



Species



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Specialist Group exchange

Protecting plants



Fungi: the orphans of Rio

Save Our Species

Species 52

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Species is the magazine of the IUCN Species Programme and the IUCN Species Survival Commission. 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.

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Mountain Gorilla (*Gorilla beringei beringei*). © IUCN Gérard Collin

Editorial

Message from the SSC Chair and the Head of the IUCN Species Programme

We are writing this *Message* in late September 2010. Over the last several months, both of us have been very busy working on the preparations for the 10th Meeting of the Conference of the Parties to the Convention on Biological Diversity (CBD), taking place in Nagoya, Japan, on 18–29 October 2010. By the time you read this, the outcome of the Nagoya meeting will be known. It is hard to over-emphasise the importance of the negotiations that will take place, because they will determine whether or not the world's governments have signed up to an ambitious biodiversity agenda leading up to 2020. The draft CBD Strategic Plan for 2011–2020 is supposed to be this agenda, and the text of this will be subject to detailed discussions in Nagoya.

As all SSC members know, biodiversity loss and species extinctions are continuing at unprecedented rates. Urgent action is needed to ensure the resilience of nature and economies, and to avoid catastrophic tipping points. Recovering from such dramatic changes in biodiversity will be costly. The CBD Strategic Plan, if adopted, will provide a roadmap for biodiversity conservation in the next decades. If the Plan is not adopted, the world will have no agreed biodiversity targets, and the Nagoya outcomes will be broadly the same as those from the climate summit in Copenhagen last year: essentially a failure. It is imperative that this situation is avoided and that the remaining contentious issues are resolved by the negotiators.

At the last round of CBD negotiations in Nairobi in May 2010, significant progress was made. From the perspective of SSC members, Target 12 in the draft Strategic Plan is particularly of interest: “By 2020, the extinction and decline of known threatened species has been prevented and improvement in the conservation status for at least 10% of them has been achieved.” There is still debate among the governments on whether or not to include the words “for at least 10% of them” in the text, but we are nevertheless encouraged that this target is included, especially as in the early phases of the negotiations, there were attempts to reduce the focus on species significantly. There are several other important targets in the draft CBD Strategic Plan of interest to the SSC, including on habitat loss, over-harvesting, invasive species, coral reefs, protected areas, ecosystem services, climate change, and access to genetic resources, among others, which in total represent pretty much all that needs to be done to eventually halt the loss of biodiversity.

Despite the generally positive outcome, the Nairobi negotiations, success in Nagoya is not guaranteed. One of the major points of contention, on which agreement needs



Nepenthes sp. © Travlinman43

to be reached in Nagoya, is a bold target for increasing the financial resources available for biodiversity conservation through an effective resource mobilization strategy. When the draft Strategic Plan was discussed in Nairobi, the European Union (EU) argued for a strong biodiversity mission to halt biodiversity loss by 2020. However, the EU was at that time unwilling to specify a numerical target for increased funding for conservation that would enable its proposed mission to be achieved. On the other hand, some developing countries called for a strong financial target to be supported by the EU and other developed countries before they could agree on a mission calling for a halt to biodiversity loss by 2020. The fate of the Strategic Plan depends on the unlocking of this deadlock.

In our view, it is essential that the governments and other stakeholders have the means to achieve the CBD Strategic Plan, yet there is a persistent and critical shortage of financial resources available. IUCN believes that it is both necessary and feasible to mobilize significant new funding for the implementation of the Strategic Plan. As a provisional funding target for 2020, IUCN recommends a goal of USD 300 billion annually from all sources. This is equivalent to 100 times the current level of biodiversity-related aid, as reported by the Organization for Economic Cooperation and Development (OECD). IUCN believes that this target can be achieved, but only by using a variety of instruments and by mobilizing

resources at all levels, from national to international, and from all sources, both public and private.

Clearly, increasing investment in biodiversity conservation is not going to be easy in the current economic climate. However, the findings of The Economics of Ecosystems and Biodiversity (TEEB) study are particularly relevant here. This study draws together considerable knowledge and scientific expertise to evaluate the impacts of biodiversity loss, the costs and benefits of conservation, and the efficiency of instruments and actions to reduce biodiversity loss. The TEEB study tells us that conserving biodiversity can generate large economic returns, while also offering a cost-effective means to mitigate and adapt to climate change and other natural disasters. TEEB also demonstrates how integrating biodiversity in the economy and reforming public policies to reflect ecosystem values can help reduce public expenditure, while stimulating significant private investment in biodiversity conservation and ecosystem services.

The implementation of the Strategic Plan needs to involve actors in both the public and private sectors. Proven financial mechanisms and incentives, documented in the TEEB study, need to be strengthened and implemented more widely, such as payments for ecosystem services, biodiversity offsets, and eco-labelling schemes. IUCN is calling on countries to urgently implement these and other incentive mechanisms which can mobilize new and additional investments in biodiversity conservation and restoration. Particular priority should be given to mechanisms that can stimulate international financial flows from the private sector to support biodiversity conservation, such as REDD+ schemes and the Green Development Mechanism, amongst others.

At the same time, IUCN is calling on governments to redouble their efforts to reduce or reform environmentally harmful subsidies, in order to discourage damaging activities and free up public resources for more productive uses. For example, subsidies to industrial fishing, intensive agriculture and fossil energy amount to over USD 500 billion a year in OECD countries. Reforming these and other public subsidies can make a significant contribution to biodiversity conservation by reducing the incentives for destructive activities. In addition, if a proportion of the 'savings' achieved were re-directed to biodiversity conservation and restoration, it would represent a significant increase in the resources available to implement the CBD Strategic Plan.

We believe that much is at stake at the current CBD negotiations and that the risks of failure are significant. We are doing all we can to encourage governments to seize the moment, and to commit to an ambitious financial target in Nagoya. It is important to remember that the excellent work that you do in the Specialist Groups, contributing to the IUCN Red List and other SSC projects, all builds up and contributes to the global negotiations that are now taking place. It is no exaggeration to say that IUCN has been able to have a significant voice and impact in the development of the CBD Strategic Plan, in large part because of the collective work of all the members of the SSC. Let us hope that this will result in a major new conservation agenda emerging from Nagoya, in which governments will give much higher priority to biodiversity conservation. If this is the case, then the International Year of Biodiversity (IYB) in 2010 will be shown to have been more than just a branding gimmick with a nice logo.

Species of the Day. As most SSC members will know, one particular contribution to raising the profile of the IYB is *Species of the Day*. We would like to thank the hundreds of SSC members who have contributed to this already. Ensuring that we have a new, complete species account for every day of the year, with its text reviewed by the appropriate SSC members, together with a photograph and a map, is no small logistical task. In our last *Message*, we reported on the amazing variety of species covered. Of course it is even more impressive now. Surely no scientific network other than the SSC could produce species accounts covering the following extraordinarily diverse array of taxonomic groups: lichens, cup fungi, liverworts, mosses, seagrasses, columbines, conifers, cycads, oaks, baobabs, legumes, palms, proteas, cinnamon, rock-roses, marigolds, orchids, heathers, mangroves, mahoganies, water-lilies, magnolias, cacti, corals, mussels, abalones, snails, butterflies, dragonflies, damselflies, grasshoppers, stick-insects, katydids, crickets, wetas, crabs, spiders, millipedes, sharks, skates, stingrays, sawfish, coelacanths, sturgeon, eels, groupers, wrasses, blennies, catfish, salmon, seahorses, cardinal fish, barbs, frogs, salamanders, crocodiles, turtles, tortoises, snakes, skinks, geckos, iguanas, parrots, albatrosses, francolins, nightjars, hummingbirds, vultures, sandpipers, doves, terns, coursers, ibises, bustards, ducks, eagles, plovers, larks, mockingbirds, shrikes, finches, flycatchers, woodpeckers, bears, elephants, rabbits, jumping rats, rhinos, bats, whales, tapirs, pigs, bison, cats, monkeys, seals, hyaenas, cattle, goats, hippos, dolphins, anteaters, canids, lemurs, equids, marmots, deer, desmans, antelopes, elephant-shrews, sloths, rock-rats, camelids, solenodons, mink, pikas, manatees, marsupials, civets, hutias and tenrecs. Once again we must thank the team coordinating this, led by Rachel Roberts, and ably assisted by Kathryn Pintus, Vineet Katariya, Julie Griffin, Dena Cator, Jim Ragle and many others in the Species Programme, and a great writing team at ARKive led by Michelle Lindley and Lucie Muir. UNEP has provided generous financial support. As we reported previously, *Species of the Day* has generated enormous interest among the public. Over 600 websites and blogs are using the *Species of the Day* button, and we now have over 3,600 followers on Twitter.

Some other highlights of the past six months include:

- 1. Save Our Species.** The SOS Fund has now been formally established, having been approved by the CEO of the Global Environment Facility (GEF). The fund has been supported to the tune of USD 10 million by the GEF and the World Bank. A huge thank you to these two institutions, and to Jean-Christophe Vié for handling the negotiations for IUCN. The SOS Secretariat, overseen by Jean-Christophe, is now being established at IUCN headquarters within the Species Programme, consisting of Elke Blodau as Communications and Marketing Officer, and a Coordinator who will be appointed soon. We welcome Elke to our team. Already, funding has been approved for BirdLife International's Critically Endangered Birds Programme, for the Conservation Leadership Programme through Fauna and Flora International, for the EDGE (Evolutionarily Distinct and Globally



Red-shanked Douc Langur (*Pygathrix nemaeus*). © Ucumari

Endangered) Species Programme of the Zoological Society of London, and for the Amphibian Conservation Programme of Conservation International. More grants will be awarded next year, and much emphasis is now going into securing additional funding from the private sector for the SOS Fund.

2. IUCN Red List Partnership Agreement. In our last *Message*, we reported that negotiations on a new IUCN Red List Partnership Agreement, which had been ongoing for several years, were close to completion. So we are extremely happy to report that we did indeed come to final agreement between all of the organizations on 21 June 2010. As mentioned previously, this expands the Red List Partnership by bringing in five new organizations: Botanic Gardens Conservation International; Royal Botanic Gardens Kew; Texas A&M University; University of Rome “La Sapienza”; and Wildscreen. These join IUCN and the existing Partners: BirdLife International; Conservation International; NatureServe; and the Zoological Society of London. The Red List Partners have committed resources (financial and in-kind) to support the work of the IUCN Red List of Threatened Species™ to the tune of USD 200,000 per year for six years. The expansion of the Partnership is extremely good news for the SSC, and a vote of confidence for the IUCN Red List.

3. African Freshwater Species on the IUCN Red List.

A major update of the IUCN Red List took place in September 2010, focusing especially on African freshwater species. This is the culmination of five years of work, led by Will Darwall and the Freshwater Biodiversity Unit in the Species Programme, working with several SSC Specialist Groups. During this project, 5,167 African freshwater species were assessed by 200 scientists for the IUCN Red List, including all known African freshwater fish, molluscs, crabs, dragonflies and damselflies, and selected families of aquatic plants. Many of the species now included on the IUCN Red List are of great economic importance, and even the loss of a single species can have a dramatic impact on human livelihoods. For example, in Lake Malawi, a group of fish, known as ‘chambo’ by locals, forms an extremely important source of food. Of these, *Oreochromis karongae*, an Endangered species, has been hugely overfished, with an estimated 70 per cent reduction in the population over the past 10 years. In Lake Victoria, a decline in water quality and the introduction of the Nile Perch (*Lates niloticus*) have caused a reduction in many native species over the past 30 years, threatening traditional fisheries. This IUCN Red List assessment studied 191 fish species in Lake Victoria and found that 45 per cent are threatened or thought to be extinct. Around the great lakes of Africa, fish provide the main source of protein and livelihoods for many of the

continent's poorest people. The livelihoods of an estimated 7.5 million people in sub-Saharan Africa depend on inland fisheries. These new data on the IUCN Red List will be invaluable in helping to safeguard these fisheries, freshwater supplies and many other associated resources. Priority areas of highly threatened and range-restricted African freshwater species can now be identified. For example, in the waters of the crater-lake Barombi Mbo, in Cameroon, 11 species of fish are highly threatened and live a precarious existence, as deforestation increases the risk of lake 'burping', where large levels of carbon dioxide are released from deep within the lake, suffocating the fish. Without management intervention these species, some of which are important food sources, may be lost forever. Fish are clearly important to people, both as a source of food and income. But other freshwater species such as molluscs, dragonflies, crabs and aquatic plants also play vital roles in maintaining functioning wetlands, and these should not be ignored. In the rapids of the lower reaches of the Congo River, 11 species of mollusc, found only within a 100 km stretch of water, are highly threatened due to upstream pollution. Molluscs such as these provide important functions, including water filtration.

4. Other IUCN Red List Updates. The September IUCN Red List update was a very large one, and in addition to the African freshwater species referred to above, the following species groups were also added: Eastern Tropical Pacific Marine Fishes (nearly 900 species); Crayfishes (over 500 assessments done through the Sampled Red List Index (SRLI) project being run by the Zoological Society of London); Mediterranean Dragonflies (16 endemic species); all species of Cycad (over 300 species, mostly reassessments); all species of Seagrasses (about 70 species); South African Amphibians (20 endemic species reassessed); and New Caledonian Conifers (38 species reassessed). All these changes brought the number of species in the IUCN Red List up to 52,017. A further major update is taking place in October 2010, including: New Caledonian Plants (in addition to the conifers mentioned above); Eastern Himalayan Dragonflies; Eastern Himalayan Molluscs; Eastern Himalayan Freshwater Fishes; Angelfishes; Butterflyfishes; Marine Fishes and Reptiles from the Sampled Red List Index project; European Freshwater Fishes; European Freshwater Molluscs; and major updates to the Mammals and Amphibians. Certainly, the IUCN Red List will have been massively updated and augmented by the end of the International Year of Biodiversity.

5. Amphibian Survival Alliance (ASA). The first meeting of the interim board of the Amphibian Survival Alliance took place in London in August 2010. Simon is most

grateful to Mark Stanley Price for stepping in to chair it while he was on holiday. The meeting decided to move ahead with the recruitment of the ASA Executive Director, and in our next *Message*, we look forward to announcing the successful candidate. We also expect to be in a position to hire additional staff during 2011. The recruitment of staff has been made possible by generous donations from Chester Zoo, Conservation International, Detroit Zoological Society, Frankfurt Zoo, Frankfurt Zoological Society, Wildlife Conservation Society, the Zoological Society of London, and from former SSC Chair George Rabb. We would like to express our thanks for this extremely generous support. The staff will almost certainly be based in the offices of the Zoological Society of London.

6. SSC Specialist Groups. We are sorry to announce that Alain Crivelli has stepped down after many years as Chair of the Pelican Specialist Group, shared with Wetlands International. He has been replaced by Giorgos Catsadorakis. Brooks Childress has also stepped down after several very successful years as Chair of the Flamingo Specialist Group, and has been replaced by Rebecca Lee. And finally, Vincent Kalkman has handed over the reins of the Dragonfly Specialist Group, at least on an interim basis, to the former Chair, Viola Clausnitzer. We thank Alain, Brooks and Vincent for their dedicated work on behalf of the SSC and for conservation in general, and hope that they will continue as active members of the Commission. Also, we welcome Giorgos, Rebecca and Viola to their new and important responsibilities. We are also pleased to announce that, after many years, the SSC Butterfly Specialist Group has been re-established, and we welcome the new Chair, Scott Hoffman Black.

As always, what we have left out of this *Message* is much more than what we have included. There have, of course, been a very large number of important activities carried out among the SSC Specialist Groups and Sub-Committees, and in the Species Programme – far more than we have space for here. Some of this news is reported on elsewhere in this issue of *Species*. We continue to be humbled by the dedication that all of you demonstrate, both in the SSC and on the staff, for the conservation and recovery of the world's species. From both of us, thank you very much.

Simon Stuart

Chair, IUCN Species Survival Commission

Jane Smart

Head, IUCN Species Programme

Director, Biodiversity Conservation Group



Lamproderma ovoideum. © Alain Michaud

Fungi: the orphans of Rio

Fighting for the future of fungi

David Minter, Chair, IUCN SSC Cup Fungi, Truffles and their Allies Specialist Group

With biodiversity loss continuing at an unprecedented and frightening rate, the need for conservation action has never been higher. Hundreds of organizations around the world are dedicated to saving the world's plants and animals, but what of the forgotten fungi? In this article, we examine the need to raise awareness for fungus conservation, and take a look at how the IUCN Species Survival Commission (SSC) is planning on bringing this issue to the fore.

It's difficult to over-emphasize how important fungi are.

Their wellbeing is necessary for sustainable life on this planet; without them, we're finished. To take just one example, they are nature's recyclers. Like the municipal refuse collectors employed to remove our rubbish, we don't notice them until for some reason they stop. But – and it's scary – stopping is something they might just possibly do. Scientists have known for over 100 years that, like animals and plants, fungi too are affected by the destructive activities of mankind. There is already evidence that populations of many species are falling: the impact of air pollution on lichen-forming fungi is particularly well documented. Although there is still insufficient information about the conservation status of fungi, there is every reason to suppose that they are just as

vulnerable as other groups of organisms to habitat loss and climate change.

Public awareness of their importance is, however, very low, not least because biodiversity – the full and wonderful diversity of life – is still widely portrayed as 'flora and fauna' or 'plants and animals'. Such misleading descriptions are often referred to, but biodiversity extends far beyond 'plants and animals' alone. The five kingdom classification of life, which recognizes fungi in a kingdom of their own, has been generally accepted by scientists since at least 1970 and, with an estimated 1.5 million species of fungi on this planet and a presence in all major ecosystems, freshwater, marine and terrestrial alike, this kingdom is megadiverse. There are far more fungi than all the plants and vertebrates put together; to ignore them is not a sensible option.

The broader conservation movement, however, remains largely unaware of the need to conserve fungi. Priority habitats for conservation, such as biodiversity hotspots, are almost always defined on the basis of bird, mammal and flowering plant diversity. Fungi do not get a look-in, which means that habitats rich in fungal diversity are missed and remain unprotected. Most nature reserve management plans do not take fungi into account. Fungi are often treated as part of the problem, rather than recognized as themselves being



Cyttaria espinosae. © David Minter



Zeus olympius. © David Minter

in need of protection. In many countries there is no explicit legal protection for fungi.

The IUCN has recognized this problem and, in 2009, reorganized and expanded its SSC groups which include fungi. Where there were previously two groups there are now five, and where fungal SSC groups were formerly listed under 'plants', they are now correctly grouped in their own independent category. David Minter, a specialist in ascomycetes, a huge group which includes truffles and morels, is a Chair of one of these groups. Collectively, they have the daunting task of building an infrastructure for fungal conservation and raising awareness at all levels of the need to protect fungi.

When David Minter came out of university, he was employed in an institution devoted to fungi with a job identifying global microscopic species. David describes his work as, "a privilege to see the wonderful diversity of these organisms and, with the constant arrival of specimens representing new species, my colleagues and I became increasingly aware that the fungi already known and described form only a tiny proportion of what is probably out there". Now, the generally accepted estimate is that easily over 90% of all the planet's fungal species still await discovery. Over the same period, a consistent and long-term failure at governmental level to support basic taxonomic research has meant that David's colleagues were not replaced when they left and, by 1999, the institution itself had ceased to exist. These are not easy conditions in which to promote fungal conservation.

The fungal Specialist Groups of the IUCN SSC need to get their message across to the public and their governments worldwide. It is particularly important to get fungi better recognized by the Convention on Biological Diversity (CBD). When it was created in Rio, in 1992, the CBD established the right to protect all forms of life, and "all forms of life" includes fungi. Unfortunately, its text classified biodiversity as "animals, plants and micro-organisms", i.e. two taxonomic kingdoms and a third category defined by size. Fungi belong in neither the animal nor plant kingdom, however, they do

include in their number some of the largest single living individuals known on earth. One genetically uniform colony of the toadstool *Amanita ostryae*, in the Malheur National Forest of Oregon, covers an area of almost 9 km², making it far bigger than the Blue Whale or any of the great redwoods. The term micro-organism – that third category – therefore hardly seems appropriate.

Fungi simply do not fit these inadequate CBD definitions, and are suffering as a result. Their right to protection has been established, but the Convention has provided no machinery for ensuring it happens. Many national biodiversity action plans produced in response to the Convention fail to consider fungi at all. The few which do usually treat them as 'lower plants' – an obscure corner of botany. The CBD designated 2010 as the 'International Year of Biodiversity', but the accompanying logo shows only animals and plants, and fungi are not mentioned in the official video made to promote the year (www.youtube.com/watch?v=V1VYmpTikgw). This is a compelling and very public indication that, as presently organized, the CBD is not delivering protection for these critically important organisms. As David Hawksworth, one of the world's leading fungal experts, so eloquently stated, fungi are truly "the orphans of Rio".

The rapidly declining resources available for work with fungal biodiversity made it clear that to conserve fungi, the first step was to conserve mycologists – the scientists who work with these organisms. The second step was to digitize existing information about when and where fungi occur, to provide an objective basis for future work. Outside the developed world, there are very few countries where mycologists can be found. Over 16 years, with funding from the UK Darwin Initiative, David ran projects which delivered support to those mycologists, while at the same time digitizing vast numbers of fungal records. The results of that work are now available through the *Cybertruffle* website (www.cybertruffle.org.uk). Information about when and where fungi occur (www.cybertruffle.org.uk/robogalia) is delivered in 10 different languages. In another initiative to alleviate the information impediment outside the developed world, there is

also a digital library for mycology, (www.cybertruffle.org.uk/cyberliber), providing free and open access to over 320,000 pages of mycological literature. During those years and despite those efforts, David believes that mycologists themselves as a group have in many parts of the world, become critically endangered!

The IUCN SSC fungal Specialist Groups need to learn fast. They have to develop political expertise, where possible by learning from the experiences of other conservation bodies. They must also raise awareness of fungi among the CBD National Focus Points, and engage governments which are not signatories to the CBD, helping them to understand the importance of fungal conservation. The groups should raise the profile of fungi, in part through a campaign to encourage biological institutions and learned societies to ensure that the language used in their promotional material properly reflects the true importance of fungi. This will, for example, entail discouraging language which results in confusion of fungi with plants ('botany' does not include 'mycology', fungi are not 'lower plants', they are not part of a 'flora' etc.), and the use of 'biodiversity' as shorthand for 'animals and plants' should also be discouraged.

The groups will work to identify, classify and publicize threats to fungi, important areas for fungi (fungal hotspots and coldspots), important fungal-associated organisms, and impacts on human society which may occur as a result of fungal population declines and extinctions. They will furthermore promote the message that, without taking fungi into account, the ecosystem approach to conservation is so severely compromised as to be invalid. This will entail raising awareness that fungi are essential components of ecosystems.

The groups must finally work to promote representation by mycologists on bodies concerned with biodiversity and conservation. If fungi are the "orphans of Rio", then

mycology, like an orphan, enjoys little of the family wealth (mycologists are usually hidden away in obscure departments of botanical institutions, getting a very small share of resources), and mycology is rarely consulted on family matters by the biological sciences. Biodiversity initiatives should, as a matter of course, involve mycologists as equal players from their inception. At present, in general, they do not.

The big collective achievement of the IUCN SSC fungal Specialist Groups since reorganization has been to play a leading role in establishing a new society for fungal conservation. On 6 August 2010, at the Royal Botanic Garden, Edinburgh, a special meeting was organized and scientists from 21 different countries attended with messages of interest and support from many others (taking the total number of countries represented to over 40). In addition, there were messages of support from a range of learned societies, NGOs and national representatives of the CBD Subsidiary Body on Scientific, Technical and Technological Advice (the scientists who advise the Rio Convention). After animated discussion, there was overwhelming agreement that the time had come to set up the International Society for Fungal Conservation.

This new Society has already launched a website, (www.fungal-conservation.org), and is in the process of drafting a formal constitution. Almost unbelievably, it appears to be the first society anywhere in the world exclusively and explicitly devoted to protecting fungi. Establishing it was an important and historic event for the conservation world, but this is only a first step. The Society, like the IUCN SSC fungal Specialist Groups, is new, small and inexperienced. They all now need strong, enthusiastic and generous help and support from other conservation bodies, and from all who understand the pressing need to protect the "orphans of Rio". There is a huge task ahead.

Protecting plants

The Global Strategy for Plant Conservation beyond 2010

Arturo Mora, Programme Officer, IUCN Regional Office for South America

Plants form an integral part of the world's biodiversity. They are an essential source of food and medicine, play a key role in maintaining ecosystem functions, and are critical for the survival of wildlife. With many plants at risk of extinction due to pressures from a multitude of threats, including unsustainable forestry and agriculture, urban development, pollution, invasive species and climate change, it is time to focus our attention on the implementation of effective conservation action.

In 2002, the Conference of the Parties adopted the Global Strategy for Plant Conservation (GSPC). The Strategy's ultimate and long-term objective is to halt the current and

continuing loss of plant diversity. The Strategy also considers issues of sustainable use and benefit sharing, and aims to contribute to poverty alleviation and sustainable development.

The Strategy includes 16 outcome-oriented global targets set for 2010, including the evaluation of the conservation status of these species around the world, and providing a framework to facilitate harmony between existing initiatives. In addition, it promotes plant conservation, by identifying gaps where new initiatives are required and promoting mobilization of the necessary resources. National and/or regional targets for plant conservation may be developed within this flexible framework.

The Global Strategy for Plant Conservation was the first such strategy to be developed under the Convention on



Arupo chionanthus pubescens. © Arturo Mora

Biological Diversity (CBD), and provided a pilot exercise for the development and use of outcome targets under the Strategic Plan of the CBD (or 2010 Target). Plants were chosen as the focus of this exercise because scientific understanding of this group, though incomplete, is better than for most other kinds of life.

From 2002 to 2020

The GSPC has galvanized efforts for plant conservation in the botanical communities of governments, NGOs, botanical gardens and others, and is an essential policy tool for driving plant conservation forward.

Several successes have been achieved since 2002 in the implementation of the GSPC, which were highlighted at the last meeting of the Subsidiary Body on Scientific, Technical and Technological Advice of the CBD (CBD/SBSTTA14) in May. At this meeting, the Strategy was hailed as one of the most successful outcomes of the Convention on Biological Diversity.

Examples of these achievements include the implementation of the Strategy by the National Botanic Garden System in Malawi; inclusion of the targets of the Strategy linked to the National Biodiversity Strategy and Action Plan (NBSAP) in New Zealand; the work of botanic gardens and herbaria in Australia in relation to GSPC, plant conservation and climate change; and initiatives involving cataloguing and categorizing threatened species in Brazil, Colombia, and Ecuador, among many other countries.

In addition, through its 16 targets the Strategy encouraged and guided civil society at the local, national and international level, in actions regarding plant conservation. Among these, it is important to highlight the actions developed by the BGCI (Botanic Gardens Conservation International) through its role in the implementation of the Strategy.

Also, IUCN has undertaken a project to assess, monitor and report on the conservation status of the world's flora by 2010, relying largely on the expertise of the SSC plant network. The work of SSC Plant Specialist Groups has contributed more broadly to the targets of the GSPC, the 2010 indicators, and to monitoring the impacts of climate change.

The future of the GSPC was discussed in the Conference of the Parties (COP 10) of the CBD in October in Nagoya, Japan. The new Strategy will bring about the adoption of a consolidated update of the Global Strategy for Plant Conservation through a technical rationale and justification for the modification of each target.

IUCN supports the proposal for a consolidated update of the Global Strategy for Plant Conservation, and affirms the success thus far of the target-based approach which has led



Big-leaf Mahogany (*Swietenia macrophylla*). © Arturo Mora

to the achievement of significantly more plant conservation than would have occurred had this Strategy not been in place.

IUCN is committed to the achievement of the Strategy and its constituent targets beyond 2010, particularly through species assessments for the IUCN Red List of Threatened Species™, invasive species management and identification of areas of importance for plant diversity, as well as the development of indicators and facilitation of capacity building.

Finally, it is important to encourage Parties and other Governments to pursue the adoption of the GSPC as a contribution to the implementation of the targets of the CBD Strategic Plan beyond 2010, and develop and update national and regional plant conservation targets as appropriate as a significant contribution towards the execution of the Strategy.

Resources

- GSPC – CBD <http://www.cbd.int/gspc/intro.shtml>
- IUCN SSC Plant Conservation Sub-Committee http://www.iucn.org/about/work/programmes/species/our_work/plants/
- BGCI – GSPC <http://www.bgci.org/ourwork/gspc/>
- CBD COP 10 Documents <http://www.cbd.int/cop10/doc/>

SOS – Save Our Species

A global response to the challenge of biodiversity loss

IUCN, the Global Environment Facility (GEF) and the World Bank (WB) have created SOS (Save Our Species), a concrete response to the extinction crisis identified by the IUCN Red List of Threatened Species™. Research has shown that conservation works, but it needs to be scaled up, yet a distinct lack of financial support for conservation projects continues to be an obstacle. SOS was officially launched during the recent CBD COP 10 meeting in Nagoya, Japan, and will call primarily on businesses to help build the biggest global species conservation fund by 2015.

SOS's tagline, 'Save Our Species – Save OurSelves', truly underlines the urgency of the situation, by highlighting that healthy biodiversity is essential to human wellbeing, sustainable development and poverty reduction. Without immediate action to halt the decline of biodiversity, not only will species disappear forever, but the very fabric of our



society and livelihoods will be in severe jeopardy. SOS will work by filling a vital gap for medium- to large-sized grants that can be applied specifically to saving threatened species and their habitats (> USD 25,000), as well as providing rapid action grants (< USD 25,000) to respond to conservation emergencies.

This new initiative will give the private sector a unique opportunity to become directly involved in saving the planet's natural environment, using a species approach. This



Saiga Antelope (*Saiga tatarica*) © Navinder J. Singh



Araripe Manakin (*Antilophia bokermanni*). © Andy & Gill Swash, worldwildlifeimages.com



New Harlequin species (*Atelopus*) discovered. © Robin Moore

approach is applied by many people around the world for the simple reason that it is successful and mobilizes people's passion. Wild species are the building blocks of nature; they provide one of the best indicators of biodiversity status, are covered by legislation and conventions, and, above all, the general public understands what a species is and what species conservation means. This targeted approach allows more complex issues to be tackled, both at ecosystem and landscape levels, and with both governments and communities.

Biodiversity conservation will benefit from the financial resources and creativity of businesses and corporations. In return, SOS will help the private sector meet their goals on sustainable development, satisfying the ever-increasing green needs of shareholders, customers and employees alike. Given the sheer number of threatened species, it will be impossible to fund conservation efforts for each and every one. As such, SOS will set priorities for funding. It will combine the collective knowledge and expertise of the Species Survival Commission (SSC) with the ingenuity of the private sector, to create a mechanism that ensures that sufficient funding is allocated to those projects most in need, thus maximizing its impact.

A small number of priorities will be identified, with new ones being added every year. The identification of priorities

will be coordinated by the SOS Working Group, chaired by Luigi Boitani, which will work closely with the SOS Secretariat based at IUCN Headquarters in Gland, led by Jean-Christophe Vié.

During the project preparation phase, a number of pilot projects were identified. SOS is currently supporting five projects, all approved by the SOS Donor Council, the governing body composed of representatives of the main donors. Four of these projects are existing grant-making mechanisms: BirdLife International's Preventing Extinctions Programme; the Conservation Leadership Programme; EDGE (Evolutionarily Distinct and Globally Endangered) Species Programme of the Zoological Society of London; and the Amphibian Conservation Programme of Conservation International. The fifth project is an emergency response directed towards the Critically Endangered Saiga Antelope (*Saiga tatarica*), following the death of nearly 12,000 individuals of this species in western Kazakhstan last May.

A call for proposals will be announced at the beginning of 2011, and the active search for additional funding will continue. Nokia, the world's leading telecommunications company and one which has a long track record of taking sustainability into account in all business operations, is the first company to announce its partnership with SOS. Nokia, through its 1.3 billion users of mobile phones, will help raise awareness of the need for biodiversity conservation.

SOS is aiming to achieve a significant increase above existing investments in species conservation over the next five years. The initial target is USD 20 million. Thanks to generous pledges from the SOS founding partners and others, we are already more than 50% of the way to achieving this goal, and intend to match this amount with private sector contributions. These first steps will enable SOS to move forward and demonstrate that species conservation can, and does, work.

For more information, and to watch our launch video, please visit the SOS website: www.SOSspecies.org

If you have any questions, please contact:

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Specialist Group exchange

African Elephant SG

Online database goes live

The AfESG members came together for their seventh members' meeting in November 2009 in Nairobi, Kenya. The meeting brought together members to discuss recent research, ongoing conservation concerns, and emerging issues. The main themes covered by the meeting were: illegal killing and trade; planning for elephant conservation; human-elephant conflict; securing and managing population data; climate change and payments for ecosystem services; and multiple species of the African Elephant. A number of additional sessions dealt with internal AfESG matters. A summary of the meeting can be found online [here](#). The meeting was supported by the USFWS African Elephant Conservation Fund, SWAN International, and WWF-International.

The new online African and Asian Elephant Database is available for beta testing (www.elephantdatabase.org). This server-based, spatially enabled database provides a way to interact with data from the African Elephant Status Reports, submit new survey reports, and download and request population and range data. This is being run as an open source project, and a community of developers will be able to make further refinements as users provide feedback.

The AfESG continues to work closely with range States and the CITES MIKE (Monitoring the Illegal Killing of Elephants) programme to provide technical support to a number of different planning processes. AfESG members have assisted with national planning processes in Mozambique, Tanzania and Kenya over the last year, and the AfESG Secretariat has continued to aid the CITES MIKE programme in its provision of support to the African Elephant range States through the African Elephant Meetings, the next of which will be held in Nairobi in November 2010. In collaboration with the CITES MIKE programme, the AfESG has also undertaken a study into the trade in elephant meat in the Central African sub-region. The results of this study will be available in early 2011.

Diane Skinner

Programme Officer, African Elephant Specialist Group

African Rhino SG

National Black Rhino Plans revised

The joint report submitted by the IUCN SSC African and Asian Rhino Specialist Groups and TRAFFIC, found [here](#), was included as part of the CITES Secretariat's report to COP 15, and was well received by CITES Parties. A number of recommendations in the report later became CITES Decisions, and several AfRSG members also participated in a working group to revise the CITES Rhino Resolution 9.14 (rev). For more details, see the AfRSG Chair's report in *Pachyderm 47*.

The AfRSG Scientific Officer and other AfRSG members continue to work closely with range States to help them develop and revise their National Rhino Plans. South Africa's revised Black Rhino Plan for the period 2010–2020 has been submitted and is nearing the final stages of getting official approval. Recently, the Tanzanian Black

Rhino Plan for the next five years was also reworked following a stakeholders' workshop held in Arusha, and it is hoped that the revised plan will soon be signed by the Minister. Botswana will be holding a workshop in October to revise its National Rhino Plan.

The IUCN Guidelines for the *in situ* Re-introduction and Translocation of African and Asian Rhinoceros continues to be a useful document, and provides recommended best practices which are being referenced in National Plans.

In April, a very useful meeting was held in Namibia to help develop a National Rhino and Elephant Security Plan; a number of AfRSG members attended and gave background presentations. The AfRSG Scientific Officer also recently gave a presentation as part of the launch of a WWF rhino campaign, with the escalation in rhino poaching in South Africa being highlighted as a particular concern.

The AfRSG Scientific Officer has been assisting the SADC Rhino and Elephant Security Group/Interpol sub-regional Environmental Crime Working Group to develop an Arguments in Aggravation of Sentence template for use in rhino-crime related court cases.

Richard Emslie

Scientific Officer, African Rhino Specialist Group

Asian Wild Cattle SG

Asian 'Unicorn' sighted for first time in over 10 years

For the first time in more than a decade, there has been a confirmed sighting of one of the rarest and most enigmatic animals in the world, the Saola (*Pseudoryx nghetinhensis*). In late August, villagers from the remote Xaychamphon District in the central province of Bolikhamxay, Laos, captured an adult male Saola, and brought it back to their village. When news of the Saola's capture



African Elephant (*Loxodonta africana*). © K. Pintus



Saola (*Pseudoryx nghetinhensis*). © Bolikhamxay Provincial Conservation Unit

reached Lao authorities, the Bolikhamxay Provincial Agriculture and Forestry Office immediately sent a technical team, advised by the IUCN Saola Working Group and the Lao Programme of the Wildlife Conservation Society (WCS), to examine the Saola and release it. Unfortunately, the animal, weakened by the ordeal of several days in captivity, died shortly after the team reached the remote village. Following its death, the technical team took the carcass to Pakxan, the provincial capital, where all parts were preserved for analysis and future reference. This is the first Saola specimen to be so completely preserved. The Lao Department of Forestry (DoF) and provincial and district authorities are urging villagers in the area not to capture Saola, and immediately release any they might encounter.

The Saola was first discovered in 1992, in Vietnam's Vu Quang Nature Reserve near the country's border with Laos, and this new sighting is the only confirmed record of the species since two photographs of wild Saola were taken in Laos by automatic camera traps in 1999. Saola are secretive and so seldom seen (no biologist has ever reported seeing one in the wild) that they have been likened to unicorns, in spite of the fact that they have two horns. The species is listed as Critically Endangered on the IUCN Red List of Threatened Species™ and probably no more than a few hundred exist. The confirmation of the continued existence of this species is welcome news, and with very little currently known about the Saola, it is hoped that the information gained from this latest incident can be used to ensure that

strengthened measures are taken to conserve the species and its habitat in the future.

For more information on the Asian Wild Cattle SG, please visit www.asianwildcattle.org.

James Burton

Chair, Asian Wild Cattle Specialist Group

Bison SG – European section

An update on the European Bison Conservation Centre (EBCC)

The world population of *Bison bonasus* has increased steadily in the last few years, exceeding 4,000 individuals by the end of 2008. A portion of the population, approximately 40%, is maintained in captivity, but in the eastern part of Europe there are a number of free-roaming herds. There has been a growing interest surrounding this species recently, particularly in relation to herds kept in large enclosures. Our aim is to maintain this interest within the framework presented in the Action Plan, which highlights the following: proper management of the species' gene pool; isolation of two genetic lines; and assuring the welfare of the animals. Conservation programmes for this species must be well-organized, with the cooperation of the whole of Europe.

This task is being fulfilled by the European Bison Friends Society, through the long-term European Bison Conservation Centre (EBCC) project whose purpose is to coordinate activities connected with the protection of the species in Europe, and manage the status of European Bison both in captivity and in the wild. This was launched three years ago, and began with the collection and distribution of all possible information about the species, applying population genetics methods to evaluate data from International Pedigree Books. The European Bison is a highly inbred species, though it is still possible to manage this low genetic variability in order to prevent further losses. DNA samples were also collected which, in the future, may allow for genetic profiles to be created for each individual kept in captivity.



European Bison (*Bison bonasus*). © Janusz Sochacki

We also support re-introduction projects in the Eastern Carpathians and the creation of new populations in Russia, with a view to establishing large free-living meta-populations. In terms of welfare, guidelines for European Bison management were prepared and published in Polish and English.

The EBCC is formed of the Central Office in Warsaw, and Regional Offices in various parts of Europe including Germany, Romania, Ukraine and Sweden, which are responsible for collecting, analyzing and disseminating information. EBCC policy is created by the Board, which consists of representatives from the network and important partner organizations and institutions.

We had two meetings last year to discuss and accept important documents, and the following have now been agreed upon: the Statute; the work plan for the organization; and its responsibilities and obligations. More information will be presented soon at www.bison-ebcc.eu.

Wanda Olech

Red List Authority Focal Point
Bison Specialist Group

Butterfly SG

Butterfly Specialist Group to be re-established

With nearly 20,000 species worldwide, butterflies as a group are not at risk

because many species are generalists or are widely distributed. However, a significant number of butterfly species are highly specialized or are restricted to one or a few small patches of habitat. In addition, recent studies show that some species that were formerly widespread or common are now declining.

With that in mind, the IUCN has reformed its Butterfly Specialist Group to bring together scientists and conservationists in a cooperative effort to facilitate butterfly conservation projects worldwide. Scott Hoffman Black, Executive Director of the Xerces Society for Invertebrate Conservation, was appointed as Chair of this Specialist Group.

At a recent meeting of the IUCN SSC Invertebrate Conservation Subcommittee, Scott Black discussed his hopes that the Butterfly



Apollo parnassius. © iStock/Angie Sharp

SG would prioritize work in countries and regions traditionally underserved by existing butterfly organizations, so that meaningful progress toward the conservation of butterflies can be undertaken without duplicating the efforts of existing butterfly conservation NGOs.

Over the next six to eight months, a steering committee will be identified and developed. One of the first tasks to be undertaken by the Specialist Group is a needs assessment, which will be sent to butterfly researchers and conservationists. Once the needs are understood, an action plan will be developed to prioritize action for individual species status assessments, surveys, or direct conservation action. The Butterfly SG will assist the IUCN Red List Unit and provide feedback on IUCN Red Listing. A Red List Authority Focal Point will be appointed within the Butterfly SG to focus these efforts.

The Xerces Society for Invertebrate Conservation has agreed to make its staff available to drive the process forward, especially in the early stages, while the global network is being formed and empowered. For more information or to become involved in this process, please email Ashley Minnerath at ashley@xerces.org.

Scott Black

Chair, Butterfly Specialist Group

Cat SG

Leopard conservation in the Caucasus

In 2007, the Cat Specialist Group facilitated the development of the Strategy for the Conservation of the Leopard in the Caucasus Ecoregion, an exercise bringing together conservation experts and representatives from governmental and private institutions from the six Caucasian countries. In May 2010, we organised a follow-up meeting at the IBA conference in Tbilisi, Georgia, to discuss the implementation of the Strategy.

Georgia, Azerbaijan, and Armenia have endorsed the Strategy and developed National Action Plans; Turkey has also endorsed the Strategy, but Russia and Iran have yet to do so. The implementation of conservation

action, however, encounters many problems, including many political obstacles, both within and between the range countries. Trans-boundary cooperation is crucial, as leopards mainly occur in border areas.

The Russian Academy of Science and WWF Russia plan to re-introduce the leopard to the north-western Caucasus. Leopards from zoos or from the wild will be bred in large enclosures with natural prey, and offspring will be raised under almost natural conditions and released. Recently, the Russian Federation traded two Persian Leopards from I.R. Iran for two Siberian Tigers; these leopards are now in the Sochi re-introduction facility, together with two specimens from Turkmenistan.

Many aspects of the approach were criticised, e.g. the project was said to be a fig leaf for the Sochi Olympic winter games. However, Russia and Iran are working together, and the Strategy will be rather meaningless without the support of these two countries. It is unlikely that leopards in the Caucasus will survive without local re-introduction and restocking, and the Russian project could provide valuable experience for the re-introduction of this species. Of utmost importance will be the conservation of the source population in north-eastern Iran. The leopard discussion group at the IBA in Tbilisi concluded that there is no alternative to cooperation between all six range countries, and that the Russian re-introduction project and the conservation of the source population in Iran should become an integral part of the Strategy.

Urs Breitenmoser

Co-Chair, Cat Specialist Group

Caucasus Plant RLA

First comprehensive list of Caucasus plant endemics compiled

With support from the Critical Ecosystem Partnership Fund (CEPF), the Coordination and Development of Plant Red List Assessments for the Caucasus Biodiversity Hotspot project was implemented by IUCN in collaboration with the Missouri Botanical Garden, USA, the WWF Caucasus Programme Office, and botanists from all six



Caucasian Mountain Ash (*Sorbus caucasigena*). © O. Abdaladze

countries of the Caucasus (Armenia, Azerbaijan, Georgia, Iran, Russia, and Turkey) from 2006 to 2009. The project aimed to provide a series of Red List training and validation workshops specifically tailored to the Caucasus region so that local botanists could use internationally accepted methods for plant conservation assessments and monitoring (the IUCN Red List Categories and Criteria) and the Species Information Service (SIS) as a tool for data management and analysis. The work has resulted in a comprehensive overview of the distribution and conservation status of the endemic plant species of the Caucasus region based on current knowledge.

The Caucasus Plant Red List Authority was established under the IUCN Species Survival Commission within the framework of the above project. A series of Red List workshops successfully introduced participants to the IUCN Red List process and highlighted the use and relevance of assessments for conservation planning, with the subsequent development of a regional Plant Conservation Strategy. Targets listed in the draft of the Plant Conservation Strategy for the Caucasus correspond to the targets of the Global Strategy for Plant Conservation, with a further emphasis on monitoring and response to climate change. CEPF has been solicited for support of the publication of the Strategy in 2011, to be titled the Caucasus Plant Conservation Initiative.

Data collected for the species assessments resulted in the first comprehensive list of plants endemic to the Caucasus region (ca. 2,750 species/subspecies). Red List assessments of ca. 1,200 taxa were conducted, including all national endemics, with ca. 60% assessed as threatened. The final product of the project, The Red List of Endemic Plants of the Caucasus Region, with the full list of endemic plant taxa of the region and species assessments, is planned for publication in 2011; the assessments will also be published on the IUCN Red List website.

Ketevan Batsatsashvili

Programme Officer, Caucasus Plant Red List Authority

Cetacean SG

Saving the river dolphins

A symposium and workshop on protected areas for Asian freshwater



Irrawaddy Dolphin (*Orcaella brevirostris*).
© Danielle Kreb

cetaceans, involving more than 100 local and international participants from governments, NGOs and academic institutions, took place in Samarinda, East Kalimantan, Indonesia, from 19 to 24 October 2009 (see www.ykrasi.110mb.com for the full final report). The event provided an opportunity for scientists and conservationists in the region to exchange knowledge and experience, and to develop recommendations on how to improve existing protected areas as well as on how to design and designate new ones. Discussions focused on river dolphins and porpoises in seven countries: Indonesia; China; Cambodia; Bangladesh; Myanmar; India and Pakistan.

The total populations of Indus and Ganges River Dolphins number in the thousands, but both subspecies are Endangered. All riverine populations of Irrawaddy Dolphins (called Pesut in Indonesia) are Critically Endangered, each numbering fewer than 100. The Yangtze Dolphin (Baiji) is probably Extinct, while the Yangtze population of Finless Porpoises is declining rapidly and is listed as Endangered on the IUCN Red List (range-wide estimate in 2006: 1,800).

Although portions of some dolphin rivers in Asia happen to fall inside the borders of national parks, there are few examples of well-managed areas that go beyond providing these animals with just one more layer of 'paper protection'. Without serious regulation (if not prohibition) of harmful fishing practices, dolphins or porpoises in a protected area remain vulnerable to the

threat of bycatch. Water development projects (e.g. dams and barrages) outside of a protected area can easily nullify its conservation benefits.

With support from IUCN, the local NGO Yayasan Konservasi RASI is planning a series of follow-up meetings with stakeholders. It is hoped that by the end of this year, a protected area for Pesut will be functioning in the Mahakam River in West Kutai (Muara Pahu sub-district).

Other workshop participants embraced with great enthusiasm the suggestion by Pakistan delegate Abdul Haleem Khan Marwat that 24 October should be declared International Freshwater Dolphin Day.

Randall Reeves

Chair, Cetacean Specialist Group

Daniëlle Krieb

Contributor and Member, Cetacean Specialist Group

Chameleon SG

Indian Ocean secrets revealed

Recently published results from scientists in the Western Indian Ocean have unearthed new secrets about the chameleons of Madagascar and the Seychelles.

In Madagascar, Timon's Chameleon (*Furcifer timoni*) and the Tarzan Chameleon (*Calumma tarzan*) were both described recently from the island's rainforests. The discovery of *F. timoni* in Montagne d'Ambre National Park, a site that has been intensively

surveyed for reptiles, has drawn attention to the hidden biodiversity that exists within the tree canopies of Malagasy forests at a time when unprecedented levels of logging are occurring in the north of the island.

Calumma tarzan was found in two small rainforest sites in the east of Madagascar; no reptiles have previously been recorded in these areas. Small and isolated native forests in Madagascar such as these, tend to be overlooked in conservation planning, but the discovery of *C. tarzan* highlights their potentially unique contribution to biodiversity. One of the sites, Ambatofotsy, has already been proposed as a new protected area, and the discovery of *C. tarzan* is now galvanizing efforts to conserve the forest. Ongoing forest loss at the other site (near Tarzanville) is a major cause for concern, and raises the wider concern that endemic Malagasy species in other forests are going extinct before they are known to science.

In a study published in the journal *Biology Letters*, DNA dating techniques showed that certain African chameleons and the Seychelles Chameleon are each other's closest relatives, and they shared a common ancestor approximately 38 million years ago. Previously, the Seychelles Chameleon was thought to be closely related to the *Calumma* species of Madagascar, but the results of this study warrant placing the Seychelles Chameleon in a new genus, and its scientific name is now *Archaius tigris*. The uniqueness of the Seychelles



Tarzan Chameleon (*Calumma tarzan*). © Frank Glaw

Chameleon also emphasizes the importance of implementing conservation activities on the Seychelles.

Richard Jenkins

Chair, Chameleon Specialist Group

Conservation Breeding SG

Red Panda Population and Habitat Viability Assessment

Concern has been growing that a serious decline of the Red Panda (*Ailurus fulgens*) across its range is likely. Concrete data are lacking, however, as are action plans directed specifically to the gathering of missing information and the mitigation of threats to this species and its habitat. For these reasons, the IUCN SSC Conservation Breeding Specialist Group (CBSG) was invited to conduct a Population and Habitat Viability Assessment (PHVA) for the Red Panda in Nepal.

The workshop was organized by the Government of Nepal, Department of National Parks and Wildlife, Department

of Forest, the NTNC, CBSG South Asia and WWF, and facilitated by a joint team of CBSG South Asia and CBSG Europe. Funding was provided by WWF Germany, Rotterdam Zoo and members of the European Association of Zoos and Aquariums (EAZA). This was one of the first PHVAs to incorporate the visioning component of the IUCN SSC Species Conservation Strategy approach. The 60 delegates, including representatives of three range countries – Nepal, Bhutan and India – envisioned a future for Red Pandas in Nepal of: “Secure, viable populations distributed in contiguous natural habitat throughout the Himalaya regardless of national boundaries where this flagship species brings benefits to the region and is valued and protected by all stakeholders”.

GIS technology was used to map the confirmed and possible occurrence of Red Pandas in Nepal. Eleven subpopulations were identified holding in total an estimated 230 to 1,060 individuals. A computer model helped to establish that the majority of the subpopulations are so small that they have a high probability of extinction, even in the absence of human threats.

Larger subpopulations also have a high risk of extinction in the short- to medium-term if current levels of threat persist. Taking into account all the information gathered in the meeting, participants identified and prioritized the threats, and developed goals, objectives and concrete actions. These actions will provide the first steps towards achieving the vision for this flagship species of the Himalaya.

Virginia Lindgren

Member, Conservation Breeding Specialist Group

Crocodile SG

Caiman conservation

The 20th biennial Working Meeting of the IUCN SSC Crocodile Specialist Group (CSG) was held in Manaus, Brazil, on 13–17 September 2010, involving some 200 people from 26 countries. Since the first meeting in 1971, these working meetings have been the central forums in which crocodylian conservation action around the world has been initiated for nearly



Red Panda (*Ailurus fulgens*). © Dave Pope



Yacare Caiman (*Caiman yacare*). © Alba Imhof



Huemul (*Hippocamelus bisulcus*). © J.A. Smith-Fleuck

four decades. This meeting was hosted by Brazil, which was successful at getting its Black Caiman (*Melanosuchus niger*) population transferred from Appendix I to Appendix II at CITES COP 14, and which is now experimenting with sustainable use programmes to benefit local people.

The working meeting was preceded by the CSG Steering Committee meeting, open to all members, which addressed a wide range of current CSG priorities, particularly in Brazil, Mexico, Paraguay and Egypt. The development of a crocodylian capacity building manual, and broadening the CSG membership were two priorities. The effect of the global financial crisis on crocodile conservation and management was examined, as regardless of whether programmes are based on sustainable use or not, government budgets for conservation are being reduced. Lake Mesangat wetlands in East Kalimantan, the last remaining habitat for Siamese Crocodile (*Crocodylus siamensis*) in Indonesia, was discussed in depth. The spread of oil palms into the immediate lake area is a matter of great concern, and the CSG would like to encourage Indonesia to list this area as a RAMSAR site. The CSG has completed a morphometric study of caimans in Colombia, which provides the quantitative tools for predicting the size of caiman from which skins and leather products have been derived. The goal was to assist Colombia and the Parties to CITES in their efforts to ensure compliance with Colombia's size limits.

An important key to the success of the CSG is that its membership is drawn from a great diversity of different stakeholders: scientists, managers, zoo-

keepers, farmers, veterinarians, tanners, etc. We can look at the same problem through many different eyes. The proceedings of the 20th Working Meeting of the CSG will once again be a unique compendium of current information on problems, research and new ideas about crocodylian conservation, management and sustainable use. It will serve as both a source and reference book for members.

Grahame Webb

Chair, Crocodile Specialist Group

Deer SG

Linking research and management

South America has a high diversity of deer species and represents the only natural radiation of cervids into the southern hemisphere. The 7th International Deer Biology Congress (IDBC) was held during the last week of August 2010 in the Huilo-Huilo Reserve, Chile, organized by Dr Werner Fleuck and the IDBC Scientific Steering Committee, chaired by Dr Jo Anne Smith-Fleuck. Being the first time that the IDBC has been convened in Latin America, it provided a unique opportunity to showcase deer conservation in the region. The Huemul received particular attention at the congress, and new research findings and strategies show that captive breeding and relocation programmes are important for recovering Endangered deer populations. The Chilean authorities used the congress to highlight their conservation efforts with the Huemul, as the Huilo-Huilo reserve

houses the only captive breeding facility. The DSG also nominated the Huemul for the *Species of the Day* initiative, and it was profiled during the Congress. The conference brought together a multidisciplinary group of over 250 respected deer researchers, managers, practitioners and students from 25 countries. The sessions included topics related to management, neo-tropical deer species conservation, nutrition, diseases, ecology of invasive species, antler biology, behaviour and physiology. The DSG had an informative meeting during the conference with 60 attendees that included DSG membership and participants who were interested in deer conservation and wanted to be involved in our network. In the meeting we explained our organizational structure, the main duties of members, and discussed future directions.

We have also recently obtained support from the Mohamed bin Zayed Species Conservation Fund to support deer field expeditions for six members who are in-country researchers, and this will help the DSG better understand the distribution and status of deer species. Surveys will involve the following species and project leaders: Elds Deer – Myint Aung; Water Deer – Min Chen; Taruka – Nicolas Ferreira; Pudu – Eduardo Silva; Huemul – Jo Anne Smith-Fleuck; and Red Brocket Deer – Joaquín Bello Gutierrez. We are excited that these funds will support needed surveys, and we are investigating other avenues to support this type of activity.

Susana González and William McShea

Co-Chairs, Deer Specialist Group

Dragonfly SG

Extensive databases to be developed

Vincent Kalkman stood down as Chair of the Dragonfly Specialist Group (DSG) in July, as he wants to focus on his PhD and other projects. Viola Clausnitzer will serve as interim Chair until a new Chair is elected in 2011.

In March this year, the European Red List of Dragonflies was published. The project assessed 137 European species. It was found that most of the Threatened species were concentrated in the Mediterranean. However, many of these species do not appear in the Habitat Directive, the main European environmental law, and thus a paper presenting this problem and discussing possible solutions is in preparation.

In July this year, the First European Congress on Odonatology was attended by 90 people from over 20 European countries. Many of these countries are engaged in atlas projects, redlisting and development of conservation action plans. The IUCN activities in the last couple of years have assisted in strengthening the European dragonfly community.

The Pan-Africa Freshwater Assessment, coordinated by the IUCN Freshwater Biodiversity Unit, was finished in 2009. A final report is currently under preparation and papers are planned. Pending on time and funding, inferred distribution maps for

all African species and regional field guides will be prepared.

Currently four assessment projects for different parts of mainland SE Asia and the Indian Peninsula are being conducted. Some of these will be finished in 2010.

Biofresh is a consortium of European institutes working together to gather and generate information on freshwater topics. One of the projects involves the gathering of distribution databases of freshwater organisms in order to analyze patterns in freshwater biodiversity, and detect biodiversity hotspots and key threats. For dragonflies, the work will concentrate on tropical Asia and America. A proposal for a project focusing on digitizing the most important dragonfly collections in the USA will be submitted in 2011 to the National Science Foundation. If the project is accepted, this would increase the information available for North, Central and South America. The Netherlands Centre for Biodiversity will decide soon on a project to digitize part of their dragonfly collection, thus developing an extensive database for countries such as Indonesia, Papua New Guinea and the Philippines. The databases based on published records generated by the Biofresh project will make it easier to carry out redlisting in tropical areas. IUCN and CI are therefore still actively searching for grants to do assessments in Australia, the Pacific, Brazil, the Philippines and China.

Viola Clausnitzer

Interim Chair, Dragonfly Specialist Group

Equid SG

Conserving Africa and Mongolia's wild equids

The vision of the IUCN SSC Equid Specialist Group is to conserve biological diversity by developing and executing programmes to study, save, restore and wisely manage wild equids and their habitats. Our greatest challenge is to improve the conservation status of wild equids, to sustain their ecosystems and to enhance the livelihoods of local communities.

Training of range state nationals is an important component of achieving these goals. In Ethiopia, Almaz Tadesse completed her PhD on 'Sustaining the Alledoghi Grassland of Ethiopia: Influences of Pastoralism and Vegetation Change', and is employed as the Director of a local conservation NGO. Fanuel Kebede will complete the field research for his PhD on the 'Ecology and Community-Based Conservation of the African Wild Ass and the Grevy's Zebra in the Afar Region of Ethiopia' in October 2010. As part of this research he will work with Dr Albano Beja-Pereira to address population genetics issues.

At the 2009 SCB meeting in China, Peter Leimgruber, Hu Defu, and Waltraut Zimmerman convened a symposium on: Restoring Przewalski's Horses – Lessons Learned from *In-situ* and *Ex-situ* Conservation.

In September 2010, an International Conference was held in Ulaanbaatar on



Dragonfly Specialist Group, European Odonatology Congress. © Erland R. Nielsen



Przewalski's Horse (*Equus ferus przewalskii*). © Patricia D. Moehlman

'Mongolian wildlife: conservation challenges and opportunities in 2010 and beyond'. As part of this conference, a workshop was convened on Endangered Wild Equids in Mongolia. Przewalski's Horse (Takhi, *Equus ferus przewalskii*) and the Mongolian Wild Ass (Khulan, *Equus hemionus hemionus*) are Critically Endangered and Endangered, respectively. Dr Lkhagvasuren led the workshop in reviewing the status, assessing the major threats and drafting strategic objectives for both national populations. A major objective is to develop and implement national conservation strategic plans for both the Mongolian Wild Ass and the Przewalski's Horse in Mongolia.

Patricia D. Moehlman
Chair, Equid Specialist Group

Grasshopper SG

European orthopteran redlisting on the horizon

The recently formed Grasshopper Specialist Group (GSG) is currently commencing the European Redlisting of Orthoptera (ERO). ERO uses [facebook](#) as a discussion forum and plans to perform an IUCN Red List assessment of all European grasshoppers, crickets and allied insects within the next few years. Some pre-assessments have been completed recently. A country list of all European Orthoptera is currently adopted from *Fauna Europea*, and will be published on [www.ortheur.org](#).

It will be a challenging task to assess all European species as there are more than 1,000 species, including

many endemics. One of these endemic species is the Crau Plain Grasshopper (*Prionotropis hystrix rhodanica*). It is endemic to the La Crau area – a unique Mediterranean steppe in southern France. This species is completely flightless and, therefore, not able to colonize new habitats easily. The Crau Plain Grasshopper is highly threatened by the destruction and fragmentation of its habitat resulting from landscape conversion (agriculture and industrial development). The populations seem to be very small and are becoming more and more isolated from each other. The species has completely disappeared from several sites. Part of its habitat is protected and managed within the framework of the natural reserve of La Crau, the only zone where this grasshopper can still survive. In order to counteract habitat degradation in other parts of La Crau, a translocation project is currently underway.



Crau Plain Grasshopper (*Prionotropis hystrix rhodanica*). © L. Tatin

The European redlisting process is coordinated by Baudwijn Odé, Roy Kleukers and Luc Willemse. If you are interested in participating in ERO or in other activities of the GSG, please contact us.

Axel Hochkirch
Chair, Grasshopper Specialist Group
Baudewijn Odé
Red List Authority Focal Point GSG

Iguana SG

Iguana conservation in Hispaniola and Fiji

The endemic and Critically Endangered Ricord's Iguana (*Cyclura ricordi*), is restricted to south-central Hispaniola where four disjunct subpopulations remain in an area less than 100 km². Three subpopulations occur within the Jaragua-Bahoruco-Enriquillo Biosphere Reserve in the Dominican Republic (DR). The fourth, the smallest and most threatened subpopulation, is found in southeastern Haiti.

Conservation activities in the DR focus on habitat monitoring and regular patrolling by members of local support groups to prevent disturbances. This integrative, low-cost programme is effective, raises awareness, and serves as a model for other endangered species programmes in the DR. In September, with funding from an anonymous donor, the International Iguana Foundation (IIF) and Grupo

Jaragua purchased 20 hectares in DR encompassing a critically important nesting area for Ricord's Iguana called Fonda de la Tierra near Pedernales. Over 140 hatched nests were documented in this area earlier this year. In Anse-a-Pitres, Haiti, where the most fragile subpopulation of Ricord's Iguana exists, the IIF and Grupo Jaragua recently conducted a workshop for local authorities with a proposal to create a Municipally Protected Habitat. If successful, this protected area would be the first of its kind in Haiti. The IIF, USFWS, MacArthur Foundation, Disney, and Sociedad Española de Ornitología support work on Ricord's Iguana.

In Fiji, two significant findings emerged from fieldwork conducted over the past year by the National Trust of Fiji, University of the South Pacific, Fiji Department of Environment, NatureFiji-MareqetiViti, Taronga Zoo, and the US Geological Survey. The first finding was the discovery of sizeable populations of the newly described Fijian Banded Iguana (*Brachylophus bulabula*) on two government-owned islands, Mokogai and Makodrago. It is hoped that these populations will serve as the focus of an assessment for a potential new national park within Fiji.

The second finding was confirmation that Green Iguanas (*Iguana iguana*), illegally introduced to Fiji earlier this century, now occur on at least four islands with documented breeding on two islands. Green Iguanas are highly invasive, and juveniles are very similar in colour and shape to the threatened endemic iguanas of Fiji, a similarity expected to hamper control efforts. Partial funding for fieldwork in Fiji came from CEPF and the IIF.

Glenn Gerber and Miguel Garcia

Co-Chairs, Iguana Specialist Group
With contributions from Ernst Rupp, Masani Accimé and Robert Fisher

Invasive Species SG

Supporting the development of a global Early Warning and Rapid Response framework for biological invasions

The IUCN SSC Invasive Species Specialist Group (ISSG) is contributing to



Red Palm Weevil (*Rhynchophorus ferrugineus*). © Riccardo Scalera

the development of a global Early Warning and Rapid Response (EWRR) framework for biological invasions, by supporting the improvement, harmonization and integration of related information systems (e.g. to develop alarm listing systems, diagnosis of invaders, a web-based global register of invasive species, access to updated and detailed management information, etc.).

The group has been participating in several relevant international conferences and workshops, both to provide advice and contribute to the development of regional and national EWRR systems, particularly in Europe. Networking activities, with countries and regions where early warning systems are already being implemented, are ongoing.

In 2009, a major ISSG achievement was the publication of *Towards an early warning and information system for invasive alien species (IAS) threatening biodiversity in Europe*, produced under contract with the European Environment Agency. The report was prepared by a team of experts, led by the Institute for Environmental Research and Protection (ISPRA) Italy, in collaboration with the ISSG. It contributes to the ongoing development of an EU Strategy on invasive alien species, which the European Commission committed to complete in 2011. An abridged version of the report is available online [here](#).

In 2009/2010, the ISSG launched its re-designed website (www.issg.org) and newsletter. Both will contribute to the circulation of information on the initiatives planned around the world related to biological invasions, as well as facilitating networking between scientists, policy makers and relevant

stakeholders. The re-design was possible thanks to the support of ISPRA in Italy, the current headquarters of the ISSG, and Piero Genovesi (Chair of the group).

The publication of the new newsletter was also supported by Riccardo Scalera, Programme Officer of the ISSG, together with Shyama Pagad, Carola Warner and Anna Alonzi. Two issues, (28 and 29) have been published in 2010, and are available free of charge as pdf files from the ISSG [website](#). Hard copies are also published and mailed out by ISPRA. A new issue is about to be published and will be printed in the next few months. Any contributions to the newsletter, or comments and suggestions, should be emailed to Riccardo Scalera at scalera.riccardo@gmail.com.

Piero Genovesi

Chair, Invasive Species Specialist Group
Riccardo Scalera
Programme Officer, Invasive Species Specialist Group

Lagomorph SG

Review issues stark warning for the Irish Hare

The Irish Hare (*Lepus timidus hibernicus*), is a subspecies of the Mountain Hare (*Lepus timidus*), and endemic to Ireland. Its populations underwent a dramatic decline during the 20th century, associated



Irish Hare (*Lepus timidus hibernicus*). © Neil Reid

with land use changes due to agricultural intensification. The species now occurs at very low densities and a recent study has identified an emerging potential threat to its long-term survival.

Following the discovery of naturalised populations of the European Hare (*Lepus europaeus*), the Irish Hare Species Action Plan Steering Group commissioned a review, funded by the Northern Ireland Environment Agency (NIEA), of the potential impact of the invader on the native subspecies.

The paper, published in *Biological Invasions*, suggests that European Hares establish easily beyond their native range and exhibit strong competition for habitat space and food resources with native species, including non-lagomorphs. However, their effect on similar species, such as the Mountain Hare, can be even more damaging. The Irish Hare represents an evolutionarily unique lineage among the mountain hares having been isolated post-glacially for some 30,000–60,000 years. The discovery of interspecific hybridization between invading European and native Irish hares in the wild in Ireland is, therefore, very worrying. Moreover, the review warns that disease, parasite transmission and climate change may provide an edge to the invading species at the expense of the native.

A panel of Lagomorph SG members provided a signed foreword to accompany the paper recommending immediate intervention. An urgent call was issued for more research and for the drafting of a European Hare Invasive Species Action Plan (ISAP) and

Eradication Strategy. Invasive mammal species have been successfully removed from Ireland before and immediate action is often the only opportunity for cost-effective eradication. Read more at www.quercus.ac.uk.

Neil Reid

Contributor and member of Lagomorph Specialist Group

Andrew Smith

Chair, Lagomorph Specialist Group

Medicinal Plant SG

Revised standards for sustainable management of medicinal plants

The International Standard for Sustainable Wild Collection of Medicinal and Aromatic Plants (ISSC-MAP), developed by the Medicinal Plant Specialist Group in collaboration with the German Federal Agency for Nature Conservation (BfN), TRAFFIC, and WWF, has now merged with the FairWild Standard in the recently released version 2.0. A commitment to join the two wild-collection standard initiatives under the ownership and management of the FairWild Foundation was formalized in 2008 during the 4th IUCN World Conservation Congress in Barcelona.

FairWild Standard version 2.0 combines ecological, social, and economic good practice principles for sustainable wild collection of natural ingredients for food, cosmetics, herbal remedies and pharmaceuticals.

Globally, more than 400,000 tonnes of medicinal and aromatic plants are traded annually, with the great majority of these species being harvested from the wild. Out of an estimated 50,000–70,000 plant species used medicinally world-wide, around 15,000 are thought to be threatened by over-exploitation and habitat loss.

The revised FairWild Standard and related performance indicators combine all essential elements of the original FairWild Standard, focused on fair trade, and the International Standard for Sustainable Wild Collection of Medicinal and Aromatic Plants (ISSC-MAP), which focused on ecological sustainability and applications to traditional knowledge, access and

benefit sharing (ABS). Moreover, the revised version incorporates the lessons learned through practical application of the Standard in the field. The latest Standard was drawn up following extensive consultations with plant experts and representatives from the global herbal products industry. This year, 23 wild plant collection companies are on track to becoming FairWild certified.

The FairWild Standard is useful not only for companies wishing to certify their products as sustainably traded. Earlier versions of the Standard are already being used by Government agencies in a number of countries as the basis of their natural resource management plans, thereby helping to fulfil their commitments to the Convention on Biological Diversity, particularly those related to sustainable use of biodiversity, good practices for plant resource management, and equitable distribution of benefits from biodiversity resources.

Danna Leaman

Chair, Medicinal Plant Specialist Group

Otter SG

Standardizing post-mortem protocol

Biologists and veterinarians from across Europe gathered in Denmark in February at a workshop arranged by the IUCN SSC Otter Specialist Group. The workshop aimed to produce a standardised post-mortem protocol,



Eurasian Otter (*Lutra lutra*). © Hugh Jansmann



and to promote wider collaboration between nations.

The Eurasian Otter (*Lutra lutra*) is listed as Near Threatened on the IUCN Red List. Across most of its range in Europe, the populations are subjected to considerable mortality due to road traffic accidents and other human-related activities. In some countries, information on mortality locations and carcasses are collected systematically to guide conservation efforts. However, the standard of information from post-mortem analysis and, sample collection varies widely between countries.

As the otter is protected throughout Europe the carcasses from these accidental killings are a valuable source of information, e.g. on population health and exposure to contamination, that can be used to assess the conservation status of populations and the effects of conservation efforts.

The development of standardized post-mortem analysis and sample storage, and a database on tissue banks, will enable closer cooperation and more detailed pan-European studies. Ultimately, this should result in more efficient management tools and conservation plans for otters.

The post-mortem protocol will be presented at the next international Otter Conference in Pavia, Italy, in 2011.

The workshop has been arranged in conjunction with The Swedish Museum of Natural History and the National Environmental Research Institute, Aarhus University, Denmark.

Lesley Wright

Member, Otter Specialist Group

Peccary SG

Regular IUCN Red List updates planned

The new Peccary Specialist Group (previously part of the Peccaries and Hippos Specialist Group) is co-chaired by Harald Beck and Mariana Altrichter. Currently, our group has approximately 40 members from 16 different countries, including researchers from many biological disciplines, veterinarians, zoo experts, and conservation organizations. This diversity and expertise gives the group a very strong base to advance



Chacoan Peccary (*Catagonus wagneri*).
© Leonardo Maffei

collaborations, our understanding of peccaries and to work for their conservation.

Peccaries are classified as ecosystem engineers, species that physically create or modify existing environments, thereby changing the availability of resources for other species. As seed dispersers, seed predators, and engineers of freshwater habitats, peccaries play an immense, long-overlooked role in ecosystems.

Our short-term goals are to coordinate work among members for regular updating of the IUCN Red List, create an interactive web page for the group, and compile a “virtual library” with all published literature related to peccary research. We also need to create a new Species Conservation Plan to replace the existing 1993 Species Action Plan.

Several of the members of the group have worked very hard for the past three years to finish the report on the *Range-Wide Status Assessment for White-Lipped Peccaries*. This is one of the most data-rich assessments ever undertaken for such a wide-ranging species. It is hoped that this study will play an active role in conservation planning. This report has already been distributed among governmental and non-governmental agencies in Latin America and to universities, researchers and other institutions.

Our group also held a Symposium called ‘Old world pigs and new world peccaries – conservation status, management and health’ in 2009 in Mendoza. Several members

also attended training sessions on the IUCN Red List and SIS, which were organized by IUCN staff.

Mariana Altrichter and Harald Beck
Co-Chairs, Peccary Specialist Group

Salmonid SG

Dam removal good news for Wild Salmon in Japan

In 2005, the Shiretoko Peninsula became Japan’s newest World Heritage Site, recognized for its unique ecosystems formed by the interaction between marine and terrestrial environments.

The Shiretoko Peninsula is located between the Sea of Okhotsk and the Nemuro Strait at the northeastern tip of Hokkaido Island. Twelve species of freshwater fish have been found in the streams of Shiretoko, with six salmonid species naturally reproducing upstream, including Chum, Pink, Masu, and Dolly Varden. They are an important food source for aquatic and terrestrial species, and also help support an active commercial fishery in the region.

The IUCN SSC Salmonid Specialist Group (SSG) was asked to review the nomination proposal submitted by Japan in 2005. The Chair of the SSG, Wild Salmon Center (WSC) staff member Dr Pete Rand, joined WSC Programme Manager Brian Caouette on several trips to Hokkaido to inspect progress on the restoration effort. In their review, the SSG highlighted the need to address the impacts of dams within the site to improve fish passage.

As a result of the recommendations, Japanese officials have implemented restoration projects. Of the 14 streams that have one or more dam structures, 31 (out of 127) structures in five streams were either removed or modified to improve fish passage. Plans for removal had to take into account the high risk of flooding and erosion in the region. Modifications were only made where there would not be a significant risk to human welfare and livelihoods. The removal of any dam structure is a major undertaking, and the successful transition of 31 of the dams in Shiretoko is a testament to

the diligence and hard work of our Japanese partners.

Since the implementation of the projects, IUCN SSG member Dr Masahide Kaeriyama has led an effort to monitor the sites. His results show that they have succeeded in restoring the run of salmonids upstream in the Rusha River, one of the most productive salmon rivers on the peninsula. While returns upriver in the other streams are still relatively low, the restoration work will continue as progress is made to reach an ambitious conservation target in the coming years.

Pete Rand

Chair, Salmonid Specialist Group

Sciaenidae RLA

First Red List workshop on Sciaenidae

The first Red List Assessment workshop on global and Brazilian Sciaenidae was held in Brazil in November 2009. It was organized by the IUCN SSC Sciaenidae Red List Authority in conjunction with the Global Marine Species Assessment (GMSA) and the Instituto Chico Mendes de Conservação da Biodiversidade (MMA, Brazil). Participating in the workshop were 19 international specialists from 13 countries, plus 20 Brazilian specialists and trainees.

Sciaenidae fishes include 300 species of croakers and drums. They are small to medium-sized bottom-dwelling fish that are found in the shallow warm seas and estuaries of the

world. They are a major coastal fishery resource.

A total of 270 species were evaluated or revised during the workshop. Of these, four are Critically Endangered, six are Endangered, five are Vulnerable and four are Near Threatened. The rest of the species are ranked as Least Concern (156) and Data Deficient (70).

We are currently establishing a Global Sciaenidae Conservation Network (GSCN) to collaborate on specimen and data collection, and research projects on all aspects of Sciaenidae biology, fishery issues and socioeconomics.

Our goal is to make a revised global Sciaenidae Red List assessment in the next eight to 10 years. We have also received support for this project from Taiwan Forest Bureau's International Conservation Grant and Bio-Amazônia Conservation International (USA).

Ning Labbish Chao

Focal Point, Sciaenidae Red List Authority

Shark SG

Strengthening the EU ban on shark finning

The IUCN SSC Shark Specialist Group (SSG) has been engaged in the process to strengthen the ban on shark finning (slicing off a shark's fins and discarding the body at sea) for one of the world's most influential shark fishing powers: the European Union (EU). The next step in this process is a long-awaited public consultation held

by the European Commission, which is anticipated to begin this autumn and last for at least two months.

Associated with unacceptable waste and unsustainable mortality, shark finning is driven by the discrepancy between generally low-value shark meat and high-value shark fins, which can sell for hundreds of Euros per kilogramme for use in a traditional Chinese soup. The EU banned finning in 2003, but loopholes in the regulation undermine its effectiveness. Specifically, the current EU finning regulation allows fishermen to land shark fins and carcasses in separate ports, and uses the world's highest (and therefore most lenient) fin-to-carcass weight ratio limit to judge whether fins and bodies landed are in the appropriate proportion.

The Commission's upcoming public consultation document on the Finning Regulation is expected to solicit opinions on a range of methods for implementing the ban, including adjusted fin-to-carcass ratios and various strategies for matching fins to corresponding carcasses.

The SSG has long asserted that the most effective way to prevent finning is to require that sharks be landed with their fins *naturally* attached. This strategy also allows for improved species-specific landings data, which are needed for population assessments and fisheries management. The 2008 IUCN World Conservation Congress adopted a global policy on finning which calls on States to end at-sea removal of shark fins.

As part of their contributions to the consultation, the SSG and the European Elasmobranch Association have prepared *Shark Fins in Europe: Implications for Reforming the EU Finning Ban*, available on the [SSG website](#).

Finning bans alone, however, will not prevent overfishing of sharks. Catch limits based on scientific advice and the precautionary approach are essential to ensure shark mortality and fisheries are sustainable. Such measures are particularly urgent for European waters where the percentage of shark species classified by IUCN as Threatened is exceptionally high.

Sonja Fordham

Deputy Director, Shark Specialist Group



Participants of the Global Sciaenidae Red List Assessment workshop, Brazil. © Sciaenidae RLA

South American Camelid SG

Current challenges for addressing poverty alleviation via Vicuña management in Andean countries

Vicuña (*Vicugna vicugna*) are South American camelids, the commercial use of which has untapped poverty alleviation potential. Vicuña fibre is produced by extremely low income communities that inhabit the harsh environment of the high Andes in Argentina, Chile, Peru and Bolivia. At the other end of the world, affluent consumers are willing to pay high prices for apparel made of Vicuña fibre. Vicuña management projects follow the logic of community-based wildlife management. The rationale for Vicuña conservation through sustainable use is that commercial utilization of fibre obtained from live-shorn individuals will generate sufficient economic benefits to outweigh the costs of conservation, and contribute to community development and poverty alleviation.

However, while conservation efforts have been extremely successful, with

vicuñas recovering from the brink of extinction, increasing from a population of only 10,000 in 1965 to about 421,500 individuals in 2010, the socioeconomic achievements have thus far proved modest. Most of the benefits are being captured by traders and international textile companies, rather than by local communities. In addition, the high market value of Vicuña fibre has attracted a number of groups interested in its production. This threatens the conservation of this wild species, and the exclusive rights of Andean communities, and could undermine the spirit of the Vicuña Convention.

The full article can be read in the special issue on Biodiversity and Poverty Alleviation of the publication *Biodiversity*.

For downloading further material on Guanaco and Vicuña conservation and sustainable use please visit the South American Camelid Specialist Group (GECS) [website](#).

Gabriela Lichtenstein
Chair, South American Camelid Specialist Group

Gasterosteiforme and Syngnathiforme RLA

Oil spill increases threats to syngnathids

The oil spill in the Gulf of Mexico from the Deepwater Horizon well is likely to add significantly to the many pressures on the three species of seahorse and at least 18 species of pipefishes in the region. The Dwarf Seahorse (*Hippocampus zosterae*), is expected to be particularly susceptible to physical and chemical threats from oil and clean-up efforts, but the Longsnout Seahorse (*H. reidi*) and the Northern Seahorse (*H. erectus*) will also be affected. *H. zosterae* is restricted to shallow water inshore seagrass beds in the Gulf of Mexico while the other two species are also found in other habitats and have wider geographic ranges.

Project Seahorse, as the Red List Authority on these taxa, has been collaborating with Dr Heather Masonjones (Tampa University, Florida), the leading researcher on *H. zosterae*, to highlight the risks to these seahorses.



Male Vicuña group (*Vicugna vicugna*). © Antonio Orosco



Dwarf Seahorse (*Hippocampus zosterae*). © Justin Gerlach/Shedd Aquarium

There is great concern for *H. zosterae*, both because of its life history and its exposure during the spill. These Dwarf Seahorses are only about 2 cm high as adults, live only one year, produce very few young, live a sedentary life, and are found only in small scattered populations. A high proportion of *H. zosterae* populations have already been exposed to oil toxins and dispersant chemicals, and the oil spill is expected to reach much of the species' range. Dr Masonjones has stated that the spill itself was catastrophic, but the cleanup will pose its own serious threats, especially if the use of toxic dispersants continues or BP resumes burning seagrass mats. Seahorse numbers are expected to drop, particularly as the clean-up gains momentum. Booms and skimmers are probably a safer clean-up option, where they can be deployed effectively.

Research is desperately needed to determine the extent of the damage

from the oil spill, which will probably include local extinctions, especially given that the spill and clean-up have embraced the entire breeding season for this tiny short-lived species.

Amanda Vincent

Focal Point, Syngnathiforme and Gasterosteiforme Specialist Group

Tapir SG

National Action Plans moving forward

The Tapir Specialist Group (TSG) continues to put considerable effort into developing action plans for tapir conservation. After holding Population and Habitat Viability Assessments (PHVAs) and developing new action plans for each species of tapir, the group has shifted its focus to producing National Action Plans for Tapir

Research and Conservation in each tapir range country. Argentina, Colombia, Ecuador and Mexico have already finished their Plans. French Guiana, Guatemala, Indonesia, Peru and Venezuela are well on their way. In Brazil, the TSG is working with the Federal Environmental Agency (ICMbio) on the revision of the Brazilian Red List and the results of this work will be used for the development of a National Action Plan for Lowland Tapirs in Brazil. All tapir action plans can be downloaded in all appropriate languages from the TSG website <http://www.tapirs.org/>.

The Fifth International Tapir Symposium will be held in Kuala Lumpur, Malaysia, in October 2011. It is the first time the TSG will hold the conference in a Malayan Tapir range country. The TSG is working side by side with the Malaysian Department of Wildlife and National Parks (DWNP) on the organization of the conference. A scientific committee has been put together and we should soon be able to post a call for abstracts. A fundraising committee formed by members of the TSG as well as members of the AZA (Association of Zoos and Aquariums) and EAZA (European Association of Zoos and Aquaria) Tapir Taxon Advisory Groups (TAGs), are carrying out a campaign to raise funds for the conference. The majority of TSG members come from Central and South America, and we will need funds to support their participation.

The partnership between the TSG and the American and European Tapir TAGs continues to grow stronger and our joint efforts continue to benefit the conservation of wild and captive tapirs worldwide.

Patrícia Medici

Chair, Tapir Specialist Group

Tortoise and Freshwater Turtle SG

Bernard Devaux receives the 5th Annual 2010 Behler Turtle Conservation Award

The IUCN SSC Tortoise and Freshwater Turtle Specialist Group and the Turtle Survival Alliance are pleased to



Lowland Tapir (*Tapirus terrestris*). © Daniel Zupanc



Bernard Devaux with a Radiated Tortoise (*Astrochelys radiata*). © Turtle Survival Alliance

announce that the 5th Annual Behler Turtle Conservation Award was presented to Bernard Devaux from SOPTOM, Gonfaron, France, at the 8th Annual Symposium on Conservation and Biology of Tortoises and Freshwater Turtles in Orlando, Florida, on 19 August.

Bernard Devaux is a leading turtle conservationist whose work in France and around the world has been inspirational. He has created a series of educational 'turtle villages' and has worked tirelessly for the conservation of wild populations of turtles and tortoises.

In 1986, Bernard created the SOPTOM association (Station for the Observation and Protection of Turtles and their Habitats) in order to study and protect the Hermann's Tortoise (*Testudo hermanni*). He then created the Village des Tortues (Turtle Village) in Gonfaron, southern France (1988) with the objective of financing turtle conservation

by opening a visitor centre. Spurred on by the success of the concept, he opened the first Turtle Clinic in Europe (1989) followed by other Turtle Villages in Corsica (1992), Senegal (1995), and Madagascar (2003).

He has written over 10 books on tortoises, as well as an *Encyclopedia of Turtles of the World* (1996), in conjunction with two other naturalist photographers, Alain Dupré and Franck Bonin. He is a specialist on the African Tortoise (*Centrochelys sulcata*) and the Aldabra Tortoise (*Dipsochelys dussumieri* or *Aldabrachelys gigantea*) and wrote two monographs on these species in 2000 and 2007. He has also recently published a monograph on the Madagascan Tortoise (*Astrochelys radiata*), that he studies and protects on the south of the island.

The IUCN SSC Tortoise and Freshwater Turtle Specialist Group and Turtle Survival Alliance established the Annual Behler Turtle Conservation Award in 2006, to honour leadership and excellence in the field of tortoise and freshwater turtle conservation. A history of the Award and details on its honourees are available at <http://www.iucn-tftsg.org/behler/>. In addition to honouring the life-time achievements of senior turtle and tortoise conservationists, the Award also honours conservation efforts by younger individuals and hopes to provide some inspiration and reward for those who have demonstrated excellence and leadership on the front lines of global turtle conservation efforts.

Anders G.J. Rhodin

Chair, Tortoise and Freshwater Turtle Specialist Group

Rick Hudson

Member, Tortoise and Freshwater Turtle Specialist Group

Tuna and Billfish SG

Atlantic workshop completed

The IUCN Tuna and Billfish Specialist Group conducted a Red List workshop for Atlantic tunas and billfishes in Brasilia from 13–17 September 2010. We succeeded in our goal of assessing the five western Atlantic, two eastern Atlantic, eight Atlantic endemics, and the Atlantic populations of 15 widespread species, for which we already have regional assessments from previous workshops for the Eastern Tropical Pacific and the Indo-West Pacific.

Many of the 30 species that we assessed are the basis of important commercial and recreational fisheries. As part of the recently expanded cooperation between IUCN and Instituto Chico Mendes de Conservacao da Biodiversidade (ICMBio), our assessments will help build the Brazilian Red List of Threatened Species.

In order to identify the global IUCN Red List status of each of these species, the results from this study will be combined with the findings from our earlier regional workshops in Lima and Taiwan.

Our workshop was part of the Global Marine Species Assessment and was hosted by ICMBio. We received support from IUCN, Conservation International, the New Hampshire Charitable Foundation and Tom Haas. Eighteen experts participated in our workshop, nine from Brazil and nine from the US, Spain, Japan, and Barbados.

Bruce B. Collette

Chair, Tuna and Billfish Specialist Group

Jubilation in Japan

Nagoya defines future for life on earth



COP 10 adoption of Access and Benefit Sharing Protocol. © Earth Negotiations Bulletin

Introduction

After two weeks of intense negotiations, the 10th Conference of the Parties to the Convention on Biological Diversity (CBD COP 10) concluded in a dramatic finale at 3am Saturday, 30 October with a stand-off almost occurring on an Access and Benefit Sharing (ABS) protocol, Resource Mobilization and a new 2011–2020 CBD Strategic Plan – the three key issues at the meeting. In the end, countries pulled together and these three documents were accepted in the early hours to cheers and jubilation. The entire conference was defined by ABS after developing nations started the meeting reinforcing that they would only continue to engage with CBD if the Access and Benefit Sharing protocol was finalized. Tension was extremely high in the final hours of the conference, and an agreement was all the more successful given that there have been attempts to create an Access and Benefit Sharing regime for the past 15 years, since CBD was first created. Although there were highs and lows throughout the conference, and some talk of the fact that CBD COP 10

could have accomplished more, the agreement on an ABS regime has been seen as a great success by most, along with other accomplishments such as the new 2011–2020 CBD Strategic Plan and the Global Strategy for Plant Conservation (GSPC). For more information outside of this article see the [SSC page on CBD COP 10](#), the [Earth Negotiations Bulletin](#) coverage and the CBD COP 10 [website](#).

Background

The Convention on Biological Diversity, in force since 1993, works to enable three main objectives:

1. The conservation of biological diversity;
2. The sustainable use of its components; and
3. The fair and equitable sharing of benefits from using genetic resources.

CBD's Subsidiary Body on Scientific, Technical and Technological Advice (SBSTTA) meeting took place in May

2010 in Nairobi, Kenya, and yielded recommendations that were discussed at CBD COP 10. The Working Group on the Review of Implementation (WGRI) meeting directly followed SBSTTA and considered ways of implementing the recommendations. The goal of CBD COP 10 was to finalize the proposed recommendations related to implementing the various programmes of work for the CBD. The [agenda](#) for CBD COP 10 covered CBD's proposed 2011–2020 Strategic Plan, the proposed Access and Benefit Sharing regime, the finance and resourcing mechanism for implementing the CBD, as well as sustainable use, the Global Strategy for Plant Conservation, protected areas, inland waters, invasive species, marine and coastal biodiversity, and forest and mountain biodiversity, among other topics.

SSC involvement in CBD COP 10

A number of SSC Chairs, group members and SSC Steering Committee members attended CBD COP 10 and worked both with IUCN and independently to further the work that was being discussed at the conference. Those that attended included: Tom Brooks, Jon Paul Rodríguez, Holly Dublin, Robert Kenward, Russ Mittermeier, John Donaldson, Ali Stattersfield, Frédéric Launay, Jon Hutton, Jonathan Baillie, Andy Rosenberg, Stella Simiyu, Sue Lieberman, Claude Gascon, Dave Balfour, Sara Oldfield, Piero Genovesi and Steven Broad. We had a meeting of SSC attendees on Wednesday, 20 October that enabled us to exchange information on the various agenda items that were being discussed. The SSC also convened at the IUCN Constituency Event on Monday, 25 October, where many IUCN members, partners, donors and Commission members were in attendance. In addition to contributing directly to the discussion on CBD COP 10's agenda items, SSC members were also instrumental in engaging in side events which were a significant part of the meeting. For example, Jon Paul Rodríguez helped to Chair a side event on the Red List of Ecosystems, Jonathan Baillie and John Donaldson Chaired an event on National Red Lists while Tom Brooks, Russ Mittermeier, Jonathan Baillie and Ali Stattersfield were involved in the launch of the update to the IUCN Red List on Wednesday, 27 October.

Summary of key meeting outcomes

Access and Benefit Sharing Regime

After months, and in fact years, of intensive negotiations, an Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization agreement was finally adopted on the last day of CBD COP 10. This was a major success, providing a forum to ensure that local communities and indigenous groups receive equal benefits from the use of natural resources on their land or under their management (e.g. for medicine). The discussion on the last day of the meeting, 29 October, started off tensely with several nations disagreeing about the way recommendations should be considered for adoption – the EU pressed for Access and Benefit Sharing to be considered together with the 2011–2020 Strategic Plan and Resource Mobilization,

both of which were controversial, while States such as Cuba and Bolivia advocated that the documents be considered for adoption one by one. The latter approach was endorsed by the Chair of the Plenary, President Matsumoto, and though some countries such as Venezuela and Bolivia asked to record in writing that the ABS regime did not go far enough, they also stated that they did not wish to stand in the way of the document being adopted. The document on ABS was approved first and was followed by the Strategic Plan and Resource Mobilization, with approval of the triad eliciting huge cheers in the packed meeting room. The final document on ABS that was adopted in plenary is [L.43](#). IUCN was strongly involved in the discussions on ABS and was thanked for its involvement in the issue.

Revised CBD Strategic Plan, Biodiversity Target and Indicators

The text for a new 2011–2020 Strategic Plan, which will guide the work of the CBD for the next 10 years, was adopted on the last day of the meeting, 29 October. This was an extremely important agenda item since many countries felt that a functioning Access and Benefit Sharing regime was dependent on a clear and strong CBD Strategic Plan, as well as an agreement on Resource Mobilization. The 20 targets that were proposed for the Strategic Plan focus on such topics as:

- Target 12 – preventing the extinction and decline of known threatened species;
- Target 20 – increasing capacity (human resources and financing) for implementing the Convention; and
- Targets 6 and 7 – ensuring sustainable use of fisheries, forestry and agriculture.

There was also much debate around the mission for 2020 and the vision for 2050. IUCN tried to improve upon the vision, mission and targets of the proposed new CBD Strategic Plan in its [position paper](#), and was instrumental in the discussions of the Strategic Plan, particularly regarding preventing species extinction in Target 12. The adopted version of the strategic plan incorporated many of IUCN's suggestions (e.g. for Target 12) but not others (for example, IUCN recommended for Target 20 that, by 2020, capacity for achieving the three objectives of the Convention be increased to at least one hundred fold, but the final version of the document says that resources will be increased "substantially"). Regardless, overall the adoption of the Strategic Plan was considered a success given the high level of debate and discussion around the various issues. The final document that was adopted on the CBD Strategic Plan is [L.44](#).

Resource Mobilization

This agenda item focused on strategies to ensure that there is adequate financing and capacity for Parties to implement the new CBD Strategic Plan. Resource Mobilization was considered critical for the implementation of the proposed regime on Access and Benefit Sharing and the new 2011–2020 CBD Strategic Plan, so when it was adopted at 2am



Origami wall representing the diversity of species, made by visitors to the IUCN booth CBD COP 10. © Ewa Magiera

on the last day of the meeting, the atmosphere was one of extreme happiness and relief. The final document that was adopted is [L.45](#). It has a number of indicators of success for Resource Mobilization, and outlines strategies for increased mobilization of resources. Some important commitments to targets are contained in paragraph 9 – part A is to increase annual international financial flows to partner countries by 2020 to contribute to achieving the Convention’s three objectives, part B challenges all Parties to deliver a number of actions by 2015; and part C outlines innovative financial mechanisms, for example by freeing up resources through phasing out harmful subsidies.

Sustainable use of biodiversity

The final document that was adopted on sustainable use at CBD COP 10 can be found in [L.15](#). Recommendations focused on such measures as:

1. Developing, through the Liaison Group on Bushmeat and others, options for small-scale food and income alternatives in tropical and sub-tropical countries based on the sustainable use of biodiversity;
2. Developing or further improving criteria, indicators and other relevant monitoring schemes and assessments on the sustainable use of biodiversity; and
3. Identifying and utilizing targets and indicators at the national level that contribute to the relevant targets and indicators of the post-2010 Strategic Plan.

Instead of an Ad-Hoc Technical Expert Group (AHTEG) which was proposed in the original [document](#) (p.135) and which would only focus on “forestry and agriculture”, a meeting will be convened before SBSTTA15 that will compile information on how to improve sustainable use of biodiversity in a landscape perspective, including on sectoral policies, international guidelines, and best practices for sustainable agriculture and forestry, including a review of relevant criteria and indicators. IUCN was included in this consultative group. IUCN had written a [position paper](#) for this agenda item and delivered an [intervention](#) on it to the Parties. Also, the Satoyama Initiative (which is a system of traditional land use) is recognized in the document as a potentially useful tool to better understand and support human-influenced natural environments for the benefit of biodiversity and human wellbeing. Both Holly Dublin and Robert Kenward were instrumental, providing input to the discussion and work on sustainable use at CBD COP 10.

Global Strategy for Plant Conservation (GSPC)

The final version of the GSPC document is in [L.19](#). Support for the updated [Strategy](#) (p. 60) was strong, with 24 Parties expressing their commitment to it during the discussions and outlining work that they have already done to implement it. Several countries (Mexico, Philippines, New Zealand, Singapore, Benin) stated the need to include other plant



SOS Press Launch – Monique Barbut, Robert Zoellick, Kirsi Sormunen, Jean-Christophe Vié and Julia Marton-Lefèvre. © Dena Cator

groups such as mosses in GSPC considerations and indicated that groups like algae and fungi (including lichen-forming species) could be more appropriately served by separate strategies of their own. In paragraph 5, the text reads “While the Strategy addresses the plant kingdom with main focus on higher plants, and other well-described groups such as bryophytes and pteridophytes, Parties, other Governments and other relevant stakeholders may consider developing conservation strategies for other groups such as algae and fungi (including lichen-forming species).” Singapore also emphasized the importance of focusing attention on plants in the marine environment and this wording was incorporated into paragraph 4 of the document.

Marine and coastal biodiversity

The final document that was adopted on this agenda item can be found in [L.42](#). Many of the IUCN Marine Programme’s recommendations were included in the final text, for example, reference to the Global Ocean Biodiversity Initiative (GOBI) in paragraph 35 relating to the Executive Secretary working with others to facilitate availability and interoperability of the best available marine and coastal biodiversity data sets, and the Executive Secretary working with others to establish a repository for scientific and technical information and experience related to the application of the scientific criteria on the identification of EBSAs in annex I of decision IX/20, as well as other relevant compatible and complementary nationally and inter-governmentally agreed scientific criteria that shares information and harmonizes with similar initiatives. The original document is [here](#) (p. 102).

Invasive Alien Species

The final document that was adopted on Invasive Alien Species can be found in [L.35](#). An Ad Hoc Technical Expert Group (AHTEG), which IUCN is a part of, was created to further explore issues on invasive alien species. The mandate of the AHTEG is “to suggest ways and means, including, *inter alia*, providing scientific and technical information, advice and guidance, on the possible development of standards by appropriate bodies that can be used at an international level to avoid spread of invasive alien species that current international standards do not cover, to address the identified gaps and to prevent the impacts and minimize the risks associated with the introduction of invasive alien species as pets, aquarium and terrarium species, as live bait and live food with the present terms of reference”. Geoffrey Howard led this issue at CBD COP 10 and Piero Genovesi, Chair of the Invasive Species Specialist Group, was also instrumental in contributing to the preparation and discussions for this agenda item.

IUCN communications at CBD COP 10

IUCN released a number of key stories at CBD COP 10, among them:

1. an [update of the IUCN Red List](#) at CBD COP 10 that had incredible pick-up by media;
2. [an assessment of all vertebrates in the world](#);
3. the launch of the [Save Our Species \(SOS\) Fund](#);
4. a story on [plant conservation in Asia](#); and
5. an article on [invasive species and climate change](#).

Species Programme update

Biodiversity Assessment Unit (BAU)

The Biodiversity Assessment Unit is based in Arlington, Virginia. Neil Cox has recently been appointed Manager of the unit.

Marine

The Marine Biodiversity Unit (MBU) (formerly the Global Marine Species Assessment) has recently completed workshops on Global Surgeon Fishes, Global Triplefin Blennies, and Commercial Sea Cucumbers. Other workshops planned until the end of 2010 include Atlantic Tunas and Billfishes, and Global Damselfishes. Also currently being developed is a workshop to assess endemic species of the Gulf of Mexico in response to the massive oil spill. The MBU is helping to support Brazil in their National Red List initiative and will provide training and facilitation for a workshop on Brazilian sharks and rays. The MBU team recently published a paper highlighting the results of the Global Mangrove Assessment, and is completing an IUCN Report on the conservation status of Mediterranean fishes.

Freshwater

The BAU is currently assisting the Freshwater Biodiversity Unit (FBU) in the preparation of the upcoming report on the *Status and Distribution of Freshwater Biodiversity in Central Africa*.

Ian Harrison is also assisting in the preparation of the main output from the African freshwater assessment project, a book/report on the *Status and Distribution of Freshwater Biodiversity* throughout the African continent. Preparation of both reports will continue through to the end of 2010. Fundraising for the Global Freshwater Biodiversity Assessment is currently focusing on South America and China as priority areas for further projects, with collaboration from the Instituto Chico Mendes de Conservacao da Biodiversidade (ICMBio) in Brazil, and Conservation International's Regional Office in China. The BAU is also assisting IUCN Oceania in the development of freshwater biodiversity assessments in the Polynesia-Micronesia biodiversity hotspot. Ian Harrison (BAU), along with Tracey Farrell (CI) and Will Darwall (FBU), hosted a session on 'International Year of Biodiversity and Ecosystem Management: Science-Policy Interfaces' at the 2010 World Water Week in Stockholm, in September. They also presented a poster on 'The Vital Role of Biodiversity and Freshwater Ecosystem Management in Water Service Delivery' at the World Water Congress and Exhibition of the International Water Association in Montreal in September.

Ian Harrison has continued to co-lead the Freshwater Ecosystem Monitoring working group of GEO BON ([Group on Earth Observations, Biodiversity Observation Network](#)). He has co-authored a section on *Freshwater Ecosystems*



Green Turtle hatchling (*Chelonia mydas*). © Kathryn Pintus

Change that is included in GEO BON's overall Implementation Plan. This was presented at the Conference of the Parties to the CBD meeting in Nagoya, in October 2010. In July, Ian Harrison and several other IUCN staff participated in a workshop reviewing IUCN Extinction Criteria, at Woods Hole Oceanographic Institute; several manuscripts are in preparation based on the results of that workshop.

In November, Ian will participate in the annual meeting of the IUCN SSC-Wetlands International Freshwater fish Specialist Group, as well as the 4th International Zoo and Aquarium Symposium 'Global Freshwater Fish Conservation: Linking *In-situ* and *Ex-situ* Actions', and a preparatory planning meeting for the IUCN SSC Freshwater Conservation Sub-Committee (FCS-C) to be hosted by Chester Zoo, England.

Amphibians

The Amphibian Red List Authority (RLA) has now been completely trained in the IUCN Red List Categories and Criteria, and the IUCN Species Information Service (SIS). Two highly qualified interns have been brought on board to help with amphibian updates. The BAU has contributed towards the Zoological Society of London's (ZSL) projected book *Evolution Lost: Status and Trends of the Worlds Vertebrates* with a chapter on amphibians, and is also contributing a chapter to a South African National Biodiversity Institute (SANBI) document on amphibian conservation. We have processed most of the South African amphibians, reassessed in a SANBI workshop in December 2009, and are working closely with our Brazilian colleagues in updating amphibian assessments in the context of the IUCN-ICMBio agreement, as well as updating Western Ghats amphibian information as expert feedback allows. Finally, Ariadne Angulo, the Amphibian RLA Focal Point, together with Dr Franco Andreone, is co-editing a special amphibian conservation issue in the journal *Alytes*, which is expected to be published at the end of 2010 in the form of a book.

Reptiles

As previously reported in *Species*, the BAU has temporarily reduced its work on reptiles. The BAU continues to assist

with preparations for reptile assessment workshops in Polynesia-Micronesia (and eastern Melanesian islands), the Western Ghats of India and Madagascar. In addition, they continue to provide support to reptile Specialist Groups, including training the Crocodile Specialist Group in the use of the SIS database. As with the amphibians, the BAU has recently contributed a chapter on reptile conservation to the ZSL book *Evolution Lost: Status and Trends of the Worlds Vertebrates*.

Cacti

The BAU has continued to assist colleagues from the University of Sheffield in the ongoing Global Cactus Assessment. Marcelo Tognelli (BAU) helped facilitate the Sonoran Desert cactus assessment, held in May at the Desert Botanic Gardens (Arizona) at which approximately 250 cacti species distributed in the Sonoran desert of Mexico (including Baja California), and the USA were assessed. In early August, Marcelo facilitated at the Brazilian cactus assessment, held in Brasilia, where around 150 species were assessed. In late September, BAU staff will be assisting with the facilitation of the Southern Cone cactus assessment workshop scheduled to take place in Mendoza, Argentina. This workshop will undertake conservation assessments for the cacti occurring in Argentina, Bolivia, Paraguay and Uruguay.

Climate change

The 'Assessing climate change vulnerability of human-utilized species of the Albertine Rift' project has forged ahead. TRAFFIC concluded an extensive survey to gather information on the relative importance of Albertine Rift species for human livelihoods – many thanks to all who took part. Working with IUCN Uganda, the project team held a four-day workshop in Entebbe, during which the 18 regional species experts identified the biological traits associated with increased vulnerability to climate change. Dividing into expert groups representing a broad range of taxa, the attendees proceeded to begin gathering the species-level data on these



Participants in the Albertine Rift workshop.

traits that will contribute to the overall climate change vulnerability assessments. This is the first time IUCN's new Climate Change Vulnerability Framework has been applied at a regional scale, and workshop participants were the first to use it for reptiles, mammals and fish. We are very grateful to all the participants for piloting the process with us and we are excited to see that the approach can be rolled out for other taxonomic groups and regions of the world.

Communications

News and publications

Since July there have been two press releases on the IUCN Red List updates, along with several other press releases and media stories related to fungi, plants, amphibians, Asian wild cattle, medicinal plants, marine fish and African freshwater species. Several publications produced by the Species Programme and SSC have also been promoted, and further details of these can be found in the Publications section of the magazine.

Red List logo and scale

We continue to get many requests from Zoos and Aquariums for the use of the IUCN Red List logo and scale on signage and brochures. It is great to see that those who have already used the scale and logo have been inventive in their use whilst still adhering to the brand guidelines. In 2011 we will work on a project to further increase outreach to the Zoo, Aquarium and Botanic Garden communities.

Species of the Day

The Species of the Day initiative is going strong and, with more than 300 species profiled to date, we still have a dedicated and ever-increasing following on Twitter (now



Red List signage, Edinburgh Zoo.

3,670 people) and continue to receive requests to use the profiles and to have the Species of the Day button on various websites. People on Twitter are taking the time to 're-tweet' about us, thus expanding our outreach further (by highlighting us to their followers who may not be aware of the initiative), and we have received several messages from people commenting on how much they enjoy reading the daily profile and learning about all the different species.

Recent interest in using the profiles has come from a number of sources. Some of the species factsheets are to be used in an exhibition on biodiversity in the Tokyo Tower, Japan, where they hope to expect 100,000 visitors. The event organizers were keen to bring public attention to the IUCN Red List and to the Species of the Day initiative. There has also been interest expressed by the IUCN Asian Office to use Species of the Day as the basis of local language public service announcements for the conservation of biodiversity, which will be disseminated on national television in Asia. A publishing company is also keen to consolidate the profiles into a coffee-table book at the end of 2010.

Species of the Day would not be possible without the input of the Specialist Groups, ARKive's team of writers and their sourcing of imagery, and, of course, the dedication of the Species of the Day team.

2011 Communications Plan

The development of the 2011 communications plan and calendar is underway and we encourage you to advise us in advance of any activities that you are planning in 2011 that require communication support.

Freshwater Biodiversity Unit (FBU)

African Freshwater Biodiversity Assessment completed

Following six years of hard work, involving nearly 200 regional and international scientists, more than 5,000 species of freshwater fish, molluscs, crabs, dragonflies and damselflies, and aquatic plants were added to the IUCN Red List in September 2010. This more than doubles the number of freshwater species previously assessed, in these taxonomic groups, and includes almost all known freshwater species across continental Africa. One in five species is currently threatened and the future looks bleak given the huge scale of planned development of Africa's inland wetlands in the coming years. We are hoping that this data set will be applied to help avoid or minimize the impacts of such developments. These results were publicized through a [press release](#) on 2 September, and Will Darwall presented the main findings at the 2010 World Water Week in Stockholm. A detailed synthesis of the main findings is available on the IUCN Red List website under the [Freshwater Initiatives](#) pages. [Reports](#) summarizing results at the regional scale have now been published for Eastern, Southern, Western, Northern and Central Africa. We are submitting a scientific paper presenting the main project findings in the context of the importance to local livelihoods, improved knowledge for conservation planning, and as an important information source for input into development planning in Africa's Green Revolution. We are also producing a final synthesis of all results at the continental scale, which will be published in 2011.

Findings of these biodiversity assessments are being imputed into environmental planning at four sites: the Okavango Delta (Botswana); Rusizi Delta (Tanzania); Gambia River (Senegal); and the Moulouya River Basin (Morocco). These case studies develop and demonstrate the processes for taking the results of biodiversity assessments forward to directly inform development and conservation planning. Reports on the findings of each project will be available in 2011.

Expansion into Asia

The four major freshwater species assessment projects in Asia are progressing well. The Eastern Himalayas Hotspot project report is due for release in December 2010, and all assessments were submitted to the IUCN Red List for the October 2010 update. The review workshop for the Western Ghats was held in early October in India, hosted by the project partner Zoo Outreach Organization. The Indo-Burma Hotspot project has been granted an extension to May 2011 when the assessments will be submitted to the Red List. Review workshops for the Indo-Burma assessments will be held in late January 2011 in Southeast Asia. The review of species assessed through the [HighARCS](#) project has been combined with workshops for the Indo-Burma and Eastern Himalayas projects.

Results from these assessments, covering approximately 4,000 species representing all known species of freshwater fishes, molluscs, Odonata and selected families of aquatic plants in the region, will be published in late 2010 (Eastern Himalayas) and in 2011.

Toolkit for Integrated Assessment of Wetlands

An Integrated Wetland Assessment Toolkit: A guide to good practice published in July 2009 is currently being used by the HighARCS project to design the field surveys of five communities in highland areas in India, China and Viet Nam to help assess the biodiversity, livelihood and economic value of wetlands that these communities rely upon. It is also being used by WorldFish to inform fisheries and livelihoods management work in China, and Wetlands International may also use the publication for their work in Southeast Asia.

Key Biodiversity Areas (KBAs)

Based on previous work carried out by the FBU, finalized criteria for the identification of freshwater KBAs have been produced and are being tested using newly available data from the pan-Africa assessment. As part of this process we contributed a list of potential freshwater KBAs, and some initial prioritization work was conducted using conservation planning software (MARXAN) at a workshop run by Conservation International in southern Africa, which was aimed at producing a list of candidate freshwater KBAs for the region. Will Darwall presented preliminary results and organized a discussion meeting to present the finalized criteria and initial analysis at the 2010 SCB Symposium in Alberta.

BioFresh

The FBU is in a partnership with an European Commission-funded project called BioFresh to build an information portal to enable research on the main drivers of freshwater species distributions, predicted future species distributions, and much more. With the availability of the pan-Africa dataset the team has been analyzing broad-scale patterns in freshwater biodiversity across Africa, and examining how well the existing protected areas network represents freshwater species of conservation concern. Look out for the results in the coming months. See the project website: <http://www.freshwaterbiodiversity.eu/>

Red List Website

There have been three updates of the IUCN Red List since May this year:

IUCN Red List version 2010.2: This, the second update of the year, was released on 29 June. The main focus of this update was the inclusion of assessments for all known mangrove species. Keeping to the aquatic theme, this update also brought in regional assessments for 454 Mediterranean freshwater plant species, including 132 endemic species.

IUCN Red List version 2010.3: Released on 2 September, this year's third update saw the results of the pan-Africa Freshwater Biodiversity Assessment project being published on the IUCN Red List. This included global and regional assessments for over 5,000 fish, crabs, Odonata, molluscs, and aquatic plants.

In addition, assessments for 878 Eastern Tropical Pacific marine fish species were published in this update, along with assessments for the entire world's seagrass species,



Sable Antelope (*Hippotragus niger*). © Arno Meintjes

569 crayfishes (assessed through the Sampled Red List Index (SRLI) project), and all Mediterranean endemic Odonata species. Updated assessments were also included for over 400 birds, 20 South African amphibians, 38 New Caledonian conifers, over 300 cycads, and the recently rediscovered Ascension Island Parsley Fern (*Anogramma ascensionis*).

IUCN Red List version 2010.4: The fourth update for 2010 took place on 27 October during the 10th meeting of the CBD Conference of the Parties (COP 10) in Nagoya, Japan. This update included assessments for SRLI reptiles, New Caledonian plants, Eastern Himalayan freshwater species (fish, Odonata, and molluscs), various marine fish (angelfishes, butterflyfishes, parrotfishes, wrasses, and the SRLI marine fish), seasnakes, and European regional assessments for freshwater fish and molluscs. The 2010.4 Red List launch was accompanied by a press release during the CBD COP 10 meeting in Nagoya highlighting the IUCN Red List update and the paper *The Impact of Conservation on the Status of the World's Vertebrates* (Hoffmann *et al.* 2010). This paper shows that currently one-fifth of the world's vertebrates are Threatened based on the IUCN Red List data, and emphasises that without conservation efforts the rate of deterioration would be nearly 20% greater.

Overall in 2010, more than 10,500 global assessments and 4,200 regional assessments were published on the IUCN Red List website.

The IUCN Red List website itself continues to be developed, with additional sections being added for the

freshwater assessment projects (www.iucnredlist.org/initiatives/freshwater), more spatial data and improved access to download these datasets (www.iucnredlist.org/technical-documents/spatial-data), and a new-look summary statistics section (www.iucnredlist.org/about/summary-statistics). Further work is underway to improve the design, quality, and user-friendliness of the IUCN Red List website.

Red List Training

Requests for training workshops continue to flood into the Red List Unit (RLU). In 2010, RLU staff facilitated 14 Red List and SIS training workshops for Specialist Groups, Red List Partners, Species Programme staff, and external organizations, and four future workshops have already been scheduled for early 2011. As the Oceania and Caribbean Red List initiatives get underway, we are working closely with new staff to provide training and support.

We continue to focus on developing and improving our remote training capabilities, which has allowed us to expand our support for SSC members and Specialist Groups. Having undertaken nine pilot remote training sessions covering both SIS and Red List training, we are now moving toward evolving these into fully developed online e-learning courses.

In July, we secured funds from the IUCN-Shell Partnership to develop e-learning tools, which will allow us to expand our distance learning toolkit. We will also be able to host a training workshop in the IUCN Red List Training Centre, to be held in 2011, to test our improved IUCN Red List assessor training course, which is currently in development. As part of this project, we have also pledged to produce materials tailored to the business sector, detailing how the IUCN Red List and other biodiversity datasets can be used to inform business decisions.

Finally, after much anticipation, the Red List Training Centre is now available for use. Located in a beautiful set of rooms in IUCN's new Conservation Centre in Gland, Switzerland, the Centre is gradually being equipped with computers, projectors, cameras, screens and other state-of-the-art equipment that will facilitate its use for both in-person and remote workshops, meetings and other outreach activities. Contact Claire Santer (claire.santer@iucn.org) or Elise Jueni (elise.jueni@iucn.org) for more information or to book the Centre.

Red List Assessment and other workshops

As well as facilitating Red List training workshops, the Red List Unit has also been actively involved in the following workshops:

- Sonoran Desert Cacti assessment workshop, Arizona (May 2010)
- Brazilian Cacti assessment workshop, Monaco (June 2010)
- Extinction Risk workshop, Woods Hole (July 2010)
- IndoChina Plants workshop (December 2010)
- Chinese Conifers (December 2010).

European Assessments

At the beginning of June, IUCN organized a side event on the IUCN Red List methodology at the European Green Week, with representatives of the European Union, governments

and NGOs in order to discuss the impact and added-value of redlisting for conservation actions on the ground. During this event, the results of the new European Red Lists of Butterflies, Dragonflies and Saproxyllic Beetles were also presented, adding to the previously published European Red Lists for Mammals, Reptiles and Amphibians.

Further taxonomic groups are now being assessed at the European level, focusing on groups that are less represented on the Red List, such as plants and invertebrates:

From 21–24 June, an evaluation workshop gathered together regional experts at the Conservatoire Botanique National de Brest in Brest, France, to assess the conservation status of selected European vascular plants. European aquatic plants and European crop wild relatives, as well as selected priority (mainly threatened) plant species are currently being assessed and mapped, with the support of the SSC network, especially the Crop Wild Relatives and the Orchid Specialist Groups. Arising from this project, discussions are on-going on the creation of a new Specialist Group for Aquatic Plants.

Special attention is being given to molluscs, with about 2,000 freshwater and terrestrial species being assessed. An evaluation workshop was organized from 28 September to 2 October at the Natural History Museum of Bern, Switzerland, which focused on the most threatened snails. Finally, in order to have an overview of the situation of freshwater ecosystems (which, despite their vital importance to human wellbeing, are emerging as the most threatened environments), the conservation status of European freshwater fish is also being reviewed and updated.

A publication should present the results of these different projects in 2011.

SSC Network Support

After three years of working in the position, Julie Griffin completed her role working as an SSC Network Support Officer in July to pursue her academic studies further at the University of Cambridge. It is likely that she will return in some capacity to IUCN in 2011. On 4 October, Andrew Rodrigues started as the new SSC Network Support Officer and will work together with Dena Cator in this regard. Andrew will be focusing more on plants, fungi and marine species in his role

with Dena covering all other Specialist Groups, but, as always, any Specialist Group Chair or RLA can contact either Dena or Andrew on any subject.

In the past months, Dena has been working to support the development of the newly formed Amphibian Survival Alliance (ASA) which involves collaboration between IUCN and several zoo organizations to further amphibian conservation and implement the [Amphibian Conservation Action Plan](#). Dena has also been working with Caroline Pollock and Rebecca Miller on further developing the IUCN Red List training materials, with a particular focus on creating a 'training the trainers' programme that will enable us to train regional staff on the IUCN Red List who will then, in turn, be able to train their own colleagues within regions. A large part of the focus of this work will be providing more online training materials. One of Andrew's first tasks will be to work with the Plant Conservation Sub-Committee when they meet at IUCN HQ, 8–11 November.

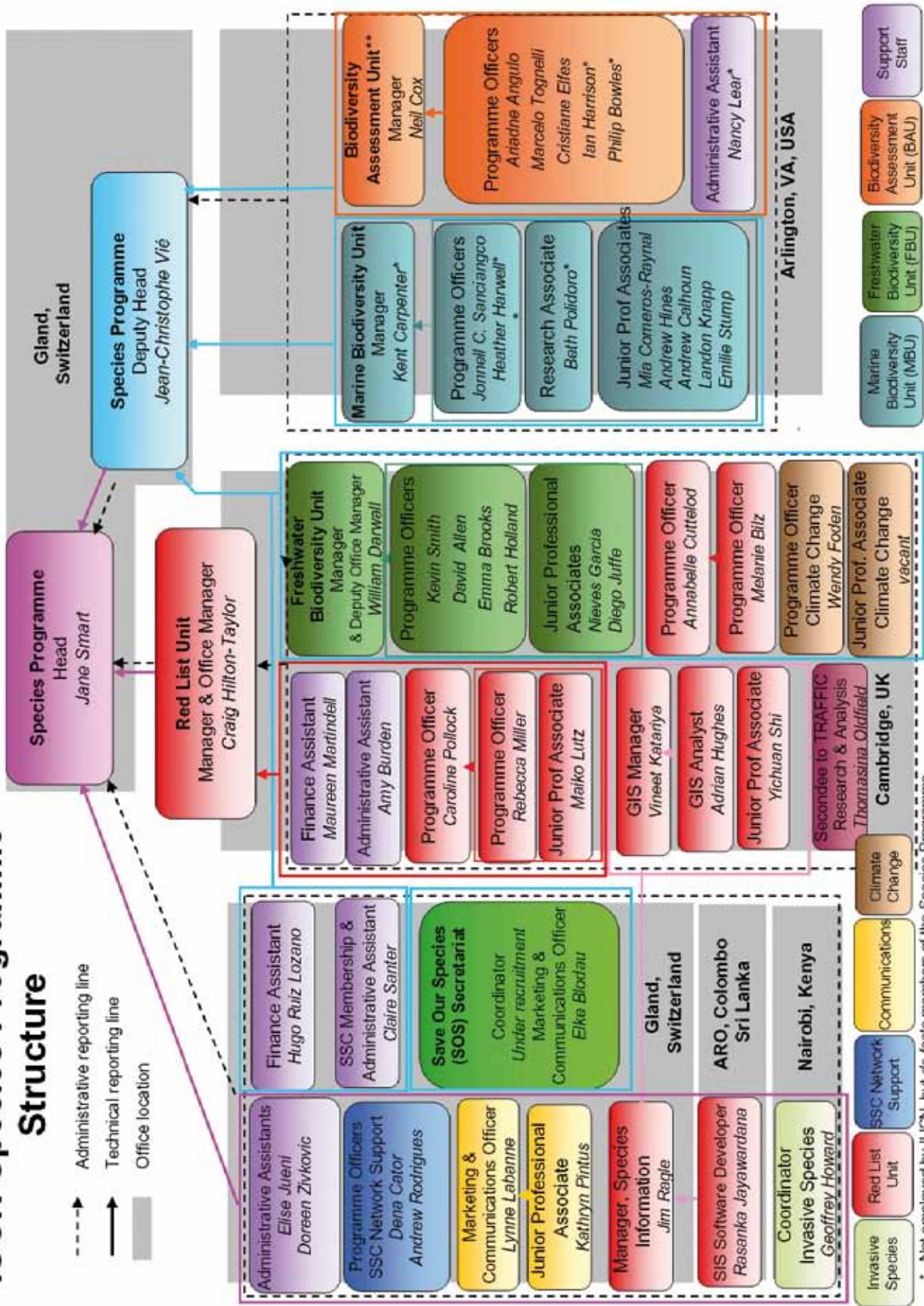
Sustainable Use and Trade

As reported in Species 51, Dena Cator and Thomasina Oldfield were heavily involved in the preparations for and discussions of CITES COP 15 that took place in March 2010, most notably through fundraising for and completing the publication of the *Analyses of the Proposals to Amend the Appendices*. In the past several months, Dena and Thomasina have been doing the financial follow-up to the project for the 11 donors that contributed to this work. In 2011, three CITES meetings will take place: Plants Committee 18–21 April, Animals Committee 18–22 July and Standing Committee 15–19 August. Dena has also been supporting IUCN's preparation for the upcoming CBD COP 10 meeting, writing the meeting summary that is in this *Species Magazine* edition and has contributed strongly to the development of IUCN's position paper on Sustainable Use and the ensuing CBD COP 10 discussions in this regard. Dena posted daily web updates on CBD COP 10 to keep the SSC informed about the progress of the discussions. Thomasina attended the TRAFFIC Network meeting the first week of October where TRAFFIC and its partners IUCN and WWF discussed the progress of TRAFFIC's work in wildlife trade and planned its work for the coming months.

Species Programme team

IUCN Species Programme Structure

- Administrative reporting line
- Technical reporting line
- Office location



Last updated 12/Oct/2010

* Not employed by IUCN, but de facto members of the Species Programme
 ** The Biodiversity Assessment Unit is a partnership between IUCN and Conservation International

Publications summary

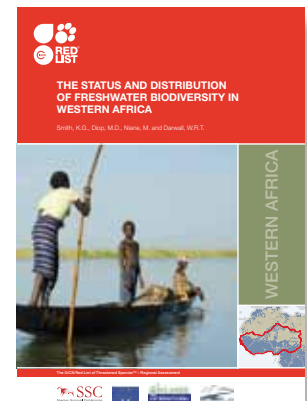
Best Practice Guidelines for Great Ape Tourism

Great ape tourism, if well implemented, can serve to conserve the species but it can also have considerable negative impacts if it is not based on sound conservation principles. These guidelines have been developed for both existing and potential great ape tourism sites that wish to improve the degree to which their programme contributes to the conservation rather than the exploitation, of great apes. This publication should be viewed as an essential part of the toolkit for any site practising or considering great ape tourism as part of its conservation programme.



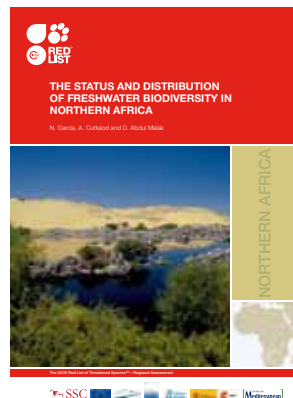
The Status and Distribution of Freshwater Biodiversity in Western Africa

This publication is a regional assessment of the status and distribution of 1,395 taxa of freshwater fishes, molluscs, odonata, crabs, and selected families of aquatic plants from across western Africa.



The Status and Distribution of Freshwater Biodiversity in Northern Africa

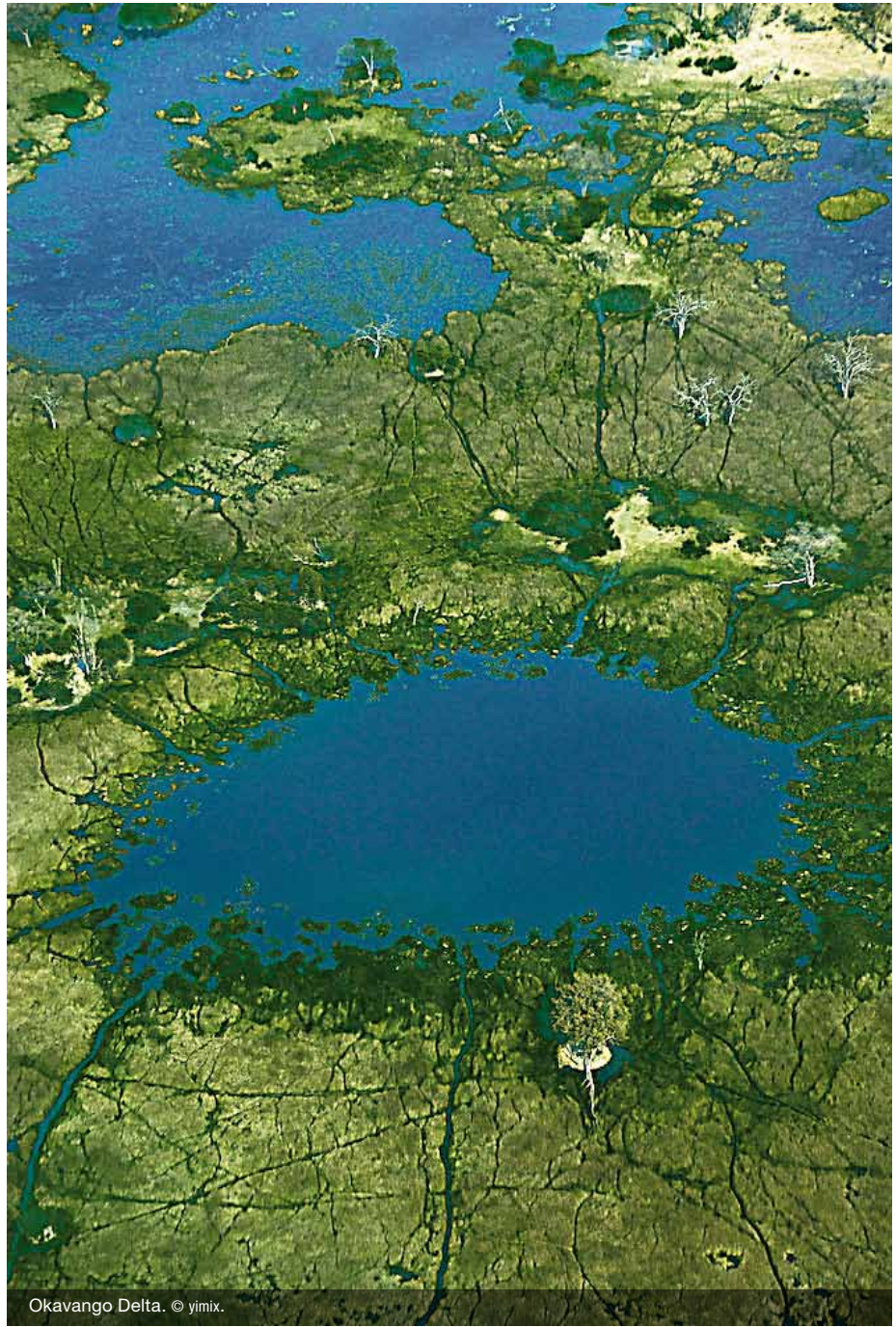
This assessment is the first overview of the conservation status of 877 northern African freshwater species belonging to five taxonomic groups – fish, molluscs, dragonflies and damselflies, freshwater crabs and aquatic plants – in accordance with the IUCN regional Red List guidelines. Species at risk of regional extinction are mapped and conservation measures are proposed to reduce the probability of future declines.



Eastern Chimpanzee (*Pan troglodytes schweinfurthii*): Status Survey and Conservation Action Plan 2010–2020

The Eastern Chimpanzee is classified as Endangered and of global conservation concern. This publication offers a 10-year plan which, if fully implemented, will go a long way to ensuring the maintenance of viable populations of the Eastern Chimpanzee across much of its existing range. Chimpanzees are excellent flagship and umbrella species for conservation; protecting their populations and habitat protects innumerable other species.





Okavango Delta. © yimix.



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Geographical range

Species of the Day: Cainarachi Poison Frog

The **Cainarachi Poison Frog**, *Ameerega cainarachi*, is listed as 'Vulnerable' on the IUCN Red List of Threatened Species™. This small poison frog is found only in the Cainarachi Valley in the northern part of San Martin Department, Peru, where it is most common in the Huallaga Canyon, between elevations of 250 and 750 metres.

The Cainarachi Poison Frog is vulnerable to the destructive activities within its range. Much of the species' habitat is very close to human settlements, and is therefore under threat from forest conversion to make way for coffee plantations, as well as from firewood collecting and livestock grazing.

Owing to its small range, the survival of the Cainarachi Poison Frog is dependant upon the future management of its habitat. As it is not known from any protected reserves, the most important conservation requirement for this species is the implementation of measures to safeguard the areas in which it is found.

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