



Species

Newsletter of the Species Survival Commission

Number 49, January–December 2008

Special Quadrennium Edition



International Union for Conservation of Nature



Species 49

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Species is the newsletter of the Species Survival Commission of IUCN—International Union for Conservation of Nature. 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 - Helen Boulden, Lynette Lew, Julie Griffin, Dena Cator and Carol Poole

Layout - NatureBureau

Cover Photo - The Humpback whale (*Megaptera novaeangliae*) by Kewalo Basin Marine Mammal Laboratory and The Dolphin Institute

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 focusing on the achievements of the Quadrennium

The 2005–2008 IUCN Quadrennium is almost over – and to celebrate our achievements of the past four years, we bring you this Special Edition of Species. This Special Edition is very different from the usual Species and has a number of features that we hope you will enjoy. An “About this Edition” box has been created to explain more about how this Species differs from the norm, but in brief our main aim with this Special Edition is to showcase some of the major achievements of the past Quadrennium from the perspective of both the SSC and the Species Programme, and to look forward into the future.

Early on

Early on in this Quadrennium, both the Species Survival Commission (SSC) and the Species Programme (SP) came under new leadership – and both of us were exceptionally keen to bring about better integration between the Commission and its focal Programme. Dr Jane Smart became the third Head of the IUCN SP (the position of Head was created to reflect a growing role of the Species secretariat) – moving to IUCN Headquarters in Gland, Switzerland from the United Kingdom where she had been the Chief Executive of Plantlife International. Dr Holly Dublin, a longstanding conservation biologist and field practitioner, became the first full-time SSC Chair (a position made possible through sponsorship), and was invited to base her office at the South African National Biodiversity Institute in Cape Town.

Jane's early responsibilities in her new role were challenging, partly due to the fact that the SP (the largest Global Thematic Programme in IUCN in terms of numbers of staff) had operated with a budgetary deficit in the past – something which was no longer to be tolerated by IUCN. With the support of the then Global Programme Director, Jane immediately commissioned an organizational review of the SP, which resulted in a restructured Programme, with a new management tier of senior staff, clearer reporting lines and increased capacity for fundraising amongst other changes. Over the Quadrennium, Jane has made further revisions to the SP's organizational structure, including bringing in new skills, funding mechanisms and strategic planning – in order to develop clearer roles and responsibilities for the Programme and its staff. A

key early priority was the development of tools for conducting species assessments for the IUCN Red List of Threatened Species™ (see below). Having reviewed the progress to that time on the Species Information Service (SIS), it quickly became clear that a new focused approach was needed in order to provide assessors (from SSC, from the IUCN Red List Partnership, and beyond) with simple IT tools for the collection and management of data gathered from the point of observation in the field or workshop all the way through to publication on the IUCN Red List website. A further key challenge was that of network support to the SSC. Having been hampered by an unexpected financial cut for this aspect of our work early in the quadrennium, it was a particular challenge to rebuild the network support role. Now, however, we have two staff – Dena Cator and Julie Griffin – who ably fulfill this role.

Holly's primary tasks in the early part of the Quadrennium were to establish an effective SSC Steering Committee with its various Sub-Committees and Task Forces, and to appoint the Chairs of the many SSC Specialist Groups and Red List Authorities. These appointments proved challenging in a system where little background information was available to an incoming Chair. In essence the Commission had grown organically over the decades and Holly did her best to move towards a more purpose-built structure and composition. This meant taking on board the enormous task of soliciting views, consulting with many individuals, interpreting the findings and recommendations of the Voluntarism Study of 2001 and various external reviews of the SSC, and converting all this into operational changes that would better reflect the needs of both the SSC members and IUCN as its parent institution. This included immediately identifying processes in the SSC that could be improved – both in terms of what the Commission itself wants to achieve and in terms of what IUCN needs from the Commission. The SSC now stands with 119 Chairs and Co-Chairs of the 109 Specialist Groups and Red List Authorities;

Primary tasks were to establish an effective SSC Steering Committee with its various Sub-Committees and Task Forces



more than 7,500 SSC members are registered on the Commission Registration System – a figure which increases regularly. SSC remains the powerhouse of IUCN's six Commissions.

Integrating work at every opportunity

As the Quadrennium progressed, we became more determined that the SSC and the SP not be seen in isolation from each other. At every opportunity, we sought to further integrate the work of the various Species Programme Units, the various SSC Sub-Committees and Task Forces, and the SSC Specialist Groups. Some major achievements in this regard include:

Assessing Conservation Status – The IUCN Red List of Threatened Species™: The heartland of the SSC and SP (and in fact IUCN) is our work on monitoring the status and trends of global biodiversity for the IUCN Red List – a global gold standard. During this Quadrennium and in close collaboration with our Red List Partners (BirdLife International, Conservation International, NatureServe and the Zoological Society of London), many milestones were achieved for this work, including: the completion of the global assessment of mammals; the addition of significant numbers of new assessments for key taxonomic groups (including cycads, marine species such as corals, sharks, rays and chimaeras, and a host of freshwater species); regional assessments (including Europe and the Mediterranean) and country level assessments for plants (including South Africa, Madagascar, and the Eastern Arc); prioritization exercises for speciose taxa (plants and invertebrates) so that assessments can proceed as quickly as possible without placing undue pressure on the SP Red List Unit staff. Ongoing challenges include issues of attribution and recognition for data providers, assessors and evaluators, and undertaking national and regional level IUCN Red Lists.

Strengthening the brand: The IUCN Red List of Threatened Species™ is one of the best known conservation brands in the world and is trusted by governments and NGOs as well as the media. In order to increase awareness of the IUCN Red List, particularly by the general public and corporate sector, it quickly became apparent to Jane that there was a huge opportunity to increase the strength and reach of the brand. We also had requests for labels to demonstrate the threat categories from botanic gardens, zoos, and from people working on book and website projects. With the full support of IUCN Global Communications staff, and new capacity in this area, a new logo for the IUCN Red List plus a range of associated products were developed – including a series of standard symbols for the threat categories. In the next Quadrennium we anticipate

that these will begin to be utilized by the global conservation community.

Developing biodiversity indicators: Related to our assessment work is another of our core competencies: our collaboration with IUCN Members and partners in developing species-based indicators to monitor progress towards achieving the CBD 2010 target on biodiversity. Those under development include the Wild Commodities Index for sustainable use, the food and medicine indicator for ecosystem services and the IUCN Red List Index and Sampled Red List Index. One of the triumphs of the Quadrennium was the adoption of the Red List Index as a measure for the new biodiversity indicator (Proportion of Species Threatened with Extinction) for Millennium Development Goal 7 on environmental sustainability.

Distilling best practice for conservation planning: As conservation scientists, planners and practitioners, we in the SSC/SP know that conservation planning happens at two crucial levels: area or landscape-based planning, and planning for specific species or taxa. This Quadrennium saw important work on both these fronts, demonstrating the complementary nature of the two approaches. The World Commission on Protected Areas (WCPA) joined with the SSC to produce guidelines on systematic conservation planning, bringing together strengths from the two Commissions in landscape-level planning approaches. The SSC's Species Conservation Planning Task Force developed guidelines for the process of species-level strategic planning, the "Overview of Species Conservation Strategic Planning", as well as an extensive, accompanying "how to" manual. Both sets of guidelines will be highlighted at the 2008 IUCN World Conservation Congress in Barcelona and will continue evolving and strengthening afterwards as living documents of best practice based on the deep knowledge and experience of our members in these endeavours. At the site level, the SP has focused its work on areas of importance for freshwater biodiversity as well as Important Plant Areas, while reviewing the various area-based conservation approaches from a corporate perspective, through IUCN's partnership with Holcim.

Advising Multilateral Environmental Agreements (MEAs): One of our most fundamental roles has always been to provide sound scientific information and advice to relevant MEAs, and this Quadrennium saw us being involved actively and continually in all three of our most important policy fora: the Convention on the Trade in Endangered Species of Wild Flora and Fauna (CITES); the Convention on Biological Diversity (CBD) and the Convention on Migratory Species of Wild Animals (CMS). From expert inputs on big cats, turtles and tortoises, antelopes, African and Asian elephants and rhinos, marine turtles, sturgeon, medicinal plants and a host of other species for CITES and CMS to our ongoing advocacy

As the Quadrennium progressed, we became more determined that the SSC and the SP not be seen in isolation from each other



for the Global Strategy for Plant Conservation in CBD, SSC/SP expertise is increasingly called upon and widely recognized by governments and NGOs around the world.

Moderating the “big debates”: Some of the “big debates” which we, the species experts of IUCN, are confronted with on an almost daily basis include: balancing the challenges of making use of species and their products sustainable (including trade); assessing the values of species to human livelihoods in a world where poverty is pervasive; and mitigating human-wildlife conflict at all scales. Many SSC Specialist Groups provide able advice when controversies are encountered, as the needs of humans threaten species. Even communicating our messages regarding the values of species has become more challenging and constantly raises the dilemma posed by intrinsic and other non-consumptive values versus human-use values. As the world’s human population expands its footprint, more and more often we are called upon to advise on human-wildlife conflict, or provide scientific data on the likely impacts of expanding extraction, agriculture or infrastructure developments on species of concern. These “big debates” are likely to increase rapidly in future – and the SSC/SP will be called upon more and more regularly to offer our knowledge and expertise. What is most challenging in terms of putting the messages across, and yet also most valuable in terms of the strength and validity of the debates, is that even within our own ranks there are different views and perspectives. Using this diversity within the SSC/SP to best advantage and ensuring that all points-of-view are considered is one of our most highly-valued characteristics. The ability for all of us (scientists, managers, academics, government officials) to work together towards common goals through open and objective processes is what makes us a unique and powerful force for the conservation of species and IUCN.

Cracking communication challenges: In this age of the internet, mobile telephones, tele/video-conferences and i-pods, it can be confusing to know which communication tools are most suited to our needs as conservation scientists and practitioners. The internet is probably the most incredible communications tool of our time and is used in many ways – but it still poses challenges for many of our members in more remote parts of the world. This Quadrennium we have worked hard to learn which of the many communications tools available are most suitable for the SSC/SP. The new IUCN website platform enables us to begin updating the Species website – our joint SSC/SP pages on the IUCN website. We have also investigated many other internet-based tools for communications, including wikis, blogs and online survey tools – all of which will become more and more useful as we all become more familiar with them. Going back to basics, we undertook a telephone survey with many of our

Specialist Group Chairs in 2007 – proving once again that having a personal chat can sometimes be more meaningful than email or other forms of communication. We were also fortunate to obtain sponsorship for the first-ever meeting (in the Commission’s 59-year history) of the SSC’s Specialist Group Chairs – which took place in the United Arab Emirates in February 2008. One hundred and twenty-three people attended the meeting, including the majority of Specialist Group Chairs and a number of senior IUCN Staff members. This meeting certainly showed us that despite their unwanted carbon footprint, face-to-face meetings are definitely still an important part of communications, as they provide an unparalleled platform for the sharing of vital knowledge, the discussion of common challenges and the sharing of conservation successes. Despite the many challenges we are confident that communications will always be an important part of our service to the Commission.

Funds and fundraising: The bane of most of us who work for not-for-profit or academic institutions, or give time and expertise to volunteer networks, is the lack of resources to support our work – whether it is for important assessment work or conservation action in the field. This Quadrennium has been a successful one in terms of fundraising in many ways, while at the same time an eye-opener to the challenges of fundraising for other equally-important needs. While we initiated a number of innovative fundraising tools such as an online donation button and Google ads on the IUCN Red List website, the issue of funding has also raised some important ethical questions: Does advertising on websites or newsletters detract from our scientific reputation? Should SSC members be paid for their technical advice by companies building large infrastructure development that may impact negatively on species? These are important questions with answers from as many perspectives as we have members. Nonetheless, by working together we raised significant funds for major projects – such as the MacArthur Foundation funded work on species vulnerability to climate change and the MAVA Foundation funded work to improve the IUCN Red List website, training and database tools. Although we found a new donor to support the SSC Small Grants Programme, the Sir Peter Scott Fund for Conservation Action – their funds came with provisos and conditions, which at times were hard to meet. Regardless of our successes, at the end of the day, we recognize that many parts of our work and network are constrained due to a lack of resources. Further partnerships and innovative mechanisms are essential if we are to maintain our high standards and productivity into the future.

We have worked hard to learn which communications tools are most suitable for the SSC/SP



Wrapping up and looking to the future

One of the most challenging things about the IUCN operational cycle is that four years is an incredibly short time to achieve lasting conservation outcomes. Almost as soon as one Quadrennium begins, we are forced to look forward to the next. This inherent dilemma has been recognized and addressed by the IUCN Council and will likely lead to changes in the future. In the mean time, we spent this Quadrennium really considering the future of the SSC and SP – our main roles and responsibilities and the operational structures to support these – better ensuring that “form follows function”.

IUCN's “One Programme” approach will continue to be a driving force for us all

In our work on “redesigning for the future”, we undertook some important strategic thinking regarding the SSC/SP and our ability to remain relevant and cutting-edge in the future. Our concerted joint efforts ensured that the SSC/SP's revised *Strategic Plan for Species* (for the 2009–2012 Quadrennium) is well integrated with the vision, goals and thematic priorities of IUCN. In addition, we have already forged stronger and more synergistic partnerships with our “sister” Commissions, the IUCN members, the thematic and regional programmes of IUCN and relevant institutions and individuals outside IUCN. Keeping a balance between the needs of the SSC Network, with its unique characteristics and inherent strengths, while aligning better with the needs and direction of IUCN's “One Programme” approach for enhanced impact at all levels will continue to be a driving force for us all. We have also looked closely at the relationship between the SSC and the SP, and hope to establish new and effective mechanisms for enhancing our collaboration in a spirit of true partnership in the next intersessional period.

IUCN itself is making some important changes. With its new logo and website, and the fact that it

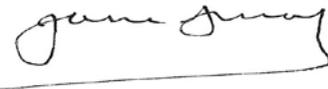
will once again only be referred to as the International Union for Conservation of Nature (not the World Conservation Union), the Union is celebrating its 60th anniversary at the IUCN World Conservation Congress in Barcelona. IUCN as an organization has undergone some detailed thinking this Quadrennium – and the results are now being rolled out. One of the most significant is “A 2020 Vision for IUCN” (<http://cms.iucn.org/about/2020vision/index.cfm>) – which explores IUCN thinking and actions towards greater delivery of the “One Programme” approach for enhanced conservation outcomes. Within the proposed organizational development and change management process, new networks will be formally established to support delivery of the IUCN 2009–2012 Programme core programme area (*Conserving Biodiversity*) and the four thematic programme areas (*A Climate for Change, Naturally Energizing the Future, Managing Ecosystems for Human Wellbeing and Greening the World Economy*). These networks build on the valuable experience gained from Commissions and Members and are designed to optimize the involvement of the Union's three pillars in the delivery of the IUCN Programme.

As we transition from one Quadrennium to the next, we can only say that the past four years have been brilliant. Brilliant in that we have learned so much, brilliant in that the SSC and SP have grown in operational strength and world-wide recognition for our expert contributions to conservation, and brilliant because we have indeed achieved a considerable amount in four short years. It is thanks to the SSC Members and the staff of the Species Programme and SSC Chair's Office that these four years have been such a success. No matter what the next four years bring, we rest assured that SSC/SP will retain its place at the forefront of species conservation thanks to all of you and your boundless contributions.



Holly T. Dublin

Chair – IUCN Species Survival Commission



Jane Smart

Head – IUCN Species Programme



About this Edition

This edition of *Species* has four special features. The aim of these features is to really celebrate where we have come from and where we are headed.

1. As promised in the last edition of *Species*, Special Feature #1 is an article about the **SSC Specialist Group Chairs' Meeting** – one of the major achievements of the 2005–2008 Quadrennium. A full report of the meeting is available online, but we hope that you will enjoy this article and its accompanying photographs.

2. As this edition of *Species* will come out just before the **World Conservation Congress** in Barcelona in October, our Special Feature #2 is all about Congress. The biggest gathering of conservation specialists and practitioners in the world, Congress is an important venue for us in terms of exchanging ideas on the continued loss of biodiversity, and showcasing our work. This feature explains the history of the Congress, its significance and how our *Species* events during the Forum and our *Species* Pavilion celebrate the work of the SSC and the *Species* Programme. To accompany this section there is a special pull-out guide entitled 'Congress and the IUCN SSC/SP at a glance'. This contains a lot of practical information to help you prepare for the Congress in Barcelona and can be found in the centre fold of the newsletter.

3. In our main Special Feature (#3) on **Celebrating the Past and Looking to the Future**, we focus on three of our fundamental strengths: the monitoring and assessment of species conservation status, the analysis of threats, and the design and application of tools to mitigate these threats (conservation action). This "state-pressure-response model" (figure 1) has been adopted in the new *Species* Strategic Plan and is presented in the proposed SSC Mandate for 2009–2012, which will be voted on by the IUCN membership formally at the Congress in Barcelona.

Through this feature we will illustrate how well our SSC work delivers on the state-pressure-response model. We have asked all the SSC Specialist Groups and the units of the *Species* Programme to write short case studies, which illustrate how their work monitors and assesses conservation status of species (state), identifies and studies threats (pressure), and guides action (response), as contributions to the SSC's broad goal that "*The extinction crisis and massive loss of biodiversity are universally adopted as a shared responsibility and addressed by concerted actions throughout the world*".

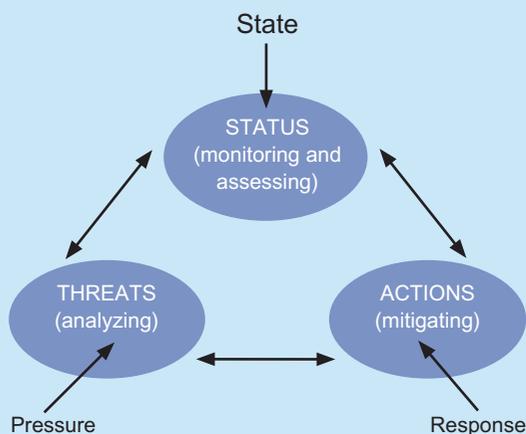


Figure 1. State-Pressure-Response Model.

4. Special Feature #4 takes a look at what has changed in the world of **communications**, and our plans for the future. We will bring you some case studies of how conservation is making use of the multimedia age, and feature some clever new online tools for spreading the conservation message.



Special Features



SSC Specialist Group Chairs' Meeting

The IUCN Species Survival Commission (SSC) has been in existence for nearly 60 years. It has grown to become a vast network of over 7,500 volunteers organized into more than 100 Specialist Groups (SG) and Red List Authorities (RLA). The key people in this network are the Chairs of the individual groups, who are responsible for making sure that their part of the network is an effective force for conservation. The Chairs are widely dispersed through the world and, previously, most had not met each other (even those working on similar taxonomic groups) or the staff members of the IUCN Species Programme and SSC Chair's Office. Since SSC is an organization that depends on voluntary efforts and networking, these personal contacts are essential for its efficient working.

High priority was therefore given to holding a meeting of the SG Chairs during this Quadrennium. We were very fortunate to secure the sponsorship of the Environment Agency – Abu Dhabi, together with additional support from SSC, Conservation International and Swarovski for the first ever

meeting of the SSC SG Chairs, which took place in Al Ain, United Arab Emirates from 11 to 14 February 2008.

Attendance at the meeting was very good; the 123 delegates included over 80 SG and RLA Chairs and Co-Chairs, as well as senior staff from IUCN Headquarters, Regional Offices and Thematic Programmes and colleagues from other IUCN Commissions. The importance of this meeting within IUCN was highlighted by the presence of the Director-General Julia Marton-Lefèvre and Deputy Director-General Bill Jackson.

Besides the important task of networking, the meeting had a number of other objectives. These included discussing the profile of species conservation in today's world, understanding the complex structure of IUCN and where SGs fit within it, contributing to the proposed redesign of SSC and sharing knowledge and expertise on the key issues allowing Chairs to work more effectively.

The logistics for bringing together delegates from all over the world was a major task but on the whole went very smoothly. As participants trickled



into the venue they were met by friends old and new, as well as by a Brazilian film crew, who interviewed the jet-lagged Chairs on camera asking, "Is your species sexy?"

One of the first tasks for delegates was to place dots on a world map to show where they were based and where they worked. By the end of the registration process there was hardly an area of land on the map that did not have a dot.

The focus throughout the meeting was on enabling the Chairs and IUCN staff to meet each other, share experiences and build the network. The main room had round tables, where most group activities took place. Each day the members shuffled between tables, so that they met and worked with as many of their colleagues as possible during the course of the meeting.

Since all SSC's work revolves around species conservation, the opening session of the meeting dealt with the question of how important it is compared to other conservation activities and world priorities, such as climate change. IUCN's Chief Scientist, Jeff McNeely, gave a keynote speech on whether species conservation still matters. The general feeling (perhaps not surprisingly given the group present), was that it does! In relation to this topic, some of the discussion focused on the issue of 'triage' - should SSC concentrate on a smaller number of species that have the best chance of being saved from extinction, or try to save as many species as possible given the limited resources available? There were strong feelings amongst those assembled that no species should willingly be abandoned to extinction. It was also suggested that SSC should develop its efforts towards addressing such threats as climate change.

The IUCN Red List of Threatened Species™ was recognized as one of the most powerful tools available for raising global awareness of the threats to species. A discussion of the IUCN Red List included debate on the emphasis of negative publicity surrounding species at risk of extinction and whether the success stories should be promoted more to the public.

A major theme throughout the meeting was the integration of the SGs within the overall governance structure of IUCN. Director-General Julia Marton-Lefèvre explained that between IUCN's different components - its voting institutional members (governments and NGOs), voluntary Commission members, thematic programmes and regional offices - exists a complicated relationship, but that this same diversity underpins the unique role of IUCN in the conservation world. In doing so, she emphasized the vital role played by volunteer members of the Commissions, such as SSC.

IUCN Deputy Director Bill Jackson spoke about the 'One Programme' approach in which all three pillars of IUCN (Members, Secretariat and Commissions), have integrated their plans for the 2009-2012 IUCN Programme, concentrating on

five priority themes. IUCN Asia Regional Director Aban Kabraji, talked of the challenges of implementing the 'One Programme' approach at the regional level.

Formulation and interpretation of policy is an area where it is essential for different elements of IUCN to work closely together. IUCN policy can only formally be established through IUCN Members' resolutions at Congress, and SGs should be well aligned with this, but there are always issues of policy interpretation coming up between Congresses and many SGs provide vital information to IUCN's policy processes. The situation is complicated by the fact that SG Chairs and members may be engaged in a policy issue both as IUCN volunteers and in another capacity - such as their paid employment. These issues were discussed using practical examples and it was agreed that there could be no hard-and-fast-rules about policy engagement by SGs. Chairs should do their best to be aware of potentially sensitive issues, seeking advice if necessary, and when making policy statements should always make it clear in what capacity they are speaking.

There was a particularly high level of engagement from the Chairs in their discussion of the draft document on the proposed redesign of SSC. The document's primary focus is the need to create clearer role definition and independence in the IUCN Red List assessment process, separating it from other forms of conservation activity. This was a session in which the strong-minded, strong-willed and independent nature of the SSC network was very clearly expressed with discussions continuing throughout the meeting. Many of the Chairs felt that it was not possible or desirable to divide functions in this way, and following this feedback it was agreed that the redesign proposal would be reviewed.

Among the most appreciated sessions, although sadly limited in time, were those dealing with the practicalities of undertaking IUCN Red List assessments and strategic species conservation planning. Species Programme staff presented updates on the IUCN Red List process and on the wider applications of its use: how changes in listing have driven conservation action, the impact of global assessments and using species assessments to create indicators of biodiversity status and trends. From the discussion it was clear that issues concerned with the IUCN Red List process vary depending on the type of taxonomic group being dealt with. People dealing with species-rich taxonomic groups with poor information, particularly plants and invertebrates, encounter fundamental problems due to the lack of good quality data, sheer volume of work and lack of resources. For those specializing in well-known and

The IUCN Red List was recognized as one of the most powerful tools for raising awareness of the threats to species



economically important species, mostly vertebrates, the robustness and independence of the IUCN Red List assessment process are key concerns.

Strategic planning for species conservation has been a major focus of SSC's work for many years,



Delegates relaxing at NARC

and it is the work of the Species Conservation Planning Task Force (SCPTF), to develop a unified process for planning. The different components of species action plans as well as approaches to implementing species conservation based on these plans were conveyed in a series of presentations at the meeting.

Specialist Group Chairs are constantly faced with the need to raise money to keep their groups going, so fundraising is an especially important area of consideration. Presenters in this session described a range of experiences and fundraising approaches. The Marine Turtle SG has had success with generous individual donors, while the Tapir SG has targeted the zoos that hold their species. Invasive species are less immediately attractive to donors and to get funding, the Invasive Species SG has had to trim its proposals to areas of current interest, such as climate change. There was much discussion around the issue of how groups dealing with less charismatic species – the neglected taxa – can become more successful in their fundraising.

The hosts of the Chairs' meeting – the Environment Agency of Abu Dhabi – were very keen to engage with the international community and to take advantage of the expertise within SSC. They gave a

series of presentations on conservation in the UAE, which revealed an enormous amount of resources and efforts being put into conservation, in an area where there is great pressure on the environment. Delegates also had an opportunity to see some UAE conservation initiatives in person – the Arabian Oryx reintroduction programme and the National Avian Research Centre (NARC), where Houbara Bustards are bred.

A session on networking at the meeting focused on groups of delegates drawing their impressions of how the ideal SSC network would look in the future. Every group developed very different ideas, but the one thing they had in common was a high degree of complexity.

Back at the start of the meeting, delegates had been asked to contribute to a timeline showing key events in the history of SSC, IUCN, the wider world and their own lives. Returning to this exercise at the end of the meeting, participants projected their ideas about the future onto the same timeline. It may say something for the atmosphere of the meeting that most of these predictions were positive. Just before they left, the delegates were asked to describe the meeting and the most common words used were 'informative', 'inspiring' and 'fun'.

The meeting ended on a high note with a series of presentations, including the award of the Sir Peter Scott medal to Russ Mittermeier (long-standing Chair of the Primate SG and member of the SSC Steering Committee), though there was also regret about the colleagues who had not been able to attend the meeting – most notably Nico van Strien, Co-Chair of the Asian Rhino Specialist Group, who passed away shortly before the start of the meeting. There was overwhelming support for the idea of repeating this meeting, if possible every four years, and this was strongly supported by the IUCN Director-General. In addition there was unanimous agreement to call for an IUCN Species Congress, and this proposal has now been submitted for consideration by the IUCN Assembly.

The formal output from the meeting included a series of action items and lessons learned, which are now on the post-meeting website, together with the formal report from the meeting¹. However, the most important result was undoubtedly the personal connections made around the conference tables, in the coffee area and in the margins, among and between Chairs and IUCN staff, which will allow SSC to operate even more effectively as a genuine network for many more years to come.

1. http://www.iucn.org/about/work/programmes/species/about_ssc/ssc_chairs_meeting/index.cfm#Meeting_Report

IUCN World Conservation Congress: what does it aim to accomplish?

This year's IUCN World Conservation Congress in Barcelona is set to be one of the largest in history, with more than 7,000 people expected to participate. The meeting, which IUCN organizes every four years, has two main goals:

1. To profile innovative conservation research and work throughout the world during the **Congress Forum**.
2. To set the global conservation mandate through the IUCN motions process in the **Members Assembly**.

It is an opportunity for scientists, NGOs, government, business, UN agencies, social organizations and the public to discuss, debate and decide solutions for the world's most pressing environment and development issues.

This will be the fourth World Conservation Congress that has been held. Previous meetings were held in Montréal, Canada (1996)² Amman, Jordan (2000)³ and Bangkok, Thailand (2004)⁴.

The Congress has evolved and grown over time, with numerous outputs accomplished through the years. The theme of the Montreal meeting, which attracted around 3,500 participants, was "Caring for the Earth" and discussion focused on tackling some of the crucial issues left unaddressed by the UN Conference on Environment and Development in Rio de Janeiro (1992).

"The most innovative ideas from the meeting," IUCN Director General David McDowell noted, "could be grouped under four P's: partnerships, people, politics and the private sector."

One of the major items discussed at the meeting was the Red List of Threatened Animals (1996), which was released one week before the Congress.

The theme of the Congress in Amman was "Ecospace" - the concept that transboundary management of ecosystems is vital for the environmental agenda. Over the course of the meeting, delegates considered issues including ecospace, a global culture for sustainability, environment and security as well as local solutions for promoting social equity. The Congress adopted 104 resolutions, many of which expanded the mandate and scope of the Species Survival Commission (SSC).

In Bangkok, the Congress focused on "People and Nature - only one world". Over the course of the meeting, high-level roundtable discussions brought together ministers and senior representatives from the business and NGO sectors to discuss a range of conservation and sustainable development challenges. There were more than 4,800 participants, including over 40 Ministers, 1,000 scientists, 200 businesses and hundreds of NGOs.

The vision of this year's Congress in Barcelona is "A Diverse and Sustainable World" and it has three main streams:

1. A New Climate for Change.
2. Healthy Environments, Healthy People.
3. Safeguarding the Diversity of Life.

IUCN Species Programme (SP) and the Species Survival Commission (SSC) have planned a total of 12 workshops that address these streams. They focus on and are an opportunity to profile the amazing work that is being done to assess the *state* of species, identify the various *pressures* leading to the decline of species and document our *response* to these issues. This state, pressure, response model is the way that we organize our work and priorities in the SSC and SP and thus is crucial to profile at Congress, which will have an extensive and diverse audience.

Three workshops will focus on our work in biodiversity assessments, profiling the 2008 Red List, Global Mammal Assessment and Regional/National Red Lists (#1501, #2607 and #1500 respectively). In keeping with IUCN's 60th anniversary, SSC has organized two events which celebrate the accomplishments of IUCN's oldest Commission, SSC, through the years and also look at a vision for the future (#865 and #866). Other workshops will focus on species-based indicators (#863), the effects of climate change on species (#864), regional conservation planning (#908), human-wildlife conflict (#1537), plants (#1521 and #586) as well as species and livelihoods (#867). Two "Learning Opportunities" will focus on training for the IUCN Red List of Threatened Species™. Collectively, these events aim to showcase the immense breadth and capacity of SSC and Species Programme work in terms of addressing the state, pressure and response to conservation issues at the global and regional level.

The vision of this year's Congress is "A Diverse and Sustainable World"

2. More information including final press releases can be found by visiting: <http://www.iucn.org/congress/2004/global/wcc/index.html>
3. See <http://www.iisd.ca/sd/iucn/wcc2/>
4. See <http://www.iisd.ca/sd/iucn/wcc3/>



SSC Specialist Groups are also holding a variety of events at Congress this year. These will focus on mammals, reptiles, plants, fish and cross cutting issues such as sustainable use, invasive species, wildlife health and conservation breeding. "Learning opportunities" on invasive species and conservation planning will be held. A number of IUCN Members will also hold species-related events, including on birds, marine ecosystems, cetaceans and the Red List Index. In addition to all the events that will take place at Congress, there will be seven permanent pavilions set up which will profile work on species, climate change, energy, water, forests, sustainable living and marine issues. Please see the Congress pull-out in this edition for more information.

The World Conservation Congress is a unique opportunity for a diverse set of stakeholders working on environment and development issues around the world to come together in person to exchange knowledge, share ideas, discuss solutions and devise new approaches to conservation challenges. One of the most important aspects of

this work is to make sure that the messages that arise from the Congress are captured, absorbed by participants and disseminated widely to governments, businesses, organizations and the public around the world, in the interest of facilitating progress and change.

One way that IUCN Members have the ability to do this is by taking part in the Members' Assembly at Congress. The Assembly, the main governing body of IUCN, brings together IUCN's more than 1,000 member organizations to debate and establish environmental policy for the next four years. More than 100 resolutions and recommendations are expected to be adopted at this Congress. Members also elect the IUCN President and Council in the Members' Assembly.

There will also be many opportunities to project key messages from Congress into the mass media and thus to millions of people - those who look to the work of IUCN and its members for guidance on the increasingly complex issues we deal with. Over 500 media sources will take part in the Congress which will ensure extensive media coverage. If participants use these tools to disseminate lessons learned to their respective governments, businesses, organizations and communities upon returning home, we will be able to achieve great success in terms of mobilizing and leveraging all the strong ideas shared at Congress.

Meetings such as the World Conservation Congress do not happen often and are expensive. But they are also extremely valuable in terms of facilitating one on one communication between a range of stakeholders. For this reason, we need to value the outcomes from the Congress and gain as much from it as we can.



The Species Pavilion at Congress will showcase the amazing work of the SSC Specialist Groups, such as Afrotheria. Dr Galen Rathbun, Chair of the Afrotheria Specialist Group and Dr Francesco Rovero of the Trento Museum of Natural Sciences confirmed the discovery of a rare new species recently, named the Grey-faced Sengi or Elephant-shrew (*Rhynchocyon udzungwensis*). Sengis are only found in Africa and belong to the Afrotheria group, which includes elephants, sea cows and the armadillo. Learn more at: http://research.calacademy.org/research/bmammals/eshrews/new_species.html

Celebrating the Past and Looking to the Future

The 'state-pressure-response model' (see figure 1 in 'This Edition' on page 7) provides a fitting format for showcasing the range of past and present work being undertaken by the SSC and Species Programme, always looking to the future and striving to achieve a diverse and sustainable world.

Status of species: assessment and monitoring

It is imperative to maintain high standards when identifying and assessing the world's species, assessing their threat status or risk of extinction, and monitoring the results of conservation actions. The IUCN Red List of Threatened Species™ is the optimal tool for this because it allows for an objective and peer-reviewed assessment of species threat to be conducted, and for these results to be analyzed over time. The stories in the following pages give examples of SSC Specialist Group and Species Programme achievements in the past quadrennium regarding discovery of new species, completion of species assessments and monitoring of species status over time.

Evaluating the status of all 161 groupers

Groupers are among the most valuable and vulnerable of commercially exploited reef fishes. Their natural characteristics of long life, slow sexual maturation and unusual reproductive habits involving adult sex change and spawning aggregations (short-term mating concentrations) make them very easy to over-exploit. Many populations have already been reduced to a small fraction of their former size over the last two decades and biologists are increasingly concerned about others. Many fish sold on the market are still in their juvenile phase, spawning aggregations are disappearing, aquaculturists are finding it harder to locate large males for brood stock, and groupers are dropping from global catches in favour of smaller, more productive species.

To address these issues, the Groupers and Wrasses Specialist Group assessed all 161 groupers in a workshop in 2007, allowing them to identify major threats, data gaps and conservation status for all species. Major risk factors identified for the 20 species listed as threatened were large body size, fishing of spawning aggregations and lack of effective management. A similar number of species were listed as Near-Threatened and many were found to be Data Deficient. The outcomes and

media attention generated by the workshop helped to raise awareness of the problems faced by these valuable fish and to identify major information and management needs. This is critical as pressure to exploit groupers is increasing rapidly while management capacity in reef ecosystems and information on multi-species fisheries are extremely limited. The workshop succeeded in clearly identifying actions needed to address status trends.

SG website: <http://www.bku.bk/ecology/GroupersWrasses/iucnsg/index.html>

Range-wide mapping of Asian bears

Many populations of bears in Asia are vulnerable to extirpation from poaching and habitat loss. Obtaining precise estimates of population size, while seemingly desirable, is neither practical nor useful for monitoring small, sparse bear populations. Members of the Bear Specialist Group (BSG) decided that an immediate priority is to ascertain status and monitor population change by mapping the current geographic range of bears in Asia. Aside from Giant Pandas, the ranges of

It is imperative to maintain high standards when identifying and assessing the world's species



Asian bear mapping workshop

Asian bears (Brown Bears, Asiatic Black Bears, Sun Bears and Sloth Bears) are poorly known.

Initially BSG members from Asia with expertise in these four species were asked to provide range

maps for bears in their country or region, as well as specific point locations (and accompanying metadata: dates, types of observation, habitat type). These were collated and transferred to large regional species-specific maps.

The Specialist Group then conducted a mapping workshop, which was attended by 49 Asian bear experts from 20 countries. Regional representatives huddled over their maps and discussed revisions and additions. Four categories of range were delineated within the historic range of each species from presence/absence data: definite range, probable range, extirpated range and unknown.

After mapping these categories, workshop participants delineated areas that should be considered priorities for conservation. These so-called Bear Conservation Units might be important either because they are strongholds for bears in particular regions, because they contain adequate habitat but need more protection or because they serve as corridors between populations.

The final maps and a written report from this workshop are in process. The group's hope is that the workshop outcomes will serve (1) to highlight high-priority areas for conservation; (2) identify

benchmarks by which to assess future changes in range; and (3) provide a starting point for the development of a database that will be continually corrected, refined and updated.

SG website: <http://www.bearbiology.com/bsgmain.html>

Jamaican Iguana Recovery Program provides hope

The strength and spirit of the Iguana Specialist Group is exemplified by the Jamaican Iguana Recovery Program. Emblematic of the power of strategic planning and international collaboration, the Jamaican iguana story provides hope for species on the brink of extinction.

Fearing extinct for nearly 50 years, the 1990 capture of a live male Jamaican iguana (*Cyclura collei*) in the remote Hellshire Hills on the island signaled the rediscovery of the species, sending shock waves through the conservation community and triggering an aggressive conservation response. Collection of hatchlings from two communal nest sites provided iguanas for headstarting at Kingston's Hope Zoo, and galvanized the zoo community to commit major resources to iguana conservation. Working closely with the local Jamaican Iguana Recovery Group, and with the support of the International

Iguana Foundation, a full time field team now carries out an ambitious program including predator control, ecological research and habitat protection. The program has repatriated over 100 captive raised iguanas to the wild and a robust breeding population is thriving.

Despite this amazing success, the Jamaican iguana is still classified on the IUCN Red List as Critically Endangered, primarily because only a single breeding population exists. In 2006 the Specialist Group conducted a Species Recovery Plan workshop, with the restoration of the Goat Islands emerging as a seminal recommendation. With invasive species eradication and subsequent iguana reintroduction, these uninhabited cays have the potential to become protected iguana sanctuaries, a decisive action that will help safeguard this species from extinction.

SG website: <http://www.iucn-isg.org/>

The program has repatriated over 100 captive raised iguanas to the wild



Jamaican iguana, *Cyclura collei*



Cetaceans on the edge, but not all is doom and gloom

The latest news from the Cetacean Specialist Group suggests that the Baiji (Yangtze River Dolphin, *Lipotes vexillifer*) is likely extinct and the Vaquita (Gulf of California Porpoise, *Phocoena sinus*) may be on the same path, soon to become the second cetacean that disappears under our watch. Finless Porpoises (*Neophocaena phocaenoides*) are still present in the Yangtze River and its adjoining lakes but this, the world's only freshwater population of porpoises, is declining rapidly. However, not quite all the news is doom and gloom. The latest analysis of photo-identification data on Critically Endangered Western Gray Whales (*Eschrichtius robustus*) suggests they are slowly increasing.

The approaches used to assess cetacean populations vary. Following partial surveys of Yangtze River cetaceans by Chinese scientists, a comprehensive boat survey in November / December 2006 yielded results that were discouraging but definitive: no Baiji sightings and about 1,800 porpoises in the entire Yangtze system.

The most recent Vaquita assessment involved a less direct calculation. A 1993–94 study of entanglement in fishing gear had shown that about 78 Vaquitas were being killed each year, and a 1997 shipboard survey of the species' range estimated a total population of 567. A simple model combining those numbers with trends in fishing since the 1990s led scientists to predict that only about 150 Vaquitas remained in 2007.

IUCN's Gray Whale panel provides the context and forum for annual updates of a complex population model developed by Justin Cooke. Photographs taken off Sakhalin Island each summer since 1994 allowed that model to infer that there were about 130 Western Gray Whales in 2008 and that the population was increasing at about 2.5% per year.

Of course, knowing numbers and trends is only part of the assessment process. Understanding the causes of low numbers and declining trends is equally vital.

More information: www.iucn.org/themes/marine/sakhalin/

Assessing the world's tortoises and freshwater turtles

Turtles are percentage-wise one of the most severely threatened groups of vertebrates – they are highly vulnerable to exploitation and have very slow recovery potential. The Tortoise and Freshwater Turtle Specialist Group (TFTSG) is engaged in a number of initiatives to help document and assess threats, formulate conservation strategies, and act as a catalyst for conservation action worldwide. It is primarily focused on identifying threats and is constantly updating IUCN Red List assessments for the 300+ species under its charge. It has organized

and provided leadership for IUCN Red List workshops as well as Action Plans for threatened turtles and tortoises, with a special focus to date on Madagascar, Mexico, India, the Mediterranean and Asia, with further plans for sub-Saharan Africa and South America. In Madagascar, the workshop focused on *Turtles on the Brink*, as exemplified by the accompanying photo of a Radiated Tortoise (*Astrochelys radiata*) literally on the brink of a cliff in its habitat high above the Indian Ocean.



Radiated tortoise,
Astrochelys radiata

These IUCN Red List assessments and workshops have helped to catalyze critical conservation action as well as fund priority conservation work. Some of this support has come through the TFTSG partnership funding initiative and the Turtle Conservation Fund (TCF - www.turtleconservationfund.org). Over the last six years, the TCF has provided nearly US\$300,000 in support of 65 critically important projects focused on Endangered turtles. We have also provided support for the TFTSG Task Force and the Turtle Survival Alliance (TSA - www.turtlesurvival.org) in its global mission to establish a network of turtle assurance colonies and support capacity building for captive care programs. In addition, it has helped produce the scientific journals *Chelonian Conservation and Biology*, *Chelonian Research Monographs* and the *Turtle and Tortoise Newsletter* all published by TFTSG partner, Chelonian Research Foundation (CRF - www.chelonian.org). As part of this effort it has recently launched a massive TFTSG-driven compilation project with CRF, documenting the conservation biology of all species of freshwater turtles and tortoises including online species accounts for open access and wide dissemination of data (<http://www.iucn-tftsg.org/cbft/>).

The TFTSG is committed to the critical importance of:

1. An open exchange of ideas, opinions and data-driven science within our network, through a combination of turtle-focused symposia, workshops, peer-reviewed journals, newsletters, websites and listserves; and
2. Strategic partnerships to help identify, fund and implement turtle conservation priorities worldwide. The TFTSG will continue to develop, foster and implement effective shared strategies and collaborative partnerships within the

IUCN Red List assessments and workshops have helped to catalyze critical conservation action

international turtle conservation community to identify and address priority turtle conservation needs and to prevent any further turtle extinctions worldwide.

SG website: <http://www.iucn-tftsg.org/>

Developing a Circumboreal Vegetation Map

The Arctic Plant Specialist Group convened a workshop in 2007 to develop a strategy for mapping the vegetation of the circumboreal zone, in an effort to model vegetation fluctuations related to global change (<http://www.cbvm.org/>). This work expanded the Circumpolar Arctic Vegetation Map (CAVM) into boreal regions to the south.

The workshop brought together vegetation scientists from around the world to present the latest information on boreal syntaxonomy, geobotany, mapping and new computer programs for studying boreal plant communities. The rationale for the workshop was that global-scale boreal research programs, modeling efforts, educational materials, development, and conservation efforts require a common language for describing boreal ecosystems.

3. Establish a floristic and hierarchical legend approach;
4. Define the region of the CBVM;
5. Explicitly define the goals of the CBVM;
6. Set a schedule for making the CBVM;
7. Identify the applications for which the map will be used (i.e. global models, education, resource management, land-use planning, conservation); and
8. Publish the results of the workshop in an international journal.

The Specialist Group aims to produce the first vegetation map of the entire global biome at a comparable resolution, providing a framework for understanding the boreal region. The map will provide a broad view and consistent treatment of the whole region's vegetation through legend descriptions, photographs, lists of major vegetation types and supplementary maps. It will also be used to document resource development, land-use planning, studies of boreal biodiversity, anticipated global changes and human interactions. The map will provide a common legend and language for boreal ecosystems and will be a first step toward monitoring long-term changes within them. It will serve as a key component of circumboreal geographic information systems (GIS).

More information: <http://www.cbvm.org/>

Orchid discoveries and assessments in Madagascar

Malagasy orchids are some of the most spectacular in the world. One example is *Angraecum longicalcar* which is native to the Malagasy Highlands and has the longest spur, over 40cm, of all Malagasy orchids. After monitoring its population since 1998, the Madagascar Plant Specialist Group (MPSG) reintroduced nine individuals into its type site for the first time in 2004. Further field searches were productive with the discovery of a new population.

The MPSG has also conducted extensive field work in the humid forests of Madagascar, revealing that *Eulophiella roempleriana* is not restricted to growing on *Pandanus utilis*, contrary to existing knowledge. A new population was found growing on native riverside palms *Dyopsis utilis* and *Beccariophoenix madagascariensis*.

The MPSG has also found orchid rich forest corridors on the island with both highland and humid forest species in them, among which the beautiful epiphyte *Angraecum breve* grows.

The Specialist Group was fortunate enough to receive a generous grant from the Chicago Zoological Society which administers the Chicago Board of Trade (CBOT) Endangered Species Fund. This allowed the group to conduct detailed surveys on three restricted species within their ranges of distribution. No populations were found to occur



Pachypodium windsorii

Specific workshop objectives were to:

1. Identify international collaborators for the Circumboreal Vegetation Mapping (CBVM) project;
2. Summarize the status of CBVM (the product being regional review papers);



within any protected areas. While collecting for the first time in a new locality, a new population of *Pachypodium eburneum* was found within the Betafo Highlands while *Pachypodium inopinatum* was found only in a small area around the summit of

*Malagasy orchids
are some of the
most spectacular in
the world*

a massif. Three new collecting localities for *Pachypodium windsorii* were found in Northern Madagascar. The main threats for these species are loss of habitat due mainly to grassland and bush fires and illicit collection for local or

international trade. Reclassification of these three species using the new data placed them in the Endangered and Critically Endangered categories of the IUCN Red List. Some individuals are conserved *ex-situ* at Parc Botanique et Zoologique de Tsimbazaza: three individuals of *P. inopinatum* and two for *P. windsorii*. Unfortunately, the *P. eburneum* individuals died, possibly due to poor acclimatization.

Overall 1,884 species have been submitted for inclusion on the IUCN Red List since 2004 and 3,000 species will be assessed and submitted for 2009 in collaboration with the Missouri Botanical Garden.

Finally, upon IUCN and Botanic Gardens Conservation International (BGCI) recommendations, the MPSG is in the process of identifying threatened plant species and Important Plant Areas (IPAs) for the Global Strategy for Plant Conservation.

The Atlantic Forest Silky Anteater

Sloths, anteaters and armadillos comprise the surviving species of edentates – a small group of uniquely specialized mammals with ancient roots in Central and South America. Radically different from one another in lifestyle and physical form, the edentates are united by a deep ancestry which may reach back to the earliest placental mammals. Recent genetic research has identified the edentates as one of the four major clades of mammalian diversity, and as such they embody a wealth of evolutionary history in urgent need of preservation.

Although greatly diverse in the fossil record, the edentates today are represented by only 31 species, distributed throughout the Neotropics. In their natural range, the edentates are intensely hunted for food, shot as pests and vermin, harvested for trophies and handicrafts and sometimes viewed with unforgiving superstition. Nearly all edentate species are persecuted in one way or another, and nearly all are threatened by the destruction or transformation of their native habitat.

The Silky Anteater (*Cyclopes didactylus*) is one of the most widespread edentates, from the Yucatán of Mexico to the Atlantic coast of Brazil, but also



Silky anteater, *Cyclopes didactylus*

one of the least-studied, owing to its almost exclusively nocturnal and arboreal lifestyle. An expert climber with a prehensile tail, the squirrel-sized *Cyclopes* is able to exploit arboreal resources that its larger and heavier relatives cannot.

Although populations have suffered from rapid deforestation and habitat loss throughout its range, the species as a whole has been evaluated as Least Concern by the IUCN Red List, owing to its widespread distribution throughout the Amazon basin. However, there are also sporadic records of Silky Anteaters from north eastern Brazil, suggesting a distinct population in remnant Atlantic Forest – isolated since the Pleistocene by a broad swathe of thorn-scrub forest which separates it from the greater Amazon.

This isolated population is now being studied by Dr Flávia Miranda, a member of the Edentate Specialist Group and the director of Project Tamandua, a Brazilian NGO dedicated to the study and conservation of the anteaters. Funded in part by the Edentate Specialist Group, this research focuses on a genetic comparison of the Silky Anteaters in the Amazon with those in the Atlantic Forest. If this latter population is confirmed to be genetically distinct, it would represent a unique taxon in exceptional need of protection.

Edentate SG: <http://www.edentata.org>

Dr Miranda's research, Project Tamandua:
www.tamandua.org



Progress on global assessments for the IUCN Red List

For nearly 50 years, IUCN has been assessing the status of species, subspecies and populations to highlight those threatened with extinction. This has been done on both a global and also regional basis – the new data is included each year in the IUCN Red List of Threatened Species™. Over the past several years, much has been accomplished by Species Programme and SSC.

One major success has been the completion of the first comprehensive assessment of all amphibian

So far, all sharks and rays, groupers and reef-building corals have been assessed

species in 2004, showing that at least one in three species are threatened. This will be repeated in 2009 so that the trends can be identified, for example to determine whether population numbers are increasing or decreasing. A global assessment of all mammals followed this accomplishment and has just been completed in 2008. This is a follow up from the first comprehensive assessment that was done in 1996 and will allow trends in mammals to be determined for the first time. IUCN's Red List partner BirdLife International assesses all of the world's bird species. A new global assessment completed in 2008 showed that one in eight bird species are currently threatened, with climate change an increasingly important factor in declines. In 2007, the European freshwater fish assessment was completed and a Pan Africa assessment is underway.

One of the key strategic ways that Species Programme is completing assessments is by undertaking global assessments of major species groups: amphibians, mammals, reptiles, and marine species. The Global Marine Species Assessment was initiated in 2006. So far, all sharks and rays, groupers and reef building corals have been assessed, among a selection of other species groups. For very large species groups the IUCN's Red List partner, the Zoological Society of London, is taking a sampled approach.

In the upcoming quadrennium, more of focus will be taken on completing assessments for under represented species such as plants, reptiles and invertebrates.

Bringing bats back from the brink

The Seychelles Sheath-tailed Bat (*Coleura seychellensis*) is a species endemic to the Seychelles. It is insectivorous and roosts in caves. Historically, *C. seychellensis* was reported to be abundant but underwent dramatic declines in the 20th century, and is now Critically Endangered (IUCN Red List, 1996–2007). Surveys in 1972–1976 found these bats in low numbers on the island of La Digue. A single individual was observed on the island of Praslin in 1996. Subsequent surveys found no *C. seychellensis* on Praslin or La Digue. Surveys carried

out on the island of Mahé found three *C. seychellensis* roosts in caves on the west coast of the island. A single roost of 32 bats is known from Silhouette Island. Three months of surveying in 2004 confirmed the existence of 19 bats in three roosts on Mahé, but this is likely to be an underestimate.

Several reasons have been suggested for the decline of *C. seychellensis*, including predation by introduced Barn Owls (*Tyto alba*), habitat degradation and use of pesticides. Monitoring of the populations has been recommended repeatedly, but very little has been done. The Aberdeen University 'Bats on the Brink' expedition produced an Action Plan to encourage efforts to conserve the species, and further work has been called for to study habitat use and the specific conservation needs of *C. seychellensis*. A follow-up project ('Bringing Bats off the Brink') was carried out in 2006–2007, to further investigate the causes of decline, and to monitor changes in behaviour and population size of *C. seychellensis* on Mahé. The most significant observation was an increase in numbers of bats (up to 27) occupying the largest roost on Mahé, bringing the overall number of known individuals on both occupied islands to about 70. At present, legal protection of the bats and their roosts is still lacking despite the fact that the largest roost on Mahé is on government land.

Seychelles sheath-tailed bat on Silhouette island. Information on the status of the Silhouette population can be found at <http://members.aol.com/jstglerach/bats.htm>

Freshwater assessments make links to livelihoods

The IUCN Species Programme's Freshwater Biodiversity Unit (FBU) has been working with a number of SSC Specialist Groups to complete species assessments across the world, particularly in Africa. Through an European Commission funded project, the FBU is currently three quarters of the way through assessing the status of all Africa's freshwater fishes, molluscs, odonates (dragonflies), crabs and selected aquatic plants. Members of the fish, mollusc and odonate specialist groups have been closely involved in the data collation and evaluation process of the species assessments.

By the end of the project over 3,000 fishes, 100 crabs, 1,500 plants, 500 molluscs and 800 odonata will be assessed. The project is also developing, through four demonstration sites, best practice guidelines on how these data can best be used to inform the growing levels of development that are impacting Africa's freshwater resources. Other assessments that the FBU and specialist groups have worked on together are the European freshwater fishes, some mollusc and fish species from Lake Dianchi, China and the Sampled Red List Index (SRLI) freshwater fish assessments.

The FBU has also developed a methodology to identify Important Sites of Freshwater Biodiversity



using the data collated through the assessments. The method, which can be used to help prioritize conservation actions, highlights basins that contain threatened or restricted range species. Again, the FBU has worked closely with members of the freshwater taxonomic specialist groups to develop this prioritization tool.

FBU: http://www.iucn.org/about/work/programmes/species/our_work/about_freshwater/

Pressures on species: analyzing the impacts of threats to species

The analysis of threats to species is one of our key roles, with this information being captured in the IUCN Red List of Threatened Species™. Several disciplinary Specialist Groups focus specifically on pressures such as disease and pollution, while others address more pervasive threats such as habitat loss and impacts of use. In the stories on the following pages, we hope to illustrate the breadth of work being undertaken by the Species Programme and SSC Specialist Groups to address threats such as climate change, wildlife diseases, habitat destruction, over-harvesting and unsustainable hunting.

Species' vulnerability to climate change

Which species will the world lose first due to climate change? Which species should I be most concerned about in my geographic region? How will their loss affect human livelihoods and wellbeing? These questions have become

increasingly relevant to scientists, policy and decision-makers and the public. Yet to date, no practical method exists to address this, and the predicted impacts of climate change on species have been either based on isolated case studies or on broad-scale modelling approaches.

The use of trait information in species assessments is a useful complement

IUCN, with funding from the MacArthur Foundation and the Indianapolis Zoo, has initiated a project to identify species most vulnerable to the negative impacts of climate change. Based on information from the IUCN Red List and its underlying Species Information System (SIS), as well as newly collected data, this Species Vulnerability project aims to:

- Develop criteria to identify and characterize the life history, ecological and distributional traits that make certain species more vulnerable to climate change than others.
- Collect data on which species possess climate change vulnerable traits, beginning with the world's birds, amphibians and corals.
- Identify and assist in the prioritization of conservation actions for species most vulnerable to climate change.

The use of trait information in species assessments is a useful complement and addition to the IUCN Red List and climate change spatial modelling. By bringing a degree of predictive power to species assessments and hence facilitating pre-emptive conservation intervention, it is likely to become a valuable new tool for practical conservation.

Conservation breeding links to climate change

The Conservation Breeding Specialist Group (CBSG), in collaboration with partners, has been striving to incorporate climate change into its threat evaluations and conservation responses.

The first phase has been to review the extensive climate change biodiversity impact literature and identify the specialists with whom to collaborate. This has resulted in the creation of a regularly updated *Climate Change and Biodiversity Information Network* database which lists 25,000 reviewed publications and specialists.

By reaching out to the specialists and data from outside of its group, CBSG is helping to incorporate climate change data into its species conservation activities. For example, a workshop on the Galápagos Penguin (*Spheniscus mendiculus*) included the effects of ongoing climate change into population projections. Efforts to refine assessment tools to better address climate change dynamics received a major boost with the Species Programme's species-level vulnerability traits workshop.

Reconciling these diverse threat factors with CBSG's evaluation and management tools remains a challenge and requires wide ranging and concerted collaboration. The annual CBSG meeting will be focusing on improving its conservation response to the threat of climate change.

CBSG is also working to minimize its impacts on climate, through assessing its resource use and by encouraging its constituency to do the same. The CBSG newsletter is now distributed electronically,



Bleached coral, Great Barrier Reef

Many of the world's zoos are now taking active steps to reduce their environmental footprints

and they are exploring web-based collaboration tools. Many of the world's zoos are now taking active steps to reduce their environmental footprints, with CBSG encouraging them to share

progressive methods in conserving energy; reducing water use and recycling used water; procuring ethically-produced food and materials with low embodied energy; adopting green travel plans for staff and visitors; managing waste through composting, re-using, and recycling; and conserving biodiversity through sustainable breeding programmes and through direct conservation

action in the wild. Zoos are also developing and sharing messages to help their 600 million annual visitors reduce their environmental impacts.

SG website: <http://www.cbsg.org/cbsg/>

Innovating on alien invasive species

In 2002, island nations called for a cooperative international approach to address the threat of invasive species, through the Convention on Biological Diversity (CBD). The SSC Invasive Species Specialist Group (ISSG) subsequently helped set up and develop the Cooperative Islands Initiative, starting with the Pacific Invasives Initiative (PII) supported by the New Zealand government. PII (<http://issg.org/cii/PII>) works to raise awareness of the effects of invasive species and develop the capacity of Pacific agencies to manage invasive species. PII uses activities based on demonstration projects as a tool for that work. Successful eradications of invasive species such as rats on Vatu-i-Ra in Fiji, regional biosecurity programmes such as the Pacific Ant Prevention Programme, and training workshops such as the Palau weed management project all show the value of this approach. The Pacific programme now serves as a model for regional action against invasive species in other areas of the world.

ISSG helps to coordinate two global activities related to managing the threat of invasive alien species: the Global Invasive Species Database (GISD) (<http://issg.org/database>) and the Co-operative Islands Initiative (CII) (<http://issg.org/cii>).

Through the GISD database, ISSG gives access to science-based biological and ecological information on threats, impacts and management of invasive species; helping communities, conservation groups, NGOs and government agencies to counter this global threat to biodiversity. The GISD is now used as a data repository by several invasive species programmes, such as L'initiative sur les espèces envahissantes d'outre-mer launched in 2006 by Le Comité Français pour l'UICN.

SG website: <http://issg.org>

Chemical risks to wildlife health

The SSC Wildlife Health Specialist Group (WHSG), formerly the Veterinary SG, is exploring with the pharmaceutical industry ways to prevent future conservation catastrophes caused by harmful chemicals.

Rapid human and domestic animal population growth continues in many countries, particularly those with large, poor rural communities who are desperately reliant on drugs and chemicals to survive. This demand has led entrepreneurs to set up factories and distribute cheap generic pharmaceuticals, herbicides and pesticides, which are often banned or obsolete in the developed world.

Ineffective pollution controls result in these chemical agents entering the environment and exposing wildlife to secondary poisoning. Diclofenac, a cheap painkiller, is the primary cause of the near extinction of three species of *Gyps* vulture. However, it is still widely used in South Asia, despite being officially banned from the region. In Africa, there is also concern about the use of this drug and certain pesticides (e.g. Furadan, now banned in the developed world), both widely available and cheap. Banning products is unpopular and more or less impossible if there is a human application, so what can be done?

Pharmaceuticals recognize that increasing demand is creating a massive industry, which is spreading globally and resulting in increased risk. Current risk management procedures are not enough; one idea is to produce a relational database for easy access to information for assessment or prediction of relative species sensitivities and exposure potential. If this occurs early on in the research and development chain, there will perhaps be time to prevent or give early warning of potential problems.

The late recognition of the cause of the decline, and near extinction, in *Gyps* vultures, among other examples, makes this approach essential. This and other ideas will be debated at IUCN World Conservation Congress in Barcelona, at a workshop with representatives from the wildlife health, conservation and pharmaceutical communities. The group hopes to develop a global network and establish a formal liaison between conservationists, health scientists, pharmaceutical and chemicals industries. There is hope that will contribute to a better balance between chemical use and abuse, resulting in a healthier world for people and wildlife alike.

SG website: <http://www.iucn-vsg.org/>

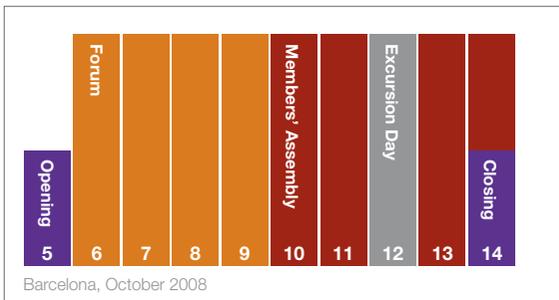




IUCN
World
Conservation
Congress
Barcelona 2008

The IUCN Species Programme and
Species Survival Commission (SSC)
short guide to Congress
5-14 October 2008

Congress at a glance



- **Opening ceremony and reception**

Welcomes from the Government of Spain and the Government of Catalonia and keynote speeches by world leaders and dignitaries

- **Three streams of challenges, opportunities and potential solutions**

A New Climate for Change
Healthy Environment – Healthy People
Safeguarding the Diversity of Life

- **Assembly**

125 Motions will be presented to the Members Assembly, which will help shape IUCN's policy for the next four years

- **Over 800 forum events**

Taking place during the four days of the Forum and organized by the IUCN Secretariat, IUCN Members, Commissions and Partners. The Species sessions comprise 32 different activities spanning the three Congress Streams

- **12 journeys**

The Red List journey is a selection of Forum events aimed to guide participants through the stages of The IUCN Red List of Threatened Species™ process

- **223 workshops**

22 led by SSC, Species Programme and Specialist Groups

- **50 free learning opportunities**

3 led by SSC, Species Programme and Specialist Groups

- **163 knowledge cafés**

4 led by SSC, Species Programme and Specialist Groups

- **Pavilions**

The Species Pavilion is one of 7 exciting themed areas open throughout Congress

- **Member, commission and partner exhibition**

At least 147 exhibition stands in addition to the Pavilions area

- **Conservation cinema**

- **IUCN members lounge**

- **Social events**

To find out more please visit
www.iucn.org/congress

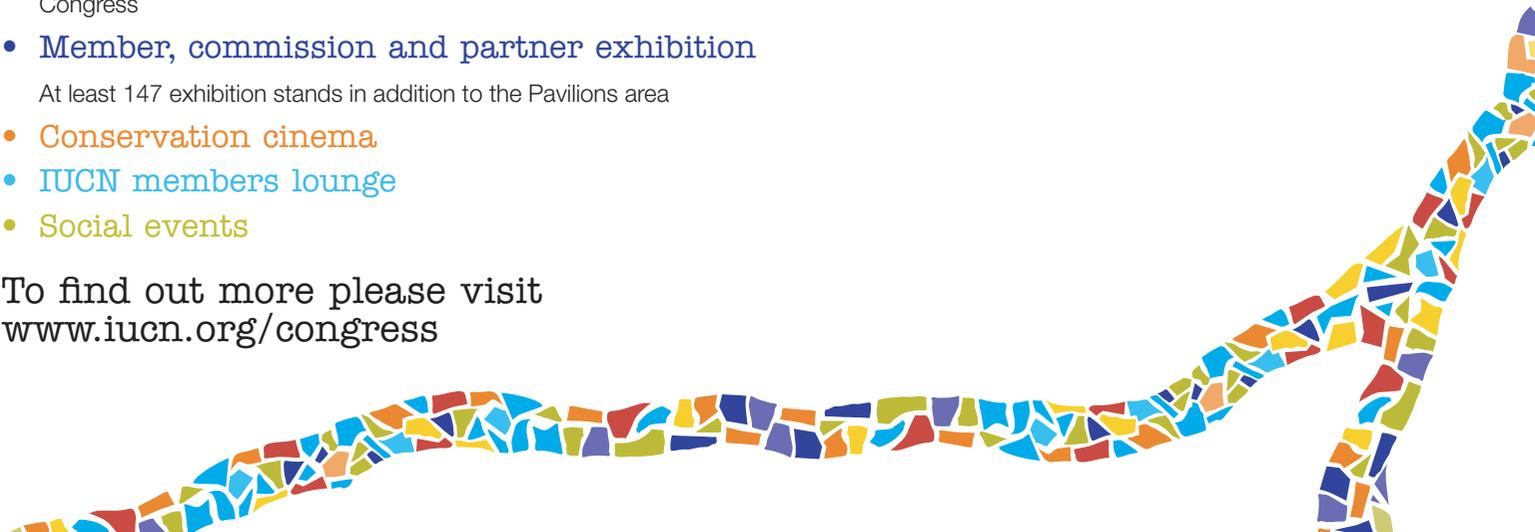
The Species Pavilion

One of the largest and most prominently placed at the Congress, the Species Pavilion will showcase all the tremendous work undertaken by the SSC, Species Programme Pavilion Partners and others.

We invite you to be a part of:

- A celebration of species with multi-media visual and audio displays
- Profiling The IUCN Red List of Threatened Species™
- Films, slideshows and posters focusing on SSC Specialist Group work
- Species talks
- Live and interactive demonstrations
- Exciting new species book launches and publications

The Species Pavilion will also be a place to meet up, check event schedules and have meaningful discussions in a relaxed environment.



SSC and Species Programme Forum Events

SESSION NUMBER	SESSION NAME	IUCN/SSC INVOLVEMENT
ALIANCES WORKSHOPS		
109	One World, One Health: A paradigm for achieving conservation through global health	Wildlife Health Specialist Group
161	Go Wild! Herbal products, local livelihoods, and the new International Standard for Sustainable Wild Collection of Medicinal and Aromatic Plants (ISSC-MAP)	Medicinal Plant Specialist Group
163	Uso de camelidos silvestres en países andinos: hacia un paradigma de equidad, alianzas y participación	South American Camelid Specialist Group
183	Species information for designing and managing marine protected areas; improving access and integration	Marine Conservation Sub-Committee
280	Island Biodiversity, Issues and Opportunities	Indian Ocean Island Plant Specialist Group
290	Celebrating success of a partnership approach to invasive species management to safeguard biodiversity and livelihoods – global sharing for local empowerment	Invasive Species Specialist Group
514	For environmental health and wealth: conservation through use of biodiversity	Sustainable Use Specialist Group
516	Voice of the Voiceless	Sustainable Use Specialist Group
586	Global Strategy for Plant Conservation – Beyond 2010	Plant Conservation Sub-Committee
621	Salmon – Conserving the Population Mosaic	Salmonid Specialist Group
723	A fine balance: pharmaceuticals in the environment, biological power to save life or destroy it – examination of the evidence	Wildlife Health Specialist Group
863	Made to measure: scaling species-based indicators from a global to a regional and national level	SSC
864	Climate change and species extinctions: New approaches to support decision-makers and planners	SSC
865	Conserving Species: Celebrating SSC's six decades of voluntarism	SSC
866	A vision for the future of the Species Survival Commission: we've only just begun	SSC
867	Why all species are important to people: the role of species in human development	SSC
1500	Building and supporting regional and national Red Lists – responding to an increasing demand	Species Programme
1501	IUCN Red List of Threatened Species 2008 – Breaking results on the conservation status of the world's species	Species Programme
1521	Wild plants for food and medicine – assessing and conserving plants for people	Species Programme
1537	Human Wildlife Conflict – Beyond Biology	SSC
2607	Status of the World's Mammals: a comprehensive assessment of species ecology, threats and conservation measures	Species Programme
908 & 796	Designs for nature: regional conservation planning, implementation and management (1 and 2)	SSC
KNOWLEDGE CAFÉS		
242	Integration of Biodiversity and Agrobiodiversity Conservation	Crop Wild Relative Specialist Group
314	Antelope conservation and sustainable development	Antelope Specialist Group
378	Partnership for a Comprehensive Invasive Species Information System (CISIS)	Invasive Species Specialist Group
478	Assessing the vulnerability of endangered wild ungulates and domestic herbivores in arid ecosystems	Equid Specialist Group
LEARNING OPPORTUNITIES		
375	Safeguarding biodiversity and livelihoods from biological invasion: global sharing of experience and information as a key step to effective management at local level	Invasive Species Specialist Group
1028	Strategic planning for species conservation: a new framework to promote integration of partners and components	Species Conservation Planning Task Force and Conservation Breeding Specialist Group
2007 & 2008	Assessing the conservation status of species for inclusion in global and regional Red Lists	Species Programme
POSTERS		
249	Iguanas of the World: A status and conservation update	Iguana Specialist Group
740	Top 50 de la flora Amenazada de los Archipiélagos Macaronísicos	Macaronesian Island Plant Specialist Group
968	Using synergy to promote <i>in-situ</i> biodiversity conservation on private production landscapes in Uruguay	Deer Specialist Group

KEY

Specialist Group
 SSC
 Species Programme

The venue

The CCIB (Centre Convencions Internacional Barcelona) is a stunning venue about 5km from the centre of Barcelona. Close by are many shops, restaurants and other facilities as well as the ocean front.



Find out more about Congress

Everything you need to know about WCC 2008—including accommodation—is available on the Congress website at www.iucn.org/congress

Follow the links from the homepage to learn more about...

- [Pre-registering on-line by 25 September 2008](#)

After this date, registration will only be possible on site in Barcelona at slightly higher registration fees

- [The full forum programme](#)

The draft programme of events is now live and online, showing provisional dates, times and room numbers

- [Preview motions for Resolutions and Recommendations proposed by IUCN members](#)

The official agenda and full documentation that will be discussed during the Members Assembly can also be accessed

- [Be a part of the Green Congress](#)

'My Guide to a Sustainable Congress' will help you make environmentally-smart decisions at different stages of your trip to and stay in Barcelona. Find out more about IUCN's commitments to minimize and compensate the direct and indirect impacts relating to all aspects of Congress, leaving a positive legacy.



Toxic threat to Gharials in India

The Chambal River in Madhya Pradesh and Uttar Pradesh, India, is one of the few remaining sites where breeding populations of the Critically Endangered Indian Gharial (*Gavialis gangeticus*) still exist. The total global wild gharial population is possibly no more than 1,130.

In mid-December, Indian authorities and NGOs reported an alarming number of dead, wild Gharials, between 160 and 420 cm long, in the lower 40 kilometre section of the Chambal River and issued an international call for help.

The Chairman of the IUCN SSC Crocodile Specialist Group, Dr Grahame Webb, asked its veterinary science group to dispatch a team of vets to India to assist Indian veterinarians, Indian CSG members and the Gharial Conservation Alliance (GCA) to help resolve the problem. The CSG veterinarian team, comprising Dr Fritz Huchzermeyer, Dr Paolo Martelli, Dr Brian Stacy and Dr Samuel Martin, arrived in India on 25 January 2008 and remained until 12 February 2008.

The CSG veterinary team with Indian colleagues carried out live and post-mortem examinations and critically looked at the environment. They reviewed 43 reports from previous necropsies and carried out seven post-mortem examinations.



Post-mortem of Gharial, *Gavialis gangeticus*

The group was able to make some significant new findings, namely that all of the dead Gharials examined had visceral and articular gout and toxic necrosis of the proximal renal tubules in the kidneys. This confirmed that the mortality in the wild was occurring due to renal failure, resulting from a toxic insult leading to severe gout, immobility and ultimately death.

The CSG made the following recommendations:

- Assist local veterinary expertise by transferring crocodile-specific veterinary advice.
- Continue investigations with experts in: toxicology, river ecology, hydrology
- Intensify existing longitudinal research on wild and captive Gharials and broaden the scope of research.
- Increase resources for monitoring: boats, cameras, binoculars, radios etc.
- Increase the emphasis on the role of veterinary skills in conservation medicine and park management

A total of 111 Gharials were found dead in the Chambal National Sanctuary. For a species that is truly Critically Endangered, with less than 200 adults, this is a major conservation disaster. The exact causes of the problem are still unknown. Various research projects initiated by the WWF and GCA, with the active support of the Government of India, are now underway. The full veterinary report can be found on the Crocodile Specialist Group website.

SG website: www.iucncsg.org/

Modelling development threats to Siberian Cranes

Almost the entire world population of the Critically Endangered Siberian Crane (*Grus leucogeranus*) winters at Poyang Lake in the mid Yangtze River Basin of China. More than 3,000 Siberian Cranes move widely over the 400,000 hectares within the Poyang Lake Basin, where the cranes are reliant upon the availability of *Vallisneria*, a submerged aquatic plant in turn influenced by greatly fluctuating water levels within and between years.

The International Crane Foundation (ICF) and Poyang Lake National Nature Reserve (PLNR) have been conducting a long-term study of the ecological relationships between plants, water and wintering waterbirds in PLNR. Initiated in 1998, this research focuses on habitat use patterns of Siberian Cranes, Tundra Swans (*Cygnus columbianus*) and Swan Geese (*Anser cygnoides*) within the reserve, roughly 5% of the total lake, and the factors that influence those patterns. This project seeks to apply this ecological understanding towards designing conservation programs for the lake basin and implementing targeted management strategies within protected areas.

Through this Crane Specialist Group project, a Geographic Information System (GIS) for Poyang

Visit any market in the world and you are likely to find medicinal plants

Lake Basin has been developed by the Mountain, River and Lake Information Centre in Jiangxi Province and is now being used to develop models that extrapolate from the reserve to the entire Poyang Lake Basin. These models will help assess potential impacts from projects that alter land-use or water budgets within the watershed affecting Poyang.

Already our research, together with related studies by others concerning hydrology, land use, and *Vallisneria*, is helping the Chinese Government understand what this crane population needs to survive and to evaluate implications of developments now under consideration, including a dam across the mouth of Poyang Lake that would drastically alter the hydrology and productivity of the system.

This research is supported in part by the UNEP/GEF Siberian Crane Wetland Project (www.scwp.info), executed by the State Forestry Administration in China.

SG website: <http://www.savingcranes.org/>

Response to species conservation needs: facilitating and undertaking action

Once the status of a species has been assessed and its major threats analyzed, the next step is to plan and execute a strategic conservation action response. The SSC and Species Programme are involved in a wide range of conservation actions including facilitating education and communication, developing Best Practice guidelines for decision-makers and coordinating meetings of interested and affected parties. The common objective which unites all these actions is the provision of knowledge based on sound, credible scientific information. The following case studies illustrate how Specialist Groups and the Species Programme are undertaking conservation action throughout the world.

Regional strategy for Asian wild cattle and buffalo

In June 2008, a range-wide status review and Regional Conservation Strategy for Wild Cattle and Buffaloes in South-east Asia were developed at a participatory workshop in Vietnam involving representatives from 11 Range State governments and members of the conservation NGO and academic communities. Regional conservation planning is important for Asian wild cattle and buffaloes because several species such as the Banteng (*Bos javanicus*), Wild Water Buffalo (*Bubalus bubalis*) and Gaur (*Bos gaurus*) are wide-spread and the plan includes measures to ensure that these species will be conserved across the different ecological settings they inhabit.

The workshop participants prepared a comprehensive series of conservation actions for

inclusion in the Regional Conservation Strategy. These included measures to ensure real enforcement of legislation on wildlife hunting and trading, measures to increase the effectiveness of protected areas, and management of interactions with domestic livestock to control competition, disease transmission, and genetic introgression.

The workshop was sponsored by the French Global Environment Facility (FFEM), the French Agricultural Research Centre for International Development (CIRAD), Earthwatch Institute, and the Wildlife Conservation Society.

The nine species of wild cattle and buffaloes in Asia play a vital role in ensuring fully functioning ecosystems. They help to maintain habitat diversity through browsing and grazing and they are prey species for tigers and other large carnivores. Wild cattle species also represent a

major reservoir of genetic material with the potential to safeguard and improve domestic cattle breeds throughout the world. However, despite their importance, all species of Asian wild cattle and buffaloes are listed in the Threatened categories of the IUCN Red List of Threatened Species™ (2008).

To integrate the Regional Conservation Strategy for Asian wild cattle and buffaloes into national planning processes, regional workshop participants and the Specialist Group are conducting a series of national action planning workshops. The first of these has already been undertaken, with a draft National Action Plan for Vietnam's wild cattle and buffaloes being produced and national-planning workshops for the Philippines' and Indonesia being planned. In addition, a South Asian regional conservation planning workshop will be held soon. These regional and national plans will be made available on the Asian Wild Cattle Specialist Group website.

SG website: <http://www.asianwildcattle.org/>

Making wild medicinal plant collection sustainable

Visit any market in the world – a gathering of roadside stalls or an urban superstore – and you are likely to find medicinal plants for sale in many forms: fresh leaves, dried seeds, powders and tinctures, teas, pills and capsules. These products are essential to health care for many people in much of the world. Collection of wild plants, from which these products are made, is an important



Banteng, *Bos javanicus*

income source for many families and communities. IUCN's Medicinal Plant Specialist Group estimates that more than 50,000 of the world's plant species are used in medicine, and more than 70% of these species are wild-collected. Some of these species are known to be threatened, and a few are protected under national laws and international agreements, such as CITES. However, growing demand for herbal products, shrinking habitats, and other pressures on wild plants indicate that wild-collected medicinal plants are a seriously threatened resource world-wide.

Industry, governments, organic certifiers, resource managers and collectors are concerned about declining populations and supplies of medicinal plants, and are searching for ways to make wild collection sustainable. Over the last four years, the Medicinal Plant Specialist Group has worked with a consortium of partners - including the World Wide Fund for Nature (WWF), TRAFFIC - the wildlife trade monitoring network, the Institute for Marketecology (IMO), the German Federal Agency for Nature Conservation (BfN), the Foundation for Revitalisation of Local Health Traditions (FRLHT) and Traditional Medicinals, a private company - to develop practical tools that support sustainable wild collection of medicinal and aromatic plants. Foremost among these tools is the new International Standard for Sustainable Wild Collection of

Medicinal and Aromatic Plants (ISSC-MAP), a set of principles, criteria, indicators, and related guidance that enables industry, resource managers, collectors, certifiers, and other actors involved in the value chain for medicinal plant products - from seed to salve - to assess, monitor, and verify the sustainability of wild medicinal plant resources and collection practices.

ISSC-MAP website: <http://www.floraweb.de/map-pro>

Updated action planning for tapirs

The Tapir Specialist Group has finalized the second version of the Tapir Action Plan. The Population and Habitat Viability Assessment (PHVA), as implemented by the IUCN SSC Conservation Breeding Specialist Group, was used as the methodology for the development of updated plans for each tapir species, listing and prioritizing conservation recommendations for tapirs and their habitats. The PHVA Workshops were carried out over the past five years: Malayan Tapir PHVA in 2003 (Malaysia); Mountain Tapir PHVA in 2004 (Colombia); Baird's Tapir PHVA in 2005 (Belize); and Lowland Tapir PHVA in 2007 (Brazil). All in all, the meetings had the participation of over 300 stakeholders from 30 countries worldwide and received institutional and/or financial support from 150 different organizations.

The new Action Plan is a "living document" that will be constantly reviewed, updated and adapted according to tapir conservation needs identified in the years to come. For this purpose, an Action Plan Implementation Taskforce has been established and has an enormous responsibility including: publicizing and promoting the active use of the new plan throughout tapir range countries; leading a constant process of review and update of the plan; maintaining the network of professionals and organizations formed during the workshops; assisting to raise funds and provide endorsements for the implementation of actions; and keeping in contact with all persons who committed to be responsible for implementing actions accordingly with proposed deadlines. The progress made in implementing the plan will be evaluated during the Tapir Symposium every three years.

Achieving an action plan is a success, but real success lies in its implementation. The implementation of the Lowland Tapir Action Plan led

Achieving an action plan is a success, but real success lies in its implementation



Grading fruits of *Feronia limonia*



to a decree prohibiting the sale of several game species in French Guiana, including the lowland tapir. As for *ex-situ* accomplishments the development of Regional Collection Plans for Baird's tapirs is complete and is well underway for lowland tapirs.

The Action Plans for each tapir species can be downloaded in all appropriate languages from the TSG website.

SG website: www.tapirs.org

Linking wild salmon to World Heritage

The Shiretoko Peninsula was registered as Japan's newest World Heritage Site in 2005 and recognized by UNESCO as an outstanding example of the important interaction of marine and terrestrial

Action has already occurred at the site, with seven in-stream structures modified to allow for fish passage and the development of a preliminary management plan for wild salmonids in the World Heritage Site.

The SSG has also recommended development of a management plan to address salmon hatcheries, commercial fishing practices, and the critical need to begin monitoring wild salmon populations in the region. However, much work remains to ensure the Shiretoko World Heritage Site meets its full potential as a global example of marine-terrestrial ecosystem linkages. The SSG will continue to provide expertise and support improvements.

SG website: <http://www.stateofthesalmon.org/>

Conserving zebras and asses

Wild equids (zebras, asses, and horses) were once among the most abundant herbivores in Africa and Asia. Today there are only seven species and most of these are Endangered. Our challenge is to improve the conservation status of these species and their habitats. We need a better understanding of basic biology, seasonal movements, interactions with livestock, and the dynamics of the arid ecosystems in which they live. A priority for achieving this goal is the training of range state nationals in behavioural ecology, population dynamics and ecosystems ecology.

The African Wild Ass (*Equus africanus*) and the Grevy's zebra (*Equus grevyi*) are the most threatened equids in Africa, being respectively Critically Endangered and Endangered. Support has been secured for five Equid Specialist Group (ESG) members from Eritrea and Ethiopia to do MSc's and PhD's on these species. These studies focus on equid ecology in the context of associated people, wildlife, livestock, and vegetation. Major threats to these species include hunting, for food and medicinal purposes, and potential competition with livestock for resources. The work of ESG members Fanuel Kebede and Almaz Tadesse in Ethiopia and Hagos Yohannes and Redae Teclai in Eritrea has markedly improved their conservation status, while in Kenya a new Grevy's zebra management strategy has been launched by the Kenyan Wildlife Service. ESG members have engaged in research and conservation programs and participated in workshops to help assess the species current status with subsequent results revealing the population may have stabilized during the last two years.

Wild equids share their home ranges with people and their livestock. By using an ecosystem approach, the research and conservation programs are investigating how all physical and biological components interact. Such an approach also allows research personnel, wildlife managers and policy makers to analyze alternative strategies for wildlife and pastoralist co-existence.



Dolly Varden, *Salvelinus malma*

ecosystems. The species that best represents this critical link are wild salmonid fishes, which support a high level of river and terrestrial ecosystem productivity and provide critical nutrients to wildlife such as Brown Bear (*Ursus arctos*) and the Steller's Sea-Eagle (*Haliaeetus pelagicus*).

The IUCN Salmonid Specialist Group (SSG) was instrumental in pushing for wild salmon conservation actions during the UNESCO review. Shiretoko represents critical freshwater and marine habitat for a number of salmonids, including Wild Pink (*Oncorhynchus gorbuscha*), Chum (*O. keta*), and Cherry (*O. masou*) Salmon. The site also supports Japan's only known anadromous population of Dolly Varden (*Salvelinus malma*), a salmonid adorned with bright pink spots.

At the World Heritage Site, the state of the freshwater salmonid habitat has deteriorated as a result of dams and other river channel structures. The SSG articulated required actions to restore more natural river function at the site and provide free access to critical spawning habitat. Over one quarter of the streams at the site have artificial passage impediments, and the SSG has urged the relevant parties to undergo dam removal or modification to allow improved salmon migration.



Grevy's zebra, *Equus grevyi*

The recent IUCN Red List assessment indicates that there has been significant improvement in the conservation status of Przewalski's Horse (*Equus ferus ssp. przewalski*) and the Mountain zebra (*Equus zebra*). Constant vigilance, commitment and mutual support of ESG members in all the range States however is critical to the goal of downlisting all Endangered equid species.

SG website: <http://data.iucn.org/themes/ssc/sgs/equid/>

Conservation program for three Mediterranean plant species

Apium bermejoi is a plant endemic to Menorca in the Balearics and exists as two very small populations covering just a few dozen square meters amounting to less than 100 individuals. Monitoring has revealed an alarming decline in the number of individuals, mainly due to recurring droughts. Conservation requirements include the reintroduction of individuals to original populations, creation of new populations, creation of an *ex-situ* genetically representative population and the creation of one or more micro-reserves. To help raise awareness about this species, an information card was produced and translated into Catalán and Spanish with the help of the Regional Council of Menorca.

Naufraga balearica is an endemic species from the north coast of Mallorca in the Balearics. It exists only in three localized declining populations on rocky cliffs and is threatened by significant population decline, competition from other plants and heavy pressure from goats. Conservation requirements and actions include managing seed reserves while taking their low viability into account, creating an *ex-situ* genetically representative population, creating one or more micro-reserves, reducing and managing goat populations and raising awareness of the species with those involved in managing sites.

Biscutella rotgesii is an endemic species found only in three sites on the island of Corsica and is protected at the regional level. A conservation program was established to help identify threats and enable actions to be put into place to guarantee the persistence of the species. The principal population of *Biscutella* is found in unstable rocky areas above roads. Communication and cooperation has led to a conservation friendly solution. Competition with other plants, such as the invasive maritime pine *Ailanthus altissima* could be a threat and requires monitoring to enable early action if necessary. The small size of the population makes this species particularly vulnerable to fire and bovine grazing and these risks need assessment.

Reintroducing the European Bison

It is critically important to increase both the captive and free roaming populations of European Bison (*Bison bonasus*) with careful population genetic management in order to conserve this species. In previous years, some countries have responded positively towards the conservation needs of the species. The most important of these are reintroduction projects. To date there are no free living herds in western Europe and creating such a herd would be a crucial step towards the conservation of this native large herbivore. It is not easy for people to accept large, free-living animals so this necessitates a concerted effort on our part to communicate and cooperate with local people. Through these kinds of actions we hope that many reintroductions will be a reality in the near future.

Other current activities are concentrated on supplementing the Carpathian meta population. In the last few weeks animals from Ireland, Germany and Sweden were transported to Bieszczady, the Polish part of the Carpathians. They are currently being kept in quarantine enclosures and will be released in the fall of 2008. The other two groups from Gera Zoo (Germany) and Thoiry (France) will be transported to Neamt Natural Park in Romania for reintroduction.

Last year as part of the implementation of the European Bison "Status survey and Conservation Action Plan", the Bison Specialist Group established the European Bison Advisory Centre (EBAC). The main task of EBAC is to coordinate the breeding of all captive European bison and to contribute to the reintroduction process. It also disseminates information on current bison numbers, provides recommendations about possibilities for animal exchanges and provides technical information on issues such as enclosure requirements and animal group sizes.

EBAC: <http://ebac.sggw.pl>

It is not easy for people to accept large, free-living animals

Species guardians act for threatened birds

As the Red List Authority for birds, BirdLife International re-evaluates the status of about 10,000 bird species for the IUCN Red List of Threatened



Blue-throated macaw, *Ara glaucogularis*

Species™ every four years. The most recent assessment, published as Threatened Birds of the World 2008 and available at www.birdlife.org, is the fifth assessment since 1988. A network of thousands of scientists, conservationists, birdwatchers and organizations (many from the SSC's Bird Specialist Groups) contribute information and updates, including discussions on potential Red List category revisions at www.birdlifeforums.org.

As well as providing unparalleled detailed assessments of the status of the world's birds and the threats to them, this information is then used by the BirdLife Partnership of over 100 independent national NGOs to set priorities for conservation action on the ground. In particular, threatened species are one of the four criteria used to identify Important Bird Areas (IBAs): sites critical for the conservation of the world's birds, identified through bottom-up, multi-stakeholder national processes. The global network of IBAs is almost complete, with over 10,000 having been identified to date, and BirdLife is now focusing on monitoring these sites and ensuring that they are adequately safeguarded and managed.

At many IBAs, BirdLife Partners have helped to set up local conservation groups - local communities working to safeguard and manage the site to benefit birds, other biodiversity, and the people whose livelihoods depend on the site and its ecosystems. As well as site-based conservation approaches, BirdLife has launched a Preventing Extinctions Programme to tackle urgent conservation issues for

the most threatened bird species, starting with the nearly 200 classified as Critically Endangered. For these, BirdLife is appointing Species Guardians (organizations or individuals best placed to implement and/or coordinate species-specific conservation actions), supported by funds from Species Champions (companies, institutions or individuals providing the resources: visit www.birdlife.org to find out how to become a Species Champion). BirdLife also works closely with many regional and international conventions and agreements, as well as in partnership with the private sector. Together, these diverse approaches by the world's largest alliance of national conservation NGOs are helping to safeguard the future of the world's birds.

BirdLife International: www.birdlife.org

Stemming amphibian extinctions

The IUCN SSC Amphibian Specialist Group (ASG) strives to conserve amphibian diversity by stimulating, developing, and executing practical programs to study, save, restore, and manage amphibians and their habitats around the world. Using the Amphibian Conservation Action Plan



Bolitoglossa savagei

(ACAP: www.amphibians.org) as a blueprint for action, the ASG is actively working with local and international partners to stem the wave of extinctions that are affecting amphibians around the world. One key component of this strategy is

Sri Lanka boasts an extraordinary diversity of endemic amphibian species

identifying and safeguarding those habitats that harbour especially high concentrations of threatened species.

Sri Lanka boasts an extraordinary diversity of endemic amphibian species; it also holds the dubious honour of the most documented amphibian extinctions of any country in the world. The 8% of original cloud forest that remains continues to dwindle, putting many remaining species at risk. Morningside, a 1,000-ha cloud forest in south-eastern Sri Lanka, was identified by the Alliance for Zero Extinction (www.zeroextinction.org) as one of the top five highest conservation priorities in the world. The ASG and Conservation International worked with the Wildlife Heritage Trust and the Forest Department of Sri Lanka to have Morningside designated a Forest Reserve for Biodiversity Conservation.

Early last year we teamed up with local and International partners to achieve a similar conservation success in the Sierra Nevada de Santa Marta, Colombia. Upon learning that a critical refuge for six endemic amphibian species was slated for conversion into vacation homes, we joined forces with the American Bird Conservancy to help Colombian NGO Fundación ProAves purchase the 650-hectare area of forest. The newly established El Dorado reserve is now being managed by Fundación ProAves, who monitor the amphibians and promote ecotourism at El Dorado, encouraging safe and sustainable enjoyment of the site's

biodiversity while ensuring the survival of the threatened species it was created to protect.

SG website: <http://www.amphibians.org/>

Positive news for Africa's rhinos

The African Black Rhino (*Diceros bicornis*) hit an all time low in the mid 1990's and the Southern White Rhino (*Ceratotherium simum simum*) in the mid 1890's, and both have experienced good recoveries commensurate with the time frames involved. Since its reconstitution in 1991, the African Rhino Specialist Group (AfRSG) has concentrated on leveraging conservation action in the Range States, and believes that it has made significant contributions to the observed 69% increase in numbers of Black Rhino, currently estimated at 4,180, and the 302% increase in Southern White Rhino (now at 17,480) over the past 17 years.

To achieve its mandated goal of ensuring the survival of African rhinos, the AfRSG has had to develop international best practices and mechanisms for the transfer of knowledge to the Rhino Range States without in any way damaging their 'sense of ownership' that is so crucial for motivation and successful implementation. This has largely been achieved through their inclusion in the AfRSG membership.

Apart from developing international best practices for African rhino which include, *inter alia*, area suitability, rhino introductions, monitoring and biological management to achieve optimal population growth, timeous harvesting and translocation, the AfRSG adopted a new strategy for prioritizing populations and rating projects requesting support from funding agencies. Emphasis was placed on the most viable populations of each taxon and ensuring their best security and management, as it was argued that with these in place the species survival would be assured. Strong



African black rhino, *Diceros bicornis*

support was also given to the creation of new populations with founders and in areas with ecological carrying capacities sufficient to ensure long-term viability. This approach was quite different from the traditional approach of focusing on the smallest and often most poorly-managed and performing populations, irrespective of the taxon's overall conservation status. Over the years the latter had proved unsuccessful, and had consumed a disproportionate amount of the funds available for rhino conservation on the continent.

Conserving 'crop wild relatives' for human well-being

For many conservationists, the importance of crop wild relative (CWR) species may not be evident, yet they are part of wild biodiversity and their survival is highly compromised. There is often little known about them, they are associated with disturbed environments and are neither given priority by nature conservation agencies nor agricultural ministries. There is generally also a poor understanding of what constitutes a CWR. They are wild plant taxa that have a relatively close genetic relationship to crops (including all plants of socio-economic value to people) and through their actual or potential contribution of genetic traits to crops, they provide global food security. As progenitors of our present day crops and gene donors, they enable crops to adapt to diverse environments and confer resistance to pests and diseases, which in times of ecosystem instability and climate change is becoming increasingly critical. They thus represent a special group of plants that must at all costs be preserved for human well-being.

The Crop Wild Relatives Specialist Group (CWRSWG) helps to ensure that CWRs are adequately conserved and sustainably utilized. During the 2005–2008 quadrennium members worked to develop a global strategy on CWR, originally under the aegis of PGRForum, an EU funded project, and produced an operational strategy. As further outcomes of the PGRForum, two major books on the conservation and use of CWR have been published (Maxted *et al.*, 2008; Iriondo *et al.* 2008) along with an inventory of European and Mediterranean CWRs with an information management system (<http://www.pgrforum.org/cwris/cwris.asp>). The group has subsequently established a website (www.cwrsg.org) and published a newsletter "Crop Wild Relative". A CWR portal was launched at CBD

COP9 in Bonn Germany this year, as part of a UNEP/GEF project "In situ conservation of Crop Wild Relatives Through Enhanced Information Management and Field Application" being implemented in five countries – Armenia, Bolivia, Madagascar, Sri Lanka and Uzbekistan and led by Bioersity International. The portal serves as a gateway through which information can be made widely available.

SG website: www.cwrsg.org

Large-scale planning for Africa's elephants

The SSC African Elephant Specialist Group (AfESG) has been integrally involved in supporting African elephant Range States to develop and implement sub-regional and national elephant strategies and action plans across the continent. In three of the four sub-regions – Central, Southern and West Africa (and Eastern Africa has been initiated), we

For many conservationists, the importance of crop wild relative (CWR) species may not be evident



Sri Lanka Wild pepper, *Piper sylvestre* L.

have provided technical support in helping the range States to identify their key elephant conservation and management issues. Of note here, the AfESG recognised the urgent need to design and implement conservation strategies for trans-frontier elephant populations helping to develop action plans for six areas harbouring the largest remaining transfrontier elephant populations in West Africa. These action plans are successfully being implemented by the concerned Range States. Along with this, the AfESG, in collaboration with the Convention on Migratory Species, supported the transfrontier Range States to conclude and sign a Memorandum of Understanding concerning measures to conserve elephant populations in West Africa.

themselves coming to consensus on the key elephant conservation and management issues facing the continent as a whole. The process has been very encouraging with excellent dialogue to date from all stakeholders. Importantly, once the Strategic Framework is drafted, the African elephant Range States will need to discuss how best to further develop and implement the nuts and bolts of how to “action” the Action Plan for the species sustainable future. Continued AfESG involvement in the development of this and other strategies and plans as a technical adviser is encouraging and hopefully its role can morph increasingly into supporting their implementation.

SG website: <http://data.iucn.org/themes/ssc/sgs/afesg/>



Sustainable Use Specialist Group

Most recently, resulting from a decision at CITES CoP14 in June 2007, the AfESG was invited to facilitate the development of the Strategic Framework for a continental or Pan-African Elephant Action Plan, working collaboratively with all African elephant Range States. Intensive brainstorming and discussion sessions have culminated in the African elephant Range States

Fungi, fish and pheasants: conservation through use in Europe

Do you think conservation is mainly about protecting species and areas to halt the decline in biodiversity? For more food and biofuels, must we have “landscapes with small islands of biodiversity in a sea of agriculture”? Are people the problem rather than the



solution? These are questions for workshop #514 at the IUCN World Conservation Congress in Barcelona, which focuses on the use of wild plant products, edible fungi, hunting, angling and bird-watching. A survey by the SSC Sustainable Use Specialist Group (Europe) showed that EU citizens spend more than 40 billion Euros annually on fishing, hunting and bird-watching (more than 100 Euros/ha of Europe), perhaps with more than 10% of the EU's 500 million citizens collecting vegetal material such as fungi for food, income and recreation. This has been associated with an increase in ungulate and game-bird numbers across the EU, fish habitats improving where there is more hunting and angling and fungi stocks maintained where most people have foraged for



Lesser flamingo, *Phoenicopterus minor*

them (a Swiss study showed that 25 years of picking did not reduce stocks). So how can wildlife-related activities be encouraged in order to conserve as much biodiversity-rich habitat as possible outside of strict protection? How can we ensure that what pays, stays? Please attend the Congress session and learn more about this topic.

SG website: <http://data.iucn.org/themes/ssc/sgs/susg/>

International planning for Lesser flamingo

The Lesser flamingo (*Phoenicopterus minor*) is classified Near Threatened in The IUCN Red List of Threatened Species™ (2008), indicating that it is considered likely to qualify for a Threatened category in the near future. It is also listed in Columns A and B of the Agreement on the Conservation of African-Eurasian Migratory Waterbirds (AEWA) Action Plan, Appendix II of the Bonn Convention (CMS) and Appendix II of CITES.

With the goal of reclassifying the Lesser flamingo from Near Threatened to Least Concern, Flamingo Specialist Group members from the species' primary Range States have worked together to develop and begin the implementation of an international conservation action plan for the species. The initial step was a workshop convened in Nairobi, Kenya for the purpose of assessing the status of the species in its 12 primary Range States from West Africa to India, and from Ethiopia to South Africa. This assessment included population size, distribution and trends, evaluation of the primary threats to the species' future survival, and specification of the conservation actions that need to be taken.

The workshop was organized by the Flamingo Specialist Group, with funding and assistance from several international organisations including Wildfowl & Wetlands Trust, African-Eurasian Waterbird Agreement, Swedish Environmental Protection Agency, Taiwan Council of Agriculture, Disney Animal Kingdom, International Flamingo Foundation, Wetlands International, BirdLife International and three zoological societies in the UK. It was attended by 33 representatives of conservation NGOs and government conservation departments in the primary range states, most of whom are FSG members.

Following the workshop, an international action plan was drafted under the auspices of the African-Eurasian Waterbird Agreement (AEWA)

and the Bonn Convention (CMS) using data provided by Flamingo Specialist Group members. The action plan has been submitted to the AEWA Technical and Standing Committees, and will be submitted to the member state representatives for their endorsement at their Meeting of Parties in September 2008. FSG members will play a leadership role in the implementation.

A trophy for conservation: sustainable hunting in Pakistan

In 1985, the 1,800-km² Torghar area of Balochistan, Pakistan near the Afghan border held less than 100 Endangered Suleiman Markhor (*Capra falconeri jerdoni*) and some 200 Afghan Urial (*Ovis vignei cycloceros*). The beautiful area also boasted threatened habitats, important watersheds and medicinal plants.

The start of the Torghar Conservation Program involved an arrangement for hunters to pay US\$48,000 for 1 markhor and 4 urial in 1986. Twenty years later the population of markhor has reached 2,541 and urial 3,136. Trophy hunting has helped establish the world's largest populations of these species despite perceptions of conflict with domestic stock. Trophy hunting has also generated US\$1,716,800, of which US\$287,200 has gone to the

Provincial government and the rest mainly to the local community.

During this time, with funds from GEF, UNDP and the Society for Torghar Environmental Protection (STEP), the IUCN SSC Sustainable Use Specialist Group (Central Asia) has trained 10 veterinary and agricultural extensionists to further improve livelihoods as well as creating the first forest and wildlife policy for the Balochistan forest and wildlife department. More trees have been planted for fruit and firewood, with important contributions to health-care, education and general capacity building. Hunters like contributing to community-based conservation, in this area not favoured by conventional tourism.

SG website: <http://data.iucn.org/themes/ssc/susg/susg/>

Funding conservation action on the ground

IUCN Species Programme and SSC manage a programme of small grants, established in the name of Sir Peter Scott. These grants play an important role in responding to species loss by supporting small, targeted, on-the-ground conservation projects, two of which are highlighted here.

Reducing conflict between Red-breasted Geese and farmers in Romania

The Red-breasted Goose (*Branta ruficollis*) is an Endangered species (IUCN Red List, 2007) of around 37,000 remaining birds, with a small wintering range of 20,000 km² of farmland. Farmers receive no compensation for crop damage by grazing geese. As a consequence, to protect their livelihoods, they use pesticides and poisons to harm the feeding birds.

A Sir Peter Scott funded project was established in Romania to address these issues. The country supports 20% of the European population of Red-breasted Geese, including their main winter feeding

ground in the Danube Delta Biosphere Reserve. Given their dependence on farming habitat, agricultural policy is crucial for the conservation of the species. Engaging with and supporting farmers is a key focus of this project, particularly encouraging the adoption of more sympathetic farming methods beneficial for the Red-breasted Goose.

Recent talks with Romanian Ministry of Agriculture staff indicate that the agri-environment schemes promoted by the project have been taken up by many farmers in Romania. A management plan has also been submitted to the Ministry of Environment for the Danube Delta Biosphere Reserve to provide a secure future for Red-breasted Geese at the heart of their existing range.

This project is supported by the IUCN SSC and Wetlands International Goose Specialist Group.

More information: <http://www.iucn.org/sirpeterscottfund>

Supporting new markets in West Africa to conserve threatened sharks

A community-based conservation project in Senegal launched in May, 2008 is responding to the threat of extinction for many local species of shark. Senegalese women have traditionally been employed in the shark meat processing industry. Over-exploitation of shark stocks, largely to meet the demand for shark fins in Asia, has resulted in some species disappearing from the region.

Thirty-five women from six areas of Senegal were appointed from within their own communities to participate in this project, to learn new skills in order to halt the unsustainable trade in Endangered shark species. Within West Africa there is high demand for processed pelagic fish, such as the abundant *Sardinella* species, which is affordable to the poorest communities. Training sessions took place in June and focused on the production of salted, dried and smoked pelagic fish as a commercially viable alternative to shark meat, supported by the Senegal Ministry of Fisheries.

Project leader Dr Mika Diop says that the women were very impressed by their new found skills and were keen to establish new trade networks in their home communities. The project hopes to provide long-term benefits to both local livelihoods and marine biodiversity in West Africa. This project is also supported by the IUCN SSC Shark Specialist Group.

Hunters like contributing to community-based conservation



Takana woman during her practical training

New Approaches for Communicating about Species

The changing face of communications

With technology evolving faster than ever before, our lives constantly need to adapt to the changing environment. Technology changes the way we communicate and interact with each other, not only socially but also in the workplace. In the last Quadrennium we have seen the rise of social networking sites like MySpace, Facebook, and LinkedIn, and photo and video sharing sites like Flickr and YouTube. The availability of audio

podcasts, video vodcasts and music downloads is also changing purchasing habits and the way we interact with the media. These sites, originally developed to target younger audiences, are now reaching a wider audience, as they create powerful new ways for members of groups and networks to communicate and share information. With millions of people now using these sites, it seems that online social networking will be an enduring part of everyday life.

With so many people now online, these resources are a new channel to communicate information about species, particularly for targeting younger audiences. Species are star subjects for photo, video and even audio content on the web, thanks to their charisma, which can be conveyed not only visually but through sound clips.

IUCN has embraced technological change and has incorporated innovative ways of communicating with its members into its working style, facilitating even more ways of sharing information. Here we profile a few of the creative ways that IUCN and

Exploring new communication resources online

SSC are harnessing the latest technology or using original approaches to reach new audiences.

YouTube: Reaching millions through video

Does your species star in any online videos? Do you want your species to be featured online, with an audience of millions? Take a look for yourself at www.youtube.com. You can add a YouTube video link to your own website, or add your website URL to a YouTube video. There is a “more info” link for each video (right-hand grey box), where you can add your URL for people to view your website. This is a good way to increase viewings and possibly encourage donations to your group!

For an example see <http://www.youtube.com/watch?v=DLbE9I6BAIw> for Amur Leopard footage and a link to the BBC website.

Flickr: Free photos

A great resource for photos is Flickr. At www.flickr.com you can use the Advanced Search function to search for photos that you can use for free (check “Creative Commons” at the bottom of the page and it will only show you photos that you have permission to use).

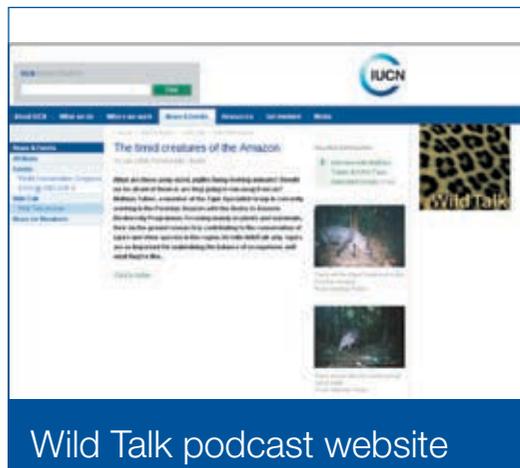
New IUCN approaches

Wild Talk – Audio Podcast

Wild Talk is a podcast (a podcast is an audio clip anyone can download from the internet) produced jointly by IUCN and WWF International.

Each month, IUCN presents the latest news and features from the world of conservation. Wild Talk profiles conservation projects on the ground and looks into the human stories behind the headlines. A member of the Tapir Specialist Group, Dr Mathias Tobler, was one of the first SSC members to be featured in a Wild Talk episode. He told Wild Talk why tapirs are so important for maintaining the balance of ecosystems and what they’re like. Go here to listen to the podcast: http://www.iucn.org/downloads/tapirs_peru.mp3. Podcasts can be added as links to your website and are a great way to add interesting detail to them. If you want IUCN to interview you for a podcast, please contact Borjana Pervan at borjana.pervan@iucn.org and she can do this over the phone.

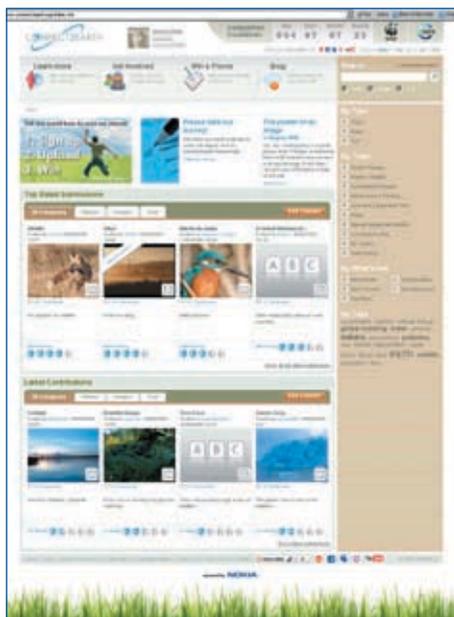
http://www.iucn.org/news_events/wild_talk/archive/index.cfm?uNewsID=1332



Connect2Earth – Video, photo and ideas-sharing website

IUCN and WWF, supported by Nokia, have launched connect2earth.org for young people to tell the world what they think about the environment. Connect2earth is a new online community where young people can have their say on the environment by uploading videos, pictures and comments. The site allows people to rank other entries, discuss the issues that matter most to them, and share smart ideas and solutions from their own communities.

www.connect2earth.org



Connect2Earth, where young people online share ideas about the environment

New SSC approaches

Otter Specialist Group – Question & Answer Service

The Otter Specialist Group aims to be the first port of call for information about otters. Having found that the general public has many questions about otters, they decided to make a questions and answers section available on their website. Anyone can send in a question, and the Specialist Group always responds and posts the answer online (as long as the answer is not too sensitive or detailed). The Q&A page provides a public education service as well as practical advice for people needing help with otter issues (such as questions about conservation, or challenging

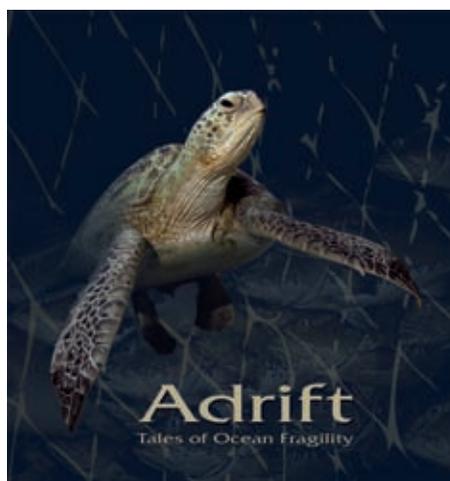
human-wildlife interactions). The publicly accessible Q&A service also makes it easier for researchers to get in touch with the appropriate expert in the Group. Finally, the service has led to news of exciting otter sightings, such as the Hairy-Nosed Otter in the Cardamom Mountains, which had a huge impact on the conservation of this species.

This form of communication exchange has worked very well for the Group because all enquiries are directed through a single person who delegates responses. The group receives very positive feedback for the responses it gives.

Marine Conservation Sub-Committee – a ‘cocktail party’ book to share species stories and conservation issues

Studies show that our behaviour is more likely to change as a result of reading information in a story-type format rather than a factual one. Last year, the Marine Conservation Sub-Committee (MCSC) decided to produce a visually appealing and accessible book to inform the educated public about the latest issues facing marine species. Recognizing that ‘coffee table books’ are often left on tables and rarely opened, they wanted a smaller, more accessible format, and thus they came up with the idea of a ‘cocktail party’ book. Each species story aims to leave such an impression on the reader that she will remember a fact or anecdote that she would be likely to tell a friend at a cocktail party.

The MCSC hopes that they will spur people to action through this collection of witty but true and informative stories and inspiring photos in their book, *Adrift: Tales of Ocean Fragility*. Twelve species stories draw people into the fascinating lives of the animals, while at the same time explaining the threats they face. The book will be launched at the IUCN Congress in October and available for sale from the Congress Bookstore and the IUCN online publications catalogue.



Crane Specialist Group develops targeted communication approaches

The International Crane Foundation, collaborating with Crane Specialist Group members and education specialists, is coordinating a multi-year education project, “Three White Cranes, Two Flyways, One World”, focusing on the crane flyways in East Asia and eastern United States. The project communications targets very specific audiences – elementary and middle school educators who live near important crane areas along the two flyways – and has thus developed targeted communication approaches.

To broaden their outreach, they developed a trilingual project website (www.trackingcranes.org), as well as specific activities targeting the unique conditions of each country. In Yakutia, Russia, where few schools have internet access, they provide a booklet based on the Russian website content for schools without computer access. In China, the project reaches urban audiences through special events at the Beijing Zoo and by partnering with other NGOs. In the United States, they use weekly email newsletters and a project blog to communicate with American teachers. One lesson they have learned is that different communications tools are best suited for each country.

Tapir Specialist Group harnessing the power of YouTube

YouTube is not just for mindless entertainment – it can be an effective way to spread a message, and the Tapir Specialist Group is taking advantage of this. By linking to various tapir videos on YouTube and other websites they tap into a free visual resource that is a good start for making people fall in love with tapirs. And we all know that appealing to people’s soft sides can be one of the most effective ways to win them over to the cause. To take a look at the Tapir Specialist Group’s impressive website and see the YouTube videos, visit: <http://tapirs.org/img/video/index.html>



Antelope Specialist Group is the first Specialist Group to complete a website on the new IUCN web template

IUCN recently moved its website to a new form-based system making it easier to keep webpages updated and streamlined. Since April 2008, SSC Specialist Groups have been moving their websites to this system, with the Antelope Specialist Group being the first to complete their website in the new IUCN look. It is an excellent example of how Specialist Groups can make the most of the IUCN



website. Congratulations to the Antelope Specialist Group! Please take a look at it at http://www.iucn.org/about/work/programmes/species/working_together/specialist_groups/directory_specialist_groups/directory_sg_mammals/asghome/index.cfm

'Top 25 Turtles in Danger' Fact-sheet (Tortoise and Freshwater Turtle Specialist Group)

The media and the public are fascinated by species, but they often want to know the most important facts, as fast as possible, and in a digestible format. The Tortoise and Freshwater Turtle Specialist Group takes care of this with an eye-catching one page photo guide called The Top 25 Turtles in Danger.

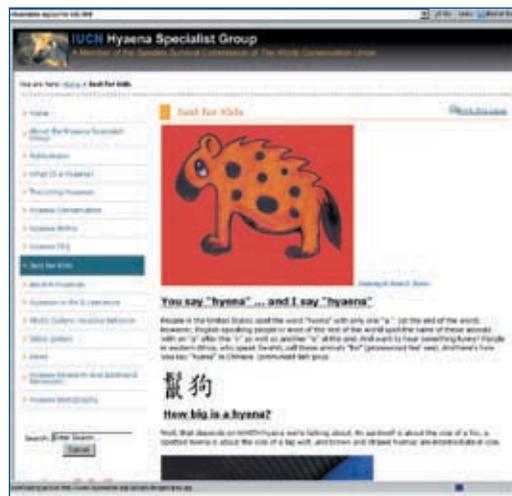
The fact-sheet can easily be printed on any colour printer, and is a useful resource to be able to distribute even at short notice electronically or in printed format. This communication tool is a useful means of giving a quick introduction to threatened turtles and tortoises, and succinctly delivers the message that these species are in trouble. Learn more at: <http://www.iucn-tftsg.org/trouble/>

Hyaena Specialist Group – “Just for Kids” section of website

SSC Specialist Groups tend to focus on adults as target audiences, but the Hyaena Specialist Group has branched out. One of their stated missions is to, “through education, change people’s attitudes towards these much maligned and often unnecessarily persecuted animals”. Much of the information IUCN releases is detailed and technical, making it inaccessible to the general public, in particular children, and yet they are an important target audience if we are to effect change.

The Hyaena Specialist Group has dedicated a page of their detailed but clear website to resources for a younger audience. The “Just for kids” page contains content from why “Hyaenas are cool” to hyaena clip art, providing information on hyaenas in simple language and an attractive format for children.

Take a look at their website, especially the kids’ section, at: <http://www.hyaenidae.org/>



End Notes

Publications

Grouse Action Plan

Compiled by Ilse Storch

Grouse have long attracted and fascinated people. Their display behaviour, and particularly their traditional communal mating grounds or “leks”, have inspired poetry and folklore as well as scientific theories on sexual selection and the evolution of mating systems. In many parts of their range, grouse hunting still plays a major role in the culture, economy, and subsistence of local communities. The 2006–2010 Grouse Action Plan provides an overview to the distribution, status and threats to all 18 grouse species worldwide and identifies the most immediate conservation needs.

The full publication is available at:

<http://www.iucn.org/dbtw-wpd/edocs/2007-034.pdf>

Best Practice Guidelines for Surveys and Monitoring of Great Ape Populations – Occasional Paper of the IUCN Species Survival Commission No. 36

H. Köhl, F. Maisels, M. Ancrenaz and E.A. Williamson

The combination of threats currently facing the remaining great apes requires immediate conservation action at all scales – from site-level initiatives, through national and regional strategies, to international conventions and action plans. Baseline density estimates and subsequent monitoring of ape populations are essential for assessing the impacts of particular threats and measuring whether conservation programmes are succeeding.

This document outlines current approaches to great ape surveys and monitoring for field biologists, protected area managers, government wildlife departments and the conservation community at large.

The full publication is available by contacting: cmc@iucn.org

Overview of the Conservation Status of Cartilaginous Fishes (Chondrichthyans) in the Mediterranean Sea

Compiled by Rachel D. Cavanagh and Claudine Gibson

This report presents the first comprehensive regional IUCN Red List of chondrichthyan fishes

of the Mediterranean Sea. With 30 out of 71 species considered threatened (42% are Critically Endangered, Endangered or Vulnerable), the Mediterranean region has some of the most threatened chondrichthyan populations in the world. Currently, just eight species (six sharks and two rays) are granted some form of protection under international or regional agreements. Three main management measures (bans on deepsea fisheries, driftnetting and shark finning) are now in place in the Mediterranean; these should directly benefit chondrichthyan populations. However, effective implementation of these protection and management tools is vital for these measures to have any beneficial impact. It is clear that additional management measures are urgently needed for threatened species, and to regulate exploitation of depleted commercial stocks.

Go to this address for the full publication:

<http://www.iucn.org/dbtw-wpd/edocs/2007-031.pdf>

Review of Options for Managing the Impacts of Locally Overabundant African Elephants

Compiled by D. Balfour, H.T. Dublin, J. Fennessy, D. Gibson, L. Niskanen and I.J. Whyte

The African Elephant (*Loxodonta africana*) is the world's largest terrestrial mammal. It is a species of considerable economic, ecological, cultural and aesthetic value to many people in the world. The elephant is a flagship species, providing a focus for raising awareness and stimulating action and funding for broader conservation efforts. Some of the most important decisions that have had to be made, and will continue to be made in wildlife management in Africa, revolve around elephants. Information about attempts to control wild populations of elephants is generally not readily accessible to the relevant managers and conservation authorities in Africa, much of it being scattered in diverse reports and scientific papers or as part of the body of unwritten expert knowledge. The main objective of this document is therefore to make available lessons learned from the past and from ongoing efforts to manage the negative ecological impact of African elephants, and to provide a summary of the main technical considerations and pros and cons of the different management options available.

The full publication is available by contacting: cmc@iucn.org



IUCN Species Programme Staff changes

Melanie Bilz joined the Species Programme in Cambridge as a new Programme Officer in the Red List Unit in June. She will work on the European and Mediterranean Biodiversity Assessments, with a particular focus on coordinating the European and Mediterranean vascular plants Red Lists. Melanie comes to us with well-honed project development and management skills, and experience of European and Mediterranean plant conservation. Melanie holds a Master's degree in Landscaping and Environmental Planning from the Technical University of Berlin. Email: melanie.bilz@iucn.org

Helen Boulden joined the Species Programme in May as the new Junior Professional Associate, for the SP at Headquarters. Helen holds a Master's degree in Ecology and the Environment from Lancaster University, UK with areas of study and work experience including conservation biology, species, and habitat management. Helen's time at IUCN will be dedicated to communications support including assisting in the preparation of the 2008 IUCN Red List of Threatened Species™ update and general support to the Species Programme and SSC network. Email: helen.boulden@iucn.org

Thomasina Oldfield was seconded to TRAFFIC in March whilst remaining a key member of the IUCN Species Programme. She will lead the newly established Research and Analysis Programme at TRAFFIC which will take up the functions of the existing Species Trade and Use Unit of the IUCN Species Programme along with oversight of related activities already within TRAFFIC. Thomasina will take a particular role in relation to our work on the collection of data on species, trade and use – as part of the IUCN Red List assessment process – really engaging with TRAFFIC to bring this about and turn the proposals into reality. Email: thomasina.oldfield@traffic.org

Abigail Powell completed her post as Junior Professional Associate with the Species Programme and left IUCN in January 2008. Abigail did an outstanding job as an intern assisting with marketing and communications, supporting the Species Programme and managing the website to name just a few of her projects. She has moved to Wellington, New Zealand to pursue a PhD.

SSC Staff Changes

Ian Little started in the SSC Chair's Office on Monday 5 May, replacing Sally Hofmeyr as the new George B. Rabb Intern. He will hold this position until his field work season starts in October. Before working in the SSC Chair's Office, Ian had just returned home from his first field-work season of his PhD, which involved the monitoring of nests

of small grassland nesting birds for the purposes of assessing land use management practices in moist highland grasslands.

Email: sscintern@iucn.org

Sally Hofmeyr, held the position of the George B. Rabb Intern in the SSC Office from December to April. Sally held the Intern position for four months and has moved onto pursuing her PhD at the University of Cape Town. Her PhD project will focus on producing population trends for many threatened birds, analyzing and studying possible reasons for changes including land management changes and climate change. Sally was very involved in the SSC SG Chairs' Meeting and is sincerely thanked for all of her hard work.

IUCN Regional Offices – Staff Changes for staff working on species

Dania Abdul Malak was appointed as Programme Assistant in May. She will assist in the Mediterranean Biodiversity Assessment and will coordinate a project on the integration of Species and Landscapes distribution in the development of a coherent network of Marine Protected Areas in the Mediterranean Sea. Dania graduated from the American University of Beirut, Lebanon, and holds a Diploma of Advanced Studies in remote sensing and GIS applied on forestry from the Polytechnic University of Valencia, Spain. She is currently preparing her PhD defense in “Fire regimes and post-fire regeneration in the Eastern Iberian Peninsula using GIS and Remote Sensing techniques”. Dania speaks the three IUCN languages, as well as Arabic. Email: danialmalak@iucn.org

Nieves Garcia started in May as Intern for a period of six months until the Congress. She will be in charge of the Communication of the Mediterranean Biodiversity Assessment, with a special emphasis towards the Congress, and is also working in completing the assessments for the Mediterranean Red Lists, especially for the Aquatic plants. Nieves is a Spanish graduate in Environmental Sciences from Madrid. She has studied in England for the last year and carried out a final year project on GIS and Plant Ecology. She also has experience in developing researching projects in Central America and enjoys practicing photography and climbing. Email: nieves.garcia@iucn.org

Helen Pippard joined the Oceania Regional Office in September 2007 and will be the main focus point for all issues related to the Species Programme. She will assist in the coordination of a project to update and strengthen information for developing a regional Red List for the Pacific. Helen graduated from The University of Edinburgh with a BSc in Geography and holds an MRes in Environment and Development from Lancaster University. She has a strong CITES



background, completing her thesis on hunting for bushmeat in Nigeria and having worked as a CITES Officer for JNCC in the UK and for the Department of Environment in Fiji. She has worked for conservation NGOs and the private sector in the UK, Nepal, Australia and Malaysia.

Email: belen.pippard@iucn.org

The *Species 49* Team is extremely grateful to all the members of SSC that contributed information and photos for this edition, without their contributions this would not have been possible. Thank you.

Photo Credits

- Cover On the road to recovery: the Humpback whale (*Megaptera novaeangliae*), has moved from Vulnerable to Least Concern on the IUCN Red List of Threatened Species, meaning it is at low risk of extinction. However, two subpopulations are Endangered.
By Kewalo Basin Marine Mammal Laboratory and The Dolphin Institute
- Page 8 Timeline - Chairs' meeting
by Sally Hofmeyr
- Page 10 Field trip - delegates relaxing at NARC
by Sally Hofmeyr
- Page 12 The Species Pavilion at Congress will showcase the amazing work of the SSC Specialist Groups, such as Afrotheria. Dr Galen Rathbun, Chair of the Afrotheria Specialist Group and Dr Francesco Rovero of the Trento Museum of Natural Sciences confirmed the discovery of a rare new species recently, named the Grey-faced Sengi or Elephant-shrew (*Rhynchocyon udzungwensis*). Sengis are only found in Africa and belong to the Afrotheria group, which includes elephants, sea cows and the aardvark. Learn more at: http://research.calacademy.org/research/bmammals/eshrews/new_species.html
by Dr Francesco Rovero
- Page 13 Asian bear mapping workshop
- Page 14 Jamaican iguana (*Cyclura collet*)
by Howard Greenblatt
- Page 15 Radiated tortoise (*Astrochelys radiata*)
by Anders G.J. Rhodin
- Page 16 *Pachypodium windsorii*
by Rabakonandrianina
- Page 17 Silky Anteater (*Cyclopes didactylis*)
by Flávia Miranda
- Page 19 Bleached coral, Great Barrier Reef
- Page 25 Post-mortem of Gharial (*Gavialis gangeticus*)
by Dr Paolo Martelli
- Page 26 Banteng (*Bos javanicus*)
by Rochmad Setyadi
- Page 27 Grading fruits of *Feronia limonia*
by G.A. Kinhal, FRLHT
- Page 28 Dolly Varden (*Salvelinus malma*)
by Anatoly Semenchenko
- Page 29 Grevy's zebra (*Equus gravyi*)
by P.D. Moehlman
- Page 30 Blue-throated macaw (*Ara glaucogularis*)
by Joe Tobias
- Page 30 *Bolitoglossa savagei*
by Robin D. Moore
- Page 31 African black rhino (*Diceros bicornis*)
- Page 32 Sri Lanka Wild pepper (*Piper sylvestre* L.)
by Annie Lane
- Page 33 Sustainable Use Specialist Group
- Page 34 Lesser flamingo (*Phoenicopterus minor*)
by Graham McCulloch
- Page 35 Takana woman during her practical training
by Erika Alandia WCS Bolivia

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