former range. The conservation status of these species varies between species and across the globe. For instance, red deer have been successfully introduced in several regions and countries where they are currently being used as an alternative protein source. However, in Asia there are endangered species and populations whose conservation requires the development of conservation planning strategies.

The first International Conference on the genus *Cervus* was held in Fiera di Primiero (Trento, Italy) in September 2007. For the Deer Specialist Group (DSG) this conference was an extraordinary opportunity to strengthen its collaboration with *Cervus* specialists and to obtain baseline information for the Deer Global Assessment.

A number of studies have been carried out on the genetics, ecology and behaviour of the genus *Cervus* and their results stimulated interesting discussions. For instance, Prof. A. Lister (UK) presented a comprehensive summary of the evolutionary relationships of species in the genus *Cervus* and on the recent history of European red deer.

A whole day was dedicated to red deer management with a particular focus on the Alpine Arch. Sound management of *Cervus* species for conservation and/or hunting requires information on their biology. Hunting records can be a useful resource which can be used to document population histories and provide vital information on the impact of human activities on these species. In Italy, in the last few decades, red deer have shown a constant increase in distribution and abundance. At present, the species is mainly concentrated on the Alpine Arch, a traditional hunting area. Data on harvest plans and culling show that males are generally more harvested than females, especially if hounds are used. Other data indicates that there are differences between traditional and non-traditional red deer hunting areas. Large mammals are particularly sensitive to environmental changes, particularly those induced by man, and long-term studies such as the research carried out by Prof. T.N. Coulson (UK) on Rum Isle, can provide important information on the influence of climatic variation and hunting on the demography of a free-living population. Red deer provide a useful case study to examine the role of man in its evolution, because they are widely distributed all over Europe, in both natural and agricultural areas, with some populations highly manipulated by man. In addition, the genetic make up of populations which have experienced bottlenecks can be compared with those of undisturbed populations. Finally, as Prof. R. Putman (UK) pointed out, management should take into account the coexistence of more than one species (such as the sika and red deer in the UK) within the same genus and the implications for agriculture, forestry and conservation.

*Anna Bocci and Dr Susana González, Chair, Deer Specialist Group*

## Medicinal Plant

### Harnessing resources and support for the conservation and sustainable use of medicinal plants

The scope of the Medicinal Plant Specialist Group (MPSG) is defined by a use – and a profoundly important use – of plants, rather than by taxonomy or region, as is the case for most SSC Specialist Groups (SGs) and Red List Authorities (RLAs). Sustainable use is therefore at the centre of the work they do on species conservation. This has pushed the MPSG into the role of flag-carrier for sustainable use in the SSC plant network, although other plant specialist groups do work on sustainable use, especially of plant species in trade.

What are the challenges for the Medicinal Plant Specialist Groups?

It is estimated that between 50,000 and 70,000 plant species are used as medicines. Nearly 3,000 medicinal plant species are important in international trade world-wide. The number of species and the diversity of taxa, regions, and

ecosystems to which they belong present an enormous challenge to the work on conservation and sustainable use. Another challenge – one that may seem odd – is the very large number of people all over the world who work on medicinal plants. Finding the resources to help focus

this knowledge and energy on conservation and sustainable use is a major challenge for the MPSG. Another challenge that is directly related to SSC is that much of the focus overlaps with other SSC taxonomic and regional plant SGs and RLAs – this kind of networking and collaboration take a lot of time and effort.

Current on-the-ground projects related to sustainable use:

The major current initiative is the development and implementation of the International Standard for Sustainable Wild Collection of Medicinal and Aromatic Plants (ISSC-MAP), together with TRAFFIC, WWF, and the German Federation for Nature Conservation (BfN). Projects to implement this standard are being developed with companies working in Asia, Africa, Eastern Europe, and Latin America. (Project website: <http://www.floraweb.de/map-pro>)

What guides the development of action plans for the sustainable use of medicinal plants?

The IUCN policy on sustainable use, which led to the Addis Ababa Principles and Guidelines on Sustainable Use adopted by the parties to the Convention on Biological Diversity, guided much of the specific content of the International Standard for Sustainable Wild Collection of Medicinal and

Aromatic Plants (ISSC-MAP), in particular the importance of supportive legal and resource management frameworks, and adaptive and local participatory approaches to decision-making and management.

*Dr Danna J. Leaman, Chair, Medicinal Plant Specialist Group*

## South American Camelid

### The sustainable use of guanacos and vicuña in South America

Vicuñas (*Vicugna vicugna*) and guanacos (*Lama guanicoe*) share a very unusual feature: they are the only wild species that can produce a commercially highly valued product through live shearing without the need to harvest the individuals. Both species have suffered a dramatic decline since the time of the Spanish conquest. Vicuñas were persecuted and hunted almost to the verge of extinction in order to obtain their entire pelts which were then processed and sold in Europe. Competition with sheep for forage and water and unsustainable hunting were key elements in the decline of the guanaco. Today the population is fragmented and they have lost about 60% of their original range. Across sites and countries where camelids and people co-exist (and use is forbidden) both species are usually perceived as a pest and chased with dogs or poached.

Since the 1980s, following an international policy shift from strict protection to sustainable use, several use programmes have been developed. The rationale behind vicuña and guanaco use projects is that allowing commercial utilization of fibre obtained from live-shorn individuals will encourage a positive attitude towards their conservation, among local people. This is expected to result in a decrease in poaching, replacement of domestic livestock (e.g. sheep and cows) by these native ungulates, and support of conservation measures.

The different countries in the main range of the vicuña (Argentina, Bolivia, Chile, and Peru) have adopted different approaches to the exploitation of the species, ranging from captive management under farm conditions to the capture and release of wild populations. In the case of the guanaco, captive and wild management projects are increasing in Patagonia. Different management systems reflect country specific socio-organizational systems, idiosyncrasies, livelihoods, and national and local laws pertaining to land and resource tenure. Each has a different outcome both for the degree to which local people benefit from the exploitation of the fibre, and for the contribution that such management makes to conservation of the species and its habitat. In particular, there are serious concerns over the benefits of captive management.

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*Sustainable use  
is at the centre  
of the work we  
do on species  
conservation*

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Many issues still remain unsolved in the development of appropriate management systems, which are being addressed by the South American Camelid Specialist Group (GECS) members. These include the biological effects of capture and shearing (either at physiological, behavioural and population levels), animal welfare, and distribution and scale of benefits among producers.

The establishment of an open international market for the fibres, proper institutional arrangements for resource management, and the implementation of fair trade schemes would allow for sustainable use plans to be more effective. These should be accompanied by conservation of untouched ecologically functional populations and proper implementation of protected areas.

*Dr Gabriela Lichtenstein, Chair, South American Camelid Specialist Group*



Sustainable use of vicuñas has many benefits but remains challenging



# From the SSC Steering Committee Sub-groups

## Marine Conservation Sub-Committee

### Sustainable use in the marine realm

Examples of sustainable use of marine species are few and far between. Marine species provide over 20% of animal protein to over 2.8 billion people (Food and Agriculture Organization, FAO, 2006) but little is being done to ensure their sustainable use. One can easily illustrate the unfortunate consequences of unsustainable use: more than three quarters of assessed fish stocks are at maximum output or are over-exploited (FAO 2006). The current state of our oceans shows what can happen when the sea is perceived as a bottomless supply of food and other valuable products, and exploited without restraint.

In response to growing pressures on marine resources, the Species Survival Commission (SSC) created the Marine Conservation Sub-Committee (MCSC), co-chaired by Yvonne Sadovy and Claudio Campagna, bringing together experts from the SSC, the Species Programme, the World Commission on

Protected Areas (WCPA), the Global Marine Programme, and other key partners such as FAO and TRAFFIC. At their first meeting in July 2007, the MCSC set priorities to address major emerging threats and to better integrate marine work within the SSC.

The immediate priorities identified include by-catch, the need for quality data

on trade and use of marine species, integration of efforts among marine projects, and better means for resource users or planners to access species data for their work. For example, marine protected area managers need species data in an appropriate format for spatial planning, while guidelines are needed for appropriate trade and use data collection in all marine species assessments. To encourage additional and more comprehensive



Napoleon wrasse, *Cheilinus undulatus*, juveniles waiting to be selected for the dinner plate

species assessments, various communication approaches will show how these have made a positive difference. As a complement, case studies will demonstrate where a conservation assessment has led to increased protection for specific species, such as for the humphead wrasse, sharks and turtles.

Recognizing the lack of awareness and resulting inaction on the over-exploitation of marine species, the MCSC is putting together a publication to bring priority marine conservation issues into the public eye through a series of compelling examples; this will be released at the 2008 World Conservation Congress in Barcelona. Through increased data collection, improved use of data and species assessments, well-focused communications and integrated efforts, the MCSC aims to promote and increase the sustainable use of marine species.

*Dr Claudio Campagna and Dr Yvonne Sadovy,  
Co-Chairs, Marine Conservation Sub-Committee*

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*The sea is perceived  
as a bottomless  
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and other valuable  
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# News Round-Up

## 2008 World Conservation Congress

### B for Barcelona, biodiversity and beauty

The logo for the next IUCN World Conservation Congress has been officially unveiled. The Congress, to be held in Barcelona from 5–14 October 2008, will celebrate diversity and how natural diversity underpins social, cultural and economic diversity.



IUCN  
World  
Conservation  
Congress.  
Barcelona 2008.

Taking inspiration from Gaudí, one of Spain and Catalonia's most celebrated and iconic artists – and a leading proponent in his day of sustainability and recycling – the logo shows that many small pieces can, together, make something beautiful.

Forming a B for Barcelona, biodiversity and beauty, the logo is a vibrant metaphor for the importance of diversity in our world.

Designed by leading Barcelona agency Vinizius, part of the Young and

Rubicam group, the logo also strongly hints at the combined power of many individual actions, from people or organizations, which together can make a big difference to how we live and work on this planet. The logo also highlights how IUCN, as a union of many small parts, is making a big difference to the world.

Jointly hosted by the governments of Spain and Catalonia, the Congress in Barcelona will welcome more than 8,000 attendees to share, debate, negotiate and commit to putting diversity and sustainability at the heart of decision-making around the world.

For more information: [www.iucn.org/congress](http://www.iucn.org/congress)

### Congress Update

The World Conservation Congress is a seminal event held every four years that brings together the world's conservationists, policy makers, scientists, decision-makers and the public to discuss and set the global conservation agenda. It is the largest gathering of the conservation and development community.

The next Congress will be held in Barcelona, Spain from October 5 to 14, 2008 and the expectation is that more than 7,000 participants will attend.

The theme is a "diverse and sustainable world" and events will be organized in three streams – a new climate for change; healthy environments, healthy people; and safeguarding the diversity of life. This particular Congress will also celebrate the 60th anniversary of IUCN's creation in 1948.

Some of the topics anticipated to be discussed include: the world's most pressing sustainable development challenges, the latest conservation research and findings, community and local level initiatives, livelihood issues, traditional and indigenous knowledge, sustainable business models and investment opportunities, economic tools and markets as well as policy and governance reforms. Outcomes from the Congress will collectively be called the Barcelona Legacy.

### Congress Agenda

**Congress Forum** – will take place for four days from October 6 to 9, 2008 and will give participants the opportunity to discuss and debate a wide variety of conservation issues in workshops, discussion roundtables and social events. During this time there will also be a variety of pavilions and poster sessions to visit.

**Congress Member's Assembly** – will take place for five days from October 10 to 14 and will allow IUCN members to participate in the governance of the Union. Officers, regional councillors and Commission Chairs will be elected; the next inter-session programme and Commission mandates will be adopted; and resolutions and recommendations covering substantive global policy issues will be adopted.

### Congress Forum

Each day of the Forum will be divided into five 90-minute time slots during which 20 concurrent presentation sessions will be held in different rooms of the Barcelona International Convention Centre. The different events that can be attended during the Forum are:

*IUCN member-led events* – The Congress Forum will be comprised primarily of member-led events. There have been two calls for proposals for these events that have now passed – one for August 31 and one for October 31 which were open to members, Specialist Groups, partners and non-members. The Congress planning team is in the process of accepting the second round of proposals and developing an agenda for the Forum from those that were successful. If you did not submit a proposal and want to participate in the Congress, there may be other options for your involvement. You can contact [julie.griffin@iucn.org](mailto:julie.griffin@iucn.org) or [denacator@iucn.org](mailto:denacator@iucn.org) for this.



**Secretariat-led events** – There is a time slot each day of the Congress comprising 20 90-minute presentation sessions when the Secretariat programmes of IUCN (e.g. Species programme) will profile their work. This will include their work with Commission members, IUCN members, partners and others.

**Commission-led events** – Each Commission has been granted six 90-minute presentation sessions throughout the Forum, including the Species Survival Commission. The Commissions are deciding what issues they will present during these sessions.

**Pavilions** – During the Congress, there will be seven main pavilions set up on the ground floor of the conference centre showcasing the work of IUCN, its Commissions and members. The pavilion themes will be: 1. biodiversity; 2. marine; 3. forests; 4. water; 5. climate change; 6. sustainable living; 7. energy and biofuels. The Species Programme is responsible for developing the biodiversity pavilion. If you would like more information on this, please contact: julie.griffin@iucn.org or dena.cator@iucn.org.

Please refer to the Congress website for more information on the Congress, registration and events. If you are interested in contributing to the 2008 Congress, please contact:

Dena Cator [dena.cator@iucn.org](mailto:dena.cator@iucn.org) or Julie Griffin [julie.griffin@iucn.org](mailto:julie.griffin@iucn.org).

#### Forum Event Types

Each 90-minute Forum event will be in one of the following formats:

**Alliances** – Workshop events where participants share their knowledge and foster consensus-building.

**Conservation cinema** – Films, documentaries and / or video clips.

**Posters** – Posters which will be available to view during the entire Congress.

**Knowledge café** – Roundtable discussions of 12 people to explore areas of common interest, network, share experiences, explore partnerships and foster understanding.

**Learning opportunities** – Events where participants will be introduced to and experiment with new tools relating to conservation and sustainable development.

**Social events** – Plays, musical presentations, traditional dances and/ or receptions.

**Press conferences** – Will be a maximum of 30 minutes.

## The 2007 IUCN Red List of Threatened Species™

The 2007 update of the IUCN Red List of Threatened Species™ showed that there are now 41,415 species on the IUCN Red List and 16,306 of them are threatened with extinction, up from 16,118 last year. The total number of extinct species has reached 785 and a further 65 are only found in captivity or in cultivation. One in four mammals, one in eight birds, one-third of all amphibians and 70% of the world's assessed plants on the 2007 IUCN Red List are in jeopardy. Thanks to the many SSC Specialist group members who played a critical role in carrying out these assessments and also contributed material for the successful Red List launches in Washington and Paris.

The main issues highlighted in the 2007 IUCN Red List update:

### The decline of the great apes

A reassessment of our closest relatives, the great apes, has revealed a grim picture. The Western Gorilla (*Gorilla gorilla*) has moved from Endangered to Critically Endangered, after the discovery that the main subspecies, the Western Lowland Gorilla (*Gorilla gorilla gorilla*), has been decimated by the commercial bushmeat trade and the Ebola virus. Their population has declined by more than 60% over the last 20–25 years, with about one third of the total population found in protected areas killed by the Ebola virus over the last 15 years.

The Sumatran Orangutan (*Pongo abelii*) remains in the Critically Endangered category and the Bornean Orangutan (*Pongo pygmaeus*) in the Endangered category. Both are threatened by habitat loss due to illegal and legal logging and forest clearance for palm oil plantations. In Borneo, the area planted with oil palms increased from 2,000 km<sup>2</sup> to 27,000 km<sup>2</sup> between 1984 and 2003, leaving just 86,000 km<sup>2</sup> of habitat available to the species throughout the island.

#### What?

##### Congress theme:

A diverse and sustainable world

##### Congress streams:

- A new climate for change
- Healthy environments, healthy people
- Safeguarding the diversity of life

#### Where?

Barcelona Convention Centre, Barcelona

#### Who?

7,000 attendees, IUCN, Commissions, members, partners, public

#### When?

Congress Forum October 6–9  
Members' Assembly October 10–14

#### Website:

<http://www.iucn.org/congress/2008/>





## First appearance of corals on the IUCN Red List

Corals have been assessed and added to the IUCN Red List for the very first time. Ten Galápagos species have entered the list, with two in the Critically Endangered category and one in the Vulnerable category. Wellington's Solitary Coral (*Rhizopsammia wellingtoni*) has been listed as Critically Endangered (Possibly Extinct). The main threats to these species are the effects of El Niño and climate change.

In addition, 74 seaweeds have been added to the IUCN Red List from the Galápagos Islands. Ten species are listed as Critically Endangered, with six of those highlighted as Possibly Extinct. The cold water species are threatened by climate change and the rise in sea temperature that characterizes El Niño. The seaweeds are also indirectly affected by overfishing, which removes predators from the food chain, resulting in an increase of sea urchins and other herbivores that overgraze these algae.

## Yangtze River Dolphin listed as Critically Endangered (Possibly Extinct)

After an intensive, but fruitless, search for the Yangtze River Dolphin, or Baiji, (*Lipotes vexillifer*) last November and December, it has been listed as Critically Endangered (Possibly Extinct). The dolphin has not been placed in a higher category as further surveys are needed before it can be definitively classified as Extinct. A possible sighting reported in late August 2007 is currently being investigated by Chinese scientists. The main threats to the species include fishing, river traffic, pollution and degradation of habitat.

India and Nepal's crocodile, the Gharial (*Gavialis gangeticus*) is also facing threats from habitat degradation and has moved from Endangered to Critically Endangered. Its population has recently declined by 58%, from 436 breeding adults in 1997 to just 182 in 2006. Dams, irrigation projects, sand mining and artificial embankments have all encroached on its habitat, reducing its domain to 2% of its former range.

## Vulture crisis

This year the total number of birds on the IUCN Red List is 9,956 with 1,217 listed as threatened. Vultures in Africa and Asia have declined, with five species reclassified on the IUCN Red List. In Asia, the Red-headed Vulture (*Sarcogyps calvus*) moved from Near Threatened to Critically Endangered while the Egyptian Vulture (*Neophron percnopterus*) moved from Least Concern to Endangered. The rapid decline in the birds over the last eight years has been driven by the drug diclofenac, used to treat livestock.

In Africa, three species of vulture have been reclassified, including the White-headed Vulture (*Trigonoceps occipitalis*), which moved from Least Concern to Vulnerable, the White-backed Vulture

(*Gyps africanus*) and Rüppell's Griffon (*Gyps rueppellii*), both moved from Least Concern to Near Threatened. The birds' decline has been due to a lack of food, with a reduction in wild grazing mammals, habitat loss and collision with power lines. They have also been poisoned by carcasses deliberately laced with insecticide. The bait is intended to kill livestock predators, such as hyaenas, jackals and big cats, but it also kills vultures.

## North American reptiles added to IUCN Red List

After a major assessment of Mexican and North American reptiles 723 were added to the IUCN Red List, taking the total to 738 reptiles listed for this region. Of these, 90 are threatened with extinction. Two Mexican freshwater turtles, the Cuatro Ciénegas Slider (*Trachemys taylori*) and the Ornate Slider (*Trachemys ornata*), are listed as Endangered and Vulnerable respectively. Both face threats from habitat loss. Mexico's Santa Catalina Island Rattlesnake (*Crotalus catalinensis*) has also been added to the list as Critically Endangered, after being persecuted by illegal collectors.

## Plants in peril

There are now 12,043 plants on the IUCN Red List with 8,447 listed as threatened. The Woolly-stalked Begonia (*Begonia eiromischa*) is the only species to have been declared extinct this year. This Malaysian herb is only known from collections made in 1886 and 1898 on Penang Island. Extensive searches of nearby forests have failed to reveal any specimens in the last 100 years.

The Wild Apricot (*Armeniaca vulgaris*) from central Asia, has been assessed and added to the IUCN Red List for the first time, classified as Endangered. The species is a direct ancestor of plants that are widely cultivated in many countries around the world, but its population is dwindling as it loses habitat to tourist developments and is exploited for wood, food and genetic material.

## Banggai Cardinalfish heavily exploited by aquarium trade

Overfishing continues to put pressure on many fish species, as does demand from the aquarium trade. The Banggai Cardinalfish (*Pterapogon kauderni*), which is highly prized in the aquarium industry, is entering the IUCN Red List for the first time in the Endangered category. The fish which is only found in the Banggai Archipelago near Sulawesi, Indonesia, has been heavily exploited, with approximately 900,000 extracted every year. Conservationists are calling for the fish to be reared in captivity for the aquarium trade so the wild populations can be left to recover.

These highlights from the 2007 IUCN Red List are merely a few examples of the rapid rate of biodiversity loss around the world. The disappearance of species has a direct impact on people's lives. Declining numbers of freshwater



fish, for example, deprive rural poor communities not only of their major source of food, but of their livelihoods as well.

### Species loss is our loss

Conservation action is slowing down biodiversity loss in some cases, but there are still many species that need more attention from conservationists. This year, only one species has moved to a lower category of threat. The Mauritius Echo Parakeet (*Psittacula eques*), which was one of the world's rarest parrots 15 years ago, has moved from Critically Endangered to Endangered. The improvement is a result of successful conservation action, including close monitoring of nesting sites and supplementary feeding combined with a captive breeding and release programme.

#### Full release:

[http://www.iucn.org/en/news/archive/2007/09/12\\_pr\\_redlist.htm](http://www.iucn.org/en/news/archive/2007/09/12_pr_redlist.htm)

## Mediterranean Sea: most dangerous place on Earth for sharks and rays

The first complete IUCN Red List assessment of the status of all Mediterranean sharks and rays has revealed that 42% of the species are threatened with extinction. Overfishing, including by-catch

(non-target species caught incidentally), is the main cause of decline according to the research. The report, released by the IUCN Shark Specialist Group and the IUCN Centre for Mediterranean Cooperation, shows that the region has the highest percentage of threatened sharks and rays in the world. Participants found that 30 species are threatened with extinction, of which 13 are classified at the highest threat level of Critically Endangered, eight as Endangered and nine as Vulnerable. Another 13 species were assessed as Near Threatened, while a lack of information led to 18 species being classified as Data Deficient. Only 10 species are considered to be of Least Concern.

#### Full story:

[http://www.iucn.org/en/news/archive/2007/11/16\\_pr\\_sharks.htm](http://www.iucn.org/en/news/archive/2007/11/16_pr_sharks.htm)

## Sink or swim: over one-in-three freshwater fish species in Europe threatened with extinction

The first ever assessment of European freshwater fishes indicates astonishing species diversity but also the devastating impact of over 100 years of development and management of freshwater systems and fishes. The research is published in the new book Handbook of European Freshwater Fishes, in collaboration with the World Conservation Union (IUCN). It shows that 200 of the 522 (38%) European freshwater fish species are threatened with extinction and 12 are already extinct, using the IUCN Red List of Threatened Species™ categories and criteria. This is a much higher level of threat than is facing either Europe's birds or mammals.

The main threats behind the high level of extinction risk stem from the development and population growth in Europe over the past 100 years. The most serious single threat is water abstraction, particularly in the dry Mediterranean areas, which has led to some rivers drying up in the summer months which is becoming more acute with the impacts of climatic changes.

#### Full story:

[http://www.iucn.org/en/news/archive/2007/11/1\\_pr\\_fish.htm](http://www.iucn.org/en/news/archive/2007/11/1_pr_fish.htm)



Giant devil ray, *Mobula mobular*

## Primates in peril

Mankind's closest living relatives – the world's apes, monkeys, lemurs and other primates – are under unprecedented threat from destruction of tropical forests, illegal wildlife trade and commercial bushmeat hunting, with 29% of all species in danger of going extinct, according to a new report by the Primate Specialist Group of IUCN's Species Survival Commission (SSC) and the International Primatological Society (IPS), in collaboration with Conservation International (CI). The report compiled by 60 experts from 21 countries warns that failure to respond to the mounting threats now exacerbated by climate change will bring the first primate extinctions in more than a century. Overall, 114 of the world's 394 primate species are classified as threatened with extinction on the IUCN Red List.

### Full story:

[http://www.iucn.org/en/news/archive/2007/10/24\\_delacour\\_langur.htm](http://www.iucn.org/en/news/archive/2007/10/24_delacour_langur.htm)

## Six out of eight bear species threatened with extinction

Six out of the world's eight species of bears are threatened with extinction, according to recent assessments by the IUCN Bear and Polar Bear Specialist Groups. Asia and South America are revealed as the areas most in need of urgent conservation action. The world's smallest species of bear, the sun bear (*Helarctos malayanus*), has been classed as Vulnerable, while the giant panda (*Ailuropoda melanoleuca*) remains in the Endangered category on the IUCN Red List of Threatened Species. Rob Steinmetz, Co-Chair of the IUCN Bear Specialist Group's sun bear expert team, said: "Although we still have lot to learn about the biology and ecology of this species, we are quite certain that it is in trouble. We estimate that sun bears have declined by at least 30% over the past 30 years (three bear generations), and continue to decline at this rate.

### Full story:

[http://www.iucn.org/en/news/archive/2007/11/12\\_pr\\_bear.htm](http://www.iucn.org/en/news/archive/2007/11/12_pr_bear.htm)

## World's leading conservationists join together to name 2008 "The Year of the Frog"

From one-third to one-half of the planet's 6,000 amphibian species – frogs and toads, salamanders and newts, and caecilians, which have thrived for 360 million years – are in danger of extinction. To mitigate this crisis, the world's leading

conservationists have joined together to form the Amphibian Ark, naming 2008 "The Year of the Frog", in hopes of raising both awareness and the critical funding needed to address the crisis. The Amphibian Ark (AArk) will develop, promote, and guide short term captive management of threatened amphibians, making possible the long-term survival of species for which adequate protection in the wild is not currently possible.

### Full story:

[http://www.iucn.org/themes/ssc/news/2007\\_articles/Amphibian%20Ark%20Story.htm](http://www.iucn.org/themes/ssc/news/2007_articles/Amphibian%20Ark%20Story.htm)

## Fishing out our oceans: the list of threatened marine species continues to grow

As the number of marine species assessments increases, so does the number of species in danger. The 2007 IUCN Red List of Threatened Species™ shows that excessive and destructive fishing activities play a primary role in oceans biodiversity loss. Out of the 41,415 species on the IUCN Red List, 1,530 use the marine environment. Out of these, about 30% (416) are at risk and 80 are threatened with extinction. While some 240 have been newly added to or reassessed for the 2007 Red List, 71% are in jeopardy, with 31 species facing high risks of extinction.

### Full story:

[http://www.iucn.org/themes/marine/news/12\\_pr\\_marine\\_redlist.htm](http://www.iucn.org/themes/marine/news/12_pr_marine_redlist.htm)

## 2007 Behler Turtle Conservation Award announced

The IUCN Tortoise and Freshwater Turtle Specialist Group and IUCN Turtle Survival Alliance in 2006 established the John Behler Turtle Conservation Award, a major annual award to honour leadership and excellence in the field of turtle and tortoise conservation. The award honours John Behler, previous Chair of the IUCN Tortoise and Freshwater Turtle Specialist Group and Curator of Herpetology at the Bronx Zoo, Wildlife Conservation Society, who passed away in 2006.

### Full story:

[http://www.iucn.org/themes/ssc/news/2007\\_articles/turtle\\_award.htm](http://www.iucn.org/themes/ssc/news/2007_articles/turtle_award.htm)

## Tribute to Professor Zdzisław Pucek, Chair of the Bison Specialist Group 1984–99

On 13 September 2007 Professor Zdzisław Pucek passed away. He was an outstanding scientist and great intercessor of European bison conservation. For more than 50 years he worked in the Mammal Research Institute and since 1963 as its director. The subjects of his research were various mammal species including the European bison. He inspired a number of scientists to start working with this wonderful mammalian species. He was the author of important books and hundreds of papers about mammals.

In 1984, the IUCN established the Bison Specialist Group (BSG), and Professor Pucek was appointed as the Chair of this important international body. During the next 15 years, the BSG worked on European as well as American bison until the group split into a separate one for each species. The major goal of Professor Pucek was coordination of activities of people, organizations and countries focused on ensuring the safe future for the species *Bison bonasus*. He also persuaded colleagues from Canada and United States to intensify their work towards the future of American bison. In the late eighties, Professor Pucek prepared the first draft of the Polish strategy for European bison which was very useful in subsequent drafts of the document. Thanks to his personal commitment, an important workshop focusing on the threats to European bison was organized in 1995 at Miedzyzdroje. Under the Professor's leadership, the World Action Plan for European bison was prepared and published in 2004. Professor Pucek was the rudder and to great degree the engine for all "bison people" not only in Poland but in the whole of Europe.



Professor Zdzisław Pucek

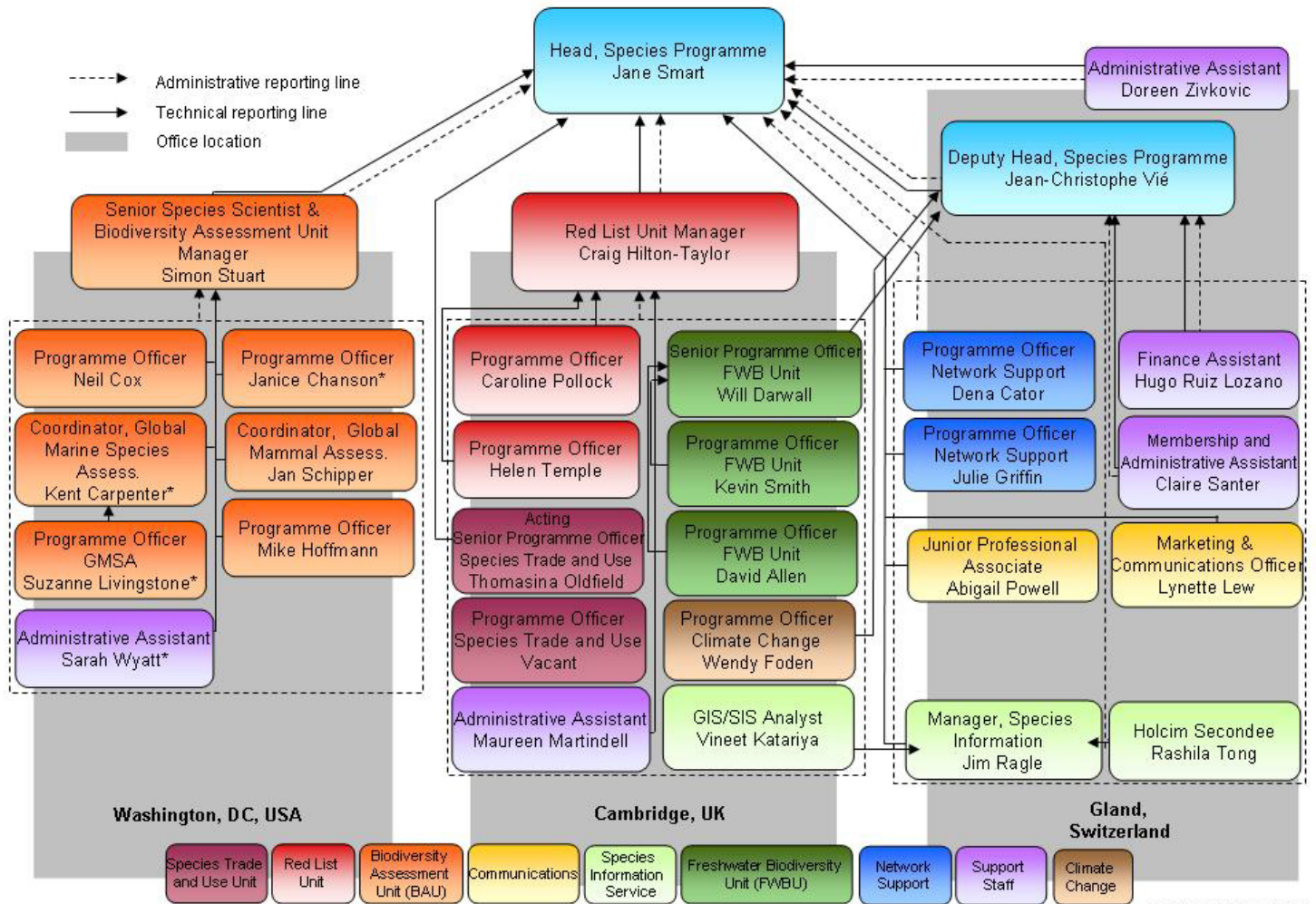
In 2004, Białowieża National Park honoured Professor Pucek with a medal "European Bison Friend". I met Professor Pucek in the beginning of the 1980s, thanks to several coincidences. At that time Professor Pucek was seriously worried about European bison genetics, and was looking for a person who could take care of the genetic analysis of pedigree data, so I did start. I visited Białowieża many times and spent hours talking with the Professor. Those long afternoon and evening discussions, questions, resulting interpretations were very important and helpful to me. Professor Pucek offered me an infinite amount of time, patience and support. The most hectic time was during the preparation of the Species Action Plan. All details in the text, every interpretation, every information were carefully discussed, because the Professor knew how important this document would be for all people involved in bison conservation. I will miss those long talks at Białowieża with Professor Pucek, but I am sure that his work will be continued.

Wanda Olech-Piasecka



# IUCN Species Programme Update

## IUCN Species Programme Structure



\*Not employed by IUCN, but de facto members of the Species Programme

Last updated 21.09.2007

## Biodiversity Assessment Unit

### Global Mammal Assessment (GMA)

The University of Virginia (UVA) was unable to continue its support for the Global Mammal Assessment, and withdrew at the beginning of July. As a result, there have been many staff changes. To address the lost capacity, Species Programme staff have been assigned from other duties and support in the form of people “on loan” to the project has been generously offered from the Instituto di Ecologia Applicata in Rome, and the Centre for Population Biology of Imperial College, London. The agreed completion date for all the GMA data is now 30 June 2008.

### Global Reptile Assessment (GRA)

The implementation of the GRA is being slowed down considerably as capacity has been transferred to the GMA. The main focus of the work was on the completion of the data on Mexico and North America. Workshops are taking place in Caucasus, West Asia, Melanesia, the former Soviet Union, South Africa and the Andean countries. However, it will not be possible to bring the work in any of these regions to completion until after the completion of the GMA.

### Global Amphibian Assessment (GAA)

No significant update was made to the GAA in 2007. The GAA book, *Threatened Amphibians of the World*, is now with the typesetters, and publication is now expected in early 2008. There are now over 300 species to be added to the GAA in the 2008 update, and many other species requiring amendments and changes.

### Plant Assessments

The GEF Plants Project

The six national country partners held workshops and compiled baseline reports of the status of plants, protected areas, important plant areas and other aspects of the political context that would affect plant conservation. The project will finish by compiling all of these reports into a project brief that will be useful in future fund-raising efforts for plant conservation.

Other Plant Assessments

Other priority assessments include plant assessments which are of value to people – a Global ‘Plants for People’ Assessment. The reassessment of all the cycads is almost complete and the results are now expected to be included in the 2008 IUCN Red List.

RapidList

This new tool has been demonstrated at the Convention on Biological Diversity, Subsidiary Body on Scientific, Technical and Technological Advice (SBSTTA), Paris, in July and at the Vth Planta

Europa conference held in Romania, September. Excellent feedback has been received, and is being incorporated into the design. [www.iucnsis.org](http://www.iucnsis.org)

### Global Marine Species Assessment

The GMSA has been advancing fast. The 2007 IUCN Red List has included new data on endemic corals and macro-algae from the Galapagos where there have been serious declines related to over-fishing and climate change. Assessments for groupers, sharks, rays, coastal fishes of the Eastern Tropical Pacific, regional marine fish workshop for the Mediterranean, Caribbean reef-building corals, mangroves, seagrasses and macro-algae are all expected to be finalized for inclusion in the 2008 IUCN Red List.

## Freshwater Biodiversity Assessment Unit

The current focus of the freshwater assessments is Africa, Europe and North America (Natureserve) with priority taxa for the assessment being fish, molluscs, dragonflies, crabs and aquatic plants.

### Africa Freshwater Assessment

The Africa Freshwater Assessment which has the European Commission as the primary donor combines regional biodiversity assessments with four follow-up demonstration sites for application of data sets at the site level. This includes: Southern and Western Africa assessments; Northern and Central Africa assessments; NE Africa assessment; and the Rusizi and Okavango demonstration sites.

### European Freshwater Fish Assessment

The European Freshwater Fish Assessment which had the North of England Zoological Society as a primary donor has been completed with the results published in October 2007 in the “Handbook of European Freshwater Fishes” by Freyhoff and Kottelat.

### Sampled Red List Index

The Freshwater species input to the Sampled Red List Index includes approximately 1,750 species of Freshwater Fish and 1,400 species of Odonates and molluscs with substantial input from the Freshwater Fish Specialist Group, the Otter Specialist Group, Mollusc Specialist Group and the IUCN Species Programme. A global assessment of 1,200 freshwater crabs is also being completed.

### HighArcs Project

In October the European Commission agreed to fund a large project led by the University of Essex (UK) focused on sustainable use of freshwater resources in the upper catchment regions of Asia. The FBU is a partner in this project with responsibility for conducting a baseline assessment of freshwater

biodiversity throughout the region. The project is expected to start sometime in 2008. This work will enable us to expand the coverage of the Freshwater global assessment to another region.

### Darwin Initiative project

The Darwin Initiative project (strengthening pro-poor wetland conservation using integrated biodiversity and livelihood assessment) is progressing well and is due to be completed end of September 2008. The key outputs will include a toolkit on integrated assessment of wetland ecosystems (biodiversity, economics and livelihoods) and an integrated assessment of the Rufiji (Tanzania) and Stung Treng (Cambodia) wetlands.

### Key Biodiversity Areas

Identification and Gap analysis of Key Biodiversity Areas: Targets for Comprehensive Protected Area Systems" was published in the IUCN Best Practice Protected Area Guidelines Series No. 15 with input from the Freshwater Biodiversity Unit. A presentation on important river catchments for freshwater fishes was given at the Society for Conservation Biology in Port Elizabeth, South Africa.

### Invertebrates

Invertebrate assessments are still ongoing in Africa through the Freshwater Biodiversity Unit. Invertebrate representation on the IUCN Red List will significantly increase through the Sampled Red List Index: the assessments of dragonflies, corals and freshwater crabs are completed. Butterfly and mollusc assessments are starting.

## Red List Unit

### Red List Update

For the 2007 IUCN Red List 1,705 assessments were processed, 396 taxa were reassessed and 1,309 taxa were added for the first time this year. Thirteen species changed category based on genuine deterioration (12 species) or improvement (one species). Some of the main groups assessed for this year were a subset of the mammals (including most of the Great Apes), a subset of the birds (including status changes for 38 species), Mexican and North American reptiles, Southern African freshwater fish, molluscs, crabs and Odonata, Groupers and Wrasse, Conifers (many of the previously Data Deficient conifers have now been moved into other categories), Central Asian plants and the Galápagos corals and seaweeds.

The Red List web site ([www.iucnredlist.org](http://www.iucnredlist.org)) underwent some major design changes this year, both to bring it more into line with the IUCN identity and to improve functionality. Throughout 2007 and up to the 2008 Red List launch, IUCN will continue to implement improvements to the

website, drawing upon much of the work within SIS of improving the management of information on species. Species distribution spatial data is now being managed in a much more proactive, organized method, which now allows IUCN to move forward with plans to provide an interactive GIS viewer on the IUCN website. This will allow website visitors to explore the species information geographically through an interactive map rather than filtering solely on classification scheme data.

Current plans are to have this functionality in-place for the 2008 Red List launch, dramatically improving the usability of the site and possibly attracting new visitors to the site.

### Workshops

Since March 2007, the Red List Unit staff have been involved in numerous meetings and workshops including Biodiversity Assessment Sub-Committee (BASC) in Virginia, United States (April), Shark assessment workshop in Batangas, Philippines (July), Red List Training Workshop for the Suluwesi Seascape region in Batangas, Philippines (July), Coral Assessment workshop in Batangas, Philippines (July), Red List Training workshop for RBG Kew, Conservation Techniques course in Kew, United Kingdom (July) and the Cat Assessment Workshop in Oxford, United Kingdom (September).

## Species Trade and Use

The 14th Conference of the Parties (COP) to CITES took place in June 2007 and most of the work leading up to the COP was in preparation for this meeting. The Species Trade and Use Unit (STUU), with TRAFFIC, carried out the Analyses of proposals to amend the CITES appendices. The aim is to provide as objective an assessment as possible of each amendment proposal against the requirements of the Convention as laid out in the listing criteria in order that the decisions of the Parties can be based on the best available scientific and technical information.

IUCN's presence at the COP ensures that up to date information from IUCN's Network is fed into discussions, even if relevant experts cannot participate at the meeting themselves. The work of IUCN SSC was strongly commended.

STUU with TRAFFIC, have been contracted by the CITES Secretariat to carry out the CITES Review of Significant Trade for selected species. Trade in 23 species is currently being reviewed with input from SSC and TRAFFIC's network. The results of the reviews will be submitted to the CITES Secretariat in November and presented to the Plants and Animal Committees in April 2008.

Funding has been raised through the University of Cambridge to continue work on the Sustainable Use Project, which aims to identify factors that contribute to sustainable utilization of species



through a quantitative analysis of case studies. Case studies from Asia have been collected and combined with those collected in the first Asia module for an analysis of factors influencing sustainable use in Asia. A report on the findings of 106 case studies will be completed in October. Further funding is being sought for case study collection in Latin America and Africa.

## Species Information Service

### SIS Version 2 work underway

In early 2008, there will be a beta release of the new online and offline system for use by Red List assessors. The system will contain core features for inputting Red List assessment information, an Expert System for determining the Red List Category, and commenting/discussion features for capturing assessment reviews. The beta release will also contain a feedback mechanism for capturing comments on the application itself which will help guide future modifications and enhancements. This Red List assessment functionality will replace the current Data Entry Module (DEM).

### GIS data management

Much work has been done within the realm of SIS to improve the spatial data management within the Species Programme/SSC/Red List Unit. Vineet Katariya, SIS/GIS Analyst, works regularly with Specialist Group members and other species assessors to improve and standardize the way in which they create species distribution data and submit this data to IUCN for use on the Red List.

To support the above activities, IUCN Species Programme has received an in-kind contribution of spatial data management software from ESRI (worth >100,000 US\$). This software will facilitate the setup and management of central GIS systems and will also support Red List assessors abilities to create quality spatial distribution data.

### IUCN Red List Corporate Support Group

Currently, six corporate partners have committed to the IUCN Red List Corporate Support Group, which is a joint initiative of World Business Council for Sustainable Development and IUCN. They are Holcim, Oracle, EDF, Statoil, Chevron and Shell.

The IUCN Red List Corporate Support Group funds will be used to support the ongoing improvement of our data collection and evaluation tools and Red List website enhancements that make the information more accessible to corporate decision-makers.

## Network Support

Dena Cator and Julie Griffin started in July 2007 in the role of Network Support for the Species Survival Commission network. They have assisted in completing the Specialist Group chair consultations, assisted with the Red List launch, contributed to programme writing, represented Species programme at key meetings and are following through on associated projects. Some of their future responsibilities include fund-raising, assisting with communications, managing and supporting various projects with Specialist Groups. They are keen to hear of further ideas to improve support to the SSC network.

## Communications

The 2007 IUCN Red List of Threatened Species launch was held on Wednesday 12 September with press conferences held in Washington and Paris (the Natural History Museum, Paris and the Smithsonian National Zoo Park, Washington D.C.) The media advisory and press release generated extensive interest in the launch this year with the media, communications and the Red List offices being inundated with calls for interviews and information prior to and on the launch date. The IUCN Red List of Threatened Species brand together with its key message made headline news around the world on 12 and 13 September across all mediums including TV, print, newspapers, radio and the internet. High-rating programmes such as BBC and Skynews featured the story prominently. In recent months, media releases have included news stories on the Mediterranean sharks and rays, the world's bear species, primates and European freshwater fishes, with all receiving strong global media coverage.

## Climate Change

The implementation of the "Species Response to Climate Change" project has now started with the recruitment of Wendy Foden, based in Cambridge. This project is funded by the MacArthur Foundation with additional funding from Indianapolis Zoo. The first workshop looked at biological traits that make a species vulnerable to climate change and traits that make species susceptible to various other threats.

# End Notes

## Publications

### Best Practice Guidelines for Reducing the Impact of Commercial Logging on Great Apes in Western Equatorial Africa – Occasional Paper of the IUCN Species Survival Commission No. 34

A significant number of remaining chimpanzee and gorilla populations in Western Equatorial Africa reside in active timber concessions, many of which are within areas identified as being exceptional for the conservation of these apes. Habitat alteration and human disturbance can result in changes to the dietary regimes, behaviour, susceptibility to disease, abundance and distribution of great apes, which may affect their short and long-term prospects for survival. The conservation outlook of these endangered apes will improve significantly if forestry companies are prepared to make a few changes to management policies in logging concessions. These guidelines outline specific recommendations for reducing the impact of commercial logging on wild apes, many of which can be implemented within the framework of sustainable, reduced-impact logging at little or no additional cost (Table 1). We believe that advantages will also accrue for logging companies which rapidly implement these measures, allowing them to be recognized as “ape-friendly” timber producers.

#### Full report:

<http://www.iucn.org/dbtw-wpd/edocs/SSC-OP-034.pdf>

### Best Practice Guidelines for the Re-introduction of Great Apes – Occasional Paper of the IUCN Species Survival Commission No. 35

Re-introduction is one tool for conserving great apes and their natural habitats. These guidelines adapt other IUCN documents to pertain specifically to the re-introduction of great apes. The adaptation is justified by alarming declines in great ape populations and the destruction of their habitats, and because great apes are biologically and cognitively specialized and advanced, and generate particular animal welfare concerns.

#### Full report:

<http://www.iucn.org/dbtw-wpd/edocs/SSC-OP-035.pdf>

### The Nature of Energy – latest issue of *World Conservation* available now

The latest issue of IUCN's magazine *World Conservation* looks at energy and its role in sustainable development. How can we achieve energy sustainability, providing energy for the millions of people who still lack access to it, while minimizing environmental impacts and protecting biodiversity?

*World Conservation* discusses environmental issues from a wide range of perspectives in an informative and engaging way. Read the magazine online or download the complete issue at [www.iucn.org/worldconservation](http://www.iucn.org/worldconservation). A free printed copy can be ordered by writing to [worldconservation@iucn.org](mailto:worldconservation@iucn.org) giving your name and full address.

### “100 of the worst invasive alien species” booklet available now in French

The Global Invasive Species Programme (GISP) have just published “100 of the worst invasive alien species” in French.

For a copy of the booklet, please contact the IUCN Library at Headquarters or Maj De Poorter [m.depoorter@auckland.ac.nz](mailto:m.depoorter@auckland.ac.nz)

## Staff Changes

**Dr Rosamunde Almond** has been appointed at UNEP-WCMC as the new Programme Officer for the IUCN SSC SUSG Sustainable Use Indicators project to develop indicators of sustainable use. In her new position, she will develop global indicators of sustainable use for the 2010 Biodiversity Indicators Partnership's (BIP) work on assessing progress towards the CBD's 2010 target. Roz is a primatologist who has worked on the Sustainable Use of Species Project with Thomasina Oldfield, IUCN Species Programme. She is based at UNEP-WCMC in Cambridge, and will work with members of the IUCN SSC and SUSG as well as experts from a wide range of other organizations to develop two of the indicators of sustainable use for the 2010 BIP project. The first of these will bring together information on how use impacts populations of wild animals and plants. One way to approach this will be to take a sample of resources harvested from the wild and look at how their use and the status of wild populations is changing over time. Email: [rosamunde.almond@unep-wcmc.org](mailto:rosamunde.almond@unep-wcmc.org).

**Wendy Foden** joined the Species Programme in Cambridge as Programme Officer, Climate Change in September 2007. Her main task will be to

implement a project looking at biological traits that make species vulnerable to climate change and identify those which will be particularly threatened and the regions of the world where biodiversity will be most at risk. Wendy is already very familiar with this topic as well as with the Red List process. She completed her MSc in Conservation Biology in Cape Town. Until recently, Wendy was the Chair of the SSC Southern African Plant Specialist Group. Email [wendy.foden@iucn.org](mailto:wendy.foden@iucn.org).

**Claire Santer** was appointed as SSC Membership and Administrative Assistant in the Species Programme in September 2007. This post interacts with Species Programme staff and SSC network members, providing general administrative support and assistance with the maintenance of the contact details of the SSC network on the Knowledge Network. Claire replaces Nathalie Velasco and has recently been helping us with on line registration of SSC members, a task which has taken a great deal of effort. Claire has a great deal of experience in environmental issues having developed a long distance walking route in Scotland and developed tourist activities on canals, amongst others. Email [claire.santer@iucn.org](mailto:claire.santer@iucn.org).

**Jan Schipper** officially joined the Biological Assessment Unit on 1 July, moving across from the University of Virginia. Jan brings extensive experience and knowledge of Latin America, in particular over 15 years of field experience in the native fauna and flora. Email: [jan.schipper@iucn.org](mailto:jan.schipper@iucn.org)

**Dr Chris Thouless** a British citizen, started as the SSC Senior Commission Officer on 1 July 2007. Chris lives in Kenya with his family and holds a PhD in Behavioural Ecology from Cambridge University. Chris has years of experience working for governments and the private sector in Africa and Asia and is a specialist in public-private partnerships, community based natural resource management, tourism development, management planning for protected areas, and wildlife research and monitoring. Chris has also participated in or served as project leader on a number of large internationally funded projects in various countries including Botswana, Kenya, Cameroon, Namibia, Nigeria, Ethiopia, Sri Lanka and Nepal. Email: [thouless@africaonline.co.ke](mailto:thouless@africaonline.co.ke)

**Rashila Tong** joined IUCN in September 2007 as a Seconded from Holcim in the Species Programme. Working closely with the Business and Biodiversity Programme, Rashila will help implement the joint IUCN – Holcim work programme. Rashila trained as an engineer and then gained her Business School MBA from the University of Michigan (Sustainable Development). She has since devoted her career to environmental consultancy and the corporate sector, joining Holcim five years ago. She currently holds the position of Senior Environmental Specialist. Email: [TongR@iucn.org](mailto:TongR@iucn.org)





## Photo Credits

- Cover The showy *Etlingera elatior* is a medicinal plant found in the Apo Kayan region of East Kalimantan, Indonesian Borneo. It is used by the Kenyah, an indigenous people of Borneo, in numerous remedies  
**by Dr Danna J. Leaman**
- Page 6 Australian brush turkey, *Alectura lathami*  
**by David Midgley**
- Page 7 Orange-footed megapode, *Megapodius reinwardt*  
**by David Cook**
- Page 10 Nets  
**by Anoop Negi**
- Page 12 Alligator hatchling, *Alligator mississippiensis*  
**by Dr Ruth Elsey**
- Page 12 Close-up of a wild alligator  
**by Dr Ruth Elsey**
- Page 15 Villagers harvesting wild medicinal plants in Sa Pa Province, northern Vietnam  
**by Do Thi Thu Ha**
- Page 16 Giant eland, *Taurotragus derbianus*, females on a hunting block in the northern Central African Republic with one of them collared  
**by IGF-PHCH**
- Page 17 European bison, *Bison bonasus*  
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- Page 20 Sustainable use of vicuñas has many benefits but remains challenging  
**by Garth Burgess**
- Page 21 Napoleon wrasse, *Cheilinus undulates*, juveniles waiting to be selected for the dinner plate  
**by Yvonne Sadovy**
- Page 25 Giant devil ray, *Mobula mobular*  
**by Wurtz-artescienza s.a.s**
- Page 27 Professor Zdzisław Pucek  
**by Tom Pucek**

Contributions to *Species 49* should be sent to Team Species by 30 April 2008.

Email: [species@iucn.org](mailto:species@iucn.org)

**For address changes, notify:**

SSC Membership

Species Programme, IUCN

Rue Mauverney 28

CH-1196 Gland, Switzerland

Phone: +44 22 999 0268

Fax: +44 22 999 0015

Email: [sscmembership@iucn.org](mailto:sscmembership@iucn.org)

Hard copies of *Species* are available only upon request.

SSC members are encouraged to receive the SSC monthly electronic news bulletin. Please contact Team Species at [species@iucn.org](mailto:species@iucn.org) for more information. *Species* is available electronically at: [www.iucn.org/themes/ssc/](http://www.iucn.org/themes/ssc/)

Rue Mauverney 28  
1196 Gland  
Switzerland

Tel: +44 22 999 0000  
Fax: + 44 22 999 0002  
[species@iucn.org](mailto:species@iucn.org)

[www.iucn.org](http://www.iucn.org)