

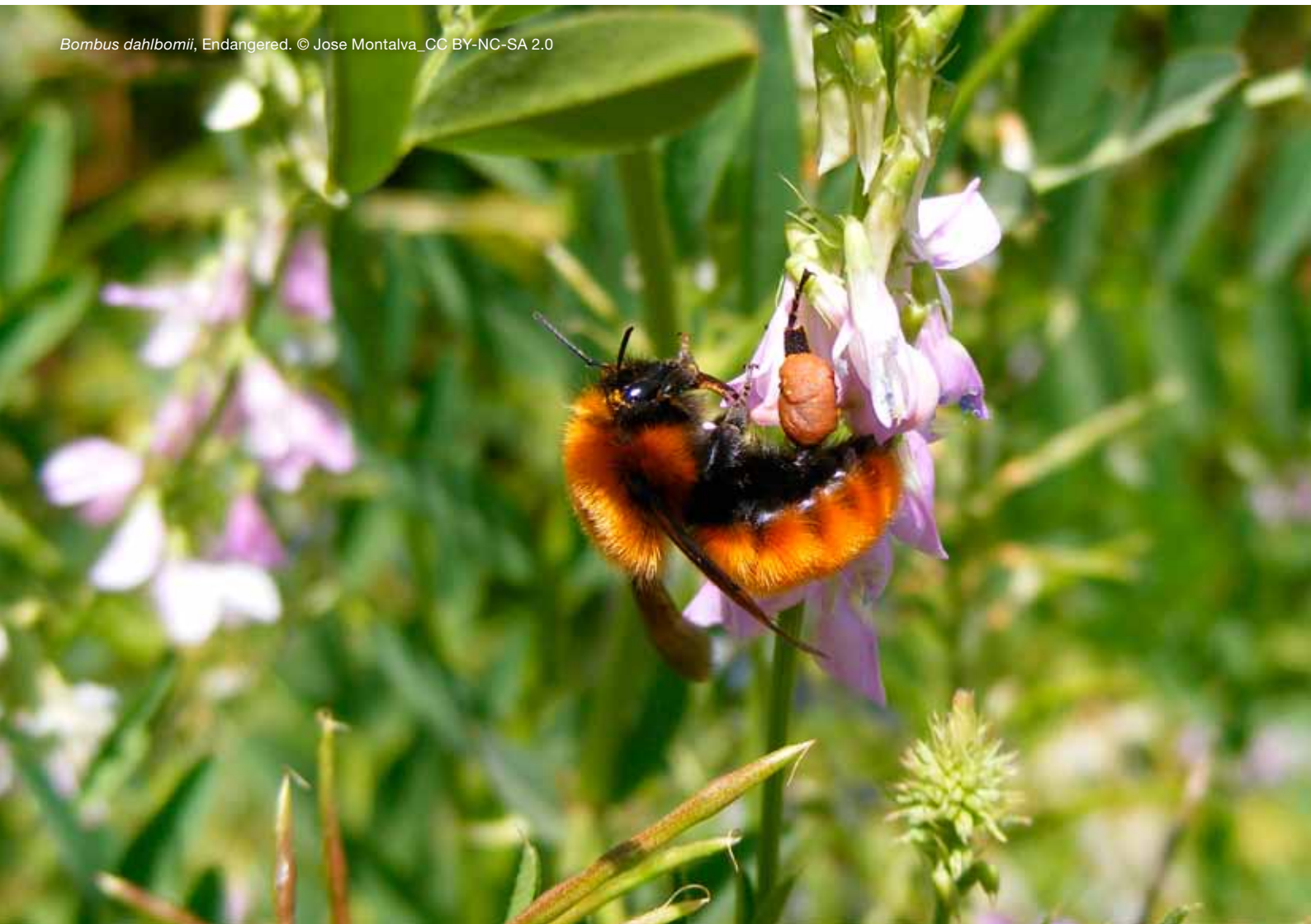


# Species

ISSUE 57

## 2015 Annual Report of the Species Survival Commission and the Global Species Programme





# In this issue

## 2015 Annual Report of the Species Survival Commission (SSC) and the Global Species Programme

2015 Report from the Chair of the IUCN Species Survival Commission and the Director of the IUCN Global Species Programme.....	2
Reports of the IUCN SSC Specialist Groups, Task Forces and Stand-alone Red List Authorities .....	34
Reports of the IUCN SSC Sub-Committees .....	306
Reports of the Global Species Programme.....	322

Coordinated and compiled by Rachel Hoffmann, with thanks to Robin Hoskyns, Simon Stuart and Vera Hugues Salas for their assistance in the report's completion.

**LAYOUT** [www.naturebureau.co.uk](http://www.naturebureau.co.uk)

**COVER** *Leptonia carnea*, Vulnerable © Christian Schwarz. Insets: Ruspoli's Turaco (*Turaco ruspolii*) © Fran Trabalon; Chacoan Horned Frog (*Ceratophrys cranwelli*) © Hippocampus-Bildarchiv.de; Javan Warty Pig (*Sus verrucosus*) © Iryantoro / ling Cikanannga; Big Leaf Mahogany (*Swietenia macrophylla*) © Mauricio Mercadente

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

ISSN 1016-927x

© 2017 IUCN International Union for Conservation of Nature

For further information, please visit:  
<https://www.iucn.org/theme/species/about/species-survival-commission>



Ryukyu Black-breasted Leaf-turtle (*Geomyda japonica*), Endangered.  
© Klaus Stiefel\_CC  
BY-NC 2.0



# SSC Chair's Report

## Introduction

It is a privilege to be able to submit this 2015 report on the activities of the IUCN Species Survival Commission. As you read the following pages you will, I am sure, be amazed like me at the extraordinary array of innovative and highly relevant and strategic activities undertaken by the SSC. What is even more humbling is the realization that most of this work is carried out by world-leading experts who are also for the most part unpaid. Please join me in thanking the SSC members for all that they do to drive forward the worldwide efforts to conserve the remarkable diversity of life on earth.

In addition, the SSC works extremely closely with the IUCN Secretariat's Global Species Programme (GSP) and shares the same strategic plan and programme of work.

## Implementation of IUCN Resolutions

As usual, much of the focus has been on follow-ups to Resolutions and Recommendations from the IUCN World Conservation Congress in Jeju, in September 2012. There has been follow-up on most of the species-related Resolutions, but the SSC Chair's Office has been particularly involved in the following:

### ***Resolution 017 – Enhancing the usefulness of the IUCN Red List of Threatened Species***

The Red List Committee (RLC), chaired by Mike Hoffmann, held its 21<sup>st</sup> meeting in Washington DC on 21-23 April, and focused in particular on monitoring the implementation of the Red List Strategic Plan which was developed under the mandate of the resolution. The SSC Standards and Petitions Sub-Committee (SPSC) met in Sydney on 18-20 November and also carried out some work relevant to the implementation of this resolution.

### ***Resolution 018 - Support for the development and implementation of national and regional red lists***

The 21<sup>st</sup> meeting of the IUCN Red List Committee, referred to above, also reviewed progress on this resolution, and receiving a report from the National Red List Working Group (NRLWG), co-chaired by Jonathan Baillie and Katherine Secoy from the Zoological Society of London (ZSL) is the governing body of the National Red List Alliance. The National Red List Alliance (NRLA) is a new network of national red list practitioners from around the world.

### ***Resolution 022 - Supporting regional initiatives to conserve mammal diversity in West and Central Africa***

The situation analysis called for in this resolution (which has been expanded to include all terrestrial and freshwater vertebrates, not just mammals) has now been completed. This project has been overseen by Mike Hoffmann and the final draft of "[An IUCN Situation Analysis on Terrestrial and Freshwater Fauna in West and Central Africa](#)" in English was published in June 2015. The French version was published in October 2015. The IUCN West and Central African RCF discussed the situation analysis and its implications in Bamako, Mali, on 3-6 November 2015.

### ***Resolution 025 - Conservation of African elephants***

This resolution calls on the IUCN to convene the African Elephant Summit (AES). The AES was jointly convened by the IUCN and the Government of Botswana on 2-4 December 2013, at which the governments agreed a set of Urgent Measures. A follow-up to the AES was convened by the Government of Botswana on 23 March in Kasane, Botswana, where progress on the Urgent Measures was reviewed. This meeting was facilitated by the Chair of the SSC African Elephant SG (AfESG), Holly Dublin, and attended by AfESG Programme Officer Tara Daniel and IUCN UK Office Manager Richard Jenkins. Although some progress was noted, the meeting noted that the African elephant crisis is still very much real, and the Urgent Measures remain highly relevant.

Simon Stuart continues to lead for IUCN in the United for Wildlife (UfW) collaboration convened by the Royal Foundation of the Duke and Duchess of Cambridge and Prince Harry, and this includes a major focus on addressing the African elephant crisis.

***Resolution 028 - Conservation of the East Asian-Australasian Flyway and its threatened waterbirds, with particular reference to the Yellow Sea***

Follow-up to Resolution 28 is being led for SSC by Nicola Crockford from the Royal Society for the Protection of Birds (RSPB). Progress on this resolution is proving difficult because of low levels of political will in the countries around the Yellow Sea, despite a national-level workshop held in China in September 2014. However, a renewed effort to engage on this issue has been made in 2015. In June 2105 we heard the good news that the Government of Korea has provided funding to assist with the implementation of this resolution. This funding will be used specifically for:

- A national workshop on the conservation and restoration of Republic of Korea's wetlands, with particular reference to threatened migratory waterbirds.
- A roadmap for the development of a regional action plan for the conservation of the wetlands of the Yellow Sea Eco-region, as important migratory waterbird habitats.
- A review of the coastal ecosystem service benefits provided by the wetlands of the East Asia-Australasia Flyway, with particular reference to the Yellow Sea Eco-region and its threatened waterbirds, including identification of those goods and services that remain unquantified and should be assessed.
- Capacity of national partners in Yellow Sea countries, East Asian-Australasian Flyway Partnership (EAAFP) and other regional stakeholders strengthened through the provision of IUCN expert input.

It is hoped that this will now result in more rapid implementation of this resolution. Furthermore, in China the implementation of this resolution has been taken up by the Paulson Institute, through its [COASTAL WETLANDS BLUEPRINT PROJECT](#), being operated in partnership with the Office of Wetlands Conservation and Management under the State Forestry Administration (SFA) and the Institute of Geographic Sciences and Natural Resources Research at the Chinese Academy of Sciences. The findings and recommendations of this project were announced at a special meeting in Beijing on 19 October 2015 after 20 months of surveys and research:

- Finding 1: Coastal wetlands in China are key life-supporting systems. They also serve as key ecological barriers to maintain sustainable socio-economic development in the coastal zones, play an important role in ensuring the sustainable fishery development in coastal areas, and provide key habitats for migratory birds along the East Asian-Australasian Flyway. However, the importance and urgency of conserving coastal wetlands in China has yet to be fully recognized.
- Finding 2: The primary driver for the reduced area of coastal wetlands in China is the large-scale and fast conversion and land reclamation of coastal wetlands. The large-scale conversion projects in the pipeline may threaten the “redline” of conserving 53.33 million ha of wetlands in China by 2020. Therefore, it is urgently needed to take effective measures to contain the over-development in coastal zones.
- Finding 3: The loss of habitats for migratory water birds due to coastal wetlands reclamation has directly threatened the living of migratory water birds including waders. It is one of the primary drivers for the reduced population of water birds along EAAF.
- Finding 4: Conservation of coastal wetlands is still a weak component in wetland conservation in China, as a sound protection system and some key habitats have yet to be established. The economically developed coastal provinces/autonomous regions/municipalities are required to make greater contribution to promoting conservation of coastal wetlands and migratory water birds.
- Finding 5: The legal system and effective legal basis remains inadequate to conserve coastal wetlands in China. Coastal wetland conservation efforts in China are still confronted with conflicts of multiple institutions and mechanisms, and are facing many difficulties. No uniform

coordination mechanism has been made available. Therefore, the coastal conservation efforts in China still face arduous tasks.

- Finding 6: China and the United States have already conducted many explorations and practices on coastal wetland conservation. Many experiences and tools have been summarized to provide demonstration and reference for coastal wetland protection and management efforts. However, as the coastal wetland conservation efforts in China lag behind the United States, it still has many gaps in basic research, applied research and management models demonstration, making it hardly possible for China to provide effective scientific and technological support for its coastal wetland conservation efforts.

The report noted that coastal wetland conservation efforts in China involve many agencies including forestry, marine, fishery, land and environmental protection sectors, as well as 11 coastal provinces/autonomous regions/municipalities. Therefore, the central government should, from a systematic perspective, integrate the protection and restoration of coastal wetlands nationwide. The specific recommendations are as follows:

- Recommendation 1: Strengthen wetland legislation at national level; revise the provisions of existing laws and regulations on coastal wetland conservation; enhance law enforcement and accountability; and develop an integrated management system on coastal wetlands.
- Recommendation 2: Incorporate coastal wetland conservation efforts into the overall planning of land space development and protection, implement pilot projects on the integrated planning at coastal municipal/county levels; reassess and suspend the implementation of coastal wetlands conversion and sea reclamation projects that have previously been approved.
- Recommendation 3: Establish a sound ecological civilization performance appraisal and accountability system, conduct pilot projects on a long-term wetland conservation compensation mechanism; enhance coastal wetland eco-compensation, protection and restoration projects, and improve the quality and ecological services of coastal wetlands.
- Recommendation 4: Implement a system of managing coastal wetland areas according to different levels, build new coastal wetland protected areas or expand the scope of existing protected areas to establish a sound system on coastal wetland conservation.
- Recommendation 5: Enhance basic scientific research on coastal wetlands, proactively carry out monitoring and assessment on coastal wetland ecosystem, study and develop technical models on coastal wetland protection and restoration to provide a strong scientific and technological support system for coastal wetland protection and management.
- Recommendation 6: Promote the development of coastal wetland conservation network in China, extensively implement activities to raise public awareness on the importance of conserving coastal wetlands and migratory water birds, involve the general public and social forces in conserving coastal wetlands and migratory water birds, and actively participate in international cooperation and exchange on coastal wetlands and migratory water birds conservation.

Simon Stuart met with SFA officials three days after the launch of this report. His impression was that the report was being taken very seriously at the highest levels of government. Simon also raised the urgent need to prevent any further loss of mudflat habitat at Tiaozini in the State of Jiangsu. This site supports 50% of the global population of the Critically Endangered Spoon-billed Sandpiper. If it is lost, it could prove to be catastrophic for the species. The fundamental reason to reclaim Tiaozini is for the Jiangsu Provincial Government to offset the lost farmland during its urbanization and industrialization process in some of the more developed southern cities. An area of 6,666.7 hectares has been reclaimed, and another 10,666.7 hectares proposed by the Provincial Government (currently waiting for the State Oceanic Administration's review and approval). SFA officials told Simon that SSFA had made a recommendation that Tiaozini become a natural reserve, but that SFA had no power to impose this on the Jiangsu Provincial Government.

***Resolution 041 - Development of objective criteria for a Green List of species, ecosystems and protected areas***

The overall focus and way forward for the IUCN green listing approach was agreed in March 2014. The next step is to identify a donor to support for the process to develop the Green List further for species and ecosystems, and a project concept was written for this in 2014. Simon Stuart approached one donor to support this work, but unfortunately this was not successful. Subsequently, Barney Long who serves as WWF's observer of the SSC Steering Committee, has secured some funding from WWF-US for the next phase of the consultation on the Green List criteria. The SSC is extremely grateful to Barney and to his colleagues at WWF-US for this most welcome support. This topic was discussed at the SSC Leaders Meeting on 15-18 September in Abu Dhabi.

***Resolution 137 - Support for a comprehensive scientific review of the impact on global biodiversity of systemic pesticides by the joint task force of the IUCN Species Survival Commission (SSC) and the IUCN Commission on Ecosystem Management (CEM)***

The SSC-CEM Task Force on Systemic Pesticides (TFSP) published its "Worldwide Integrated Assessment of the Impact of Systemic Pesticides on Biodiversity and Ecosystems" (WIA) in the scientific journal *Environmental Sciences and Pollution Research* in 2014. The WIA has attracted attention in both scientific and policy circles, and it is hoped that its finding will be helpful in policy setting. The WIA has also come under some media attack, perhaps because its findings are inconvenient for certain corporations in the agro-chemical sector. Simon Stuart has been involved in advising on the rebuttal of some of these attacks. However, the overwhelming body of scientific publications on systemic pesticides over the last few months has further corroborated the findings of the WIA. A review of the WIA process has been commissioned by the IUCN Director General.

***Recommendation 138 - Conservation of rhinoceros species in Africa and Asia***

The SSC African Rhino SG (AfRSG) and Asian Rhino SG (AsRSG) have been advising on the development of the concept of a Rhino Conservation Bond (RCB), which is intended to be a new innovative funding mechanism to support rhino conservation at critical sites based on objective measures of conservation success. The RCB is being developed under the UfW umbrella, and ZSL is the lead agency. The seed funding for the RCB was provided by the Global Environment Facility (GEF), and the report on the initial phase of work was submitted to the GEF in February. It is hoped that this will now result in the next phase of GEF funding. Simon Stuart worked with Jonathan Baillie and others from the UfW collaboration to agree the governance and decision-making mechanism for the RCB initiative within the overall framework of the UfW.

The AsRSG helped lead two critically important Population and Habitat Viability Assessment (PHVA) workshops in Indonesia in February. The Javan Rhino PHVA was held on 11-13 February, and the Sumatran Rhino PHVA on 16-18 February. The results of these two workshops are fundamental in providing guidance to the Indonesian government on the specific and detailed measures that now need to be taken urgently to save these two Critically Endangered species from extinction.

***Recommendation 139 - Bear farming in Asia, with particular reference to the conservation of wild populations***

The planning workshop to design the situation analysis called for in Recommendation 139 was held on 21-22 November 2013 in Beijing and a research plan for the situation analysis was drawn up and agreed at a second meeting in Beijing on 25-27 March 2015. The two co-leads of the project are Ruan "Rick" Xiangdong of the Chinese State Forestry Administration (SFA) and Dave Garshelis, Co-chair of the SSC Bear SG. Three working groups (WGs) have now been formed to start implementing the research plan: WG1 - Monitoring of wild bear populations and the factors affecting population trends; WG2 - Assessing the market for bear bile and the factors driving it; and WG3 - Monitoring of bear farms. Each working group consists of nominated participants from both SFA and IUCN SSC.

Progress on this work was revised at the SSC Leaders Meeting in mid-September. It was concluded that a planning meeting on the IUCN SSC side is urgently needed, and that a much larger budget will be necessary to actually conduct these studies properly. It is hoped that this meeting will take place in

the coming months, and that a larger source of funding can be identified. Regardless of this, it is clear that it will not be possible to complete this project in time for a full report at the IUCN WCC in September 2016. Simon discussed this with Yan Xun and Lu Xiaoping from the SFA on 22 October, and they agreed that a progress report would take place in September 2016, but that the bulk of the work would continue in the next IUCN Quadrennium.

***Recommendation 142 - Actions to avert the extinctions of rare dolphins: Maui's dolphins, Hector's dolphins, Vaquita porpoises and South Asian river and freshwater dependent dolphins and porpoises***

The SSC Cetacean SG has been continuing to give priority to work on the Vaquita. The illegal trade in the swim bladders ("maw") of the Critically Endangered Totoaba fish are being traded from Mexico to China, sometimes through the United States. The Totoaba occurs only in the northern Gulf of California, and the illegal fishery for this species is leading to a bycatch of the Critically Endangered Vaquita, which numbers fewer than 100 individuals, declining at 18% per annum. In 2014 the IUCN requested the Chinese Premier and the President of Mexico to take urgent measures to stop the illegal Totoaba fishery and the international trade in Totoaba maw.

As a result, significant progress has been made in 2015. China has been cooperating with Mexico and the United States to combat the illegal trade in Totoaba maw. Retail outlets selling the maw have been identified, and as of October 2015, proceedings started to prosecute two of them. In Mexico, effective measures to prevent the illegal gillnet fishery for Totoaba are at last being implemented. A survey in October 2015 found no signs of gill-netting, and regular sightings of Vaquita were being made, thus showing the species still survives. It is hoped that these 11<sup>th</sup> hour measures are not too late to save the species.

***Recommendation 153 - Conservation of Poyang Lake, People's Republic of China***

The SSC Crane SG continues to monitor this situation very closely. The approval of the Poyang Lake Water Control Project, which has been requested by the government of Jiangxi Province, has still not been granted by the central government in Beijing. Simon discussed this matter with senior SFA officials on 22 October. He was told that SFA believed that there should be comprehensive studies on all of the factors affecting the lake, and that specific recommendations on the way ahead should only be made once all the studies have been done.

## High Level Interventions

During this reporting period, the following high-level interventions were made:

Simon Stuart has continued to follow up with senior figures in Lafarge-Holcim and the Government of Malaysia to raise concern over the mining of Kanthan Hill Quarry, with specific focus on the threat to the endemic Kanthan Hill trap-door Spider and other endemic or near-endemic species. He wrote letters on 12 February and 11 March. This was followed with several email exchanges through which Lafarge still did not adequately address the specific issues raised by the SSC. As a result of this, a conference call was held on 18 May with relevant Lafarge staff, Simon Stuart, Rachel Roberts, and Tony Whitten (Chair, SSC Cave Invertebrate SG). This also proved to be unsatisfactory, with Lafarge still seemingly unwilling to expect genuinely open and independent review of the biodiversity surveys that they had carried out at Kanthan. Finally, after further email exchanges it was agreed that a face-to-face meeting with Lafarge officials would take place in Paris on 3 September. The meeting was attended by Tony Whitten, Christoph Imboden (Chair of the IUCN-Holcim Panel), Gerard Bos (IUCN Business and Biodiversity Programme), Rachel Roberts (SSC Network Coordinator) and Simon Stuart. At this meeting it was agreed with Lafarge-Holcim staff that further studies need to take place to understand the exact distribution and status of the endemic species, and then to develop a conservation plan as a result. The terms of reference for this work are now being discussed between IUCN and Lafarge-Holcim, and it is hoped that work will start soon.



On 12 January, at the request of the SSC Cave Invertebrates Specialist Group (CISG), Simon Stuart wrote to the Executive Chairman of YTL Cement concerning the impacts of YTL's actions at Gunung Tenggek and Gunung Sagu in Malaysia on three endemic species of snail, *Hypselostoma elephas*, *Plectostoma tenggekensis* and *Plectostoma turriforme*, all listed as Critically Endangered on the IUCN Red List of Threatened Species. No formal response has so far been received.

On 24 March, at the request of the SSC Amphibian SG and several conservation organizations in Madagascar, the IUCN Director General, Inger Andersen, and Simon Stuart, wrote to the Minister of Environment in Madagascar and to the CEO of Sherritt International concerning the accidental introduction of the Asian toad *Duttaphrynus melanostictus* to the Toamasina district of eastern Madagascar at the site of a Sherritt-run nickel mine. This species could be extremely damaging to the native fauna in Madagascar, and the IUCN is calling for urgent measures to eradicate the toad before it is too late. No response has so far been received from the Madagascar Minister, and the President of Sherritt International responded positively on 11 June agreeing to follow-up on the issue. James Lewis, Operations Director of the Amphibian Survival Alliance, is now representing the IUCN in the initial discussions with Sherritt on how to address this urgent issue.

On 28 April, at the request of the SSC Iguana SG and IUCN Members in Jamaica, the IUCN Director General, Inger Andersen, and Simon Stuart, wrote to the Regional Director of the China Harbour Engineering Company to seek engagement on the development of a transshipment port on the Goat Island and Portland Bight Protected Area, Jamaica. IUCN and SSC offered assistance in avoiding negative impacts on the biodiversity of this extremely important place. No response has so far been received.

On 26 May, at the request of the SSC Carnivorous Plant SG, the IUCN Director General and Simon Stuart, wrote to the Prime Minister of Thailand concerning plans to expand a prison that would potentially wipe out a Critically Endangered pitcher plant, *Nepenthes suratensis*. Although no formal response has been received, the response of the prison authorities has been positive and plans are in place to avoid damage of the plants and to secure their protection.

On 26 October, at the request of the SSC Bat SG, the IUCN Director General and Simon Stuart, wrote to the Minister of Agro-Industry and Food Security in Mauritius concerning an impending cull of the globally threatened Mauritius Fruit Bat as a result of conflicts with commercial fruit growers. In this letter, IUCN outlined evidence that culls of fruit bats are seldom effective at reaching their goals, and that more effective solutions are available to reduce the impact of bats on fruit crops, especially the netting of fruit trees. Unfortunately the government ignored IUCN's advice and proceeded with a cull through much of November and into December, during which it is reported that a minimum of 18,000 bats were killed. As a result, IUCN sent a special delegation to Mauritius in early November consisting of Tigga Kingston, Co-Chair of the SSC Bat SG, and Luther Anukur, Regional Director, IUCN Eastern and Southern African Regional Office (we are very grateful to a number of zoos for funding Tigga's visit). Although the cull has now ended, it is very frustrating that neither the official letter, nor the IUCN delegation, succeeded in bringing about a science-based approach to addressing this issue, and that a dangerous precedent has now been set whereby globally threatened species can be culled against all the scientific evidence. The SSC is now considering what further measures it can take in this situation. It is particularly sad that this has happened in Mauritius which until now has had an enviable record of successful, evidence-based conservation.

Also on 26 October, at the request of the SSC Crocodile SG, Simon Stuart wrote to the Minister of Environment in Colombia concerning illegal trade in crocodilian skins from Colombia. This matter is now being followed up through the CITES process and should be addressed at the CITES Standing Committee in January.

## SSC Leaders Meeting

Thanks to the extraordinary generosity of Environment Agency - Abu Dhabi (EAD), the 3<sup>rd</sup> SSC Leaders' Meeting (formerly called the SSC Chairs' Meeting) took place in Abu Dhabi on 15-18 September 2015. The meeting brought together 350 people, including the SSC Steering Committee and Sub-Committees, SSC Specialist Group, Task Force and stand-alone Red List Authority Chairs, senior IUCN staff (including many from the GSP and Regional Offices), the other IUCN Commission Chairs, local SSC-related participants from the United Arab Emirates, and representatives from SSC's many partner organizations, including the Red List Partners and donors to the SSC Chair's Office.

Rachel Roberts led on the organization and overall management of the meeting, and Kim Collins was hired as a consultant to lead on the logistics, working closely with staff in EAD and the Mohamed bin Zayed Species Conservation Fund. A huge amount of logistical work was done by Rachel and Kim to prepare for the meeting. Frédéric Launay of EAD carried out negotiations with Emirates and Etihad airlines, and Emirates was selected as the airline of choice for the meeting, having offered some attractive discounts.

Mike Hoffmann led on the preparation of the agenda. In April a meeting was held in the SSC Chair's Office to start the planning of the agenda of the meeting. In addition to Simon, Rachel and Mike, this meeting was attended by SSC Deputy Chair Jon Paul Rodríguez, and also Mark Stanley Price and Phil McGowan, with Vololoniaina Jeannoda participating on the phone. After feedback from meeting invitees a final Agenda was sent to participants on 9 September.

It is clear that this was one of the most dynamic and strategically important events in the history of the SSC. The overall atmosphere and subsequent feedback have been excellent. The following is a summary of the main events:

- The highlight of the formal opening of the meeting was an address by the EAD Secretary General, HE Razan Khalifa Al Mubarak, during which she emphasised her personal commitment to species conservation. Other speakers in the opening plenary included IUCN Vice-President Marina von Weissenberg, IUCN Director General Inger Andersen, GSP Director Jane Smart, Jon Paul Rodríguez and Simon Stuart. The opening also featured a moment to mark those SSC members who had passed away since the last SSC Leaders Meeting in 2012.
- On the first day HE Mohammed Al Bowardi, EAD Managing Director and UAE Defence Minister was awarded the SSC's highest honour, the Sir Peter Scott Award for Conservation Merit. Simon Stuart presented the award in the presence of Razan Khalifa Al Mubarak, Frédéric Launay, Inger Andersen, Jane Smart, and Jon Paul Rodríguez. The IUCN team were privileged to have a fascinating conversation with the man who pioneered a visionary approach to conservation in the UAE.
- Following the formal opening, excellent presentations were given by EAD scientists which provided the local context for the meeting: habitat mapping in the UAE (Hossam Al Qamy); Abu Dhabi's project to reintroduce the Scimitar-horned Oryx to Chad (Justin Chuyen); marine endangered species conservation in the UAE; (Himansu Das); biodiversity monitoring in Abu Dhabi (Pritpal Soorae); and marine turtle conservation in the UAE (Marina Antonopoulou).
- The meeting had two "market place" sessions during which particular groups or programmes set up tables and met with the meeting participants to discuss ongoing and potential future collaborations. These were generally considered to be a great success. The first market place session during which the following set up tables: Access and Benefit-sharing SG; Climate Change SG; Conservation Breeding SG; Conservation Genetics SG; Invasive Species SG; Reintroduction SG; Sustainable Use and Livelihoods SG; Wildlife Health SG; Policy Sub-Committee; and Species Conservation Planning Sub-Committee. The second market place session focused on IUCN Regional Offices: Asia; Eastern and Southern Africa;

Europe; Mediterranean; Mesoamerica and the Caribbean; North America; Oceania; South America; West and Central Africa; and West Asia.

- Jon Paul Rodríguez facilitated a panel discussion during which four high-level speakers put forward perspectives on how the SSC might improve its effectiveness. Ashok Khosla, former IUCN President, spoke from an international development perspective; Inger Andersen spoke from an inter-governmental organization perspective; Christoph Imboden, biodiversity advisor to corporations such as Holcim and Svarovski, spoke from a private sector perspective; and Frédéric Launay spoke from a governmental perspective. This was followed by facilitated questions and discussion from the floor.
- Throughout the meeting, information desks were run on the following topics: getting the most out of the Union Portal (Claire Santer); “Anything Red List!” (Ackbar Joolia/Craig Hilton-Taylor/Caroline Pollock/Barbara Goettsch); communications and branding (Lynne Labanne); Specialist Group partnership opportunities (Kira Mileham); Save Our Species and Mohamed bin Zayed Species Conservation Fund (Alessandro Badalotti/Sugoto Roy/Jean-Christophe Vié/Nicholas Heard); and speaking to the media (Ewa Magiera). There were very successful, and many meeting participants made extensive use of these information desks.
- Simon Stuart ran three two-hour question-and-answer sessions for Specialist Group Chairs. The topics covered in these discussions were very wide-ranging, including: monitoring of SSC outcomes and impacts; handling taxonomic controversies; the cost of red listing; managing disputes and bad behaviour by SG members; leadership succession; the size of SGs; developing and promoting policies and guidelines; preparing for the next WCC; handling intellectual property rights; handling and avoiding conflicts of interest; and influencing the private sector
- Craig Hilton-Taylor, Mike Hoffmann and Anders Rhodin gave a plenary presentation on the IUCN Red List of Threatened Species, including on the launch of the Digital Object Identifier (DOI) system so that each Red List species account has a permanently archivable and identifiable record. This will make the referencing of IUCN Red List species accounts much more consistent in future, and provide some “pay-back” to authors of species accounts who will be able to add these citations to their published record.
- Presentations were given by three other IUCN Commission Chairs: Aroha Te Pareake Mead, Commission on Environmental, Economic and Social Policy (CEESP); Piet Wit, Commission on Ecosystem Management (CEM); and Ernesto Enkerlin. All the Chairs outlined the work of their respective Commissions and explored current and potential opportunities for collaboration with the SSC.
- A series of parallel workshops were focused on engaging with intergovernmental mechanisms: World Heritage Convention; CITES; CBD and the Aichi Biodiversity Targets; CMS; and IPBES.
- A huge number more parallel workshops took place on the following topics: addressing the barriers to national Red List implementation; successful species conservation - taking the mystery out of planning; could partnerships support your Specialist Group?; the new IUCN standard for KBAs - what it means for Specialist Groups; how to speak to journalists: communicating scientific messages to the media; and a possible situation analysis on the relationship between non-subsistence hunting and conservation and livelihoods; advancing an agenda for action in the inter-tidal wetlands of the East Asia-Australasia Flyway; species on the brink - the Asian Species Action Partnership; Beyond Enforcement - strengthening community engagement in combating illegal wildlife trade; defining a role for SSC in human-wildlife conflict; species monitoring - overcoming the challenges to collecting, sharing and using data; and mitigating the impacts of oil palm expansion on biodiversity; incorporating traditional knowledge in Red List assessments; a demonstration of tools available for Red List assessments; developing taxon-specific reintroduction guidelines; how to meet donor and funding agency requirements - experience from SOS, Mohammed bin Zayed Species Conservation Fund, and the Integrated Tiger Habitat Conservation Programme; understanding how and why protected areas are; effective in conserving species; and assessing climate change vulnerability of species; applying the IUCN Red List categories and

criteria; multi-species conservation needs assessment - bridging the gap between Red List assessments and conservation action; the SSC Wildlife Disease Risk Analysis tool - applications and utility for Conservation; “Conservation Assured” protected area management standards: an opportunity for Specialist Groups; using social media effectively; and how to influence policy at the national level

- Parallel consultations took place on: guidelines on recreational fishing as a conservation tool; guiding principles on de-extinction for conservation benefit; guidelines for the management of confiscated species; guidelines on use and trade of species threatened by extinction; making the most of SOS; and development of objective criteria for a Green List of species; and the Framework for Action on Strengthening the Union.
- The final session of the meeting was the SSC awards ceremony. The SSC Chairs Citation of Excellence is awarded by the SSC Chair; the Harry Messel, George Rabb and Sir Peter Scott Awards are given by the Steering Committee. The entire SSC membership was invited to nominate candidates for these awards. A small working group of Steering Committee members (Onnie Byers, Axel Hochkirch, Greg Mueller, and Nunia Thomas) assessed all of the 70 nominations received and made recommendations to the Steering Committee, which made its final decisions at its meeting on 14 September.

## Policy and guideline development

### Policy Sub-Committee

The results of SSC Policy Sub-Committee (PSC) meeting on 28-29 October 2014 in Newcastle, UK, have now been posted on the SSC website. The PSC is co-chaired by Sue Lieberman and Phil McGowan. During the SSC Leaders Meeting in Abu Dhabi in September, there was not a sufficient critical mass of PSC members to make a separate PSC meeting viable. So instead, PSC moved between the other SSC Sub-Committee meetings that were taking place at that time.

### Sustainable Development Goals

The most significant policy-related development of 2015 has of course been the adoption of the Sustainable Development Goals (SDGs) by the United Nations General Assembly on 25 September. IUCN's Global Policy Unit (GPU), headed by Cyriaque Sendashonga, led IUCN's inputs into the development of the SDGs, and SSC was able to provide technical support to the GPU throughout this process. The SSC is very happy that the SDGs represent a significant advance of the former Millennium Development Goals (MDGs), with biodiversity given a much higher profile and well integrated throughout.

SDGs 14 and 15 are the most relevant ones for the SSC:

- 14. Conserve and sustainably use the oceans, seas and marine resources for sustainable development
- 15. Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss

Under each SDG lie a set of targets. Negotiations are currently underway to agree the indicators for each target, and Tom Brooks, Head of Science and Knowledge at the IUCN headquarters, is leading on this for IUCN, supported by Neil Cox from the GSP Biodiversity Assessment Unit. IUCN's position on the SDG indicators was published on 14 October and can be found [HERE](#). Also, in October, a paper entitled [HARNESSING BIODIVERSITY AND CONSERVATION KNOWLEDGE PRODUCTS TO TRACK THE AICHI TARGETS AND SUSTAINABLE DEVELOPMENT GOALS](#) was published in the journal *Biodiversity*, with Tom Brooks as lead author, and Simon Stuart, Jon Paul Rodríguez, Mike Hoffmann, Jane smart and Craig Hilton-Taylor as co-authors. At the time of writing, it looks as if the IUCN Red List Index (RLI) will be agreed as the primary indicator for Target 15.5: *Take urgent and significant action to reduce the*

*degradation of natural habitats, halt the loss of biodiversity and, by 2020, protect and prevent the extinction of threatened species.*

Disaggregations of the RLI are now being put forward for the following SDG targets:

- *2.4 By 2030, ensure sustainable food production systems and implement resilient agricultural practices that increase productivity and production, that help maintain ecosystems, that strengthen capacity for adaptation to climate change, extreme weather, drought, flooding and other disasters and that progressively improve land and soil quality.*
- *2.5 By 2020, maintain the genetic diversity of seeds, cultivated plants and farmed and domesticated animals and their related wild species, including through soundly managed and diversified seed and plant banks at the national, regional and international levels, and promote access to and fair and equitable sharing of benefits arising from the utilization of genetic resources and associated traditional knowledge, as internationally agreed.*
- *12.2 By 2030, achieve the sustainable management and efficient use of natural resources.*
- *12.4 By 2020, achieve the environmentally sound management of chemicals and all wastes throughout their life cycle, in accordance with agreed international frameworks, and significantly reduce their release to air, water and soil in order to minimize their adverse impacts on human health and the environment.*
- *13.1 Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries.*
- *14.1 By 2025, prevent and significantly reduce marine pollution of all kinds, in particular from land-based activities, including marine debris and nutrient pollution.*
- *14.2 By 2020, sustainably manage and protect marine and coastal ecosystems to avoid significant adverse impacts, including by strengthening their resilience, and take action for their restoration in order to achieve healthy and productive oceans.*
- *14.3 Minimize and address the impacts of ocean acidification, including through enhanced scientific cooperation at all levels.*
- *14.4 By 2020, effectively regulate harvesting and end overfishing, illegal, unreported and unregulated fishing and destructive fishing practices and implement science-based management plans, in order to restore fish stocks in the shortest time feasible, at least to levels that can produce maximum sustainable yield as determined by their biological characteristics.*
- *15.1 By 2020, ensure the conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems and their services, in particular forests, wetlands, mountains and drylands, in line with obligations under international agreements.*
- *15.2 By 2020, promote the implementation of sustainable management of all types of forests, halt deforestation, restore degraded forests and substantially increase afforestation and reforestation globally.*
- *15.4 By 2030, ensure the conservation of mountain ecosystems, including their biodiversity, in order to enhance their capacity to provide benefits that are essential for sustainable development.*
- *15.7 Take urgent action to end poaching and trafficking of protected species of flora and fauna and address both demand and supply of illegal wildlife products.*
- *15.8 By 2020, introduce measures to prevent the introduction and significantly reduce the impact of invasive alien species on land and water ecosystems and control or eradicate the priority species.*

In later reports, progress will be given on the uptake of the IUCN RLI as an SDG indicator.

### **Intergovernmental Platform on Biodiversity and Ecosystem Services**

Phil McGowan continues to lead for the SSC on the Intergovernmental Platform on Biodiversity and Ecosystem Services (IPBES). Phil has been working closely with Tom Brooks on encouraging the nomination of SSC members as participants in the various IPBES assessments. This has met with

considerable success. For example two (of 25, i.e., 8%) experts appointed by governments to the IPBES Multidisciplinary Expert Panel are also leaders in the SSC (Rodrigo Medellín, Co-Chair SSC Bat SG, and Vinod Mathur, Steering Committee SSC/WCPA Task Force on Biodiversity and Protected Areas). Also 25 (of 310, i.e., 8%) experts appointed into expert groups and taskforces working on elements of IPBES work programme are also SSC members (for example, Sustainable Use and Livelihood SG (SULi) experts on sustainable use nominated for the thematic assessment on sustainable use).

### **Convention on the Conservation of Migratory Species of Wild Animals**

The SSC continues to make important contributions to the Convention on the Conservation of Migratory Species of Wild Animals (CMS). The SSC was represented at the 12<sup>th</sup> meeting of the CMS African-Eurasian Migratory Waterbird Agreement (AEWA) Technical Committee in Germany, March 2015, by Baz Hughes (Chair of the SSC Threatened Waterfowl SG). Draft resolutions for AEWA 6<sup>th</sup> Meeting of the Parties (MOP6) were finalised for submission to the AEWA Standing Committee meeting in July 2015 and a new work plan for 2016-2018 was developed. Under auspices of AEWA, the SSC Crane SG is working with the range states to develop a Single Species Action Plan for Grey Crowned Cranes; this plan addresses impacts of illegal crane trade.

Robert Kenward acts as the SSC focal point on Saker Falcon issues, has been supporting the implementation of CMS Resolution 10.28, and is contributing to the work of the CMS Saker Falcon Task Force which is leading on the implementation of a global action plan to conserve the species. A study has also been commissioned to elaborate a modelling framework to integrate population dynamics and sustainable use of the Saker Falcon.

The SSC made a major contribution to the CMS-EUROBATS Advisory Committee meeting in Montenegro on 23-25 March, with 25 members of the SSC Bat SG attending. Expertise from these members is contributing to the Inter-sessional Working Groups, for example on wind turbines and bat populations, and on-going contributions to assist the Advisory Committee in its monitoring activities.

The SSC is also contributing to the following (on behalf of the Antelope SG (ASG) and the Species Conservation Planning Sub-Committee):

(1) the CMS Saiga Antelope MOU: liaising with key ASG members and other stakeholders and advise CMS Secretariat on the implementation and monitoring of the Medium-Term International Work Plan and the next range state MOU meeting (planned for autumn 2015);

(2) the CMS Single Species Action Plan for the Argali: coordinating stakeholder inputs and the production of final version;

(3) Central Asian Mammals Initiative (covers 15 species in 14 countries; approved at CMS COP 11 in Quito, Nov 2014): SSC is the senior adviser on the Gaps and Needs Assessment and advising the CMS Secretariat on aspects of implementation;

(4) Sahelo-Saharan Antelopes (SSA) Concerted Action: working with ASG members and other stakeholders on implementation, and leading the revision of the SSA Concerted Action Status review (draft due 31 May 2015). While not specifically part of CMS, the SSC Bat SG has been promoting the establishment of the North American Bat Conservation Alliance (NABCA) between Canada, Mexico and the US. The Letter of Intent establishing NABCA was signed in April 2015.

### **SSC Guidelines and Policies under development**

The following SSC guidelines and policies are under development:

- Neil Maddison continues to lead the process to update the *IUCN Guidelines for the Placement of Confiscated Animals*, which was first approved in 2000. A small core group has been appointed to assist Neil in this process including representatives from the Invasive Species, Reintroduction and Wildlife Health SGs, and from TRAFFIC and the GSP. A revised

draft of the Guidelines was reviewed by the core group, and a subsequent draft was then discussed at the SSC Leader's Meeting in September where a number of useful changes were made. As a result, a further draft has now been prepared which was sent to all SSC members for comments on 7 December. Coordination is also being taking place with the CITES Secretariat on this issue, as CITES is currently also updating its own guidelines on confiscations. Kira Mileham in the SSC Chair's Office has been assisting Neil in this work.

- The SSC fish-related SGs, together with the Sustainable Use and Livelihoods SG (SULi), have started the consultation process to develop *Guiding Principles on Recreational Fishing and Conservation*. This is being led by Steven Cooke and Pete Rand, and was discussed further at the SSC Leaders Meeting in September. As a result, there is now discussion about doing a situation analysis on recreational fishing before completing the *Guiding Principles*.
- Philip Seddon continues to lead the process to develop SSC *Guiding Principles on Species De-Extinction*. This is the first of what is likely to be a growing area of SSC work on the impact of synthetic biology on biodiversity. The outline of these *Guiding Principles* has been reviewed by the core group which has been established to work with Phil. The first draft of the *Guiding Principles* themselves has now been produced and went out for wider review on 20 June 2015. It was then discussed further at the SSC Leader's Meeting in September, and a near-final draft was sent to the core group on 22 December. It is expected that the final draft will be completed early in 2016.
- John Garcia Ulloa, who has been seconded by the Swiss Federal Institute of Technology (ETH Zürich) to the GSP in IUCN headquarters, is leading the process of developing an "*IUCN SSC Policy Statement and Guiding Principles for Reducing the Impacts of Oil Palm Expansion on Biodiversity*". The option is being left open for this to grow into a broader IUCN policy. IUCN has no formal, over-arching policy guidance on the matter. In order to facilitate the development within IUCN of an appropriate policy, and simultaneously ensure a meaningful contribution to the global discussion on oil palm, the SSC Steering Committee subsequently agreed that a situation analysis is required to understand the current outlook of the policy landscape. The situation analysis is being compiled through a collaborative effort between the IUCN, ETH Zurich and the University of Adelaide. A final draft is anticipated in early 2016. It was also discussed at the SSC Leader's Meeting in September at which further inputs were provided, and an SSC task force on oil palm and biodiversity is also under consideration.
- SULi, working with TRAFFIC, is continuing to lead on the *Guidelines on Use and Trade of Species Threatened with Extinction* as part of the implementation of Resolution 017 (Enhancing the usefulness of the IUCN Red List of Threatened Species) from the IUCN World Conservation Congress in September 2012. The first draft was circulated to the Red List Committee for comments on 13 May 2015. It was also discussed at the SSC Leader's Meeting in September at which further inputs were provided.
- SULi is also working on a discussion document entitled *Integrating Traditional Knowledge into Red List Assessments*. The first draft was circulated to the Red List Committee for comments on 24 June 2015. It was also discussed at the SSC Leader's Meeting in September at which further inputs were provided.
- The SSC Antelope SG completed the ASG Position Statement on the Intentional Genetic Manipulation of Antelopes on 19 May 2015, and it is hoped that this will become the precursor to a broader statement on the topic from the SSC.

### Biodiversity offsets

In addition to these specific areas of policy on which SSC is taking the lead for IUCN, the SSC is also contributing actively to two broader areas of IUCN policy development. A working group of 27 SSC members has been formed to assist in the development of the new IUCN biodiversity offsets policy (in fulfilment of WCC Resolution 110 (*Biodiversity Offsets and Related Compensatory Approaches*) from the IUCN World Conservation Congress in September 2012. This working group is led by Jan Schipper, Co-Chair of the SSC Small Carnivore SG. The first draft of the IUCN policy was reviewed by the IUCN Biodiversity Offsets Policy Working Group (BOPWG), on which Jan Schipper and Simon

Stuart sit, over January to March 2015. The next draft was then produced and signed off at a small meeting of the BOPWG that Simon attended in Gland, Switzerland, on 8 May. The IUCN Council then approved the draft for distribution to the IUCN Membership for comments and inputs. It will also be reviewed at each of the IUCN Regional Conservation Forums taking place around the world during the second half of 2015. As mentioned above, the Simon and Jan attended BOPWG meeting on 23-25 September in IUCN headquarters in Gland, Switzerland. The meeting reviewed all the comments received on the draft policy, and produced a new, much stronger, draft subsequently which went to IUCN Council for sign-off (the final version will go before the IUCN WCC for adoption in September 2016).

## Synthetic biology

In 2014 it was agreed in principle that an IUCN inter-commissional task force (with representatives from all six Commissions) would be established to work on the topic of synthetic biology, and that a funding proposal would be prepared for a workshop. The Co-Chair of the SSC Marine Conservation Sub-Committee, Claudio Campagna, submitted a project concept to the Rockefeller Foundation to hold an inaugural workshop on synthetic biology in Bellagio, Italy, and in January we heard that this proposal was successful. The workshop was held on 1-5 December, with 20 participants who between them had expertise in synthetic biology, biodiversity science and conservation, environmental policy, conservation genetics, environmental law, environmental ethics, social policy, and public communications. The workshop was facilitated by Claudio Campagna and Simon Stuart, and examined the potential impacts (both positive and negative) of synthetic biology on biodiversity, with a view to developing a new inter-commissional IUCN programme of work on synthetic biology (SB). The discussion was guided by the following questions:

- How could SB approaches be made beneficial to conservation, sustainable development and human livelihoods?
- What might be the unexpected impacts that SB applications might produce to conservation and how could they be mitigated?
- Under what circumstances should SB approaches not be used in conservation applications?

The meeting reviewed all the major threats to biodiversity and considered how SB could be either a help or a problem when addressing them. A number of decisions were taken at the meeting, including:

- A focus on SB will be developed for the IUCN World Conservation Congress in Hawaii in September 2016, including a workshop (which has been accepted), and a motion outlining a programme of work on SB to be driven forward in IUCN.
- Inputs to the CBD discussions on SB will be prioritized.
- Potential avenues of SB research that might help identify potential solutions to pressing conservation problems (for example on invasive diseases) will be communicated to the SB community.
- A paper on SB and Conservation will be prepared for a major journal.

## Promoting biodiversity assessment work

### IUCN Red List of Threatened Species 50<sup>th</sup> Anniversary

Although the 50<sup>th</sup> Anniversary of the IUCN Red List of Threatened Species is now over, it has been an opportunity to review the success of the various fund-raising initiatives in 2014. Funds raised off 2014 events included: £100,000 from the Biophilia Ball (with huge thanks to all at Adam and Jessica Sweidan and all at Synchronicity Earth); US\$30,000 from the online fundraising campaign (with huge thanks to Julia Marton-Lefèvre Larissa Hotra, Gillian Holmes, Rachel Roberts and Lynne Labanne); €40,000 from the Prince Albert II of Monaco Prize for Biodiversity (with huge thanks to Julia Marton-Lefèvre), and £24,700 from the Freuds “Here Today...” art exhibition (with huge thanks to Giuditta Andreus). In addition to income from data licensing (US\$100,000 from the Integrated Biodiversity Assessment Tool (IBAT) partnership and US\$65,000 from Exxon), the IUCN Red List earned over



US\$400,000 in its 50<sup>th</sup> anniversary year, and this was allocated at the 21<sup>st</sup> meeting of the Red List Committee in April (see below).

It has been decided to continue with the online fundraising campaign during 2015, working closely with Larissa Hotra and Gillian Holmes in the IUCN Strategic Partnerships Unit. A new campaign, A Buzz About Bumblebees, was launched on 30 June, which raised USD25,000 in 28 days. These funds will go towards the project to assess the Red List status of all bumblebee species. In December we launched another online fundraising campaign for carnivorous plant assessments, and by 22 December it had raised USD 8,500.

On 13 September, IUCN Vice-President Miguel Pellerano organized a special concert in the Colon Opera House to celebrate the IUCN Red List. Over 3,000 people attended, and this did a lot to raise the profile of both IUCN and the Red List in Argentina.

### **SSC Chair Support to Particular IUCN Red List Assessment Projects**

The SSC Chair's Office has provided extensive support to particular Red List assessment projects, notably the following:

Excellent progress continues to be made on the assessment of reptiles, led by Philip Bowles, Coordinator of the Snake and Lizard RLA. Of approximately 10,200 species, 4,669 have now been published, with another approximately 2,000 species currently undergoing the review process. The current work is focusing on completing the assessments for the reptiles of East Africa, the Horn of Africa and the Sudans, New Guinea, Ecuador, Peru, Bolivia, Argentina, Paraguay, Uruguay and the Guianas. A workshop on Venezuelan reptiles was held in March 2015. Support from Environment Agency Abu Dhabi (EAD) has been critical in support the operations of the Snake and Lizard RLA.

The SSC Chair's Office has also been working with the SSC Tortoise and Freshwater Turtle RLA to complete the assessment of all 325 species within two years. All species now have completed distribution maps, and an updated [Checklist of the World's Turtles](#), with full synonymies, distribution data and conservation status summaries has now been completed. EAD has generously agreed to fund the first year of this work, which is co-financed by the Chelonian Research Foundation.

The SSC Chair's Office continues to provide extensive support for the reassessment of all amphibian species. Leadership of the Amphibian RLA was transferred from Ariadne Angulo to Jennifer Luedtke in the SSC Chair's Office. In March, Louise Hobin joined the team as Amphibian RLA Deputy Coordinator, assisted by a number of volunteers. The work on the amphibian reassessment is a massive task, and negotiations with Global Wildlife Conservation (GWC) in Texas, and with the Science Museum of Trento (MUSE) in Italy, have been successful. Both have now provided full-time staff for the Amphibian RLA. In November, Kelsey Neam started at GWC, and Elena Garollo started at MUSE. Meanwhile, reassessment and new species assessment work is continuing in Africa, Madagascar, Central and South America, China, tropical Asia and Australia.

The SSC is also working towards completing the reassessment of all mammal species on the Red List, in March 2015 we were able to secure £20,000 to support the SSC Small Mammal SG in the reassessment of the more than 2,000 species of rodents and insectivores.

The work on the bumblebee assessment is continuing, and the remaining 81 species from the Americas will now be completed 2015. As part of this, Jennifer Luedtke facilitated a Bumblebee SG workshop in Chiapas, Mexico, in March, focusing on the remaining South American and Mesoamerican species.

The SSC Invertebrate Conservation Sub-committee has recently started a Charismatic Mega-Invertebrate project, aiming to complete assessments for the largest and most spectacular species of invertebrates. The SSC Chair's Office has been able to secure £30,000 for this project.

The SSC Mollusc SG is starting an assessment of the 56 Abalone species (genus *Haliotis*) and the SSC Chair's Office has been able to secure seed funding for this.

The assessment of the world's 160 species of slipper orchids continues to progress well. This work will run through 2014 and into 2015. The assessments of the 88 species in the Asian genus *Paphiopedilum* have now been completed and submitted to the IUCN Red List Unit, with results indicating that 98% of the species are globally threatened. Overall, it is clear that the world's slipper orchid species are extremely seriously threatened. The Red List assessment for the genus *Mexipedium* is almost complete and shows that the single species is Critically Endangered and probably Extinct in the Wild. The Orchid SG has now completed the assessments for the remaining slipper orchid genera: *Phragmipedium* (25 species) and *Selenipedium* (5 species), and these have been submitted to the Red List Unit and will appear on the IUCN Red List in 2016.

Work is continuing with the global assessment of carnivorous plants, starting with the high-profile *Nepenthes* pitcher plants. As planned, assessments of an additional 60 *Nepenthes* species were completed by early 2015, and have been submitted to the Red List Unit. This brings the total number of *Nepenthes* species assessed to 103, out of approximately 150. Working is continuing to complete the remaining *Nepenthes* species in the coming year. Red List assessments are also underway for the Sundews (genus *Drosera*) with the aim of completing as many species as possible in 2015.

The major Plants for People (P4P) project is continuing, covering crop wild relatives (CWR), medicinal plants, timber trees and palms, and part-funded by the MAVA Foundation. The major effort at present is focused on raising matching funds from other sources. The SSC Chair's Office is working in particular with the SSC Crop Wild Relatives SG on this project, and assessments are underway for some 330 CWR species.

The SSC Chair's Office has secured funding support to enable the SSC East African Plant RLA to complete the backlog of several East African endemic plant Red List assessments.

Likewise, the SSC Chair's Office is supporting a small project to complete Red List assessments of endemic Cameroonian plants. This work is being led by SSC Steering Committee member Jean Michel Onana and Martin Cheek from the Royal Botanic Gardens Kew, ably supported by Craig Hilton-Taylor from the Red List Unit.

As part of the P4P project, Madagascar plants, the SSC Chair's Office is also supporting work to complete assessments of a large number of useful wild plant species from Madagascar that were previously stuck in the backlog.

Support has also been provided to the SSC Palm SG for palm assessment work in Africa and Cuba.

The SSC Chair's Office also supported the SSC Freshwater Plant SG to go through a planning exercise to determine its priorities for freshwater plant assessments.

### **IUCN Red List Updates 2015**

The IUCN Red List now includes 79,837 assessed species, of which 23,250 are threatened with extinction. Habitat loss and degradation are identified as the main threat to 85% of all species described on the IUCN Red List, with illegal trade and invasive species also being key drivers of population decline.

Although the overall trend is downwards, there was some good news. The highlights are as follows:

A large section of the 2015 updates focused on birds. The major finding was that six of Africa's 11 vulture species – the continent's largest and most recognisable birds of prey – are now at a higher risk of extinction. The main causes of the drop in African vulture populations are thought to be indiscriminate poisonings, where the birds are drawn to poisoned baits, use of vulture body parts in traditional medicine, and deliberate targeting by poachers, as the presence of vultures can alert

authorities to illegally killed big game carcasses. The rapid decline of the continent's vultures has profound consequences for its people – as vultures help stop the spread of diseases by cleaning up rotting carcasses.”

Worldwide, 40 more bird species are now classified as having a higher risk of extinction in the 2015 Red List. Besides the vultures, these include many wading shorebirds, and other iconic species like Helmeted Hornbill, Swift Parrot, Atlantic Puffin, and European Turtle-dove. Conversely, 23 species of birds have been downgraded to lower threat categories. In some cases, this reflects a better understanding of how they are faring, but some species have undergone remarkable recoveries as a result of conservation action, including Seychelles Warbler and Chatham Petrel.

The re-assessment of the polar bear (*Ursus maritimus*) used the most current sea ice and sub-population data, along with computer simulation and statistical models, to project potential changes in the size of polar bear sub-populations due to changes in sea ice. It is the most comprehensive assessment of this data to date. The results show that there is a high probability that the global polar bear population will decline by more than 30% over the next 35 to 40 years. The assessment supports the current Vulnerable status of the polar bear on The IUCN Red List. Recent studies show that the loss of Arctic sea ice has progressed faster than most climate models had predicted, with September sea ice extent declining at a linear rate of 14% per decade from 1979 through 2011. As polar bears rely on sea ice to access their prey, an annual ice-free period of five months or more will cause extended fasting for the species, which is likely to lead to increased reproductive failure and starvation in some areas. According to recent sea ice projections, large regions of the Canadian Arctic Archipelago will be ice free for more than five months by the late 21st century; and in other parts of the Arctic, the five-month ice-free threshold may be reached by the middle of the 21st century. Warming Arctic temperatures could also reduce habitat and increase the incidence of disease for prey species such as ice seals, placing the polar bear at further risk. Polar bears are important to the livelihoods of Indigenous Peoples and, as apex predators, are essential to maintaining ecosystem balance in the Arctic region. Along with sea ice loss, other potential threats to the species include pollution, resource exploration and habitat change due to development. Oil development in the Arctic, for example, poses a wide range of threats, from oil spills to increased human-bear interaction.

Following six decades of decline, the population of the Iberian Lynx increased from 52 mature individuals in 2002 to 156 in 2012. The species has now moved from the Critically Endangered to Endangered category on the IUCN Red List. This was achieved thanks to intensive conservation action including the restoration of rabbit populations – the main prey species of the Iberian Lynx - monitoring for illegal trapping, conservation breeding, reintroduction programmes and compensation schemes for landowners, which made their properties compatible with the habitat requirements of the Iberian Lynx. The species can be found in two regions of south-western Spain as well as south-eastern Portugal, which hosts its small reintroduced population.

The Guadalupe Fur Seal which was twice thought to be Extinct due to hunting in the late 1800s and 1920s, has now improved in status. It has moved from the Near Threatened category to Least Concern thanks to habitat protection and the enforcement of laws such as the USA Marine Mammal Protection Act. The species' population rebounded from some 200 to 500 individuals in the 1950s to around 20,000 in 2010. Prior to exploitation for its dense, luxurious underfur, the Guadalupe Fur Seal was likely the most abundant seal species on the islands of southern California, with a population estimate of 200,000.

Several mammals are facing increased threats from hunting and habitat loss. The extremely reclusive African Golden Cat has moved from Near Threatened to Vulnerable due to population decline. The New Zealand Sea Lion – one of the rarest sea lions in the world – has moved from Vulnerable to Endangered, mainly due to disease, habitat modification caused by fishing, and accidental death as a result of bycatch. The species has never recovered from the severe population depletion which occurred due to commercial hunting early in the 19th century.

Despite successful conservation action in southern Africa, the Lion remains listed as Vulnerable at a global level due to declines in other regions. The West African subpopulation has been listed as Critically Endangered due to habitat conversion, a decline in prey caused by unsustainable hunting, and human-lion conflict. Rapid declines have also been recorded in East Africa – historically a stronghold for lions – mainly due to human-lion conflict and prey decline. Trade in bones and other body parts for traditional medicine, both within the region and in Asia, has been identified as a new, emerging threat to the species.

The Arico water frog (*Telmatobius pefauri*) is listed as Critically Endangered (Possibly Extinct) because it has not been seen since 1976. This frog is threatened by water extraction for human use and for cattle ranching; it may also be affected by cattle trampling the stream habitats according to the experts.

Two species of crab, *Karstama balicum* and *Karstama emdi*, have been listed as Critically Endangered as their only known habitat – Bali's Giri Putri Cave – is threatened by increasing tourism and religious ceremonies carried out in the cave. Studies of the crabs are being carried out in order to identify appropriate conservation strategies.

Of the 143 species of goby assessed in the Caribbean region, 19 are threatened with extinction mainly due to a 59% decline in coral reef habitat between 1979 and 2011, and the invasive Lionfish (*Pterois volitans*). Gobies are one of the largest families of marine fish. They comprise more than 2,000 species, including some of the smallest vertebrates in the world, such as the Critically Endangered Dwarf Pygmy Goby (*Pandaka pygmaea*), which is only 1 to 1.5 cm long. The Peppermint Goby (*Coryphopterus lipernes*), which grows to a maximum of 3 cm, has been listed as Vulnerable. Previously listed as Least Concern, the Glass Goby (*Coryphopterus hyalinus*) is now Vulnerable due to increased threat from the invasive Lionfish.

This IUCN Red List update also reveals that the degradation of sensitive coastal habitats, pollution, overexploitation and destructive fishing practices are putting many marine bony fishes at risk of extinction in the East Central Atlantic and Greater Caribbean regions with the invasive lionfish placing further pressure in the Caribbean. The global assessment of the 1,400 marine bony fishes including both nearshore fishes and deep-sea fishes of the Eastern Central Atlantic – covering the area from Mauritania to Angola – shows that 3% are threatened with extinction. The roundnose grenadier (*Coryphaenoides rupestris*), is listed as Critically Endangered due to overexploitation. In the Caribbean, 1,340 species were assessed, and of these 5% are threatened with extinction, including the golden tilefish (*Lopholatilus chamaeleonticeps*) which is listed as Endangered. An important commercial fishery species, it is the largest species of tilefish and can reach up to 1.25 metres in length. Its population has declined by 66% over the last 48 years due to over-fishing.

Marine bony fishes are the largest group of fish and are both ecologically and economically important. The loss of these species would pose a serious threat to the food security and livelihoods of more than 340 million people in these regions. With the human population expected to double in the next 20 to 25 years, this new data will be used to guide fisheries management and conservation priorities in the regions, including the identification of priority sites for conservation action. These assessments are the first of their kind, providing comprehensive baseline information within a specified region, which is critical for the designation and improved management of marine protected areas and threatened marine species. The data should also lead to the development of more effective initiatives to improve national and regional fisheries management to maximise conservation benefits.

Assessments of all 84 species of tropical Asian slipper orchid – some of the most beautiful ornamental plants – show that 99% of the species are threatened with extinction, primarily due to over-collection for horticultural purposes and habitat loss. All international commercial trade in this species is prohibited under the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES). However, highly damaging illegal trade continues due to a lack of adequate enforcement at national levels. Although these species are mostly represented in cultivated collections, their loss in the wild will have major impacts on their genetic diversity and the species'

continued existence. For example, the Purple Paphiopedilum, a rare species found in Viet Nam, China and Hong Kong, is listed as Critically Endangered. Threats include habitat fragmentation and degradation, and ruthless collection in the wild for the regional and international horticultural trade.

Forty-four Indian species of medicinal plant have been added to the IUCN Red List in this update. All are threatened with extinction, mainly due to over-collection and habitat loss. *Aconitum chasmanthum*, a highly toxic plant endemic to the Himalayan region of India and Pakistan, is listed as Critically Endangered due to unsustainable collection of tubers and roots, as well as habitat loss from avalanches and the construction of high-altitude roads. The roots and tubers, which contain alkaloids, are used in Ayurvedic and homeopathic medicine and are collected in huge quantities.

Whilst no new species have been listed as Extinct, 14 species have been assessed as Critically Endangered (Possibly Extinct). These include the evergreen *Magnolia emarginata*, a tree endemic to Haiti, which has suffered from an estimated 97% reduction of its forest habitat during the last century. Ten species of orchid endemic to Madagascar, such as the white flowering *Angraecum mahavavense*, have also entered The IUCN Red List as Critically Endangered (Possibly Extinct) primarily due to loss of forest habitat and illegal collection.

A total of 24 newly assessed Critically Endangered species are highlighted as being possibly extinct, primarily due to threats from invasive species and habitat destruction. The haha (*Cyanea kolekoleensis*), a plant species native to the island of Kauai, Hawai'i, is listed as Possibly Extinct. Its habitat is threatened by pigs and several invasive plant species, and there have been no recorded sightings since 1998. Eleven orchid species found only in Madagascar have been listed as Critically Endangered (Possibly Extinct) including *Bulbophyllum tampoketsens*, which is threatened due to illegal collection and deforestation.

Twenty-nine fungi have been assessed, more than doubling the number of fungi on the IUCN Red List. The main threats affecting the species are habitat loss and degradation, mostly from changing land use practices. The colourful *Leptonia carnea*, which has been listed as Vulnerable, is confined to the coastal redwood forest of California, USA. Changes in the Californian climate – increased droughts and reduced occurrence of fog – are impacting the habitat. Continued logging of the redwood (*Sequoia sempervirens*) which is listed as Endangered, is another major threat to the fungus.

Fungi provide essential ecosystem services which support animals and plants. They have a symbiotic relationship with 80% of all plants and form a crucial part of the digestive system of ruminants such as sheep and cows. Fungi are also extremely important to humans as medicine and food. The antibiotic Penicillin was derived from the fungus *Penicillium*, and today most antibiotics and statins (commonly used to lower blood cholesterol), are fungal in origin. Fungi are also used to make bread, beer, wine, cheese and many other foods.

### Amazing Species

In order to promote popular understanding of threatened species, IUCN SSC continues to feature an Amazing Species each week on its website and those of its partners. This initiative is led by Rachel Roberts in the SSC Chair's Office. Rachel Roberts is now working on a plan to display Amazing Species more effectively on the Red List website, as there are now many too many accounts to provide an easy visual display. An attractive display of a subset of the Amazing Species accounts is provided on the [Red List fundraising website](#), and it might be possible to expand this to display all of the Amazing Species accounts.

### Specialist Group Partnerships

Our new Director for Specialist Group Partnerships, Kira Mileham, has started her job with huge enthusiasm. She has been very busy building her connections with SSC SGs and zoos, aquariums and botanic gardens. She has been working with the World Association of Zoos and Aquariums (WAZA) as well as the European and American regional associations (EAZA and AZA respectively); together they are working to identify the strongest opportunities for long term partnership and strategic

collaborations with SSC SGs at an association level (such as linking SGs more effectively with Taxonomic Advisory Groups (TAGs)) and with their member organisations. These partnerships are varied but, among other things, often include financial conduit hosting for the SSC SG as well as zoo or aquarium staff supporting the Specialist Group in the role of a part time programme officer.

The mutually beneficial relationships are intended to grow capacity and long term sustainability for the SSC SGs as well as build greater collaboration for species conservation assessments, planning and implementation to increase strategic species conservation impact.

Kira has been invited to join the Field Conservation Committees for the American as well as the British and Irish Zoo and Aquarium Associations to help identify and strengthen collaboration opportunities. She made an 8-week trip to the US to attend the AZA mid-year meetings and visit US zoos, aquariums and botanic gardens starting in March 2015. This visit was intended to develop a greater understanding of overlap in priorities between these organisations and SSC SGs and to discuss potential partnerships. Discussions are still underway with all of the organisations visited, but hosting partnerships agreements have recently been signed between:

- Montgomery Botanic Gardens and SSC Cycad SG
- Arizona Centre for Nature Conservation / Phoenix Zoo and the SSC Lagomorph SG
- Arizona Centre for Nature Conservation / Phoenix Zoo and the SSC Small Carnivore SG
- Desert Botanic Garden and the SSC Cactus and Succulent SG

Potential partnership discussions with US based zoos, aquariums and botanic gardens are currently underway in particular for the Freshwater Fish SG, Shark SG, Sturgeon SG, Caprinae SG, and Primate SG – Neotropical Primate Section. Additionally, Bristol Zoological Gardens has also just signed a partnership agreement formalising their long-term support of the Primate SG, in particular hosting the Madagascar Section of the PSG.

Organisations approached for SSC SG partnership discussions so far include: SEALIFE Aquariums, Bristol Zoological Gardens, Chester Zoo, Zoological Society of London, Honolulu Zoo, Montgomery Botanic Gardens, Disney Animal Kingdom, DuMond Primate Conservancy, Lincoln Park Zoo, Zoo Atlanta, Tennessee Aquarium, Atlanta Botanic Gardens, Jacksonville Zoo and Gardens, White Oak Conservation Centre, WCS / Bronx Zoo, Adventure Aquarium, Smithsonian National Zoo, New England Aquarium, Shedd Aquarium, Chicago Zoological Society (Brookfield Zoo), Detroit Zoo, St Louis Zoo, Omaha Zoo, Arizona Centre for Nature Conservation (Phoenix Zoo), Arizona Senora Desert Gardens, Houston Zoo, Monterey Bay Aquarium, Steinhart Aquarium, Zoo Boise, Los Angeles Zoo, San Diego Zoo, Paignton Zoo, the International Centre for Birds of Prey and The Deep Aquarium.

Kira has also been working with the AZA team on their recently launched Saving Animals From Extinction (SAFE) programme to help facilitate input from the relevant SSC SG on the direction of efforts for the initial 10 'SAFE' Taxa. SAFE currently aims to expand the AZA's conservation activities specifically for Whooping Crane, Western-pond Turtle, Black Rhinoceros, Asian Elephant, Gorillas, Marine Turtles, Vaquita, African Penguin, Cheetah and Sharks generally. It is hoped that the involvement of relevant SSC SGs can help direct these efforts to areas of greatest priority and opportunity.

Since June Kira's efforts have continued to engage zoos and aquaria, with a particular focus on the UK and working with the British and Irish Association of Zoos and Aquaria (BIAZA); as a result discussions are underway with The Deep Aquarium, Yorkshire Wildlife Park, Paignton Zoo, The Hawk Conservancy, The International Centre for Birds of Prey and Berkshire Agricultural College about collaborations with a variety of Specialist Groups, with a number of partnerships imminent.

Kira has also recently been focusing on engaging Specialist Group Chairs and successfully used the opportunity of the SSC Leaders' Meeting to achieve this. During the meeting Kira presented on the value of partnerships to the SSC Steering Committee, each of the SSC Sub-committees, and

individually met with the chairs of over 50 specialist groups to discuss opportunities and priorities for partnership development.

Raising awareness and increasing mutual respect for the potential of partnerships between SSC and zoos, aquaria and botanic gardens is an important part of Kira's role. The SSC Leader's Meeting was instrumental in engaging Specialist Group Chairs to this effect. Kira has also recently run a workshop at the Conservation Breeding Specialist Group Annual Meeting and a plenary workshop at the World Association of Zoos and Aquaria.

Ahead of the 2016 World Conservation Congress in Hawaii, Kira has been working closely with Honolulu Zoo to increase their strategic conservation efforts alongside the SSC. Honolulu Zoo have become donors to the Chair's Office and the Amphibian RLA. Kira recently travelled with the Amphibian RLA coordinator, Jennifer Luedtke, to the zoo to work with their Director, Dr Baird Fleming, and his team on identifying their conservation priorities and linking with IUCN specialist groups accordingly. Discussions are underway with the Amphibian Specialist Group to provide a program officer to this group and to expand collaborations and actions for amphibian conservation with a focus on Southeast Asia.

## Reducing biodiversity loss

### Asian Species Action Partnership

The Asian Species Action Partnership (ASAP) continues to make steady progress in achieving its mission to avert the extinction of Critically Endangered (CR) terrestrial and freshwater vertebrate species in the Southeast Asia region. The Programme is coordinated by IUCN SSC, on behalf of its member organisations and has developed a Strategy and Action Plan with the following overarching goals and objectives:

Goal: As a matter of urgency to avert the extinction in the wild of Critically Endangered freshwater and land vertebrates in South east Asia

ASAP aims to

- *catalyze* conservation action by initiating and leveraging new actions for species recovery
- *promote* conservation best practice for planning and impact monitoring for species recovery
- *enhance* transparency and efficiency of conservation support for ASAP species
- *develop* and *implement* a strong communications strategy for ASAP to raise the profile of ASAP species, the threats faced by them and to increase ASAP visibility, membership and impact

With generous assistance from The Croeni Foundation, ASAP has now a developed website ([www.speciesonthebrink.org](http://www.speciesonthebrink.org)) and currently has 36 participating organizations that are directly implementing or involved with the conservation of ASAP species. These include national and international NGOs, zoological institutions, zoological associations, and donor organizations funding ASAP species conservation.

Madhu Rao, ASAP Development Coordinator, attended the Transboundary Workshop at Xishuangbanna Tropical Botanical Garden, China, on 1-4 March 2015) to promote ASAP. China's southern boundary shared with Myanmar, Laos and Vietnam is a critically important trade route for the illegal wildlife trade, a major threat to many ASAP species. The meeting provided an opportunity to draw attention to the conservation needs for ASAP species in this important transboundary region. The meeting resulted in a formal declaration with recommendations to strengthen the enforcement of existing legislation, create new transboundary protected areas, improve management of existing protected areas and develop standardized monitoring protocols. The declaration recommended that the Government of China, in collaboration with the Governments of Myanmar, Laos and Vietnam,

lead in championing effective transboundary protected areas and tackle illegal wildlife trade, thus ensuring a future for regional biodiversity.

Madhu gave a plenary address at the Association for Tropical Biology and Conservation Asia Pacific meetings, in Phnom Penh, Cambodia on 30 March-2 April 2015. The Association for Tropical Biology and Conservation meeting provided an opportunity to highlight ASAP species needs through a plenary address that focused attention on the extinction crisis in Southeast Asia and the effectiveness of the protected area network in the region. Several ASAP species that are on the brink of extinction need urgent protection either through the creation of new protected areas or through better management of existing ones. However, it is also evident that for many ASAP species, it is imperative to consider the integration of *in situ* conservation action with *ex situ* approaches to avert extinctions. The meeting brought together researchers and conservationists from within the Southeast Asia region.

ASAP participated in the IUCN Asia Regional Conservation Forum in August 2015, together with Simon Stuart, in order to create greater awareness of the initiative. The IUCN Asia Regional Office is currently a Steering Committee member of ASAP. ASAP organized a workshop and coordinated several important meetings with donors at the SSC Leaders' Meeting in Abu Dhabi in September 2015. The workshop and the meetings helped create additional linkages with SSC Specialist Groups and with various components of the IUCN.

*ASAP at CBSG/WAZA/SEAZA meetings.* In October, Wildlife Reserves Singapore (WRS) represented ASAP at the annual SSC Conservation Breeding SG (CBSG) and World Association of Zoos and Aquariums (WAZA) meetings at the Al Ain Zoo in Abu Dhabi. Two workshops helped raise awareness of ASAP's development in the zoo community and brought attention to the need for *in-situ/ex situ* integration for several CR species in Southeast Asia, highlighting a critically important role for zoos and aquaria in averting the extinctions of certain ASAP species. Also in October, a presentation on behalf of ASAP was made at the EAZA meetings to give an update on ASAP to the EAZA community.

In November, ASAP presented at and participated in a workshop at the annual meeting of the Southeast Asian Association of Zoos and Aquariums (SEAZA) to help create awareness on the role of Southeast Asian zoos and aquaria in the conservation of CR species in the region and contributed significantly to the creation of a new Conservation Committee within SEAZA. Moving forward, ASAP will be a member of this Conservation Committee to help influence the direction of the conservation strategy for SEAZA. ASAP also hosted a small reception at The American Club, Singapore, with the aim of introducing ASAP to an invited audience of potential partners. The event included talks from key ASAP partners: WRS, TRAFFIC, Turtle Survival Alliance and WCS.

### ***Species-focused action for ASAP***

*Asian Pangolins.* In June 2015, ASAP participated in the First Pangolin Range States Meeting hosted by the United States Fish and Wildlife Service and the Government of Vietnam. The objectives of the meeting were to bring pangolin Range State Government representatives to discuss the impact of trade on the populations of all eight pangolin species (four in Asia, four in Africa) and provide recommendations for the upcoming CITES Standing Committee Meeting in January 2016.

*Swinhoe's Giant Softshell Turtle (Rafetus swinhoei).* ASAP worked in partnership with the SSC Tortoise and Freshwater Turtle SG to organize a workshop on "Conservation of *Rafetus swinhoei*" in December 2014. During 2015, it was decided that a working group would be created as a non-exclusive group of individuals with expertise in the conservation of *R. swinhoei* as well as experience in the flora and fauna of Lao PDR, Vietnam, and Southern China. The working group will provide a sounding board for adaptive management of the proposed priority actions. The primary recommendation of this group was that additional individuals of *R. swinhoei* need to be found and captured for captive breeding and that this needs to be of the highest priority amongst global



chelonian conservation. The group has agreed on a number of actions that would be necessary to prevent the extinction of the species.

*Asian Songbird Crisis.* ASAP played a key role in supporting the Asian Songbird Crisis Summit, which took place in Jurong Bird Park, Singapore, in September 2015, co-organized by WRS, TRAFFIC and the Cikananga Wildlife Center, all three being participating organizations of ASAP. Over the course of the three-day summit, experts agreed upon a priority list of 30 passerines in the Greater Sunda region that are verging on extinction if the illegal trade is left unchecked, and identified twelve species needing immediate action. Only three of these high-priority birds are currently categorized as Critically Endangered on the IUCN Red List: Javan Green Magpie, Black-winged Starling and Bali Starling. This suggests an urgent need to reassess the status of many of these priority species. One of the proposals coming out of the summit was to form an Asian Songbird Specialist Group under the SSC, and more news is expected on this in the coming months. Immediately following the summit was a special meeting on the Bali Starling on Bali, Indonesia, at the beginning of October, in which ASAP also participated. This important meeting addressed the issue of recovery of the Bali Mynah population and action needed to work towards a common strategy of captive breeding and reintroduction on Bali. A Bali Mynah Recovery Action Plan is in development.

*Helmeted Hornbills.* Helmeted hornbills have recently been categorized as Critically Endangered due to the demand-driven poaching of the species for their highly prized beak ivory (“red ivory”). A meeting was hosted by WRS to develop a clear action plan for the species. ASAP is assisting with the creation of the Working Group and the drafting of the Action Plan in addition to the development of a resolution for the species at the upcoming IUCN Congress.

*White-bellied Heron-Working together with Synchronicity Earth and the IUCN Species Conservation Planning Sub-Committee,* ASAP has been involved in organizing and helping implement the second range-state workshop for the White-bellied heron (*Ardea insignis*), which was hosted by the Ministry of Forestry in Bhutan in December 2015. The meeting helped update and consolidate the new strategy for the White-bellied heron and agreed on a number of actions towards implementation of the White-bellied heron conservation strategy. ASAP will work alongside Synchronicity Earth in taking responsibility to coordinate the White-bellied Heron Working Group (within the Heron SG) and the implementation of the strategy.

### **Support for SSC Specialist Groups**

A key role for ASAP is to provide support to SSC Specialist Groups, especially those with many ASAP species. Freshwater fish constitute a significant portion of species on the ASAP list and, alarmingly, experts indicate that there could be several more species that could potentially be classified as Critically Endangered once the assessments are done. A major issue that needs to be addressed is the lack of Red List assessments for fishes in the Sundaic region (Indonesia and Malaysia) and the Philippines. ASAP is helping bring together various entities to collaborate on the freshwater fish Red List assessments for the Sundaic region. There is currently a growing collaboration between WRS, National University of Singapore (NUS), Raffles Biodiversity Museum and the SSC Freshwater Fish SG on this initiative. The first workshop is scheduled for February 2016 at the WRS.

WRS, an important ASAP partner, hosted the SSC Primate SG’s Asian Primate Red Listing Workshop in November. ASAP was involved in helping improve the Conservation Needs and Conservation Actions sections of the Red List Account for CR species of primates to help clearly identify actions that need urgent support to avert the extinction of CR primate species.

### **Amphibian Survival Alliance**

The latest version of the Global Amphibian Conservation Action Plan (ACAP) was released this year and the ASA Executive Committee was formed with Simon Stuart appointed as ASA Deputy Chair and Claude Gascon remaining as Chair. The ACAP, first created in 2007, had not been updated since then. The ASA, working with the SSC Amphibian Specialist Group (ASG), formed a number of

thematic working groups that actively moved forward on the development of the action plan. With the document created and posted online, the ASA is now working to build support for its implementation and coordinating with the ASG on the development of a reporting and updating mechanism.

The ASA attended the third annual Global Council meeting in April, hosted by Flora and Fauna International in Cambridge, UK. The meeting focused in particular on the plans to move to an elected Global Council, and review progress on the ASA Strategic Plan. The Global Council meeting took place in conjunction with the ASA's first Amphibian Conservation Research Symposium (ACRS), which was held at the University of Cambridge.

One of the most exiting press releases of the year announced the discovery of the shape-shifting mutable frog (*Pristimantis mutabilis*) in Ecuador. This frog can do what no other vertebrate has ever been documented to do—rapidly change skin texture from smooth to spiny. This exciting discovery also underscored the critical need for habitat protection in the Ecuadorian Andes as farming practices, urban sprawl and mining continue to put pressure on these cloud forests.

Research published in *Biology Letters* in November detailed the first-ever elimination of a fatal chytrid fungus in the wild. The study combined antifungal treatment of Mallorcan midwife toad (*Alytes muletensis*) tadpoles with environmental disinfection in a single location. These are adding to our toolkit to effectively combat emerging infectious diseases in amphibians around the world. The ASA issued a response to this paper stating that urgent research is still needed to determine what, if any, the potential unintended consequences of antifungal treatment are on the entire ecosystem, including beneficial microbes and other forms of biodiversity.

Two rare salamander species lost to science for nearly 40 years were not only rediscovered, but the ASA and a consortium of international groups protected some of the last remaining forest home for these salamanders. Critical habitat for the Finca Chiblac salamander (*Bradytriton silus*) and the long-limbed salamander (*Nyctanolis pernix*) in Guatemala's Cuchumatanes mountain range had been slated for imminent clearing for coffee production. With financial support from the ASA and others, the land purchase resulted in the creation of the San Isidro Amphibian Reserve, the first nature reserve in the western highlands of Guatemala. Finca San Isidro also is home to the recently discovered Cuchumatán golden toad (*Incilius aurarius*) and the Black-eyed Treefrog (*Agalychnis moreletii*). Jackson's climbing salamander (*Bolitoglossa jacksoni*) was also discovered within a few hundred meters of the reserve. This salamander has evaded detection for 38 years, making it one of the world's Top 10 "Most Wanted" Amphibians. Ten of the 20 amphibian species that live in or near Finca San Isidro are classified as Critically Endangered or Endangered by the IUCN Red List. Local and international scientists and conservationists had identified the area as one of the highest priorities for immediate conservation action.

In the 2015 update of the IUCN Red List of Threatened Species the IUCN SSC Amphibian Red List Authority published 61 extinction risk assessments: 48 are reassessments and 13 are brand new additions to the IUCN Red List. Six species were removed from the threatened categories (Vulnerable, Endangered or Critically Endangered) thanks to the availability of new information. However, over half of the species are threatened with extinction and seven species have been moved to a higher threat category.

### ***Madagascar***

In 2015 the ASA increased focus on building momentum behind conservation efforts in Madagascar. This started by working with partners and donors to support the development of the second Amphibian Conservation Strategy for Madagascar. The ASA also started to invest in a feasibility study to ascertain the potential for eradicating the invasive Asian toad *Duttaphrynus melanostictus* from the island.

February saw the publication of "Widespread presence of the pathogenic fungus *Batrachochytrium dendrobatidis* in wild amphibian communities in Madagascar" in *Scientific Reports* highlighting the

immediate need to respond to the threat of chytridiomycosis in Madagascar. The ASA has been working extensively to help fund chytrid research, including disease mitigation research, and monitoring in Madagascar. This was the number one funding priority for 2015.

Along with the Madagascar conservation organization Vondrona Ivon'ny Fampandrosoanavif and US-based partners Global Wildlife Conservation and Rainforest Trust, the Alliance provided the monetary support necessary to create the Ankaratra Massif Reserve. Officially gazetted in August, the Ankaratra Massif Reserve now protects some of Madagascar's rarest amphibians. Agricultural expansion, overgrazing and uncontrolled fires had led to dramatic habitat loss, pushing these species toward extinction.

The importance of Madagascar to global amphibian populations cannot be overstated, nor can the threats facing those amphibians. As such, the ASA and its partners are working extensively in the region to significantly scale up amphibian conservation efforts in the region. This year alone, ASA partner, the Rainforest Trust, has invested almost \$200,000 in two important amphibian sites in Madagascar. With continued support such as this we are expecting major progress in the region in the coming years.

### ***Amphibian Trade***

One of the key strategic priorities for the ASA during 2015 was to move forward work on amphibian trade and policy issues. In March, two simultaneous amphibian trade workshops took place with experts from around the world attending. The workshops were held in Singapore, courtesy of WRS, and Washington DC hosted by Defenders of Wildlife. The workshops focused on identifying species utilized in some manner by humans. After the workshops and several weeks of consultation, a list of approximately 400 species was produced with many having conservation or research actions associated with them.

During the course of the amphibian trade workshops, the need for a global disease mitigation workshop was identified, with the objective of developing recommendations for the control of amphibian infectious diseases in trade and captive settings of all types, identifying research objectives to assess the risk of spread from captive to wild and recommendations for inexpensive, easy-to-apply and transferrable mitigations of emergent diseases and also system and site-specific mitigations. The idea would be to bring together a small group of amphibian disease experts and specialists from different areas, including the veterinary community, pharmaceutical companies, and venture capitalists.

### ***Partnerships***

The year began with the development of two major partnerships for the ASA. Firstly, the ASA joined the National Steering Committee of the US-based Partners in Amphibian and Reptile Conservation (PARC), and secondly, a new innovative partnership was launched with AmphibiaWeb who is now acting as the Science Zone for ASA. Both of these partnerships are helping the Alliance to engage in a range of issues from science-based communications to policy level interactions.

The Alliance also joined a newly formed National Disease Task Team formed by PARC. The new Task Team is made up of biologists, veterinarians, and wildlife managers from the U.S., Canada and Mexico. It is through this Task Team the Alliance is able to facilitate and guide communication, collaboration and responses to outbreaks of herpetofaunal diseases among PARC regions, federal and state agencies, and partners.

The ASA and ASG joined forces with the Amphibian Conservation Research Symposium (ACRS) organizing committee to fully endorse and engage in the development of this amphibian-focused symposium. Excitingly, the 2015 ACRS was the largest attended ACRS meeting to date. Opened by the ASA's Director of Operations, James Lewis, the symposium brought together a range of amphibian researchers and conservationists to share experiences and develop projects. Jennifer

Luedtke, IUCN SSC Amphibian RLA Deputy Coordinator, spoke at ACRS on the progress being made with amphibian red listing and continued efforts to engage a wider audience in the red listing process. The Alliance is now in the process of finalizing the next ACRS to be held in South Africa in January 2016.

The ASA was able to help co-sponsor this year's USGS Amphibian Research and Monitoring Initiative (ARMI) annual event in Washington DC. ARMI have been playing an important role in helping to coordinate the response to the Bsal threat in North America and have been strong partners in amphibian conservation efforts in general.

### ***Batrachochytrium salamandrivorans (Bsal)***

Since 2014 the ASA has been working on responding to the threat of *Batrachochytrium salamandrivorans* (Bsal), the newly described fungal pathogen that is causing declines of some European salamander species and has the potential to significantly impact North American salamander populations. Reid Harris, the ASA director of international disease mitigation, was invited to attend a workshop entitled "Batrachochytrium salamandrivorans (Bsal) in the United States: Developing a monitoring program to inform management strategies", which was held at the USGS Powell Center for Ecological Analysis and Synthesis, Fort Collins Colorado in June. The workshop led to the formation of a number of working groups. The workshop developed a response plan should Bsal be detected in the US. In addition, the Research Initiatives working group developed laboratory protocols for working with Bsal cultures and a list of research priorities. A US National Bsal Task Force is an outcome of the meeting: <http://www.salamanderfungus.org/task-force/>. The Task Force meets regularly to assess progress as well as ongoing challenges. Three ASA secretariat staff are members of the Task Force.

The ASA also held the first Southern Appalachian Bsal Meeting in August. The meeting, hosted at Warren Wilson College, brought together a range of local organizations, individuals and government employees to discuss the local response to the Bsal threat. A number of actions came out of the meeting that were then fed into the National Response Strategy. Following on from this meeting, the ASA formed a new partnership with WildSouth and Warren Wilson College to increase monitoring efforts in the region and build capacity and communication on the issue. Funding has been provided to seed this project by the ASA and efforts are underway to develop a long term sustainable funding model.

As part of the Bsal effort the ASA offered a Bsal testing kits for pet salamanders and newts. The ASA ran a similar campaign in November 2014 and all samples came back negative. During this round the Alliance distributed 500 kits and results are expected early in 2016. At the same time, the ASA was also advising the pet community on how to properly bleach and dispose of wastewater, as well as the importance of not releasing pet salamanders out into the wild to minimize the chances of Bsal entering North American ecosystems via the pet trade.

As the ASA continues to work on the US-based policy response to Bsal, they are also working on a broader strategy to implement a Wildlife Health Bill. The Bsal issue in recent months has built the necessary momentum to get attention on the broader issue. Currently there is a policy gap in the US, and many other parts of the world, that means there is little or no local policy to deal with the restriction of imports on species that harbour diseases or pathogens likely to impact wildlife. Working through an extensive coalition the ASA aims to help build political support and funding for this effort over the next 12 months. In December the Alliance co-hosted a mini summit, primarily focused towards the NGO community, to discuss the Bill and garner support for moving it forward.

### ***Seed grants***

2015 saw the ASA push forward the development of a seed grant programme. These seed grants are designed to help kick start projects or allow teams to try new innovative approaches to address conservation, research and education challenges. The seed grant projects funded in 2015 were:

- The use of sniffer dogs in South Africa to more fully understand the status of the Amathole Toad and to help prioritize sites for long-term protection, management and monitoring strategies; Assessing the ecology and populations status of two endangered species of Urodela in Edough Peninsula (Annaba, Algeria), along with the identification of potential threats and causes of the potential decline of these species and to propose guidelines to stop this trend.
- A British Virgin Islands amphibian scoping project to conduct frog surveys in Key Biodiversity Areas on Jost Van Dyke Island to develop a prioritization plan for land acquisition, address knowledge gaps, and provide an impetus for momentum for future conservation and recovery work; Using ecotoxicological studies as a tool on amphibians' disease risk assessment.
- eDNA approaches to non-destructively sample and test the phytotelmata of the endemic Trinidad bromeliad (*Glomeropitcainia erectiflora*) for the elusive and endangered, endemic Golden tree frog (*Phytotriades auratus*) with a view to conducting the first systematic population assessment for almost 20 years.
- Assessing the status of amphibians on Mts. Kupe and Nlonako in the wake of declines in the highlands of Cameroon.
- Developing a method using hormones to facilitate captive breeding in Red-eyed treefrogs that could have a direct benefit in the conservation of threatened treefrog species.
- Studying populations of amphibians rebounding after *Batrachochytrium dendrobatidis* (Bd)-related declines.
- Evaluating the current condition of *Telmatobius intermedius* and other amphibians in Pampa Galeras National Reserve and also in the type locality Allipaca – Ayacucho. The goal is to assess population statuses, identify the main threats to the species and determine both the prevalence and intensity of Bd.
- The long-term conservation of the three species of Marsupial frogs found in the Yungas Andean forest of Northwestern Argentina. Of particular concern was the conservation status of Calilegua's marsupial frog (*Gastrotheca christiani*) which had been last seen in the area in 1996. Finding this frog could act as a keystone for any future conservation efforts in the area.

ASA also entered into a new partnership with the British Herpetological Society to support two seed grants in 2015. It is hoped that this partnership will continue over the coming year. The seed grant programme continues to grow and the ASA is working to secure a regular annual fund to grow the programme.

As the ASA continues to find new and innovative ways of communicating amphibian conservation issues, it has also partnered with the Disappearing Frogs Project (DFP). Through interactive art installations the DFP is working together to raise awareness of global amphibian declines, inspiring people to take personal action to protect these incredible species, while also providing a unique opportunity for artists to support amphibian conservation, education and research. This year's exhibition ran from 16 to 25 April in Rock Hill, North Carolina. The DFP went on to support three seed grant projects with the proceeds raised during the exhibition. Plans are now being finalized for at least three more exhibitions starting in February 2016 in North Carolina.

The ASA ended 2015 by providing further funds to support the continued work on probiotics as a field treatment of Bd in Madagascar. However the most immediate project funding need is for the chytrid monitoring programme. Currently there are around 2,500 chytrid swabs that were collected in Madagascar during 2014-2015 yet have not been analyzed for Bd. This is a major issue for the fight against Bd in the region and therefore the Alliance is calling for immediate support to address this gap. The chytrid monitoring programme costs approximately \$15,000 per year. This supports just the equipment and running the samples. The ASA has secured approximately \$10,000 for the 2016 season and \$4,500 for the backlog of samples. An additional \$15,000 provide now would mean that the ASA is prepared for the 2016 sampling season.

Looking forward to 2016 the two major geographical focuses will be South East Asia and Africa. In South East Asia the plight the Lao newt (*Laotriton laoensis*), discovered in 2002, will be a major focus.

The entire global distribution of this species is restricted to a small area in northern Laos. Unfortunately, shortly after the scientific description of the species was published, commercial pet collectors began buying newts alive from villagers for sale into the international pet trade in Japan and Germany, where the species commands over \$200 each. The focus of the immediate project is a pilot study on a novel approach to conserving the Lao newt in the wild. A Lao newt captive breeding operation will be established at a village within the range of the species using animals confiscated from illegal trade in Laos.

The ASA team is also working with partners in Africa to identify priority amphibian projects for the region. Already discussions have started with local partners and the IUCN regarding scaling up conservation actions in the Chimanimani region that borders Mozambique and Zimbabwe and the Alliance has just started investing in a project in Tanzania to scale up conservation actions for amphibians in and around the Udzungwa Forest region.

## Policy engagement

### Support to CITES

There have been two CITES Committee meetings this year: the 28<sup>th</sup> meeting of the Animals Committee and the 22<sup>nd</sup> meeting of Plants Committee. SSC SGs and the GSP are also currently planning for the 66<sup>th</sup> meeting of the CITES Standing Committee which takes place in January 2016 (see below). In preparation for the 17<sup>th</sup> meeting of the Conference of the Parties (CoP) to CITES, being held in Johannesburg, South Africa in September-October 2016, fundraising for the *IUCN/TRAFFIC Analyses of Proposals to Amend the CITES Appendices* began in October 2015. This will be the 11<sup>th</sup> successive CITES CoP for which IUCN and TRAFFIC will have delivered the *Analyses*. The *Analyses* project entails providing an authoritative, objective and scientific assessment of proposals to amend the CITES Appendices to assist the CITES Parties in their decision-making at the CoP.

Numerous other activities in support of CITES are being implemented on an ongoing basis by the SSC SGs, including the ongoing participation on the Monitoring the Illegal Killing of Elephants (MIKE) programme by the African Elephant SG and the Asian Elephant SG. A new agreement between the CITES Secretariat and IUCN on the management of MIKE started at the beginning of 2015.

As mentioned in our previous report, in December 2014 the South American Camelid SG (GECS), in response to a recent increase in Vicuña poaching, produced a short document entitled: "[Poaching of Vicuña and the Illegal Commercialization of its Fiber: a Persisting Problem](#)". The Vicuña is often cited correctly as an example of a conservation success story, and of the effective implementation of CITES. Not only has there been a significant increase in Vicuña numbers in recent decades based on the principles of sustainable use and trade, but local communities and indigenous people have derived livelihood benefits from the trade. The recent increase in Vicuña poaching, if unchecked, threatens to undermine the significant gains that have been made. As a result, the GECS published document (in English and Spanish), containing some key recommendations on: a) cooperation among Andean countries; b) management at the national level; and c) cooperation between exporting and importing countries. At Simon Stuart's request, in January 2015 the CITES Secretariat distributed the document to the range states and to key importing countries that use Vicuña products.

IUCN sent a delegation of nine people to attend the 28<sup>th</sup> meeting of the CITES Animals Committee in Tel Aviv on 29 August – 3 September. The delegation consisted of Richard Jenkins, Dan Challenger, Jon Paul Rodríguez, Sarah Fowler, Susan Lieberman, Tomas Waller, Daniel Natusch, Peter-Paul van Dijk, and Matthew Shirley. This ensured participation by the GSP, SSC Deputy Chair, SSC Policy Sub-Committee, and the SSC Boa and Python, Chameleon, Crocodile, Pangolin, Shark, and Tortoise and Freshwater Turtle SGs. In the lead-up to the meeting, significant technical contributions came from the following SGs that were unable to attend: Primates; Seahorses, Pipefish and Sticklebacks;

Amphibians; and Caprinae. A full report of the meeting capturing IUCN's contributions to the meeting has been produced, but specific highlights are given below:

- A recommendation to establish a new process to review captive breeding operations that may be deliberately, and illegally, sourcing wild animals;
- The retention of a number of species (e.g. a chameleon, hippopotamus, pangolins, macaques) in a process that will see further scrutiny by the Animals Committee and the removal of others, including polar bear, from the review;
- An additional focus on species of freshwater stingrays of trade concern, and a recommendation that all range states of these species add all species of concern to CITES Appendix III.
- A series of recommendations made to facilitate sustainability of the trade in sharks. These include recommendations on: non-detriment findings and conservation issues, collaboration with other relevant UN bodies, regional cooperation, collection of information on the implementation of CITES regarding sharks and shark identification and traceability.
- The Animals Committee recommended that CITES adopt the same definition of 'extinct' used by The IUCN Red List of Threatened Species;
- Guidance on making non-detriment findings for (i) snakes and (ii) tortoises and freshwater turtles were produced by SSC, under contract from the CITES Secretariat, for use by the Parties;
- SSC experts produced key technical documents for the Animals Committee, under contract from the CITES Secretariat, for the snake working group;
- A synthesis of information from the IUCN Red List of Threatened Species was produced and used to guide the Parties as to which Asian snake species may need to be included in the CITES Appendices;
- The SSC Pangolin Specialist Group, along with UNEP-WCMC, was invited to identify key pangolin Range States for additional scrutiny and review within the Review of Significant Trade process;
- IUCN was frequently called on to provide information during discussions on various species (e.g. butterflies, freshwater turtles) and thematic issues (e.g. captive breeding, traceability);
- Discrepancies between assessments made by the IUCN SSC Polar Bear Specialist Group and the Canadian Polar Bear Technical Committee was at the heart of the discussion on this species;
- The recent re-assessment of the African Lion on the IUCN Red List was frequently referred to.

The CITES Secretariat thanked the IUCN delegation for its assistance at the 28<sup>th</sup> meeting of the CITES Animals Committee.

Dan Challender also attended the 22<sup>nd</sup> Meeting of the CITES Plants Committee in Tbilisi, Georgia, on 19-23 October. Valued contributions to the meeting were received from SGs in including Global Tree, Chinese Plant and Medicinal Plant. Again, a full report capturing IUCN's contributions to the meeting has been produced (see Annex 5) but highlights include the following:

- The production, and introduction to the meeting of, technical documents on production systems regarding CITES listed species prepared by IUCN under contract from the CITES Secretariat.
- Making interventions on trade on *Nardostachys grandiflora*, on African teak (*Pericopsis elata*) and orchids.
- The retention of species (e.g. *Nardostachys grandiflora*) in a process that will see further scrutiny of trade levels and dynamics by the Plants Committee and the removal of others from the review;
- The Plants Committee recommended that CITES adopt the same definition of 'extinct' used by The IUCN Red List of Threatened Species;

SSC SGs and the GSP are also preparing for the 66<sup>th</sup> meeting of the CITES Standing Committee, which takes place in January 2016. IUCN will be sending a delegation of 19 people to provide expertise on the diverse range of species and thematic issues on the meeting agenda. The delegation will consist of Richard Jenkins, Dena Cator, Dan Challender, Jon Paul Rodriguez, Anouska Plasmeijer, Holly Dublin, Diane Skinner, Simon Hedges, Richard Emslie, Michael t'Sas-Rolfes, Amanda Vincent, Sarah Foster, Sarah Fowler, Dan Natusch, Peter Paul van Dijk, Christine Breitenmoser, Urs Breitenmoser, Richard Kock and Despina Symons. This will ensure participation by the GSP, IUCN Brussels Office, SSC Deputy Chair, SSC Policy Sub-Committee and the SSC African Elephant, African Rhino, Asian Elephant, Boa & Python, Cat, Chameleon, Pangolin, Seahorse, Pipefish and Stickleback, Shark, Sustainable Use and Livelihoods (SULi) and Wildlife Health SGs. Technical contributions to the meeting are also being prepared by the SSC Amphibian and Crocodile SGs.

### Other Activities Relating to the Use of Species

Simon Stuart continues to serve as a TRAFFIC International Trustee. He participated in the TRAFFIC International Trustees Annual General Meeting by phone on 12 March, at which the 2014 accounts were formally approved.

Simon Stuart also represents IUCN on the United for Wildlife (UfW) Governing Council. In January and February 2015, Simon took the lead in developing new UfW Decision-making Procedures in order to streamline and clarify who needs to be involved in which type of decision, and also to improve communications and participation among the member organizations. In March Naomi Doak took up her new post as Project Director at UfW. On 18 May the UfW Global Council meeting was held in Gland, Switzerland, in IUCN headquarters. HRH the Duke of Cambridge attended the meeting which reviewed progress and agreed next steps on all of UfW's major areas of work. Other SSC contributions to UfW in 2015, include the production of 500 quiz questions for a 'QuizUp' social media game on 'Wildlife in Crisis' launched by UfW in October 2015 to raise awareness of illegal trade in wildlife among new and youth audiences. The African Elephant, Asian Elephant, African Rhino, Asian Rhino, Cat and Pangolin SGs, supported by Dan Challender in the GSP, led on this work.

The SSC's collaboration with the International Trade Centre (ITC – a joint technical cooperation agency of the World Trade Organization and the United Nations) is growing. The purpose of this collaboration is to study the dynamics of particular wildlife trade systems in order to help ensure that international trade is legal, sustainably managed and contributes to human wellbeing and local livelihoods whilst also supporting conservation and benefiting the global environment. Current collaboration involves the African Rhino, Boa and Python, Crocodile, South American Camelid, and Sustainable Use and Livelihood SGs.

Led by Jean-Christophe Vié and Dan Challender in the GSP, but supported by the SSC, IUCN also sits on the Steering Committee of the Global Environment Facility (GEF) Global Partnership on Wildlife Conservation and Crime Prevention for Sustainable Development. This is a new USD90 million program, the objective of which is to promote conservation, wildlife crime prevention and sustainable development in order to reduce impacts to known threatened species from poaching and illegal trade.

## Capacity building for the IUCN Red List

### *Fungi*

There is encouraging progress with the [Global Fungus Red List Initiative](#). An initial global red listing workshop was held in Flenn, Sweden, on 13-17 April 2014. With the help of Craig Hilton Taylor, Head of the IUCN Red List Unit (RLU) in the GSP, participants completed preliminary assessments of 25 fungal species. A substantial amount of data gathering and processing remained after the workshop, and unfortunately none of the assessments were completed, processed by the five SSC fungi SG Chairs, and forwarded RLU in sufficient time for them to be included in IUCN Red List in 2014.



However, progress picked up during 2015 to meet the Initiative's goal of at least 300 fungal species assessed, reviewed and included on the Red List by the end of 2015. Although this number was not met, a significant number of fungi species are now in the process of assessment, and 29 species were added to the IUCN Red List in the third update in November 2015, bringing the total to 34. The Initiative is a crowdsourcing project, which is being carried out voluntarily. Hence, the success depends fully on voluntary contributions from the community of mycologists around the world, and on how well the five SSC fungi SGs manage to coordinate these efforts. The core of the project is the [web site](#) where all data are entered, commented upon, and further developed. Specific persons have been appointed by the fungi SGs to be assessors (and editors) of each species (i.e. have the right and responsibility to compile and formulate the text for the species). For 2015, the Global Fungus Red List Initiative has received two grants, one from Mohamed bin Zayed Species Conservation Fund and the other from the Oscar and Lili Lamm's Memorial Fund. These funds supported travel costs and lodging for two fungal red listing workshops at Ekenäs, Sweden in 2015.

## Measuring conservation success

A small group of SSC scientists have been working to develop a new methodology to measure conservation. Mike Hoffmann has led this small team that also includes David Mallon, Will Duckworth, Ana Rodrigues, Kat Holmes and Simon Stuart. The methodology has been developed looking at 235 species of ungulate to determine what would have happened to them if conservation had stopped in 1996. The results were dramatic, and showed that at least 152 of these species (that is 65 per cent of those considered) would have deteriorated seriously in the absence of ongoing conservation efforts. One of these species, the Javan Rhinoceros, would almost certainly have become extinct, and four others might have been lost in just a 12-year period. In reality the Red List Index for ungulates declined by 0.2 per cent, per year between 1996 and 2008. However, if there had been no conservation measures for ungulates after 1996, the Red List Index for these species would have declined by 21 per cent per year. In other words, conservation is making a massive difference to these species by slowing down their annual rates of decline by two orders of magnitude. To put these declines in perspective, they equate to 151 ungulate species deteriorating by one IUCN Red List category between 1996 and 2008 compared with 21 species that actually did. The paper describing this methodology and giving these results, entitled "*The Difference Conservation Makes to Extinction Risk of the World's Ungulates*" was published in *Conservation Biology* online in April. The media announcement from IUCN can be found [here](#), and is available open access [here](#).

## Securing additional funding to support the activities of the SSC

### Funding of the SSC Chairs' Office

Simon Stuart is very pleased to announce the addition of three new donors to the SSC Chair's Office during 2015. These are Wildlife Reserves Singapore (WRS), Honolulu Zoo (HZ), and Environment and Climate Change Canada (ECCC). We are particularly grateful to Sonja Luz from WRS, Baird Fleming from HZ, and Basile van Havre and Carolina Caceres for ECCC for making this possible. WRS, HZ and ECCC join the following institutions that have made funding commitments for the SSC Chair's Office during the 2013-2016 IUCN Quadrennium: Conservation International, MAVA Foundation; Environment Agency Abu Dhabi; Al Ain Zoo; Zoological Society of London; Wildlife Conservation Society; UNEP World Conservation Monitoring Centre; World Association of Zoos and Aquariums; Bristol Zoo; European Association of Zoos and Aquaria; Zoo Copenhagen; the Association of Zoos and Aquariums; Chicago Zoological Society, Chester Zoo; the Royal Zoological Society of Scotland; Zoo Leipzig; UK Department of Environment, Food and Rural Affairs; WWF; Detroit Zoological Society; New Zealand Department of Conservation; British and Irish Association of Zoos and Aquariums; and Indianapolis Zoo. We thank Russ Mittermeier, Niels Crone, Will Turner, Lynda Mansson, Paule Gros, Razan Khalifa Al Mubarak, Frédéric Launay, Ghanim Al Hajeri, Mark Craig, Ralph Armond, David Field, Jonathan Baillie, John Robinson, Liz Bennett, Jon Hutton, Tim Johnson, Gerald Dick, Bryan Carroll, Lesley Dickie, Myfanwy Griffith, Bengt Holst, Kris Vehrs, Jim

Maddy, Paul Boyle, Stuart Strahl, Mark Pilgrim, Chris West, Jörg Junhold, Jeremy Eppel, Michael Sigsworth, Dominic Whitmee, Mike Barrett, Glyn Davies, Heather Sohl, Ron Kagan, Scott Carter, Andrew Bignell, Kirsten Pullen, Mike Crowther and Rob Shumaker for their ongoing generous support to the SSC.

As a result of the recent fundraising progress in 2014 and 2015, and some savings elsewhere, and assuming that all pledges remain fulfilled, the funding shortfall for the current IUCN quadrennium has been removed. The budget for the Chair's Office in 2014 is approximately £420,000 (salaries and consultancies).

### **“Sustaining the SSC”**

Simon Stuart has continued to work on a project concept entitled “Sustaining the SSC” with the intention of developing an endowment to support the SSC Chair's Office in future (so that his successors do not have to spend so much time fundraising for core costs), and also to provide core support to SSC Specialist Groups.

### **SSC Commission Operations Fund 2015**

The SSC has been granted a Commission Operations Fund of CHF 261,000 in 2015, the same level as in 2014. This is allocated as follows: CHF 40,000 for travel of SSC Chair and staff; CHF 5,000 for travel of SSC Deputy Chair. CHF 28,000 for Chair's Office running costs (rent, communications, equipment, etc); CHF 172,000 for the Steering Committee and Sub-Committee (Invertebrates, Plant, Freshwater, Marine, Policy and species Conservation Planning) meetings in Abu Dhabi in September 2015 at the time of the SSC Leaders' Meeting; CHF 18,000 for the Red List Committee; and CHF 8,000 for the *Species* Annual Report.

### **EAD-SSC Framework Agreement**

Meanwhile, the Environment Agency Abu Dhabi (EAD) has generously renewed its framework agreement to the SSC for 2014-2016. The amount awarded is CHF 450,000 per year. In 2015 this is allocated as follows: CHF 88,600 for the CEESP-SSC Sustainable Use and Livelihoods Specialist Group; CHF 83,300 for the GSP Red List Unit; CHF 69,000 for the SSC Snake and Lizard Red List Authority; CHF 26,400 for the Invasive species Specialist Group; CHF 43,800 for the Species Conservation Planning Sub-Committee; CHF 7,300 for the abalone assessments; CHF 14,600 for the carnivorous plant assessments; CHF 14,600 for the East African plant assessments; CHF 8,800 for the Cameroonian plant assessments; CHF 14,600 for palm assessments; CHF 1,500 for priority setting for freshwater plant assessments; CHF 45,000 for project management by the GSP; and approximately CHF 2,500 still to be allocated.

The report on the 2014 activities funded by the EAD framework agreement has just been completed and can be found [here](#). It includes sections on sustainable use and livelihoods, the IUCN Red List (including on Red List training), carnivorous plants, crop wild relatives, slipper orchids, snakes and lizards, tortoises and freshwater turtles, amphibians, bumblebees, Amazing Species, species conservation planning, Asian Species Action Partnership, Key Biodiversity Areas, invasive species, climate change, and SC at the World Parks Congress. The reports on the activities from the previous EAD framework agreement (2011-2013) have been posted on the website as follows: [2011](#); [2012](#) and [2013](#).

### **“Sustaining the SSC”**

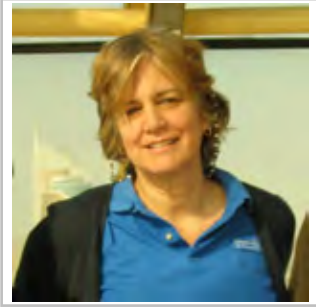
Simon Stuart has continued to work on a project concept entitled “Sustaining the SSC” with the intention of developing an endowment to support the SSC Chair's Office in future (so that his successors do not have to spend so much time fundraising for core costs), and also to provide core support to SSC Specialist Groups.

## **Conclusion**

Once again Simon Stuart wishes to thank all of the donors to his office, as well as the SSC Members and GSP staff, too numerous to mention, and in particular the excellent staff in his office: Mike Hoffmann (Senior Scientific Officer); Rachel Roberts (Network Coordinator); Kira Mileham (Director of Specialist Group Partnerships); Jennifer Luedtke (Red List Officer and Steering Committee support);

and Vera Hugues Salas (Administrative Assistant). Vera was previously a volunteer intern in the office, and replaced Diana Robertson in this role at the beginning of January. Also in January 2015, SSC Deputy Chair Jon Paul Rodríguez started working for the Chair's Office 50% time. He is focusing especially on: supporting ISSG and SULi, and engaging with SGs working on CITES-related process; assisting in transition processes for SSC SG leadership; ensuring SSC inputs to the development of the next IUCN Quadrennial Programme; and starting to develop the 2017-2020 IUCN Species Strategic Plan.

# IUCN SSC/WCEL Access and Benefit Sharing Specialist Group



Tomme Young

NAME: CHAIR / CO-CHAIRS	Tomme R. Young
NAME: RED LIST AUTHORITY CO-ORDINATOR	n/a
LOCATION / AFFILIATION	Chair's office is based in California, USA
NUMBER OF MEMBERS	42

## MISSION STATEMENT

To bring the range of perspectives on Access and Benefit Sharing to a “neutral playing field”, increasing understanding of the needs and concerns on all sides. To provide expert information and input, enabling all perspectives including conservation, research, sustainable use and social welfare, to be addressed in international efforts to resolve the global controversy relating to ABS. To improve the global community’s ability to implement ABS based on an understanding of those perspectives. To respond questions and needs relating to guiding ABS implementation, with particular attention to the impact of ABS on biodiversity-related issues of conservation, research, sustainable use and social welfare.

## SUMMARY OF MAIN ACTIVITIES 2015

The Access and Benefit Sharing Specialist Group (ABSSG) has contributed information and analyses to global processes focused on the development of the Global Multilateral Benefit-sharing Mechanism and other ongoing forums for discussion and resolution of key remaining controversies that must be clarified in order for the ABS regime to function reasonably and effectively. Other efforts have focused on attempting to find funding to respond to various requests submitted by international groups and national agencies for information, guidance and assistance. Members of the Group have participated in SSC meetings, volunteered in Commission-wide projects, and begun to develop proposals for collaboration with other Specialist Groups and other Commissions.

## IMPACT ON CONSERVATION

It is hoped that advice given to researchers and others who contacted the ABSSG seeking guidance may have enabled a better working environment in in-country research situations, and facilitated more congenial negotiations regarding bioprospecting proposals. Overall, the impact of legal and policy measures on conservation and other environmental factors is difficult to determine in such a short period since the entry into force of the Nagoya Protocol on Access and Benefit-sharing, which has still not been implemented or even legislated in most countries.

## FUTURE GOALS & ACTIVITIES

As noted above, the ABSSG has been asked to undertake a range of research and analysis projects, and to develop several types of specific guidance documents. Although SG members are keen to participate, it remains necessary to attempt to find relatively modest amounts of funding, in order to support the out-of-pocket costs of these activities, and the development of the kinds of electronic tools that might enable such efforts for minimal costs. Thus, fundraising for these activities continues to be our primary planned emphasis. In addition, with key negotiation sessions and international meetings planned for 2016, the group is moving ahead with a range of proposals for submissions to and/or side-events in those sessions.

## ACKNOWLEDGEMENTS

The ABSSG is grateful to Annie Minnis (assistant), for services in coordinating and collating submissions, and to those members who have contributed their time and efforts to the Group's activities and future plans

# IUCN SSC African Elephant Specialist Group



Holly Dublin

NAME: CHAIR / CO-CHAIRS	Dr. Holly T. Dublin
NAME: RED LIST AUTHORITY CO-ORDINATOR	Tara Daniel
LOCATION / AFFILIATION	Nairobi - Kenya/IUCN ESARO
NUMBER OF MEMBERS	54

## MISSION STATEMENT

The mission of the IUCN SSC African Elephant Specialist Group (AfESG) is to promote the long-term conservation of Africa's elephants throughout their range.

## SUMMARY OF MAIN ACTIVITIES 2015

The AfESG Chair led the 2015 fundraising efforts which resulted in new sources of funding, including successful multi-year commitments from the UK Department for Environment, Food & Rural Affairs (DEFRA) and Save the Elephants; contributions (and stated interest in future contributions) from the African Wildlife Foundation, African Elephant Fund and Safari Club International Foundation; and in-kind technical contributions from Vulcan, with whom a memorandum of understanding was signed in 2015. Under the aegis of a four year plan (2015-2018) for development, these contributions and partnerships have not only enabled the development and enhancement of the African Elephant Database (AED) through December 2016 and completion of the African Elephant Status Report 2016 but also provided a platform for continued development into 2017.

In February 2015, collaborations with the IUCN Commission Environmental, Economic Social Policy (CEESP)/SSC Sustainable Use and Livelihoods Specialist Group (SULi), culminated in the symposium "Beyond Enforcement: Communities governance, incentives and sustainable use in combating illegal wildlife trade". The meeting developed a detailed theory of change and concluded that efforts and policies that do not fully recognize the role communities can play in combating illegal trade are likely to fail. Since then we received DEFRA funding for a "one programme" approach with the IUCN Eastern and Southern Africa Regional Office, SULi and the International Institute for Environment and Development for work on the ground to better understand and engage with communities.

In March 2015, the Chair and Programme Officer attended the African Elephant Meeting convened by the Government of Botswana. The chair also attended the Second Conference of Illegal Trade in Wildlife which followed on from the London conference hosted by the UK Government in February 2014. Both these gatherings followed on from the African Elephant Summit IUCN co-convened with the Government of Botswana in December 2013. The African Elephant Meeting followed up on the progress made on the 14 Urgent Measures agreed upon at the African Elephant Summit. The Chair presented the latest data on African elephants.

In November 2015, the AfESG submitted its report on the conservation status of the African elephant, illegal killing and ivory trade at the 66th CITES Standing Committee Meeting and COP17 update prepared for delivery in January 2016; which included data from the 2013-online only update of the African Elephant Database, published in June 2015. Issue 56 of our joint journal, *Pachyderm*, was published despite major funding challenges.

## IMPACT ON CONSERVATION

Like the previous quadrennium, the past four years have continued to be a challenging time for African Elephants throughout much of their range resulting from a poaching crisis of a scale not witnessed since the 1970s and 1980s. This is not a time to try and lay claims to positive conservation impacts.

Despite the unprecedented growth in NGO activity and some of the largest funding ever being committed by many donors to "boots on the ground", there has been no "silver bullet" for elephants. Many of our Members serve on the front-line of these efforts in the field and while some have declared winning a few battles in various places since 2008, none feel they have won the war; the wave has continued in others and may be building in some previously secure populations.

The soon-to-be-released African Elephant Status Report 2016 will document these losses in some important range States, in part thanks to the generous contribution of Vulcan LLC and its benefactor, Mr Paul Allen, to the Great Elephant Census (of major savannah elephant populations across the continent) conducted over the past few years. The AfESG has greatly valued the productive partnership and we look forward to continuing this as the forest surveys are now being undertaken and should be completed in the years to come.

Though significant and possibly unprecedented funds continue to move to the range States (often through NGOs), it has been a particularly challenging period for the AfESG. It was not until we were able to underscore the importance of monitoring the status of Africa's elephants to understanding the outcomes and impacts of large flow of donor funding.

Africa's rapid development trajectory, growing human populations and increasing climate change impacts are leading to unprecedented land use change and resulting habitat losses for the species. These changes palpably borne out by growing reports of human-elephant conflict, in some places irreconcilable, across the majority of the range States.

## FUTURE GOALS & ACTIVITIES

**Data and Analyses:** We intend to launch the African Elephant Status Report 2016 at the WCC and the CITES COP17 in South Africa in late September. Following this we will be moving into a second phase of development on the African Elephant Database and continuing to pursue our discussions with the Antelope and Cat Specialist Groups about the possible development of a Multi-Species Database. We are hoping to do a geospatial forecasting analysis of current range that is destined for rising human-elephant conflict and other range that has a higher probability of coexistence.

**National Elephant Action Planning:** We are slated to be helping out on an entire new round of national and subregional strategy and planning exercises designed to deliver on the African Elephant Action Plan - a plan that represents a consensus among all 37 range States of the African elephant.

**African elephant genetics:** Increasingly geneticists agree that there are two species of African elephants, so we are looking to source funds to improve our understanding of the true distribution of forest, savannah and hybrid populations.

## ACKNOWLEDGEMENTS

The AfESG wishes to express its sincere gratitude to the following donors for their support: African Elephant Fund, African Wildlife Foundation, CITES MIKE, the International Elephant Foundation, Safari Club International Foundation, Save the Elephants, USFWS-African Elephant Conservation Fund, UK-DEFRA, Vulcan LLC and WWF International and to recognise the efforts of our members and many dedicated staff in range State governments, donor agencies and NGOs across Africa working to ensure a future for the African elephant.



African elephant (*Loxodonta africana*), Vulnerable. © Esther Birchmeier

# IUCN SSC African Rhino Specialist Group



Dr Mike Knight (Chair)

NAME: CHAIR / CO-CHAIRS	Dr Michael Knight
NAME: RED LIST AUTHORITY CO-ORDINATOR	Dr Richard Emslie (Scientific Officer & RLA Coordinator)
LOCATION / AFFILIATION	South African National Parks
NUMBER OF MEMBERS	49

## MISSION STATEMENT

To promote the development and long-term maintenance of viable populations of the various sub-species of African rhinos in the wild.

## SUMMARY OF MAIN ACTIVITIES 2015

The African Rhino Specialist Group (AfRSG) carried out the following activities in 2015:

- 1) The African Rhino Specialist Group (AfRSG) Chair and Scientific Officer (SO) facilitated another two Range States meetings that developed the first African Range States African Rhino Plan. The Chair and SO also drafted a plan following the meeting which is currently with Range States for review and approval.
- 2) Facilitated development of a revised Zambian National Rhino Plan (a draft plan has been produced).
- 3) Co-facilitated the development of the first Ugandan National Rhino Plan (a draft plan has been produced).
- 4) The South African White Rhino Biodiversity Management Plan has been officially approved and gazetted by the South African Minister of Environment.
- 5) Contributed data and comments on a major EU African conservation document and attended a meeting to discuss the document.
- 6) Worked on funding and planning for the February 2016 AfRSG meeting to be held in Kruger National Park, South Africa.
- 7) The SO communicated intersessionally with the Chair of the CITES Rhino Working Group in the run up to SC66 (helping to produce a report with recommendations for CITES Standing Committee 66).
- 8) The 3rd IUCN SSC Leaders' Meeting attended by the AfRSG Chair, Vice-Chair and SO/Red List Authority Coordinator. A meeting was held with IUCN Red Listing experts to discuss AfRSG proposed methods for the revision of the Red List assessment of the African rhino both continentally and regionally.
- 9) Participated in SADC Rhino & Elephant Security Group/Interpol Environmental Crime Working Group meeting in Swaziland to deliver a number of invited presentations.
- 10) Carried out an independent assessment of the demographic performance of South Africa's largest semi-wild captive-bred white rhino population.
- 11) Participated as part of the advisory board for the RhODIS rhino DNA project and lab.
- 12) Provided information on request to the Slovakian CITES management authority.
- 13) Provided information for a Rhino Impact Investment project being undertaken under the United for Wildlife banner at ZSL, in London. A number of members attended a project advisory board meeting and a technical committee meeting.
- 14) Comments provided on project proposals, as requested, including for Save Our Species (SOS).
- 15) A number of media interviews given including an op-ed piece published by CNN on their website regarding hunting.
- 16) Members assisted with the tenth survey of white rhino on private land in South Africa.



## IMPACT ON CONSERVATION

- 1) The AfRSG continues to enhance rhino conservation through the development of rhino conservation plans, strategies and policies, including facilitating the development and drafting of the first Continental African Rhino Range States Plan and national plans in South Africa, Zambia and Uganda.
- 2) The AfRSG seeks to provide the CITES Secretariat and CITES Parties with the best information and recommendations to assist Parties make informed and balanced decisions. In 2015, through intersessional contributions to the CITES Rhino Working Group, the AfRSG has helped contribute to the development of recommendations for SC66.
- 3) Through the development of plans and provision of other guidelines (e.g., on rhino reintroductions) and training materials (on rhino monitoring), the AfRSG has recommended best practice and capacity building to Range States and their rhino programs.
- 4) The AfRSG continues to facilitate rhino conservation mechanisms through liaison with conservation agencies and through planning and organising the second meeting of the East African Community Rhino Management Group (for January 2016).
- 5) Through multiple media interviews and presentations, the AfRSG has facilitated the spread of information on rhino-related issues amongst Range States and civil society through enhanced communication and awareness activities.
- 6) By commenting on project proposals, the AfRSG has been able to assist donors in making informed and strategic decisions on project applications.
- 7) The AfRSG seeks to assist in minimizing illegal rhino-related activities, by enhancing prosecution of rhino crimes, assisting through its participation in the new RhODIS advisory board and through collation of information on live sales and economic consequences of increased poaching.

## FUTURE GOALS & ACTIVITIES

- 1) To hold the AfRSG meeting in February 2016.
- 2) To assist with the compilation of documents on rhinos for CITES CoP17 and also participate as part of the IUCN delegation at CoP17.
- 3) To continue to participate in SADC Rhino & Elephant Security Group/Interpol Environmental Crime Working Group meetings.
- 4) To continue to assist Range States (on request) with revision and development of plans.
- 5) Complete the revision of IUCN Red List assessments for African Rhino both continentally and regionally (for Swaziland, South Africa and Lesotho).
- 6) To continue to collate and disseminate information on rhinos to conservation agencies and the media.

## ACKNOWLEDGEMENTS

The AfRSG wishes to thank the U.S. Fish and Wildlife Service's Rhino and Tiger Conservation Fund (SFWS RTCF), WWF's African Rhino Programme, Save the Rhino International (SRI), International Rhino Foundation, Peace Parks Foundation, African Wildlife Foundation and UK DEFRA for their contributions to funding meetings and / or partial support for the role of AfRSG Scientific Officer. SANParks, Endangered Wildlife Trust, Save the Elephants and Ecoscot CS are also thanked for their in-kind support.



The Critically Endangered Black Rhinoceros (*Diceros bicornis*) © Richard Emslie

# IUCN SSC Afrotheria Specialist Group



Galen B. Rathbun



PJ Stephenson

NAME: CHAIR / CO-CHAIRS	Galen B. Rathbun and PJ Stephenson
NAME: RED LIST AUTHORITY CO-ORDINATOR	Andrew Taylor
LOCATION / AFFILIATION	GBR: California Academy of Sciences, San Francisco, USA. PJS: WWF International, Gland, Switzerland (until 31 July 2016)
NUMBER OF MEMBERS	36

## MISSION STATEMENT

The IUCN SSC Afrotheria Specialist Group facilitates the conservation of hyraxes, the aardvark, elephant-shrews or sengis, golden-moles, tenrecs, and their habitats by 1) providing sound scientific advice and guidance to conservationists, governments, and other interested groups; 2) raising public awareness; and 3) developing research and conservation programmes.

## SUMMARY OF MAIN ACTIVITIES 2015

In 2015:

- 1) The focus of our scientific work was on finalizing Red List re-assessments for all of our 80 focal species. We also continued to provide expert advice to a number of stakeholders. For example, we provided information on the endangered golden-rumped sengi to highlight the threat from hydrocarbon exploitation to this endangered endemic and its habitat in Arabuko-Sokoke Forest, Kenya.
- 2) The main thrust of our awareness-raising work continues to be the production of a yearly newsletter and maintaining our web site ([www.afrotheria.net](http://www.afrotheria.net)).
- 3) Building on the Red List assessments, conservation plans have been drafted for taxa such as tenrecs and priority conservation and research projects have been identified and posted online for all 5 taxa, in readiness for approaching potential donors (see the latest newsletter for details).

## IMPACT ON CONSERVATION

Based on the large number of visitors to our web site [www.sengis.net](http://www.sengis.net) we are fulfilling our objective of educating people on the smaller afrotherians (see 2016 issue of our newsletter "Afrotherian Conservation" for a summary of web site use).

The Red List assessments we conducted are being used as a spring board to identify and develop conservation projects for some of our most threatened taxa.

## FUTURE GOALS & ACTIVITIES

We will continue to monitor threats to various afrotherian habitats, especially those of tenrecs in Madagascar, forested areas in central and eastern Africa that support giant sengis, and some areas in southern Africa that include golden moles with restricted distributions. We will continue with taxonomic assessments of all afrotheres, but especially hyraxes, tenrecs and the aardvark, which may include more than the currently recognised species. From 2016 we will fund-raise for priority conservation and research projects.

## ACKNOWLEDGEMENTS

We thank Avian Design of New Mexico, USA, for the discounted fees associated with web site services.



An Aquatic Tenrec. This afrothere species is considered Vulnerable primarily because its freshwater habitats in Madagascar are becoming silted up due to extensive deforestation. © PJ Stephenson.



Recently described new species, the 25g Etendeka Round-eared Sengi of north-western Namibia. Photo G Rathbun (c) California Academy of Sciences.

# IUCN SSC Amphibian Specialist Group



Phil Bishop



Ariadne Angulo

NAME: CHAIR / CO-CHAIRS	1) Phil Bishop and 2) Ariadne Angulo
NAME: RED LIST AUTHORITY CO-ORDINATOR	Jennifer Luedtke
LOCATION / AFFILIATION	1) University of Otago, New Zealand and 2) ASG, Canada
NUMBER OF MEMBERS	526

## MISSION STATEMENT

The Amphibian Specialist Group (ASG) provides the scientific foundation to inform effective amphibian conservation action around the world.

## SUMMARY OF MAIN ACTIVITIES 2015

Updated the 2007 Amphibian Conservation Action Plan (ACAP), now available on [amphibians.org](http://amphibians.org); Coordination of ACAP's 12 thematic working groups; Involvement in various amphibian trade-related activities, including providing input into consultation processes for IUCN, addressing CITES Scientific Authority (Slovakia) requests, development of information documents for CITES Animals Committee and input into CITES Review of Significant Trade and CITES Standing Committee, and participation in an amphibian trade workshop (12-13 March 2015, Washington DC, USA); Submission of proposals for two amphibian conservation symposia at the World Congress of Herpetology (15-21 August 2016, Hangzhou, China): 1) on ACAP, and 2) an Asia-focused workshop, and for one workshop at the World Conservation Congress (1-10 September 2016, Hawaii, USA); Attendance at the SSC Leaders meeting (14-18 September, Abu Dhabi, UAE); Development and publication of ASG 2015-2016 strategic plan on [amphibians.org](http://amphibians.org); Consultation of ASG regional chairs to assess willingness to stay on under new ASG proactive approach and appointment of new regional chairs for Brazil, Canada, Venezuela and West Asia; Preparation of various letters of support for ASG members and external parties; Instigation, preparation and review of content for FrogLog editions 113-116; Coordination and input into the Key Biodiversity Areas (KBAs) Standard Consultation process; Joint development of amphibian re-introduction guidelines with the Re-introduction Specialist Group (RSG); Organization of and participation in a Red Listing workshop for the amphibians of Chile (led by ASG Chile, 9-10 July 2015, Santiago, Chile); Facilitation of Brazilian amphibian conservation symposium (led by ASG Brazil, 7-11 September 2015, Gramado, Brazil); With ASG Peru, ASG Bolivia and UICN-SUR, working to include *Telmatobius culeus* in a Global Environment Facility proposal on bi-national governance of Lake Titicaca; Coordination to stop the spread of the invasive Asian toad in Madagascar (led by ASG Madagascar); Field work to locate two Critically Endangered amphibians in central Peru (led by ASG Peru); Amphibian Red List Authority Activities: published 49 first-time and 165 reassessments on the Red List; assessment workshops for Malagasy species (at Zoologische Staatssammlung, Munich, Germany; 23-27 November) and East African species (at Natural History Museum, London, UK; various dates).

## IMPACT ON CONSERVATION

ASG facilitated the support of a joint ASG-ASA (Amphibian Survival Alliance) amphibian conservation course in Venezuela, enabling the building of capacity on amphibian research and conservation in this country (15-22 October 2015, Ecological Reserve La Guáquira, Venezuela).

Thanks to a partnership between ASG and Yanachaga-Chemillén National Park in central Peru, two Critically Endangered amphibians, *Ameerega planipaleae* and *Atelopus cf. reticulatus*, have been officially included in the national parks master plan.

In updating ACAP recently and on a more regular basis, we hope that it becomes the world's global road map for amphibian conservation, providing clear targets and priorities in which all of the amphibian conservation community (and beyond) can get involved.

Depending on how CITES CoP17 goes, it may be that some of the amphibian proposals highlighted as priorities in 2015 and developed and submitted in 2016 are accepted, hopefully having an immediate impact on the trade of the species involved.

ASG's programs were designed with the intent of increasing capacity, support and collaboration within the specialist group, which not only increases efficiencies, but also our collective ability for positive impact on amphibian conservation.

## FUTURE GOALS & ACTIVITIES

The ASG's goal is to increase its impact on amphibian conservation. Two prongs will achieve this: 1) becoming a proactive specialist group in which all of its members are engaged, involved and contributing to ASG and global amphibian research and conservation, and 2) increased collaborations and alliances with similarly minded parties. On 1), we are re-structuring the group to ensure that every ASG member is aware of the new approach and that every member is involved in an ASG activity, be it through one of its programs (Mentorship or Youth), an Amphibian Conservation Action Plan (ACAP) working group, through a regional branch of the ASG, or through the Amphibian Red List Authority (RLA). On 2), we are exploring improved collaborations with other amphibian or biodiversity-focused groups.

Among priority future activities we include re-structuring some ACAP working groups, the continued update and refinement of ACAP, establishing new regional chairs in key regions, and completing the ten-year update of the Global Amphibian Assessment with assessments for all known amphibians published on the IUCN Red List of Threatened Species.

## ACKNOWLEDGEMENTS

SSC, Amphibian Survival Alliance (USA), Australian Museum Foundation (Australia), Chengdu Institute of Biology (China), CONABIO (Comisión nacional para el conocimiento y uso de la biodiversidad; Mexico), Detroit Zoological Society (USA), Environment Agency - Abu Dhabi (UAE), Global Wildlife Conservation (USA), Honolulu Zoo (USA), iNaturalist (USA), Mohamed bin Zayed Species Conservation Fund (UAE), Texas A&M University (USA), Trento Museum of Science (Italy).



The Critically Endangered *Ameerega planipaleae* © Ariadne Angulo

# IUCN SSC Anguillid Eel Specialist Group



Matthew Gollock

NAME: CHAIR / CO-CHAIRS	Matthew Gollock
NAME: RED LIST AUTHORITY CO-ORDINATOR	David Jacoby
LOCATION / AFFILIATION	Zoological Society of London
NUMBER OF MEMBERS	9

## MISSION STATEMENT

For over 30 years there has been growing concern that all 16 species of freshwater eels (Family Anguillidae) have suffered declining numbers. The IUCN SSC Anguillid Eel Specialist Group (AESG) brings together conservationists, academics, business interests and governments, and advocates science-led conservation of these species.

The AESG serves as an expert body for anguillid species, broadly guided by the following objectives: 1. Identify knowledge gaps, stimulate and promote scientific research; 2. Advocate conservation through monitoring and threat mitigation; and 3. Act as a forum for communication and knowledge transfer between stakeholders.

## SUMMARY OF MAIN ACTIVITIES 2015

The major change for the AESG was its maturation from a Sub-Group to a stand-alone Specialist Group - this is testament to the work of the members and the challenges the species face.

The AESG's primary output was the paper 'Synergistic patterns of threat and the challenges facing global anguillid eel conservation' summarizing the assessment of 13 of the 16 anguillid species using the Red List Categories and Criteria. It highlighted the dearth of knowledge for these species and the challenges in applying the Categories and Criteria to species with as complex a life history as anguillids (<http://www.sciencedirect.com/science/article/pii/S2351989415000827>).

Two key workshops relating to eel management and conservation were organised and/or attended by AESG members in 2015. In March, the International Council for the Exploration of the Sea (ICES) hosted a workshop to develop a response to a European Commission CITES Scientific Review Group (SRG) request for advice on the conditions under which a request for a "Non-Detriment Finding" (NDF) for European eel might be considered. This workshop was chaired by AESG member Alan Walker, and both Matthew Gollock and Vicki Crook were invited experts who provided input to the report (<http://www.sciencedirect.com/science/article/pii/S2351989415000827>). The advice was presented at an SRG meeting by Alan Walker and this was accepted to support continuation of zero exports from the EU. In October, Matthew Gollock and Alan Walker, with financial support from the Sargasso Sea Commission, attended a CMS-linked workshop in Maine, USA entitled 'American Eel: Future Directions for Science, Law and Policy'. Both gave keynote talks on European Eel management and global anguillid assessments, respectively, and took part in a panel discussion on eel stock assessment and management.

East Asia is the trade hub for anguillid eels and in 2015 the AESG made in-roads to better understanding the dynamics of exploitation and import/export of these species. Vicki Crook and Hiromi Shiraishi produced a report relating to this (<http://www.traffic.org/home/2015/7/13/traffic-report-tries-to-pin-down-slippery-eel-trade.html>) and were key in enhancing collaboration between the EU and East Asian CITES enforcement/management authorities to combat illegal trade in European Eel. Kenzo Kaifu established a working group of Japanese Eel stakeholders focusing on the conservation and management of the species. With the financial support of Synchronicity Earth, the group hired a part-time coordinator (starting January 2016) with a view to developing a species action plan for the Japanese Eel as well as holding a workshop to gather data for the next global Red List assessment. ZSL continued its project 'Eels – a flagship species for freshwater conservation in the Philippines', which aims to improve conservation of anguillid eels and their associated habitat in the largest river valley in the country, in addition to understanding and strengthening the chain of custody of the eel trade.

## IMPACT ON CONSERVATION

In general, the establishment of the AESG, and its Sub-Group predecessor, has done a great deal to raise the profile of anguillid conservation amongst stakeholders across the globe, stimulating discussion, fundraising and conservation action. This is supported by activities such as the production of the paper mentioned above, and also engaging with key global treaties such as CITES (see below) and CMS which have the potential to have significant conservation impact.

A great deal of the work carried out by the AESG directly addresses the threats affecting anguillids. As previously stated, exploitation and trade, particularly to East Asia, is considered to be having an impact on a number of eel species. In the past ten years, this has increased in relation to tropical species such as *Anguilla bicolor*, of which we know significantly less compared to the traditionally traded species, such as the Japanese Eel (*A. japonica*) or European Eel (*A. anguilla*). The work of AESG members with CITES, and on specific projects, such as that in the Philippines, aims to work with stakeholders to inform policy and management relating to exploitation and trade with new science. The presence of TRAFFIC in the AESG membership is a huge benefit to this engagement and has catalysed activity in key nations.

In the case of the Philippines, the work has hugely increased our understanding of the eel fisheries and freshwater habitat in the region, and steps are being taken at present to strengthen permitting in country to decrease the amount of illegal trade that is presently occurring. More broadly, the surveys that are being carried out are allowing recommendations for management and conservation to be developed, including the establishment of freshwater sanctuaries and development of a national eel management plan. This project also links into the CITES engagement which ensures that the work has impact outside of the Philippines and can inform inputs to the CoP in 2016.

The establishment of the JEF in Japan has consolidated anguillid stakeholders resulting an increased focus on the threats to the species. Again, trade and consumption are particularly of interest in this country and consumer engagement will be a key element of the work that is carried out by the JEF. More broadly, the development of a species conservation plan has been initiated which will include recommendations relating to strengthening the conservation of the Japanese Eel.

The AESG is also engaging with research initiatives with anguillid conservation at their core, e.g. a PhD focussing on the impact of hydropower plants – a recognised threat to eels, as well as many other freshwater species – on anguillids in Tahiti, supervised by Pierre Sasal, and a short MSc project that aimed to develop an index relating to the impacts on the European Eel in freshwater that could ultimately be used by range states to prioritise conservation actions in their rivers.

## FUTURE GOALS & ACTIVITIES

- . Engage in the CITES CoP on Anguillid eel related matters
- . Co-organise and participate in the first CMS European eel range state meeting to develop an instrument for trans-boundary collaboration.
- . Continue to develop stakeholder engagement activities in Japan.
- . Develop a motion relating to anguillids for submission to the WCC.
- . Develop a project in Costa Rica to help fill American eel range state knowledge gap.

## ACKNOWLEDGEMENTS

Enormous thanks to the SSC and the FFSG for their support, especially Rachel Hoffmann and Ian Harrison, respectively.

Thanks also to the Sargasso Sea Commission, Synchronicity Earth, UK Environment Agency and the Darwin Initiative.



The Critically Endangered European Eel (*Anguilla anguilla*) © David Curnick ZSL

# IUCN SSC Anoline Lizard Specialist Group



María del Rosario Castañeda and D. Luke Mahler

NAME: CHAIR / CO-CHAIRS	D. Luke Mahler, María del Rosario Castañeda
NAME: RED LIST AUTHORITY CO-ORDINATOR	Gregory Mayer
LOCATION / AFFILIATION	We are based at U. of Toronto (Canada), U. del Valle (Colombia), and U. of Wisconsin Parkside (USA), and our members work throughout the New World tropics.
NUMBER OF MEMBERS	57

## MISSION STATEMENT

The mission of the Anoline Lizard Specialist Group (ALSG) is to assess and monitor the conservation status of all species of anole lizards, to identify factors that place anoles at risk of extinction, and to develop effective strategies to ensure the long-term maintenance of healthy populations of these species in the wild.

## SUMMARY OF MAIN ACTIVITIES 2015

In 2015, ALSG activities have focused on generation of Red List accounts for species of anoline lizards that do not yet have published assessments. A significant fraction of the group's activities in 2015 were devoted to reviewing and revising draft IUCN Red List assessments from Central and South America, in preparation for final Red List submission. In addition, ALSG members have generated draft Red List assessments for all Caribbean anole species exclusive of Cuba (98 species in total). This effort was greatly aided by a NatureServe-led Caribbean reptile assessment workshop held in San Juan, Puerto Rico in July, 2015 that brought together experts in anole taxonomy and conservation from across the Caribbean region. These accounts are currently being augmented by contributors not present at the workshop, and will soon undergo review, followed by submission to the Red List. Our findings to date suggest that greater than one quarter of Caribbean anole species are at risk (28% are Vulnerable, Endangered, or Critically Endangered), and that habitat loss is the greatest threat to anoles in this region. Finally, during the past year the ALSG welcomed new members Graham Reynolds (University of North Carolina Asheville), Jenny Daltry (Fauna & Flora International), and James Lewis (Rainforest Trust). These members bring experience in applied tropical conservation, and will help the group expand its applied conservation activities as species assessment work moves closer to completion.



## IMPACT ON CONSERVATION

The ALSG seeks to impact conservation both by objectively identifying threats to anoline lizards (e.g., through Red List assessment), and by providing guidance on conservation action for those species that are threatened. Work to date on Red List assessments contributes a substantial body of knowledge for a group that historically has received very little conservation attention. Our assessment work is thus vital for the conservation of species and habitats that otherwise might be overlooked. Also, our group has worked to make an impact on specific conservation issues affecting anoline lizard species. For example, in 2013, the ALSG worked with IUCN and SSC leadership to engage the Ministro del Medio Ambiente y Recursos Naturales in the Dominican Republic about officially sanctioned destruction of habitat within the Loma Charco Azul Biological Reserve, a recently established reserve which contains the only known population of a remarkable new species of giant Anolis lizard. The ministry was responsive to this interaction and took steps to cease development activities within this important reserve.

## FUTURE GOALS & ACTIVITIES

ALSG activities in the near future will focus on revision and final IUCN Red List publication of draft Red List assessments for anoles from Central and South America, as well as from most of the Caribbean. During the next year the ALSG will also work to generate draft assessments for the anoles of Cuba (which were not assessed as part of the 2015 Caribbean workshop), and will begin the process of revising published assessments for a large number of Central American anole species that have undergone recent taxonomic revision. Concurrently, the ALSG will seek to increase its involvement in neotropical conservation activities, such that the knowledge generated during the assessment process can be employed to improve the conservation prospects of the most threatened species in this group.

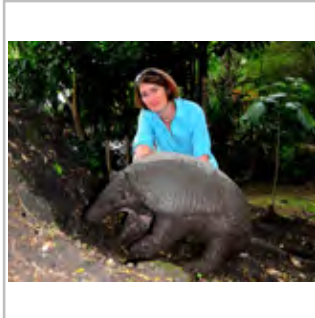
## ACKNOWLEDGEMENTS

The ALSG is grateful to the University of Toronto, Universidad del Valle, and NatureServe for their generous in-kind support.



Anolis koopmani © D. Luke Mahler

# IUCN SSC Anteater, Sloth and Armadillo Specialist Group



Mariella Superina

NAME: CHAIR / CO-CHAIRS	Mariella Superina
NAME: RED LIST AUTHORITY CO-ORDINATOR	Agustín M. Abba
LOCATION / AFFILIATION	IMBECU, CCT CONICET Mendoza, Mendoza, Argentina
NUMBER OF MEMBERS	21

## MISSION STATEMENT

To promote the long-term conservation of the 30 extant species of xenarthrans (anteaters, sloths and armadillos) and their habitats.

## SUMMARY OF MAIN ACTIVITIES 2015

We have been very active in 2015. The group worked along 5 main lines of action:

- 1) Protect our priority species. We focused on the Critically Endangered Pygmy Sloth (*Bradypus pygmaeus*) and the Vulnerable Brazilian Three-Banded Armadillo (*Tolypeutes tricinctus*) and their habitats. By participating in the Panamanian volunteer committee for the protection of the Pygmy Sloth, we have provided assistance to the Ministry of Environment of Panama and other stakeholders. Our members Diorene Smith and Bryson Voirin are performing research to collect key information to save this charismatic species from extinction. They have also held workshops to raise awareness for pygmy sloths among indigenous communities. In addition, we have teamed up with Associação Caatinga in the conservation program for *T.tricinctus* and its habitat in northeastern Brazil, where we are represented by Flávia Miranda.
- 2) Disseminate information about xenarthrans and their conservation. In December we published another issue of our Newsletter *Edentata*, which provides a forum to disseminate conservation-relevant data on xenarthrans. Thanks to our RLA Agustín Abba's immense work, *Edentata* is now classified as Journal of Superior Level of Excellence in Latindex. Our members Roberto Aguilar and Jim Loughry have been added to the editorial team, which will help us further improve *Edentata*'s quality. We also published a Special Feature in the Journal of Mammalogy, with contributions from several members of our SG, to promote the conservation and research on xenarthrans. Among others, it included a study performed by SG members confirming that *Chaetophractus nationi* is a synonym of *C. vellerosus*, reducing the number of extant xenarthrans from 31 to 30. Parallel to this, we have continued raising public awareness for xenarthrans and the challenges presented to their conservation through our Facebook page and our website [www.xenarthrans.org](http://www.xenarthrans.org).
- 3) Provide scientific and technical advice to researchers, students, governments, journalists, and other interested groups. Support for this important activity was sustained throughout 2015.
- 4) Intensify our collaborations with ex situ conservation experts. We participated in the annual meeting of the Latin American Association of Zoos and Aquaria (ALPZA). Our Chair delivered a plenary talk on the collaborations between our SG and the ex situ community. We have distributed posters among zoos to reduce the use of Tamanduas as pet species, which is an increasing cause of concern. This has also been reflected in an analysis done by one of our members, John Gramieri, for WAZA News.
- 5) Assist our fellow SGs and authorities with regional and international Red List assessments. We have helped other SGs as facilitators and gave talks on the assessment process at the national workshop on red listing Argentinean mammals. Finally, we are delighted that Nádia Moraes-Barros has accepted to serve as our new Deputy Chair!

## IMPACT ON CONSERVATION

The lack of knowledge regarding xenarthrans is a significant problem that hinders realistic assessments of their conservation status and the development of effective conservation plans. As a consequence, in the past years we have invested a great deal of energy in locating key players in range countries. We now have a highly motivated team of experts who work together to advance the research and conservation of xenarthrans. This network has a direct impact on the effectiveness of our activities. Training courses and talks have proven to be key to raise interest in xenarthrans and motivate students and young professionals to work with these amazing creatures. This will ensure that the conservation-relevant knowledge as well as conservation activities will be sustained in the future. Similarly, our Newsletter Edentata includes, among others, national status reviews, descriptions of conservation priorities for xenarthrans and other conservation-relevant information.

In the case of the Pygmy Sloth, the work of our SG – and especially of our two experts on this species – has laid the foundation for creating a scientific and technical committee to support the protected landscape Isla Escudo de Veraguas – Degó. At present this is a volunteer committee, but is in the process of being legally constituted by the Ministry of Environment of Panama. This committee includes one member of our SG, which allows us to directly provide advice to the authorities and participate in decision-making regarding the conservation of this species and its habitat. In parallel, the sustained education work and collaboration with local and national authorities of one of our experts has allowed raising awareness among the indigenous communities for the conservation of pygmy sloths, which is key to the long-term survival of this species.

## FUTURE GOALS & ACTIVITIES

Some of our future goals and activities are:

- Organize a workshop in Panama to develop an action plan for Pygmy Sloths
- Set up partnerships with a host institution and with companies of the private sector
- Develop and carry out joint projects with the ex situ community that will benefit both the wild xenarthra populations and those under human care
- Offer training courses for students and professionals in range countries
- Collaborate with national authorities to re-assess the conservation status of their xenarthrans, determine conservation priorities, and develop conservation strategies
- Re-establish the Xenarthra Conservation Fund to build research capacity and mobilize priority conservation action.

## ACKNOWLEDGEMENTS

We wish to thank the Pangolin, Aardvark and Xenarthra Taxon Advisory Group and Austin Zoo for their generous financial support; Jennifer Stoddard, the Education Advisor of the Southern Tamandua SSP, for designing a poster that addresses the serious issue of Tamanduas in the pet trade; and Reid Park Zoo for covering the costs of printing the posters.



Brown-throated three-toed sloth (*Bradypus variegatus*) © Fernando Trujillo

# IUCN SSC Antelope Specialist Group



Philippe Chardonnet



David Mallon

NAME: CHAIR / CO-CHAIRS	Philippe Chardonnet and David Mallon
NAME: RED LIST AUTHORITY CO-ORDINATOR	David Mallon
LOCATION / AFFILIATION	Based in Paris, France and Manchester, UK; and affiliated with Marwell Wildlife, UK, where the ASG Programme Office is located. The Gnusletter editorial office is at White Oak Conservation, USA.
NUMBER OF MEMBERS	78

## MISSION STATEMENT

The mission of the Antelope Specialist Group (ASG) is to conserve the world's antelope diversity.

## SUMMARY OF MAIN ACTIVITIES 2015

- Complete IUCN Red List re-assessments for species within ASG remit;
- Produced one issue of Gnusletter: Volume 32 # 2, September 2015 and a Special Issue Gnusletter N°1, African Buffalo, September 2015;
- Release of the IUCN SSC ASG position statement on the intentional genetic manipulation of antelopes (April 2015)];
- Collaborate with Dept of Environment, Iran, on a conservation road mapping workshop for gazelles and other ungulates (September 2015);
- Collaborate with IUCN Mediterranean Regional Office on a Cuvier's Gazelle strategy workshop for (October 2015);
- Presentation of IUCN Antelope Specialist Group Conservation Priorities at the EAZA Antelope and Giraffe TAG;
- Presentation of 'Extreme situations - extreme measures' at the Sahelo-Saharan Interest Group Meeting;
- Review of published literature on duiker distributions, populations and bushmeat;
- Liaise with CITES on key species (saiga and Tibetan antelope);
- Liaise with CMS (Central Asian Mammals Initiative; support inclusion of Eudorcas rufifrons on Appendix 1);
- Lead on revising the CMS 'Sahelo-Saharan Antelopes - Status and Perspectives';
- Support grant applications for threatened antelopes (hirola, giant sable, dama gazelle, mountain bongo, etc);
- Respond to multiple enquiries concerning antelope status and conservation.

## IMPACT ON CONSERVATION

## FUTURE GOALS & ACTIVITIES

1. Produce 2 issues of Gnusletter in 2016
2. Advise on and support the proposed motion (n°16) on genetic manipulation at WCC in Hawai'i
3. Co-sponsor workshop on genetic manipulation in Namibia (August 2016) with Ministry of Environment and Tourism and Conservation Genetics SG
4. Co-sponsor international conference on antelopes, giraffes and hippos (Prague, February 2017) with Czech University of Life Sciences, Giraffe and Hippo SGs
5. Develop species planning guidelines for antelopes and establish an ASG planning unit
6. Support efforts to conserve all key antelope taxa

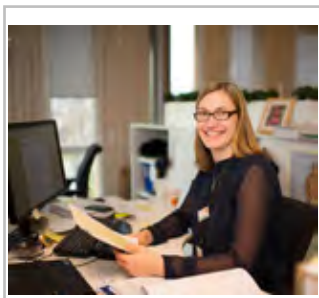
## ACKNOWLEDGEMENTS

We extend our gratitude to Marwell Wildlife for providing financial and technical support, including hosting the ASG Programme Office, to IGF, and to White Oak Conservation for supporting production of Gnusletter.



Beira (*Dorcatragus megalotis*) classified as Vulnerable © AWWP-Catrin Hammer

# IUCN SSC Arctic Plant Specialist Group



Kristine B. Westergaard

NAME: CHAIR / CO-CHAIRS	Kristine Bakke Westergaard
NAME: RED LIST AUTHORITY CO-ORDINATOR	Mora Aronsson
LOCATION / AFFILIATION	Arctic Council biodiversity working group Conservation of Arctic Flora and Fauna (CAFF)
NUMBER OF MEMBERS	13

## MISSION STATEMENT

The Arctic Plant SG is comprised of members from eight Arctic States, and functions in a dual role as both IUCN SSC SG and Conservation of Arctic Flora and Fauna (CAFF) Flora Group (CFG), an intergovernmental botanical working group under the Arctic Council. We focus on botanical issues dealing with species and ecosystems in circumpolar Arctic and boreal regions.

## SUMMARY OF MAIN ACTIVITIES 2015

### Red List of Arctic vascular plants

There are several regional and national Red Lists including Arctic vascular plants, but no common international IUCN list for the region. We are developing a Red List of Arctic vascular plants, and have reviewed all 2218 species in the Panarctic Flora Checklist. 126 very rare species, declining species and species at threat are shortlisted for further assessment. The paucity of information on distribution and population trends is a challenge.

### Arctic Flora Inventory

Knowledge of the distribution of vascular plants in the Arctic is limited when compared to the wealth of distribution data available from lower latitudes, and the available information is scattered across different sources. However, distribution data from the Arctic do exist and research carried out during the preparation of the Arctic Biodiversity Assessment (ABA) brought significant progress in this field. The Arctic Flora Inventory is a project that will develop a database containing information on the diversity and distribution of vascular plants in the Arctic, and the project proposal was recently approved by the CAFF board.

### Arctic Vegetation Archive

An Arctic Vegetation Archive (AVA) is an essential first step in developing a panarctic ecological information system for use in research, nature conservation, education and policy making. This would be the first vegetation database to encompass an entire global biome. This is achievable because the Arctic is the only biome that has its entire list of known plants, including about 2870 vascular plants, 900 mosses and 1600 lichens, documented in up-to-date flora checklists developed by taxonomists within the CAFF Flora Group. The AVA would provide a solid foundation for vegetation analysis and a wide variety of circumpolar conservation and biodiversity studies. During 2015, an Alaskan AVA prototype made a significant step toward developing a classification for Arctic Alaska and the circumpolar region.

## IMPACT ON CONSERVATION

Plant conservation and research activities generally lack a circumpolar perspective. Our group promotes, encourages and coordinates the international conservation of Arctic flora, vegetation, and habitats as well as research activities. It works to enhance the exchange of information on Arctic flora and vegetation and factors affecting the status and trends in Arctic plant species. All our projects are carried out in line with these goals.

The Arctic Flora Inventory will, as the only panarctic data source on the distribution of vascular plants:

- Increase our knowledge of plant distribution in the Arctic thus will be of great help in mapping areas of high biodiversity value, assessing the impact of non-native species in different spatial scales (local, regional, panarctic), mapping areas of their spread and predict directions of future colonisation.
- Serve as a tool for informed decision making
- Contribute towards the implementation of Arctic Biodiversity Assessment recommendations
- Contribute towards the implementation of the Circumpolar Biodiversity Monitoring Program

The creation of an Arctic Vegetation Archive will:

- Develop an international approach to address pressing science questions that have been spurred by the rapid climate and land-use changes occurring in the Arctic
- Harmonize the North American and European approaches for archiving and classifying Arctic vegetation
- Archive legacy vegetation datasets that are in danger of being lost

## FUTURE GOALS & ACTIVITIES

One of our top priorities is to publish the Red List for Arctic vascular plant species, and we welcome botanists to contact us if they want to contribute to this work.

Another top priority is to publish the panarctic moss checklist.

One of our goals is to have the panarctic checklists for vascular plants, mosses, liverworts, lichens and lichenicolous fungi available through the Arctic Biodiversity Data Service, a data-management framework for managing data generated via the Conservation of Arctic Flora and Fauna (CAFF).

## ACKNOWLEDGEMENTS

We would like to acknowledge the CAFF international secretariat in Akureyri, Iceland, for supporting the work of our group.



The circumpolar *Draba subcapitata* (Svalbard) © Kristine Bakke Westergaard

# IUCN SSC Asian Elephant Specialist Group



Vivek Menon

NAME: CHAIR / CO-CHAIRS	Vivek Menon
NAME: RED LIST AUTHORITY CO-ORDINATOR	Simon Hedges
LOCATION / AFFILIATION	Wildlife Trust of India, Noida, National Capital Region (NCR), India / Executive Director and CEO
NUMBER OF MEMBERS	61 (50 Active)

## MISSION STATEMENT

Under preparation by a sub-committee.

## SUMMARY OF MAIN ACTIVITIES 2015

- 1) The Asian Elephant Specialist Group (AsESG) Chair conducted regional meetings in UK and Sri Lanka in 2015 to meet the members from these regions and formulate plans to strengthen the functioning of the group to help achieve its goals. Meetings in Vietnam and Malaysia are to follow.
- 2) The former AsESG Co-Chairs, Dr Ajay Desai and Dr Simon Hedges, tendered their resignations on 22 May 2015 after ten years of committed service. An independent panel was appointed by the SSC Chair to screen candidates for the new Chair, and many AsESG members submitted nominations. In October 2015, Vivek Menon was appointed as the new Chair.
- 3) The AsESG is currently hiring a Program Manager to assist the Chair in his responsibilities with the AsESG. The Terms of Reference have been prepared with the help of a Working Group appointed for this task and the call for applications is out on various websites and job portals.
- 4) The dates and venue for the next AsESG meeting have been finalised by the group. It will be held in Assam, India from the 8th to 11th of November 2016.



## IMPACT ON CONSERVATION

The group is in a reformative stage and its impact on conservation can be judged only in the next quadrennium.

## FUTURE GOALS & ACTIVITIES

Four sub-committees are actively working on the mandate of the group, mandate of the journal Gajah, on membership and on the proposed AsESG meeting. There are working groups set up on protocols, guidelines and on country level action plans which will set up a future action plan for the next four years of the group.

## ACKNOWLEDGEMENTS

Elephant Family for supporting the expenses for the office of the Chair, AsESG. The Wildlife Conservation Society and the Wildlife Trust of India for making the time available of Simon Hedges and Vivek Menon respectively.



The Endangered Asian Elephant (*Elephas maximus*) © Ajay Desai

# IUCN SSC Asian Rhino Specialist Group



Bibhab Kumar Talukdar

NAME: CHAIR / CO-CHAIRS	Bibhab Kumar Talukdar, Ph.D.
NAME: RED LIST AUTHORITY CO-ORDINATOR	Susie Ellis, Ph.D.
LOCATION / AFFILIATION	Aaranyak ( <a href="http://www.aaranyak.org">www.aaranyak.org</a> ) and International Rhino Foundation ( <a href="http://www.rhinos.org">www.rhinos.org</a> )
NUMBER OF MEMBERS	63

## MISSION STATEMENT

To foster conservation and management of three species of Asian rhinos and their habitats.

## SUMMARY OF MAIN ACTIVITIES 2015

In February 2015, the Asian Rhino Specialist Group (AsRSG) in association with the Conservation Breeding Specialist Group (CBSG), International Rhino Foundations and other conservation agencies involved with rhino conservation in Asia conducted Population and Habitat Viability Assessments (PHVAs) for Critically Endangered Javan and Sumatran rhinos which was held in Indonesia. The report containing these two PHVAs is available online on the CBSG website. The report of Indian Rhino Vision 2020 Population Modeling Workshop has also been published and is available online. These documents highlight the threats faced by the Greater One-Horned Rhino, Javan Rhino and Sumatran Rhino in their wild habitats and the possible future of these three species of Asian rhinos under various scenarios in order to assist management and initiate appropriate time bound plan to secure the future of all the three species of Asian rhinos in their wild habitats.

On 4-5 November 2015, the AsRSG in association with the West Bengal Forest Department organised a two-day meeting in Jaldapara National Park, West Bengal, India, with the purpose of finding (and securing) new sites to absorb the increasing rhino population in India and Nepal.

The AsRSG facilitated a two day workshop to review the population data of the Critically Endangered Sumatran Rhino in Bukit Barisan Selatan National Park on 26-27 January 2016 with key stake holders engaged in research, monitoring and protection in order to determine the minimum number of Sumatran Rhino found in the park. The Chair of AsRSG coordinated the workshop where researchers and conservationists from WWF-Indonesia, WCS-Indonesia, Yayasan Badak Indonesia (YABI), International Rhino Foundation and officials from the Bukit Barisan Selatan NP were also present. Based on foot print data analysed from these 11 locations in Bukit Barisan Selatan NP, all participants agreed that the minimum number of Sumatran Rhino population in Bukit Barisan Selatan NP in 2013 was 17 individuals (including at least three calves).

## IMPACT ON CONSERVATION

AsRSG has been monitoring the current state of three species of Asian rhinos through its network of members. In past years, although the conservation status of Greater One-Horned Rhino has increased, and the population of Javan Rhino in Indonesia has marginally increased, concern remains with the declining trend of Sumatran Rhinos. The PHVA workshop organised in February 2015 in Indonesia with the CBSG and International Rhino Foundation, WWF, WCS, YABI etc has flagged some key scenarios on future of Sumatran Rhinos and the modeling results revealed, for the foreseeable future, the viability of all remaining rhino populations will depend on complete protection from poaching. Even with this in place, populations numbering 15 or fewer are at risk to demographic, environmental and genetic uncertainty and would be expected to benefit from consolidation. For populations numbering between 15 and 40, ability to persist will be closely tied to the ability to grow, which is expected to hinge on female reproductive performance. Factors affecting this need to be better understood, monitored and managed until consistent growth is secured. Populations of 40 or more are expected to show greater resilience over the time period considered, but only in the absence of human-mediated threats. Even with consolidation at the three sites, further expansion in numbers will be needed over time, coupled with low-intensity metapopulation management, to moderate the longer-term issues of genetic deterioration and environmental change.

AsRSG are also working closely with AfRSG and TRAFFIC to prepare the necessary reports for CITES, COPs and CITES Standing committee on matters related to illegal trade on rhinos.

## FUTURE GOALS & ACTIVITIES

In coming years, AsRSG aims to speed up its efforts to secure the future of Critically Endangered Sumatran Rhinos in Indonesia through partnership and advocacy with conservation agencies including the Indonesian Government as the Sumatran Rhino is currently restricted to Indonesia although a few small isolated populations may still exist in some forests in South and South East Asia. Further, a young band of budding rhino researchers and conservationists shall be inducted as new members of AsRSG to build future leaders in the field of conservation of the three species of Asian rhino.

## ACKNOWLEDGEMENTS

Thanks for continued support to AsRSG by the International Rhino Foundation, WWF-AREAS Programme, Save the Rhino International, for financial assistance and Aaranyak, Yayasan Badak Indonesia for their secretarial support.



The Vulnerable Greater One-horned Rhino (*Rhinoceros unicornis*) © Bibhab Kumar Talukdar

# IUCN SSC Asian Wild Cattle Specialist Group



James Burton

NAME: CHAIR / CO-CHAIRS	James Burton
NAME: RED LIST AUTHORITY CO-ORDINATOR	James Burton (Johanna Rode-Margono (Programme Officer))
LOCATION / AFFILIATION	Chester Zoo
NUMBER OF MEMBERS	75

## MISSION STATEMENT

The Asian Wild Cattle Specialist Group (AWSG) exists to promote the long-term conservation of the Asian wild cattle species and their habitats by means of information-sharing, identification of conservation priorities and facilitation/delivery of these priority actions through collaborative conservation work.

## SUMMARY OF MAIN ACTIVITIES 2015

The Saola Working Group (SWG) continues a range of field activities to protect Saola in 5 sites in Vietnam and Laos. The group held their 4th biannual meeting in November in Hanoi and has set up a Steering Committee and Task Teams, to ensure oversight of work in future.

The Tamaraw Coordinator, Emmanuel Schutz, working with Tamaraw Conservation Project of the Philippine Government has completed a number of surveys in the past year. Mapping and ecological assessment of the two known Tamaraw sub-populations of Mts Iglit-Baco National Park and Aruyan-Malati was completed. The identification of the location of the sub-population in the Aruyan-Malati area has been delineated and is in the process of being proclaimed as "Critical Habitat", which will give greater protection status. Also meetings, events and presentations have been conducted to develop strong links with local communities and conservation partners in the Philippines continues.

A PhD has been completed on Bornean Banteng ecology and population genetic structure by Penny Gardner, AWCSG Banteng Coordinator.

The IUCN Red List Assessments for all species are well underway, and will be completed in first half of 2016.

At the IUCN SSC quadrennial meeting in September, Bill Robichaud (Coordinator of the Saola Working Group) received the Harry Hessel Award for Conservation Leadership and Simon Hedges (previous Chair of AWCSG) received the SSC Chair's Citation of Excellence for his work on Asian large mammals.

A collaboration has been agreed between AWCSG and Chester Zoo, thanks to support from the SSC Office. This is allowing dedicated time to be spent on AWCSG activities and this will increase further with a Programme Officer to work part-time on AWCSG activities.

## IMPACT ON CONSERVATION

The field work on snare removal by partners of SWG in the 5 Saola priority sites is undoubtedly contributing to the protection of remaining Saola in these sites.

The continued monitoring and working with local communities for Tamaraw in the Mts Iglit-Baco National Park and Aruyan-Malati area is contributing to the reduction in threats to these two populations. This will be further enhanced by the proclamation of the latter area as “Critical Habitat” and focus of associated additional resources by the Government in the near future.

The field activities of Wildlife Trust of India to protect the wild and captive population of Central Indian Buffalo is contributing to their survival. This will be further enhanced by the ratification of the Action Plan for this population, by the two State Government in the future.

## FUTURE GOALS & ACTIVITIES

In 2016 AWCSG will begin implementing a new One Plan Approach collaboration between IUCN SSC, AWCSG, Wild Pig SG, EAZA, AZA and the Indonesian Zoo Association to develop Global Species Management Plans for the Banteng, Anoa and Babirusa. These plans will support practical field conservation activities and conservation breeding.

The Saola Working Group will submit a significant funding proposal to scale up their work, including reducing threats, identifying remaining Saola in the wild and putting in place facility for managing any accidentally captured individuals.

The recruitment of a Programme Officer will give the group more capacity to set up a newsletter and support other fundraising opportunities.

## ACKNOWLEDGEMENTS

We would like to thank Chester Zoo who kindly supported some of the Chair's time in 2015, as well as agreeing to support an AWCSG Programme Officer part-time, starting in 2016. We also thank the ongoing support by Global Wildlife Conservation for their support of the Saola Working Group. Many European, North American and Asian zoos have contributed expertise and funding for a range of projects, especially for Saola, Anoa and Banteng, we really appreciate this collaboration. The state governments and local and international NGOs in many range countries have helped the AWCSG implement field activities, for which we are very grateful.



The Endangered Banteng (*Bos javanicus*) © Brent Huffman

# IUCN SSC Australasian Marsupial and Monotreme



Chris Johnson

NAME: CHAIR / CO-CHAIRS	Chris Johnson
NAME: RED LIST AUTHORITY CO-ORDINATOR	Clare Hawkins
LOCATION / AFFILIATION	University of Tasmania; Tasmanian Department of Primary Industries, Parks, Water and Environment
NUMBER OF MEMBERS	32

## MISSION STATEMENT

The Mission of the AMM-SG is to promote the conservation of the world's marsupials and monotremes by providing evaluations of the conservation status and threats to the marsupials and monotremes of Australia, New Guinea and nearby West Pacific Islands.

## SUMMARY OF MAIN ACTIVITIES 2015

The main activity of the group in 2015 was contributing to the Global Mammal Assessment, by reviewing the status of all Australasian Marsupials and Monotremes. This has been a big task, for three reasons: a large number of species is involved; many are threatened or with changing status; and knowledge for the evaluation of status is highly uneven, and often poor for species from New Guinea and the West Pacific in particular. For the Australian species, our re-evaluations of status were based on the recently completed Action Plans for Australian Mammals (CSIRO publications, 2014). This landmark publication, co-authored by two members of the AMM-SG (John Woinarski and Andrew Burbidge), applied IUCN Red List criteria to all Australia's mammals. We reviewed listings in the Action Plan for the marsupials and monotremes and compiled them for the Red List. This resulted in changes in status for 36 Australian species.

For species from New Guinea and the West Pacific, we assembled a network of regional and taxonomic experts who were consulted on changes in Red List status for species in their area of expertise. This produced many additions of information to species profiles, and it resulted in changes to the Red List status, or changes in listing criteria, for a further six species. This is almost certainly an underestimate of the true magnitude of changes in conservation status of species from this region, but is a reflection of the best knowledge currently available to us.

## IMPACT ON CONSERVATION

The production of the Action Plan for Australian Mammals (as noted above, an independent project by two members of the group, with wide consultation both within and outside the group) has had a large impact on research, management and public policy related to threatened marsupials in Australia. It played a pivotal role in focusing government attention on the feral cat as a continuing threat to biodiversity in Australia and its islands, and influenced the funding by the Commonwealth government of a research hub in threatened species management (The National Environmental Science Programme Threatened Species recovery Hub).

## FUTURE GOALS & ACTIVITIES

Having now completed our contribution to the Global Mammal Assessment, the group will now review future goals and activities.

## ACKNOWLEDGEMENTS



The Endangered Numbat (*Myrmecobius fasciatus*) © Martin Pot (Martybugs at en.wikipedia)

# IUCN SSC Bat Specialist Group



Tigga Kingston



Rodrigo Medellin

NAME: CHAIR / CO-CHAIRS	Tigga Kingston & Rodrigo Medellin
NAME: RED LIST AUTHORITY CO-ORDINATOR	New World Bats: Sergio Solari / Old World Bats: tbc
LOCATION / AFFILIATION	1) Texas Tech University, Lubbock, Texas, and 2) Universidad Nacional Autonoma de Mexico, Mexico City
NUMBER OF MEMBERS	190 members from 111 countries

## MISSION STATEMENT

1. To contribute to the mission and goals of the IUCN SSC
2. To ensure the maintenance or recovery of threatened bat populations
3. To ensure that other bat species remain at a favourable conservation status

## SUMMARY OF MAIN ACTIVITIES 2015

1. Mauritian Government Cull of *Pteropus niger*.  
In response to the announcement of the cull of 20% (18,000 individuals) of the threatened, endemic Mauritius fruit bat, *Pteropus niger*, the IUCN SSC sent a delegation to Mauritius. The delegation was only possible because of the generous support of several World Association of Zoos and Aquariums (WAZA) members. It comprised Dr Tigga Kingston, the Bat Specialist Group Co-Chair, and Dr Luthur Anukur, the Director for IUCN's regional Eastern and Southern Africa Office. The cull was a response to perceived economic losses of lychee crops to bat predation, and triggered a reassessment of the Red List status (Vulnerable) of the species. Between 9th and 13th November, Tigga and Luther met with key government and non-government stakeholders, including representatives from the Ministry of Agro-Industry and Food Security, National Parks and Conservation Service, Forestry Services, Food and Agriculture Research and Extension Institute, University of Mauritius, Mauritian Wildlife Foundation. Tigga visited several lychee plantations and bat colonies to assess sources of error in figures used to justify the cull, and concluded her visit with a two-day multi-stakeholder workshop and press conference. Despite explicit advocacy from the IUCN delegation and the international conservation community, the cull was actually extended beyond the planned end date to meet the 18000 target, and in fact the final reported figure from the Mauritian government was just under 31,000. It was clear to the delegation that this was a politically-motivated decision, made at the ministerial rather than departmental level. Moving forward, IUCN is working to engage the government in a long-term strategy that integrates improved population estimates and crop damage assessments, research on the demography, ecology, and ecosystem services provided by *P. niger*, and, critically, works to overcome the barriers to the uptake of the existing scheme for netting of fruit crops by growers, as this simple measure has proven to be the most effective solution to the bat-fruit grower conflict in other parts of the world. In the light of the cull, the species status is being re-assessed.
2. Red List assessments. The New World assessments were completed, and substantial progress made in the Old World, with the appointment of several regional RLAs.
3. The Co-Chairs both attended the 3rd Species Survival Commission Leaders' Meeting, Abu Dhabi, 15-18 September 2015
4. The New World has declared more than 50 IBA (Important Bat Areas), and a new agreement among the 3 federal governments of Canada, Mexico, and the USA was signed, recognizing bats as a conservation priority in North America.



## IMPACT ON CONSERVATION

Despite the implementation of the cull of *Pteropus niger* in 2015, we are hopeful that the international attention and the open dialogue with the BSG will prevent a repeat in 2016, or later. We will continue pushing to counter these destructive campaigns. Several BSG members are working with the Convention on Migratory Species to enlist more bats in the CMS appendices in the next COP. This will result in local legislation protecting bats in the range states that are CMS parties.

## FUTURE GOALS & ACTIVITIES

1. The BSG continues to work with the Mauritian government to avoid repeats of the 2015 cull. BSG member Dr Tammy Mildenstein went to Mauritius in 2016 to work with stakeholders, primarily the government's National Parks and Conservation Service, to refine population survey monitoring techniques that can generate defensible population estimates.
2. The BSG plans to work towards closer integration with the AZA's Bat Taxon Advisory Group
3. The CMS requested Medellin to cross the databases between IUCN Red List and the migratory species of bats to detect additional species that might be migratory and endangered and thus enlist and protect more species of migratory bats under this convention
4. Latin America is advancing each year declaring new Important Bat Areas and working on the implementation of the Action Plan

## ACKNOWLEDGEMENTS

For support of the BSG delegation to Mauritius -- Lubee Bat Conservancy, San Diego Zoo Global, Zoo Leipzig, Chester Zoo, Landau Zoo, Zoos Victoria, Paignton Zoo, Singapore Zoological Gardens.  
Bat Conservation International, Organization of American States, Governments of Mexico, Costa Rica, and Colombia.



The Vulnerable Curaçaoan Long-nosed Bat (*Leptonycteris curasoae*) © Marco Tschapka

# IUCN SSC Bear Specialist Group



Dave Garshelis & Rob Steinmetz

NAME: CHAIR / CO-CHAIRS	Dave Garshelis & Rob Steinmetz
NAME: RED LIST AUTHORITY CO-ORDINATOR	Bruce McLellan
LOCATION / AFFILIATION	Dave is affiliated with the Minnesota Department of Natural Resources in Grand Rapids, Minnesota, USA; Rob is with WWF-Thailand and based in Bangkok.
NUMBER OF MEMBERS	200 (representing 61 range countries)

## MISSION STATEMENT

The IUCN SSC Bear Specialist Group (BSG) strives to promote the conservation of bears living in their natural habitats across their worldwide distribution. We do this by gaining, synthesizing and disseminating information; aiding, promoting and supporting conservation initiatives; providing technical assistance and building capacity of those involved or interested in bear conservation; and becoming directly involved in issues that reduce threats and foster the conservation of any of the seven species of terrestrial bears.

## SUMMARY OF MAIN ACTIVITIES 2015

This year was devoted mainly to completing the Red Listing accounts. Five of the 7 terrestrial bear species have clearly increasing threats, associated with forest cover loss, small isolated populations, commercial poaching for parts, conflicts with humans, and declining habitat and food availability due to climate change. However, the ramifications of these threats for bear populations proved difficult to measure quantitatively. Therefore, most of the assessments were based on expert opinions of our members with regard to rates of population change. For Giant Pandas, we used population data from the Chinese 4th National Survey, but also relied on separate genetic information to gauge the discreteness of separate populations, which was a key variable in this species' Red Listing. For Brown Bears, which globally are Least Concern, we undertook the mammoth effort of assessing each of 44 separate populations. Some of these, in North America and Europe, have reliable population estimates and trend information, whereas others, in Asia, were not previously well-defined geographically.

The Red Listing assessments were a good opportunity to critically examine what we know and what we don't know about the world's bears. As such, they highlighted information gaps that we will strive to fill with more and better information. They also highlighted some deficiencies in ways that data have been collected and interpreted, and pointed to notable knowledge gaps and some differences of opinion as to the presence of bear species in some areas. It also provided motivation for our members to work closely with each other to synthesize information about the status of bears, methods of collecting data, and effective methods of conservation.

Our members have been involved in bear surveys in a number of areas, especially in southern Asia. These data have revealed corridors used by bears connecting populations, as well as extreme isolation of other populations; we've also discovered higher than expected densities in some populations, absence or near-absence of bears in other places where they had been expected, and some rare occurrences of bears where they were not known to exist. Some members have been pioneering rigorous methods of population estimation based on individual identifications of bears from their distinctive chest or facial markings, recognizable on camera trap photos. Others have gained considerable new information from broad-scale occupancy surveys, which have proved to be precise, practical, and useful.

Our group's activities are regularly reported in International Bear News, a joint publication of the Bear SG and the International Association for Bear Research and Management (IBA). The Bear SG and IBA are closely affiliated. We also helped organize a separate symposium on the Andean bear and formed an alliance with the Wildlife Conservation Society, Cleveland Metroparks Zoo and St. Louis Zoo devoted to the conservation of this species.

## IMPACT ON CONSERVATION

We anticipate that the downlisting of the Giant Panda from Endangered to Vulnerable will generate much attention. We will promote the message that this new assessment shows that concerted conservation efforts can work to save species, but that continuation of these efforts along with continued monitoring are needed to ensure that these gains are not lost: pandas are still at risk of reductions in bamboo (their key food) related to climate change and increased habitat fragmentation from road development.

We have made headway in understanding and/or reducing threats in several key arenas. We have learned from interviews with local people that human–bear conflicts are a prime and growing issue in many places, ranging from damage to crops and livestock to frequent attacks on people in some places. Our group has been actively involved in trying to better understand the causes of these conflicts and in developing solutions tailored to the situation. We have been coordinating with other organizations, including other Specialist Groups, in finding ways of addressing conflicts, using active mitigation and public education. Many of our members have been conducting workshops and in-school programs that centered on alleviating conflicts.

Another prime focus of our work relates to the trade in bear parts. We have sought to understand drivers of commercial poaching, and in that way formulate the most effective messages targeted at specific user groups. A very large effort has been made this year to begin gathering data relative to IUCN WCC-2012-Recommendation: Bear farming in Asia, with particular reference to the conservation of wild populations. Ultimately the goal of this situation analysis is to learn whether bear farming has led to increased or decreased poaching of wild bears, and the mechanisms involved. The Bear SG has worked with the SSC Office, other professionals, and the Chinese State Forestry Administration on this complicated issue, which should have implications for other farmed, threatened wildlife species as well.

Members of our European Brown Bear Expert Team have been closely involved with the Large Carnivore Initiative of Europe (LCIE) to define and develop key actions to promote bear conservation within Europe's 10 populations, which are highly variable in size and extent. Most notably, these key actions include protection of habitat, maintaining or enhancing connectivity, and reducing bear damage. The group is striving for improved coordination and standardization among the 22 bear range countries and increased capacity of some management institutions.

## FUTURE GOALS & ACTIVITIES

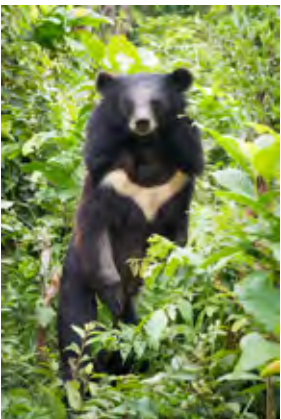
While updating species range maps for the Red Listing accounts we identified a number of areas where we are missing information on bear presence: we intend to investigate these on the ground. We also plan to further investigate reports of bears in Syria, and to sort out which (and where) bear species occur in the “seven sister states” of northeastern India. We are also pursuing better ways of monitoring, especially by making use of “by-catch” camera trap data from other species. Having successfully completed population-level assessments for the brown bear, there is interest in our group in pursuing similar assessments for other bear species.

We will be continuing and expanding the bear farming situation analysis in China, with the aim of reaching a definitive conclusion as to the conservation implications of this practice by the World Conservation Congress in 2020.

We are attempting to better integrate information from ex-situ bear studies into conservation initiatives. We are also experimenting with ways of raising and releasing confiscated bears and restocking bears to augment depleted populations.

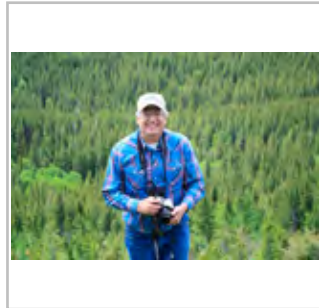
## ACKNOWLEDGEMENTS

We thank Alertis (now Bears in Mind) for their continued support of the bear farming situation analysis. We thank the IBA's Research and Conservation Grants program for supporting the efforts of many of our members.



Asiatic Black Bear (*Ursus thibetanus*) © Free the Bears

# IUCN SSC Bison Specialist Group



Keith Aune



Wanda Olech

NAME: CHAIR / CO-CHAIRS	1) Keith Aune (North America) and 2) Wanda Olech (Europe)
NAME: RED LIST AUTHORITY CO-ORDINATOR	Cormack Gates
LOCATION / AFFILIATION	1) Bozeman, Montana affiliated with the Wildlife Conservation Society; 2) Warsaw University of Life Sciences, Dept. of Animal Genetics and Breeding
NUMBER OF MEMBERS	77 (North America) and 24 (Europe)

## MISSION STATEMENT

The Bison Specialist Group (BSG) consists of two groups: one representing European bison and the other North American bison. The purpose of the North American Bison Specialist Group (NABSG) is to contribute to the development of comprehensive and viable strategies and management actions to improve conservation, and achieve ecological restoration of plains bison and wood bison where feasible throughout the original range of each subspecies. The European Bison Specialist Group (EBSG) aims to increase the population size and area of occupancy of European Bison (*Bison bonasus*) as well as implement good practices in its conservation, breeding and management.

## SUMMARY OF MAIN ACTIVITIES 2015

In 2015, the NABSG has focused its efforts on completing an IUCN Red List assessment for the American Bison. After the conclusion of a meeting in 2013, the basic principles of ecological restoration were drafted. A survey was carried out across the BSG to determine what the critical criteria are for defining a wild bison. The results revealed 8 basic principles that are the basis for defining a bison herd as functioning as wild. These are:

- 1) Lack of selective culling of individuals with limits to human-mediated selection processes;
- 2) Maintaining ecological function (meaning freedom of movement to impact their environment);
- 3) Maintaining "natural" sex and age ratios;
- 4) Bison are able to engage in all natural inter- and intra-specific behaviours;
- 5) Free Ranging-not in captivity;
- 6) Public Ownership;
- 7) Minimal Management intervention;
- 8) Occurring within the original range of bison.

The NABSG reviewed and updated the list of both wood and plains bison conservation herds in North America described in its 2010 status review, removed herds that are no longer and added several newly established herds. We found 68 bison conservation herds are present in North America.

Following the principles of wildness established by the BSG, a step-down key was used to filter and classify conservation bison herds present in North America. The filter classified bison conservation herds into three groups: 1) those that function as wild bison, 2) those that function as wild but with limitations, and 3) those not wild but with other conservation values. Through this process only 8 bison herds were defined in North America that currently function as wild and 30 that are wild but with limitations. The remaining 30 conservation herds are not wild and primarily serve specific research and education needs or are primarily for public display. With help from the IUCN SSC Conservation Breeding Specialist Group (CBSG) a Population Viability Analysis (PVA) was completed for 8 wild bison herds functioning as wild. The PVA evaluated the demographic and genetic future of these herds for the next 200 years. This PVA will inform the ongoing development of the Red List assessment which we hope to finalise for delivery in August.

### European Bison Specialist Group Activities:

- 1) Plans for international conservation project developed as a result of the conference "New Approaches Towards Biodiversity Conservation", 21-22 May 2015, Minsk, Belarus, where one session was dedicated to European bison. The results of Action Plan implementation in different European countries were presented, which led to an agreement between Polish and Belorussian partners to work together and prepare an application for a LIFE project proposing conservation activities common to both countries. Later, Lithuania and Spain became involved in the plans.
2. The EBCC (European Bison Conservation Center) network continues. Within the network, exchange of information and experiences between breeders across Europe is facilitated. Warsaw University provides the information about the current state of the species, as well as population size, methods for transport, feeding and monitoring. A bibliography is also available. Communication between regions occurs mainly via the internet, however, the annual conference is used as an opportunity to ensure a yearly meeting is organized.
3. In September, there was a 13th scientific conference in Pszczyna, Poland concerning the wisent. This was held in conjunction with the 150th year anniversary of the wisent reserve in Pszczyna, the oldest breeding centre in Europe which has made the reintroduction of European Bison possible. More than 140 people took part in the conference from 10 different countries. As a result of these conferences, the European Bison Conservation Newsletters are issued (No. 7 is now available ([www.srz.waw.pl](http://www.srz.waw.pl))).

## IMPACT ON CONSERVATION

The pending IUCN Red List assessment could significantly influence the future conservation and management the American Bison. It is anticipated that changes in management approaches will be needed to create more bison herds that are of larger size and on larger landscapes that function ecologically. In addition, current management of existing bison herds will focus on the genetic future of the species and methods to minimally manage herds that are wild but with limitations on genetic interchange, range size and population. These changes could alter the future evolutionary path for bison herds in North America and assure genetic integrity far into the future.

The population of European Bison is increasing steadily every year. In the last 10 years in Europe there has been:

- 1) population increases from 3,240 in 2005 to 6,083 by the end of 2015;
- 2) new captive herds established in Hungary (3), France (3), Romania (7), Czech Rep. (3), Netherlands (1), Poland (8), Germany (7), Denmark (2), Spain (4), Slovakia (4), Scotland (1), Sweden (3); new reintroduction (free roaming herds) in Slovakia (2004), Romania (2011) and Germany (2013);
- 3) European Bison act as a umbrella species - the open areas required for the reintroduction of European Bison are habitats commonly utilised by many other species (such as plants and insects).

## FUTURE GOALS & ACTIVITIES

The NABSG will complete the Red List assessment and submit it in July. It will be reviewed by the BSG group and discussed at our pending BSG meeting on September 24, 2016, in conjunction with the American Bison Society Conference in Banff, Alberta. At the BSG meeting in Banff we will also discuss our next steps and the prospect of developing a Species Survival Plan for bison in North America. This comprehensive conservation plan could coordinate bison management across 3 countries and among many jurisdictions to ensure the future of the species.

The goal of the EBG is to continue conservation activities in different countries and to ensure that the Action Plan for European Bison is implemented. The guidelines for the management of captive as well as wild populations of the species also need developing in different languages.

## ACKNOWLEDGEMENTS

The BSG wishes to thank Cormack Gates and Dennis Jorgenson who have been instrumental in the Red List assessment process we have begun. Thanks to Kathy Traylor-Holzer from the CBSG who conducted our PVA and Amanda Hardy, WCS Senior Scientist, who assisted in the data gathering and development of the PVA. Thanks also to Glenn Plumb from the National Park Service who supported the first workshop and has extended that work to embrace future analysis of federal bison herds.

The EBG wishes to thank the contributions of the members of the BSG. In particular, thanks to Fernando Moran, Malgorzata Bolbot, Kajetan Perzanowski, Rainer Glunz, Tomas Henning, Tommy Svensson, Milosh Jirku and many others.



The Vulnerable European Bison (*Bison bonasus*) in Borecka Forest © Piotr Wawrzyniak

# IUCN SSC Boa and Python Specialist Group



Tomás Waller

NAME: CHAIR / CO-CHAIRS	Tomás Waller
NAME: RED LIST AUTHORITY CO-ORDINATOR	Mark Auliya
LOCATION / AFFILIATION	Affiliated with Fundación Biodiversidad - Argentina, and based in Buenos Aires, Argentina.
NUMBER OF MEMBERS	83

## MISSION STATEMENT

The Boa and Python Specialist Group (BPSG) mission is to provide expert opinion and scientific advice to the IUCN and other conservation organizations, government and non-government agencies, applicable to the conservation of boas and pythons and snakes in general. We act as a focal point for all researchers working on the natural history and conservation of these species worldwide. Our key objectives are to monitor the conservation status of species worldwide, to enhance the status of threatened species, to identify solutions to complex conservation problems by conducting research and assessments, and to ensure trade is carried out sustainably on behalf of species and local livelihoods.

## SUMMARY OF MAIN ACTIVITIES 2015

During 2015, the BPSG continued to be actively engaged in projects to address the impact of the snake trade on species and livelihoods. The Python Conservation Partnership (PCP), a collaborative initiative between the BPSG, Kering, the International Trade Center (ITC) established in 2013 and aimed at improving the sustainability of the South East Asian python skin trade, finished the first phase of work focused on research and recommendations. Our specialists worked hard in evaluating the sustainability of the harvest of Reticulated pythons by examining the biology of more than 5,000 snakes captured in Malaysia and Indonesia. During 2015 other PCP studies related to the impact of the trade on local livelihoods, captive breeding, animal health and welfare, and traceability, were finished. A PCP Steering Committee Meeting was held in November 2015, with the participation of all stakeholders including representatives from CITES, Vietnam, Indonesia and Malaysia. Main outcomes of these studies were presented and recommendations and an agenda for a second phase were approved. Taking advantage of our field work in SE Asia, we also engaged in evaluating the biology of the harvest of Ayers snakes. Several hundred specimens were assessed for reproductive biology and population structure, results will be published in the near future. As part of a CITES mandate to address concerns related to the conservation and international trade in snakes, the CITES Secretariat engaged the IUCN to conduct several studies. The BPSG was tasked to coordinate this work, and identified several members to produce documents addressing these Decisions. Specifically, the following outputs were produced: 1) A guidelines document assisting parties in undertaking non-detriment findings for snakes, 2) A field study examining production systems for CITES-listed snakes in China and Viet Nam, 3) Several summaries on the impact of the pet trade on wild populations of snakes, including: Boelen's Python in Indonesia, Royal Python in Benin, Calabar Ground Boa in Benin, Ghana and Togo, Green Python in Indonesia and Hogg Island Boa in Honduras. These studies were presented by BPSG representatives at the 28th Meeting of the CITES Animals Committee in Tel Aviv, Israel, in August 2015. Documents were generally well received by the Parties and resulted in several overarching and specific recommendations and draft Decisions. The Chair and the Executive Officer of the BPSG participated in the 3rd SSC Chairs' Meeting that took place during September 2015 in Abu Dhabi. As in previous years, the Red List Assessments continued under the monitoring of Mark Auliya, our RLA Focal Point, while the BPSG Newsletter *Serpens* and the BPSG's Facebook page continued under the care of Jessy Lyons.

## IMPACT ON CONSERVATION

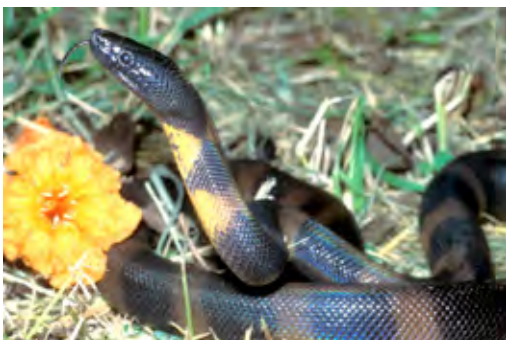
The Python Conservation Partnership (PCP) has demonstrated that it is a very successful initiative to address the various concerns surrounding the SE Asian python skin trade and conservation. BPSG researchers have contributed to identifying which source countries are currently farming python skins and which countries are not a confident source of skins, helping in this way to improve the supply chain by discouraging wild sourced skins laundering. Biological research on harvested snakes is demonstrating that trade is not a major threat to the survival of reticulated pythons in Indonesia and Malaysia. However, we identified perverse incentives in trade that creates distortions in the supply chain that precludes a proper management of pythons. By identifying these perverse incentives we have been able to provide guidance to the CITES community and range countries that we expect will increase transparency in the whole supply chain. A transparent supply chain minimizes illegal trade, increases benefits to local communities, allows to better monitoring of trade, and ensures that conservation measures are properly directed. As a result of our PCP work with pythons, we aim to contribute in the production of standards and guidelines to improve the python trade both in terms of conservation (sustainability) and animal welfare, for instances, with industry standards for python processing facilities, industry standards for python captive breeding facilities, and guidelines on the assessment of sustainability for harvests of wild pythons.

## FUTURE GOALS & ACTIVITIES

In 2016 the BPSG and PCP partners will finalise the publication of PCP outputs from its research phase of work on SE Asian pythons. The results of these studies will be incorporated to produce a series of guidance documents for the implementation of recommendations. Outputs will be completed by and presented at CITES CoP17 in September 2016. Guidance documents and standards will form part of major capacity building activities in the form of workshops to be held in SE Asia in late 2016 and 2017. Recommendations from snake studies commanded to us by IUCN and the CITES Secretariat will be reviewed at the 66th meeting of the CITES Standing Committee in Geneva (January 2016) and will be tabled for adoption (together with a draft resolution on snake conservation and trade) at the CITES CoP17 in September 2016, Johannesburg, South Africa. We plan to assist to both meetings. During 2016 we aim to start supporting the conservation of other threatened species with seed funding of basic research. We also expect to complete several RLAs of species from our remit.

## ACKNOWLEDGEMENTS

Our work during 2015 was possible thanks to the support of Fundación Biodiversidad - Argentina, Kering, the CITES Secretariat, and ITC. We are grateful to the Governments of Indonesia, Malaysia and Vietnam for their trust and support to our work under the PCP.



Bismarck Ringed Python (*Bothrochilus boa*) assessed as Least Concern © Mark O'Shea

# IUCN SSC Bryophyte Specialist Group



Tomas Hallingbäck



Irene Bisang

NAME: CHAIR / CO-CHAIRS	Tomas Hallingbäck, Irene Bisang
NAME: RED LIST AUTHORITY CO-ORDINATOR	Ariel Bergamini
LOCATION / AFFILIATION	Uppsala: Swedish University of Agricultural Sciences (SLU), Species Information Centre Stockholm: Swedish Museum of Natural History (NRM), Directorate of Research Division
NUMBER OF MEMBERS	29 members representing 22 countries

## MISSION STATEMENT

The IUCN Bryophyte Specialist Group (BSG) seeks to highlight the importance of recognising bryophytes in all areas of nature conservation. For the current quadrennium, we focus on two priorities: (1) to be an effective SG that works concerted for the exploration of bryological diversity and the catalysation of conservation actions; (2) to actively contribute to Red List Assessments at the global and regional scales.

## SUMMARY OF MAIN ACTIVITIES 2015

A major ongoing activity, which engages European BSG members, is the development of a European IUCN Red List for Bryophytes. The project receives funding from LIFE, the European Commission's financial instrument to support environmental, nature conservation and climate action, and from European governments and organisations. It is led by the Biodiversity Conservation Office of IUCN's Global Species Programme, and includes the assessment of bryophytes, pteridophytes, saproxylic beetles, terrestrial molluscs and selected vascular plants. An initial IUCN training workshop was held in Paris in October. The bryophyte evaluations are currently underway by specialists in eight geographical areas, and regional workshops to finalize the assessments will be held over the next two years. The working group also produced a complement to the "Guidelines for Using the IUCN Red List Categories and Criteria" that addresses terms and concepts which are critical to apply to bryophytes. This addition will facilitate the work for the European Red List. We will in the near future provide this paper for comments to the entire Bryophyte Specialist Group.

As a joint effort of several Bryophyte Specialist Group members we completed the global assessment of *Pleurozia gigantea*, a widespread liverwort species that occurs in Africa, Asia and the Pacific Ocean. We also reviewed the Red List assessment of 25 of the 26 endemic bryophyte species of St Helena.

We completed the questionnaire about climate change-related activities of Bryophyte Specialist Group members. We nominated Claudine Ah Peng to be the point person from the Bryophyte Specialist Group to maintain the contacts with the IUCN SSC Climate Change Specialist Group.

We have recently launched the "Top-Ten initiative" with the aim to assess or re-assess ten bryophyte species from each continent that are most strongly at risk according to the IUCN Red List of Threatened Species™. Currently, we have a candidate list for Africa.

In addition to the activities listed here, Bryophyte Specialist Group members are actively involved in a variety of conservation related efforts at national, regional and local levels.



## IMPACT ON CONSERVATION

The European Red List for bryophytes, once finalized in 2019, will replace the outdated Red Data Book of European Bryophytes published in 1995. It will be a stepping stone forward for bryophyte conservation both at the European and national levels. It will serve as a powerful tool to support priority making for conservation actions, to inform policy decisions on biodiversity conservation, and as a critical instrument to measure progress towards achieving the EU 2020 Biodiversity Strategy.

## FUTURE GOALS & ACTIVITIES

Considerable efforts will be spent on the assessment and reviews of the 1,800+ species of European bryophytes. We will also continue to work on the “Top-Ten initiative” starting with the African continent, which will be a step towards the goal of an updated global IUCN Red List of Threatened Bryophytes.

## ACKNOWLEDGEMENTS

The European Red Lists receive funding from the European Commission through the project LIFE2014 PRE/BE001 P01486. We thank all our volunteer members and their institutions for supporting our goals.



*Trematodon brevicollis* from a high altitude locality in the central Swiss alps. EN in Switzerland, NE globally © Ariel Bergamini.

# IUCN SSC Bumblebee Specialist Group



Paul Williams

NAME: CHAIR / CO-CHAIRS	Paul Williams
NAME: RED LIST AUTHORITY CO-ORDINATOR	Rich Hatfield
LOCATION / AFFILIATION	Natural History Museum, London, UK
NUMBER OF MEMBERS	80

## MISSION STATEMENT

The aim of the Bumblebee Specialist Group (BBSG) is to foster the conservation of bumblebees (c. 260 species) and their habitats around the world.

## SUMMARY OF MAIN ACTIVITIES 2015

Red List Assessments (RLAs) have now been made for all of the European bumblebees plus 79 New World species.

We welcome the new regional group for South East Asia, led by Dr Panuwan Chantawannakul of Chiang Mai University, Thailand, and including colleagues, Dr Pham Hong Thai of the Vietnam National University of Agriculture, and Dr Jonathan Koch, working on the Philippine fauna from the University of Hawaii at Hilo, USA. Details of the progress that they are already making are given in the BBSG Annual Report for 2015.

In the Spring of 2015, the BBSG held a workshop to help in completing RLAs for Mesoamerica and South America. This was run as part of the Mesoamerican Congress on Native Bees in San Cristóbal de Las Casas, Chiapas, Mexico. We are enormously grateful to Rémy Vandame and his team at El Colegio de la Frontera Sur (ECOSUR), who organised and hosted the workshop so comfortably and so amiably. We also very much appreciate the support of CONABIO (National Commission for Knowledge and Use of Biodiversity - Mexico) and IUCN and for funding the workshop.

Seven members of the BBSG from Mesoamerica and two members of the BBSG from South America met to share knowledge of methods and data. The BBSG Red List Authority Rich Hatfield, BBSG Chair Paul Williams, and IUCN SSC staff member Jennifer Luedtke led the workshop.

Since the workshop, the BBSG for Mesoamerica has published nine RLAs for Mesoamerica. The remaining three RLAs have been submitted to the IUCN for final review and publication. The BBSG for South America has published one RLA and the remaining 21 RLAs have now been submitted to the IUCN for publication.

## IMPACT ON CONSERVATION

The process of using the RLAs to improve the bumblebee conservation landscape has already begun in North America. Using the results from our analysis of RLAs in North America, the Xerces Society has been reaching out to state departments of wildlife advocating for protection for the North American species considered threatened in the Red List. Twenty-six US states that received our status assessments and recommendations have listed at least one bumblebee species as Species of Greatest Conservation Need in their updated State Wildlife Action Plans. This status makes those bumblebees eligible for federal funding for conservation projects related to research, restoration, and management. In addition to State Wildlife Action Plans, these IUCN assessments have been used to support the listing of bumblebees as Sensitive Species on three National Forests regions – an important conservation status for imperiled animals of federal land – and for endangered species listings in the Canadian provinces of Ontario and British Columbia. These combined factors have affected bumblebee conservation at a continental scale, and will continue to do so as the status of these essential pollinators is recognized by policy-makers, scientists, and the general public.

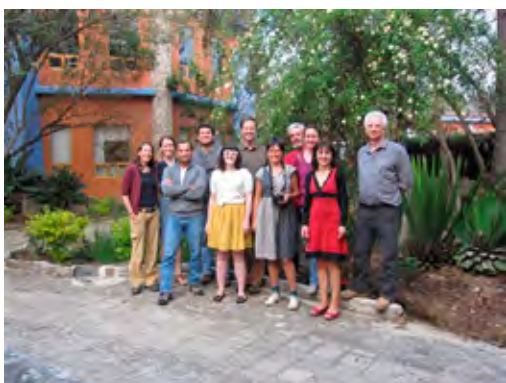
While the publication of the South and Mesoamerican RLAs is too recent for us to be able to report on any consequential long-term conservation benefits, it is our hope that these RLAs will similarly affect policy and restoration work for bumblebees in the months and years to come. To raise awareness further about the importance of this work and its conclusions, we will present the results of these assessments at the International Congress of Entomology in Orlando, Florida, and to the Meeting of the Canada/Mexico/U.S. Trilateral Committee for Wildlife and Ecosystem Conservation and Management in Ontario, Canada in 2016.

## FUTURE GOALS & ACTIVITIES

1. An international workshop for selected members of the BBSG is being planned to help standardise quantitative methods for RLAs for species widespread among continents.
2. It is planned to build on a submitted global revision of the high alpine specialists (mostly Asian) of *Mendacibombus* to draft RLAs for these species. There is little information on changes in population size or range size, so this will need input from a current collaborative project on the expected effects of climate change on global patterns.
3. It is planned to build on a global revision of the high arctic specialists (circumpolar) of *Alpinobombus* to draft RLAs for these species. There is little information on changes in population size or range size, so this will need input from a current collaborative project on the expected effects of climate change on global patterns.
4. Field work and genetic analysis is planned to continue in China for revising species to feed into RLAs for this, the largest regional fauna world-wide. There will be a big push this year to extend sampling in the south and east of the country.

## ACKNOWLEDGEMENTS

Thanks to the IUCN for funds to facilitate the BBSG workshop at the IX Mesoamerican Congress on Native Bees in 2015.



Red Listing Workshop for Mesoamerican and South American of the BBSG in Chiapas, Mexico.

# IUCN SSC Bustard Specialist Group



Nigel Collar

NAME: CHAIR / CO-CHAIRS	Nigel Collar
NAME: RED LIST AUTHORITY CO-ORDINATOR	Andy Symes, BirdLife International
LOCATION / AFFILIATION	BirdLife International, The David Attenborough Building, Pembroke Street, Cambridge, UK
NUMBER OF MEMBERS	20

## MISSION STATEMENT

To advise on, support and contribute to the conservation of the three highly threatened bustards in the Indian subcontinent and Cambodia.

## SUMMARY OF MAIN ACTIVITIES 2015

The focus has fallen on the two Critically Endangered species, namely Great Indian Bustard and Bengal Florican, with some attention also to the Asian Houbara (Vulnerable).

For the Great Indian Bustard, group members Patil and Bhardwaj worked with the Chairman to produce a 30-point strategic plan for its conservation in the only Indian state where a population remains viable, namely Rajasthan. This was published in May 2015 under the title "What can save the Great Indian Bustard?" in the magazine *Birding ASIA* (23: 15-24), and both Indian co-authors have been working on the implementation of the plan since that time. Group members also worked on a critical study of the likely outcome of captive breeding of the Great Indian Bustard, an initiative currently under development in India; the research (published in *J. Appl. Ecol.* 52: 841-850) found that in situ investment was far more likely to benefit the species than ex situ.

Work on the Bengal Florican by members of the group has been largely in support of a Darwin Initiative project run by the RSPB in the UK involving protected areas in Nepal and India, with satellite tagging of birds to detect their non-breeding distributions and habitat.

Work on the Asian Houbara has focused on answering key questions relating to the sustainability of hunting by Arab falconers, including: determining survival rates of captive-bred birds, the influence of habitat on densities of birds, the effect of livestock on breeding success, and the impact of powerlines on a local population. All these key questions feed into a developing plan for the long-term management of houbaras in order to preserve the Arab tradition of falconry. A further dimension of the Group's work has been the positioning of Mimi Kessler as the Group's representative in East Asia, where she is particularly focusing on the conservation of the dwindling population of the subspecies *dybowskii* of the Great Bustard.

## IMPACT ON CONSERVATION

The Group's work is, I believe, contributing to a growing awareness of the problems facing the Great Indian Bustard and to how these problems may be confronted. However, whether there is a positive impact on the conservation status of the species is too early to say. This is certainly true of the work that has been undertaken on the florican and houbara.

## FUTURE GOALS & ACTIVITIES

2015 and 2016 have been difficult years for the Chairman, owing to major work commitments, but in 2017 he will be preparing a fresh agenda for bustard conservation. This will include the establishment of a Little Bustard Working Group, following the findings of a census across Iberia in 2016 that reveals a huge decline in the species and indicates that work is urgently needed to prevent the species from disappearing from a region once considered its greatest stronghold.

## ACKNOWLEDGEMENTS



The Vulnerable Asian Houbara (*Chlamydotis macqueenii*) © Andy Swash

# IUCN SSC Butterfly Specialist Group



Scott Black

NAME: CHAIR / CO-CHAIRS	Scott Black
NAME: RED LIST AUTHORITY CO-ORDINATOR	Monika Bohm
LOCATION / AFFILIATION	Xerces Society for Invertebrate Conservation, Portland Oregon USA
NUMBER OF MEMBERS	14

## MISSION STATEMENT

The IUCN SSC Butterfly Specialist Group comprises more than 100 scientists worldwide and works to conserve all Lepidoptera insects (butterflies and moths) and their habitats around the world.

The group accomplishes this by empowering assessments and practical conservation programs—including habitat restoration and management, monitoring of populations, and reintroduction projects.

## SUMMARY OF MAIN ACTIVITIES 2015

Scott Black assessed 99 species that are endemic to Mediterranean and southern Europe.

Monika Bohm is working to pull together the birdwing assessments – drafting stage is nearly finished.

To ensure the Monarch Butterfly recovers, Scott Black is working with government agencies and monarch scientists at the highest levels in the United States, Mexico, and Canada. Through our involvement in the Federal Monarch Butterfly High Level Working Group, the Monarch Joint Venture, and both the National and Tri-National Monarch Conservation Science Partnerships, we are advancing the science and practice of monarch conservation, and shaping monarch conservation priorities at all levels.

The Xerces Society continues to manage the Butterfly Specialist Group discussion mailing list with over 100 participants. This mailing list was used to reach out to butterfly experts to pull together scientific research related to pollination by butterflies. The information is being used in various publications to inform the public about the important role butterflies and moths play in the pollination of plants.

Scott Black (in his capacity as Xerces Society Executive Director and IUCN Butterfly Specialist Group Chair) co-organized a symposium on the decline of common and widespread butterfly species at the 2015 Entomological Society of America conference. 10 scientists were involved including two IUCN steering committee members. More the 100 people attended.

Scott Black (in his capacity as Xerces Society Executive Director and IUCN Butterfly Specialist Group Chair) worked to prioritize conservation for butterfly species in California and to promote species specific conservation for multiple rare and declining species in the US - including the Laguna Mountain Skipper, Karner blue and monarch.

## IMPACT ON CONSERVATION

We have had a significant conservation impact on monarch conservation and the conservation of rare and declining species in the US. Xerces has restored habitat on over a quarter million acres for butterflies and other pollinators in the US since 2008, 45,000 acres were restored in the last year. Xerces has also protected thousands of acres for the most at risk butterfly species in the US.

## FUTURE GOALS & ACTIVITIES

In 2016 and 2017 the IUCN Butterfly Specialist will be reassessing leadership and structure to see if we can improve participation.

We will continue to pull together the birdwing assessments – drafting stage is nearly finished for the Ornithoptera.

We will continue to provide science based conservation to recover the monarch butterfly and its migration.

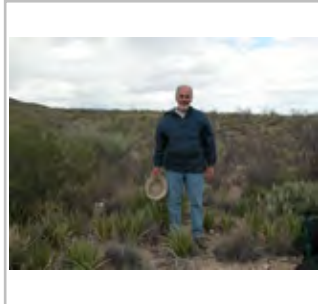
The Xerces Society and the IUCN Butterfly Specialist Group will continue to push for conservation action for the most vulnerable species.

## ACKNOWLEDGEMENTS

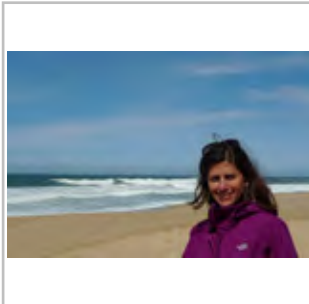


The Endangered Sierra Green Sulphur (*Colias behrii*), Saddlebag Lake, California © Bill Bouton

# IUCN SSC Cactus and Succulent Plant Specialist Group



Héctor Hernández



Bárbara Goetsch

NAME: CHAIR / CO-CHAIRS	1) Héctor M. Hernández and 2) Bárbara Goetsch
NAME: RED LIST AUTHORITY CO-ORDINATOR	Bárbara Goetsch
LOCATION / AFFILIATION	1) Héctor is based in Mexico City, affiliated to the Institute of Biology, UNAM and 2) Bárbara is based in Cambridge, UK
NUMBER OF MEMBERS	41

## MISSION STATEMENT

The goals of the IUCN SSC Cactus and Succulent Plant Specialist Group (CSSG) are: (1) to support scientific research in order to understand the biology and conservation status of succulent plants; (2) to encourage conservation planning in order to maximize protection for succulent plant species; (3) to support in situ and ex situ protection of critically endangered species; (4) to support national legislation and effective trade controls for all wild succulent plant species threatened by exploitation for international commerce; and (5) to promote education on the value of succulent plants, and the need for their conservation and sustainable use.

## SUMMARY OF MAIN ACTIVITIES 2015

In 2015 the results of the Global Cactus Assessment (GCA) were published in the journal 'Nature Plants'. The study found that 31% of cacti species are threatened with extinction; that there is a high diversity of threats affecting these plants, from shrimp farms to Eucalyptus plantations; and that the main cause of decline for threatened cactus species is collection from wild populations for many different purposes, including illegal trade. The publication attracted extensive media attention and the study was featured in many newspapers from around the globe, from Mexico to New Zealand, and a number of European countries. It was also featured in radio programs such as the BBC World Service.

The GCA brought together ~70 cactus experts from around the world, including 20 members of the CSSG and conducted a total of nine regional workshops to complete the Red List assessment of 1478 cactus species. This was an enormous and fruitful effort.

Formal discussions regarding establishing a relationship between the Desert Botanical Garden (DBG) and the CSSG were initiated at a formal meeting between Simon Stuart and Mike Hoffmann, and a number of Phoenix-based conservation organizations in 2015. Discussions were taken to the next step by Kira Mileham and the CSSG is now taking the lead on setting up a work plan with DBG.



## IMPACT ON CONSERVATION

Our greatest impact on conservation was gathering and generating all the baseline information for cacti through Red List assessments, and making it publicly available, to set priorities and make informed conservation decisions.

A second significant impact on conservation was reached through raising public awareness about the fact that plants, and not only animals, are threatened by extinction and that they are the subject of illegal trade. It might seem quite obvious to us but it is evident that the general public do not associate extinction risk or illegal trade with plants.

## FUTURE GOALS & ACTIVITIES

One of our main goals is to develop a conservation action plan for cacti based on the results of the GCA in collaboration with DBG and the Species Conservation Planning Subcommittee, conversations have already started. We will also work on completing some follow up work from the GCA (e.g. mapping the range of invasive cacti) and will aim to keep the cactus assessments up to date.

Now, with the complete assessment of the cactus family, our goal is to assess the extinction risk of other succulent plant groups, we will start with agaves and aloes, the later in collaboration with other SGs, organizations and institutions. We will be looking into expanding the membership and exploring how to best subdivide the SG regionally and/or taxonomically.

## ACKNOWLEDGEMENTS

We are grateful to Desert Botanical Gardens for accepting to host the CSSG and we look forward to working with them. We would like to thank Simon Stuart and Mike Hoffmann for initiating this partnership.

We are in debt to all the experts and organizations who supported and made possible the Global Cactus Assessments.



The Saguaro (*Carnegiea gigantea*) assessed as Least Concern occurs in the Mexican state of Sonora, in Arizona and California © Craig Hilton-Taylor

# IUCN SSC Canid Specialist Group



Claudio Sillero-Zubiri

NAME: CHAIR / CO-CHAIRS	Claudio Sillero-Zubiri
NAME: RED LIST AUTHORITY CO-ORDINATOR	Michael Hoffmann
LOCATION / AFFILIATION	The Chair based in Oxford, UK, and is affiliated with WildCRU (Wildlife Conservation Research Unit) at the University of Oxford.
NUMBER OF MEMBERS	97 members from 41 countries

## MISSION STATEMENT

The mission of the Canid Specialist Group (CSG) is to promote the long-term conservation of all wild Canidae species throughout their ranges. The CSG provides technical information to relevant conventions, range states, NGOs and the public on the conservation and status of all canid species; it fundraises and promotes conservation activities benefiting wild canids; and builds capacity through the exchange of ideas and technical expertise among the members of the Group. [www.canids.org](http://www.canids.org); [Canids-L@zoo.ox.ac.uk](mailto:Canids-L@zoo.ox.ac.uk); [www.facebook.com/Canidconservation](http://www.facebook.com/Canidconservation); @WildCanids

## SUMMARY OF MAIN ACTIVITIES 2015

CSG's main activities include the compilation, synthesis and dissemination of canid related information through strategic planning. The CSG often gets involved supporting a specific campaign or piece of legislation, and makes representations on a particular policy that may affect wild canids. Many of the CSG activities are decentralized and carried out by several species Working Groups as well as a Disease & Epidemiology and a Taxonomy & Nomenclature Working Group, and Contact Persons for Pathology, Canid Genetics, Conservation Breeding, and Reintroductions & Translocations. CSG's main dissemination channels include 'Canid Biology & Conservation', an electronic, peer-reviewed journal, and 'Canids-L', a mailing list exclusively devoted to canid biology and conservation with 900+ current members, and a multiple platform website. Our Facebook page which has proven immensely popular and counts with 4,300 likes to date. Our Twitter page has 450 followers and a monthly average of 6.5k impressions.

Ten of the 35 extant canid taxa are threatened: The Red Wolf is listed as Critically Endangered, four are listed as Endangered (Darwins Fox, Ethiopian Wolf, African Wild Dog, and Dhole), and five as Near Threatened (Bush Dog, Maned Wolf, Sechura Fox, Short-eared Dog and Island Fox). A few others are rare and even declining, while many wild canids are too common for their own good, and thus are involved in major wildlife management issues (such as disease transmission, predation on livestock, sport hunting, fur trade).

During 2015 we reassessed several canid species for the IUCN Red List of Threatened Species. We downlisted Darwin's Fox from Critically Endangered to Endangered, due to a range extension resulting from camera-trap surveys and better information on populations. Several South American species are listed as Near Threatened, reflecting in part the rapid rate at which forest biomes are being converted to large-scale agriculture.

The Taxonomy & Nomenclature Working Group has been reviewing the status of ancient wolf lineages such as the Himalayan Wolf, Indian Wolf, African Wolf and Eastern Timber Wolf, to ascertain their distinctiveness and enable the CSG to take a stand on their conservation status and needs. The phylogeny of the foxes of the American Southern Cone and how this may affect their conservation status is also under revision.

Recently the Wolf Specialist Group, historically chaired by Dave Mech, merged into the CSG. We have structured a CSG Wolf Working Group with three regional coordinators, and adopted the long-standing Wolf Manifesto of the Wolf SG. The North America chapter has been particularly active calling on Alberta, Canada, to eliminate the archaic and outdated wolf bounty payments.

## IMPACT ON CONSERVATION

The CSG is closely involved with many field conservation and research projects that focus on threatened canid species. For example, during 2015 we provided guidance and support for vaccination interventions in Ethiopian Wolves, and undertook pilot testing of an oral rabies vaccine. The CSG is overseeing the implementation of a conservation strategy for Ethiopian Wolves spearheaded by the Ethiopian Wolf Conservation Programme (EWCP) was established in 1995 by CSG in partnership with the Ethiopian government, University of Oxford and Born Free Foundation, to protect the rarest of all wild canids. As a follow up, the CSG is developing an integrated disease management plan for the species.

We have supported the implementation of new field projects on the Himalayan Wolf and African Wolf and continue to support research on the conservation needs of the little known forest-dwelling canids of South America.

In partnership with the Cat Specialist Group, the Zoological Society of London and the Wildlife Conservation Society, the CSG have developed regional conservation strategies for African Wild Dogs and Cheetah, based on the premise that these two species have similar ecological requirements and face similar threats. Under each regional strategy we have supported range countries preparing their own national action plans, ably assisted by three regional coordinators.

## FUTURE GOALS & ACTIVITIES

Many wild canids antagonise with human interests, often resulting in persecution. Our challenge is to increase tolerance and mitigate conflict to enable rare, threatened species to survive.

Our top priority is fine-tuning of our global network of canid experts developing our working group approach further, and promoting strategic planning and the implementation of projects and actions proposed in the Canid Action Plan and several species-specific strategic plans.

We would like to see more bottom-up initiatives and dynamism amongst the CSG membership, and improve our ability to raise financial resources to support key projects.

## ACKNOWLEDGEMENTS

We are grateful to the Born Free Foundation for funding the Chair's position at Lady Margaret Hall, and thank WildCRU for office space and resources. We thank the Forestry Bureau of the Council of Agriculture, Republic of China (Taiwan), for several small grants to support CSG activities. We thank our Friends of Canids for their enthusiastic participation, and the many organisations that support hundreds of worthwhile canid conservation and research projects throughout the world.



The Endangered Ethiopian Wolf (*Canis simensis*) © W Burrard-Lucas

# IUCN SSC Caprinae Specialist Group



Marco Festa-Bianchet

NAME: CHAIR / CO-CHAIRS	Marco Festa-Bianchet
NAME: RED LIST AUTHORITY CO-ORDINATOR	Rich Harris
LOCATION / AFFILIATION	Marco: Université de Sherbrooke, Canada. Rich: Dept Fish & Wildlife, Washington, USA
NUMBER OF MEMBERS	42

## MISSION STATEMENT

The mission of the Caprinae Specialist Group (CSG) is to maintain functioning ecosystems in mountain areas by fostering the conservation of mountain ungulates, including research, education and management. Our statement on when and how trophy hunting can be part of a conservation program led to the IUCN SSC Guiding Principles on Trophy Hunting as a Tool for Creating Conservation Incentives.

## SUMMARY OF MAIN ACTIVITIES 2015

In 2015, members of the group continued their research and management activities, focusing on habitat protection, evolutionarily and ecologically sustainable sport hunting for conservation of mountain ungulates and their habitat, the transmission of disease from livestock to wild mountain ungulates, taxonomy and population dynamics. We are particularly concerned with Central Asia, and continued to assist in the development of hunting programs for species like argali and markhor that have the potential to attract substantial amounts of conservation funding. We also continued to underline that currently, most trophy hunting programmes have limited positive impact on conservation.

We resuscitated the Caprinae Newsletter with the help of Jeff Holland of the Los Angeles Zoo. One issue was published and another is in preparation. We are looking for ways to make the Newsletter available on an IUCN website. We responded to a proposal to change the CITES listing of Caucasian Tur, suggesting that the uplisting is probably not warranted and not helpful at this time.

The Muskox is included with the Caprinae SG. In 2015, CSG member Anne Gunn helped establish an informal circum-arctic Muskox network (MOXNET = Muskoxen Knowledge Network) as part of the Circumpolar Biodiversity Monitoring Program under organization by the Arctic Council. MOXNET currently draws from the expertise in seven polar countries to estimate trends in global abundance, distribution and threats to muskoxen and share ecological information for muskox conservation.

In Mongolia, CSG member Richard Reading used data on radio-collared Argali to successfully lobby for an expansion of the Ikh Nart Nature Reserve (45°43'N, 108°39' E), on the northern edge of the Gobi Desert. The additional 556 km<sup>2</sup> protected represents a 183% expansion of this important refuge. Additional conservation work in this area involved an experimental decrease in grazing pressure by domestic livestock, and data-based plans for a further expansion of the protected area.

Several members continued to contribute to various programs and research to prevent the transmission of exotic diseases from livestock to wild sheep and goats, and to promote the use of ecologically and evolutionary sustainable trophy hunting as a tool in the conservation of mountain ungulates and their habitat.

## IMPACT ON CONSERVATION

Research by members of the CSG is leading several wildlife management agencies, particularly in Canada, to reconsider overly permissive hunting regulations that have been shown to lead to artificial evolution of small horns. There are now several hunting areas in Central Asia that are using funds obtained from trophy hunting programs to protect the habitat of mountain ungulates, reduce livestock grazing pressure, and fund anti-poaching activities.

## FUTURE GOALS & ACTIVITIES

A scientific meeting on mountain ungulates will take place in Cyprus in September. After 16 years, Marco Festa-Bianchet (Canada) has resigned as Chair and the Chairmanship for the next term will be held jointly by Sandro Lovari (Italy) and Juan Herrero (Spain).

Our goals for 2016 remain focused on preventing competition and disease transmission from domestic livestock, promoting sustainable hunting that benefits conservation, and promote the conservation of mountain ecosystems. We are also looking to recruit new and younger members of the group, ideally with a range of expertises and from a variety of geographical regions. Support of conservation decisions based on scientific evidence remains our highest priority.

## ACKNOWLEDGEMENTS

The outgoing Chair is very grateful for many years of support by dedicated biologists in many countries.



Bighorn Sheep father and son: molecular identifications of paternities have shown that intense trophy hunting leads to the evolution of smaller horns in this species © Marco Festa-Bianchet

# IUCN SSC Carnivorous Plant Specialist Group



Robert Cantley

NAME: CHAIR / CO-CHAIRS	Robert Cantley
NAME: RED LIST AUTHORITY CO-ORDINATOR	Dr Charles Clarke
LOCATION / AFFILIATION	Colombo, Sri Lanka and are not currently affiliated with any institution, company or organization.
NUMBER OF MEMBERS	112 (including Sir David Attenborough as Patron)

## MISSION STATEMENT

The mission of the Carnivorous Plant Specialist Group (CPSG) is to help ensure that the conservation status of all carnivorous plants are adequately and accurately documented, to assist in raising of public awareness and to encourage initiation of appropriate conservation measures.

## SUMMARY OF MAIN ACTIVITIES 2015

2015 was our most active year to date, mainly due to the generosity of the ever-increasing number of volunteer experts, who continue to donate their time and expertise to further the goals of the CPSG in various ways. Activities in 2015 include:

- Assessed and submitted for review the remaining 70 previously unassessed species of *Nepenthes* pitcher plants. This completes assessments for all 160 species in the genus. Two species are assessed as Endangered and alarmingly, seven species are Critically Endangered. The conservation status of these species was not known until the assessments were made in 2015 and the situation is being examined now, to see how we might help arrest, or reverse, the decline in populations of the most imperiled species.
- Assessments continued to be entered into the Species Information Service (SIS) for species of genera of carnivorous plants other than *Nepenthes*. The genus *Drosera*, (common name: Sundews) is one of the largest groups of carnivorous plants, yet no species had been formally assessed for the IUCN Red List before 2015. Now that we have achieved our first goal, which was the assessment of all 160 *Nepenthes* species, we are able to turn our attention to other genera, such as *Drosera*. To this end, we are progressing with drafting assessments for *Drosera* species from Southwest Australia, which is the center of diversity for this genus. The majority of *Drosera* species are not well known to science, however assessments are underway and in 2015 we submitted assessments for 11 *Drosera* species. Additionally, 2 species of *Pinguicula* and 8 species of *Utricularia* were assessed by the Freshwater Plants Specialist Group (FPSG) and reviewed by the CPSG ready for inclusion in the next Red List update.
- A Red Listing Workshop was planned and is scheduled for early August 2016. Funding was secured through a successful online campaign. Once funds were assured, eminent volunteer specialist experts were selected and invited.
- A direct conservation action was initiated at a high-level, in a bid to prevent the imminent extinction of *Nepenthes suratensis*. This is detailed in the Impact on Conservation section.
- Overall membership has been increased by over 50% since 2014 and public awareness raised by the creation and careful maintenance of several new Facebook Pages.

## IMPACT ON CONSERVATION

In late May 2015 we learned from the South East Asia Nepenthes Study and Research Foundation (SEANSRF) that the entire known population of *Nepenthes suratensis* - an already critically endangered Thai endemic species with only a few hundred individuals remaining - was to be completely wiped out on 6th June to make way for an extension to an existing prison development. The situation was, and still is, complex to tackle, since the population is contained entirely within the existing prison boundary and therefore it is not a simple matter to visit the site or even monitor the situation.

Letters explaining the situation and its dire urgency were sent to appropriate authorities in Thailand. These letters were signed by Ms. Inger Andersen, the Secretary General of the IUCN and a set of separate letters were sent by the CPSG Patron, Sir David Attenborough. Also the IUCN Regional Office in Thailand did a tremendous amount of work locally, as did SEANSRF.

Although the Thai authorities were co-operative, they explained that the existing prison was exceedingly overcrowded by a ratio of 5:1 and a development was understandably necessary. However, due to the information we provided and the efforts of others mentioned above, they agreed to the following measures:

- a) Re-orientate the extension to reduce the impact on the wild population of plants.
- b) Transplant those plants that were still to be affected by the development, to a site about 1Km distant (but still within the boundaries of the prison complex).

Up until this intervention, by the CPSG and others, and despite the best efforts of SEANSRF, it was appearing that the development would go ahead as originally planned and that we would have been seeing a certain extinction event on 6th June. However, after CPSG and higher level IUCN representations were made, the development was delayed and then re-planned. We are informed that the relevant authorities have observed that about 50% of the population was unaffected by the development after the building was re-orientated. The other 50% have been transplanted to an alternative site by prison inmates. Photographs of this transplanting process have appeared in some Thai media reports.

## FUTURE GOALS & ACTIVITIES

Organise and undertake a Red Listing Workshop at the Royal Botanic Gardens, Kew, scheduled to run from 31st July to 4th August 2016. Tentative target for assessments submitted to SIS during the workshop will be 200+ with emphasis on attempting to complete all Australian species of carnivorous plants, many of which are hardly known to science.

Continue to assess other species of carnivorous plants for the red list with a target of a further 100 to be completed by the end of 2016. Combined with those assessed in the past 2 years, added to the target mentioned in the workshop referenced above, that would complete assessments of approximately 2/3 of the 750 published species of carnivorous plants.

Continue to monitor and document specific poaching of critically endangered species currently taking place in Asia, with the goal of providing the appropriate authorities with sufficient evidence to initiate appropriate action.

## ACKNOWLEDGEMENTS

The CPSG wishes to thank the Environment Agency of Abu Dhabi for its continued generous support, as well as give thanks to the many donors - both, individuals and societies - who's online donations have made it possible for us to run a Red Listing workshop in August 2016. Special thanks also to the many experts who are generously donating their time on a voluntary basis, both at the workshop and throughout the year, to make our work possible. We also wish to thank our Patron, Sir David Attenborough, who in his 90th year continues to play an active role in conservation activities and acted swiftly in the intervention efforts to help prevent the extinction in the wild of *Nepenthes suratensis*.



The Critically Endangered *Nepenthes macrophylla* (first assessed 2015) © Ch'ien C. Lee

# IUCN SSC Cat Specialist Group



Urs and Christine Breitenmoser

NAME: CHAIR / CO-CHAIRS	Urs Breitenmoser and Christine Breitenmoser-Würsten
NAME: RED LIST AUTHORITY CO-ORDINATOR	Kristin Nowell
LOCATION / AFFILIATION	KORA, Thunstrasse 31, 3074 Muri, Switzerland
NUMBER OF MEMBERS	201

## MISSION STATEMENT

The IUCN SSC Cat Specialist Group (Cat SG) is pledged to do all in its power to achieve the conservation of all cat species. Cat SG appeals for the cooperation of all people to ensure that these magnificent animals continue to coexist with humans as they have through the ages.

## SUMMARY OF MAIN ACTIVITIES 2015

With the update of the Global Mammal Assessment, 12 cat species reassessments went online in June and another 12 species in November 2015. Many Cat SG members were involved in these reassessments and provided a lot of very valuable information.

The reassessment of the Leopard showed a dire situation for the species across large parts of its range. Perhaps because of its vast distribution, very little range-wide effort has been taken to understand the level of threat to Leopards. A first step to conserve the Leopard is to bring it on the agenda of the conservation community. Together with our partners from Panthera we reviewed information on status and distribution, important threats, available conservation strategies and action plans, and ongoing leopard research and conservation projects across the different regions. We then identified gaps of knowledge and their geographic scope. We developed a general goal and 11 objectives addressing the threats and shortcomings identified. This global framework suggests 32 concrete conservation actions for Leopard conservation. The large scale and the considerable challenges of the Leopard conservation require a broad partnership among conservation organisations and a stern commitment of the range countries. As a first small step towards a global Leopard conservation initiative, we organised a Leopard symposium at the University of Berne where we presented the global situation of the Leopard to some potential funding organisations.

Recognising the dire situation of Cheetah and African Wild Dog, in 2006 the Wildlife Conservation Society (WCS) and the Zoological Society of London (ZSL) in collaboration with the Cat SG and the Canid Specialist Group launched a conservation planning programme for the global range of the two species. Regional strategies according to IUCN standards were developed in 2007 for East Africa and Southern Africa, and in 2012 for North, West and Central Africa. The 2012 strategy now needs to be translated into National Action Plans. In March 2015, the Rangeland Conservation Program for Cheetah and African Wild Dog organised a two day workshop facilitated by the Cat SG in Zakouma National Park, Chad, to develop a National Action Plan for the two species for Chad, using the Regional Conservation Strategy as a blueprint. A similar workshop took place in Algeria in October 2015. The Cat SG co-chairs participated in the meeting of the Species Conservation Planning Subcommittee in Abu Dhabi in September 2015 and in a workshop to discuss the future of conservation planning within SSC in Bath in November 2015. Furthermore, we have summarised our experience with conservation planning specifically for cats in How to save the cat (Cat News Special Issue 9, 2015).



## IMPACT ON CONSERVATION

In the June 2015 update of the Red List, the Iberian Lynx was down-listed to Endangered. The Junta de Andalucía together with the Cat SG organised a press conference on 29 June in Sevilla to announce and celebrate the down-listing. In 2002, as the first cat species ever to be declared Critically Endangered, the situation for the Iberian Lynx was extremely dangerous: Only 94 Iberian Lynx (52 mature individuals) remained and no conservation breeding programme had been established. Indeed, the first Iberian Lynx was born in captivity only 10 years ago, in 2005. In 2015, 400 lynx roamed again in the two remnant and the two reintroduced populations in Andalucía, including some newly founded nuclei in Castilla-La Mancha, Extremadura and Portugal. The “Andalusian Lynx” has become the Iberian Lynx again! Five breeding centres with 79 enclosures in Spain and Portugal nowadays produce lynx for the reintroduction programme. 100 lynx born in captivity and 25 animals from the two remnant populations were already released.

In 2012, the IUCN SSC and the European Association of Zoos and Aquariums (EAZA) signed an MoU with the Russian Ministry of Natural Resources and Environment to cooperate in the reintroduction of the Persian Leopard in the Caucasian Biosphere Reserve in the western Greater Caucasus east of Sochi. As wild-born Persian Leopards are hardly available, the plan is to breed, train and release Leopards in a special breeding facility, using animals from the EAZA Persian Leopard European Endangered species Program (EEP). An international group of experts consisting of Marianne Hartmann, cat ethologist and Cat SG member, Alexander Sliwa, EAZA Felid Taxon Advisory Group chair, José Dias Ferreira, EEP coordinator, and Urs Breitenmoser, Cat SG co-chair, advises the Russian project partners in the different aspects of the project. The advisory group together with Natalia Dronova, species programme coordinator of WWF Russia, has visited the Sochi Leopard Breeding Centre several times and meets regularly with the Ministry of Natural Resources and Environment in Moscow. The first Leopards were born at the centre in 2013, establishing now a vital Leopard population from captive stock is a particular challenge implying a lot of difficult decisions.

Eight years after its inauguration, it was time to review and update the Regional Conservation Strategy for Cheetah and African Wild Dog for southern Africa. Representatives of the wildlife authorities of all range countries and from many NGOs working across Southern Africa participated in a four day workshop in South Africa in August 2015. It was exciting to have Angola on board for the first time. The workshop was very productive and demonstrated the immense value of revisiting strategic plans to keep them relevant, realistic and up to date.

## FUTURE GOALS & ACTIVITIES

Agenda 2016: January: Side event on the conservation status of the Leopard at CITES SC66 (Geneva, Switzerland). Workshop of the Global Wildlife Program of the World Bank Group for knowledge exchange to combat wildlife crime; promotion of the Lion Database (Gland, Switzerland). April: Strategic planning meeting Iberian Lynx (Sevilla, Spain). May: CITES and CMS Lion range states meeting (Entebbe, Uganda). June: Workshop and seminar on Siberian Tiger, Amur Leopard and other cat species conservation (Beijing, China). September: CITES CoP 17 (Johannesburg, South Africa). October: Workshop for revision of Regional Conservation Strategy of the Leopard in the Caucasus eco-region (Tbilisi, Georgia). Remaining 14 cat reassessments for the IUCN Red List need to be finished before mid-2016. Revision of the felid taxonomy to be finalised and published. Launching of research on large carnivore trade in Benin and big cat population assessments in the WAP complex (in collaboration with Panthera and ZSL). Publish and propagate the framework for range-wide Leopard conservation (together with Panthera). Publication of two regular and two special issues (Cats of Iran, Conservation of the Balkan lynx) of Cat News.

## ACKNOWLEDGEMENTS

We are very grateful for the continued support by the Friends of the Cat Group, MAVA Foundation, Mohamed bin Zayed Species Conservation Fund, Zoo Leipzig, Forestry Bureau of the Taiwan Council of Agriculture, Council of Europe/Bern Convention, Patrick Meier and Peter Stämpfli. We wish to thank all our colleagues and members of the Cat Specialist Group for their hard work during 2015, especially Kristin Novell as Red List Coordinator and all the species assessors and reviewers. Special thanks to Andrew Kitchener, chair Cat Classification Task Force. And a big thank you to Manuela von Arx, Tabea Lanz, Roland Bürki, and Anna Huber who are supporting our work for and with the Cat SG.



Cheetah (*Acinonyx jubatus*) © P. Meier

# Cave Invertebrate Specialist Group




Dr Tony Whitten



Dr Louis Deharveng

NAME: CHAIR / CO-CHAIRS	Dr Tony Whitten / Dr Louis Deharveng
NAME: RED LIST AUTHORITY CO-ORDINATOR	Sonia Khela
LOCATION / AFFILIATION	Fauna & Flora International / Paris Museum of Natural History
NUMBER OF MEMBERS	90

## MISSION STATEMENT

To stimulate the conservation of all cave invertebrates, focusing on those not yet covered by other SSC Specialist Groups.

## SUMMARY OF MAIN ACTIVITIES 2015

**Representation:** The Group was represented at the IUCN Leaders' Meeting in Abu Dhabi, especially at the side meetings of the IUCN SSC Invertebrate Conservation Sub-Committee (ICSC), at a consultative meeting of the Cement Sustainability Initiative of the World Business Council for Sustainable Development (WBCSD), also with top executives of the newly merged giant cement company, LafargeHolcim, IUCN Business and Biodiversity team, and the SSC Chair.

**Cement companies:** The focus on limestone quarries operated by major cement companies and the micro-endemic species they impact is continuing, and the Chair of the SSC signed a formal letter to a Malaysian company, YTL, which by the close of the year had still not responded despite reminders from the group Chair.

**Key Biodiversity Areas (KBAs):** The Group was closely involved in the finalization of the new IUCN KBA Standard, and members have been informed of progress.

**IUCN Red List assessments:** Soon after the group was established at the end of 2013, members were requested to put forward any species requiring IUCN Red List assessments for 2015. The number of submissions has again been disappointing, but we are dealing with a group - and a group of specialists - which has not received much attention in the past, is very much on the margins of the conservation world and does not yet understand the value of IUCN Red Listing. Plans were laid and funds secured to assess three dozen limestone endemics (including cave invertebrates) found in the Hon Chong archipelago of hills in Vietnam; this meeting will be held in early 2016. It was also agreed to assess all the cave-restricted trechine beetles of China, but this will not be initiated until 2016.

An intern from Trier University was placed in the office of the Group's Secretariat to cover the IUCN SSC's ICSC programme on assessing charismatic mega-invertebrates. This included work on South East Asian cave whip-spiders and whip-scorpions.

The Group's Facebook page now has 732 'likes'.

## IMPACT ON CONSERVATION

No significant impacts were achieved in 2015.

## FUTURE GOALS & ACTIVITIES

IUCN Red List assessments of the Chinese cave-restricted trechine beetles.

More taxon and geography-limited Red List assessments.

First KBA assessments.

Attendance at the 23rd International Conference on Subterranean Biology: June 2016, Arkansas, USA.

Progress with cement companies in avoiding negative impacts on threatened and endemic cave invertebrates.

## ACKNOWLEDGEMENTS

The Erasmus Fund for support of the ICSC intern.

IUCN SSC for agreeing to fund the Hon Chong IUCN Red List assessments in 2016.



Cave cricket, Hpa'an, Myanmar © Jeremy Holden/FFI

# IUCN SSC Cetacean Specialist Group



Randall Reeves

NAME: CHAIR / CO-CHAIRS	Randall Reeves
NAME: RED LIST AUTHORITY CO-ORDINATOR	Barbara Taylor
LOCATION / AFFILIATION	Reeves - Hudson
NUMBER OF MEMBERS	113 (including Deputy Chair - Giuseppe Notarbartolo di Sciara)

## MISSION STATEMENT

Our mission is to promote the conservation of cetaceans worldwide. We function as a catalyst, clearinghouse and facilitator for cetacean-related research and conservation action. Our guiding premise is that conservation ultimately depends on good science, and the group's credibility and value rely on maintaining high standards of scientific rigor. The advice we provide relates mainly to the status of populations, abundance, trends, current or potential threats and the effectiveness of measures to eliminate or reduce harm, with emphasis on endangered species and populations in regions that are short of capacity and where conservation problems for cetaceans are less likely to be recognized and addressed.

## SUMMARY OF MAIN ACTIVITIES 2015

The Critically Endangered Vaquita, a small porpoise endemic to Mexico's Upper Gulf of California, has continued its precipitous decline over the last few years largely because of accidental mortality in gillnets set illegally to catch large croakers (Totoaba, also listed as Critically Endangered) whose swim bladders are smuggled into China for use in soup. CSG are directly involved in efforts to prevent the Vaquita from becoming the second species of small cetacean to have gone extinct in the 21st century solely due to human actions. Activities have taken several forms and intensified over the past year, including participation in a special advisory commission to the President of Mexico and in Mexico's Vaquita recovery team which advises the Secretary of Environment; the design and execution of a rangewide Vaquita abundance survey; and the preparation of letters to the Presidents of Mexico and China from the IUCN Director General and several professional societies. In fact Vaquita conservation occupied some CSG members nearly full-time in 2015, unfortunately slowing progress on other fronts, notably catching up on our responsibilities for Red List reassessments.

As indicated in last year's report, many CSG members participate in the work of the International Whaling Commission, which has increasingly become involved in cetacean conservation through its Scientific and Conservation Committees. CSG members also serve on the Conservation Committee of the Society for Marine Mammalogy and maintain close links with the regional marine mammal agreements under the Convention on Migratory Species (CMS). Notarbartolo serves as the Aquatic Mammals Councillor on the CMS Scientific Council. Besides interacting closely with the Global Species Program and SSC, CSG members have worked with IUCN's Global Marine and Polar Program and Business and Biodiversity Program to implement a long-running scientific panel on Western Gray Whales. Members have also helped establish and operate the Arabian Sea Whale Network with its focus on study and protection of the Endangered, non-migratory Humpback Whale population in the northern Indian Ocean. The Joint SSC/World Commission on Protected Areas (WCPA) Marine Mammal Protected Area Task Force led by Notarbartolo di Sciara and CSG member Erich Hoyt has made good progress towards defining and identifying 'Important Marine Mammal Areas' and towards integrating that process with other large-scale marine spatial planning processes, notably IUCN's Key Biodiversity Areas designations.

Finally, a number of CSG members continue to be closely involved in projects to improve understanding and protection of Critically Endangered freshwater populations of Irrawaddy dolphins and other species in Southeast Asia and Latin America.

## IMPACT ON CONSERVATION

The prospects of some cetaceans in some areas have improved. The credit for much of the partial but promising recovery by certain populations of large, commercially valuable whales belongs primarily to those who fought for measures to scale back, and finally ban, commercial whaling. Among the most convincing examples of populations that are nearly recovered, or are on their way to recovery, are Blue Whales in the eastern North Pacific; Southern Right Whales in parts of southern Africa, eastern South America, Australia and most recently New Zealand; Bowhead Whales between eastern Russia and western Greenland (with hopeful signs in the rest of their historical range); and Humpback Whales in most of their cosmopolitan range. The conservation status of North Atlantic Right Whales appears better than it was several decades ago in spite of serious ongoing risks from entanglement in fishing gear, ship strikes and offshore development. Hanging over all of these positive developments, all of which have been due in part to the efforts of CSG members but also to many other individuals and institutions, are the uncertain impacts of climate change and ocean acidification. The CSG has played, and continues to play, a role in identifying issues and working to address them, invariably in collaboration with other players.

Given its emphasis on overlooked or neglected species and populations, much of the CSG's impact has been on the conservation of small cetaceans, but 'successes' have been few, and they are often ephemeral. Although river dolphins in the Asian subcontinent are no longer deliberately hunted and are instead rescued from irrigation canals and returned to the Indus in Pakistan and feted as the 'national aquatic mammal' in India (owing at least in part to decades of effort by the CSG), the loss and modification of their habitat continues. Both India and Pakistan recently announced grand plans to reconfigure their rivers as 'waterways' for commerce and industry. In Brazil, where the deliberate killing of river dolphins for use as catfish bait prompted national legislation to close the fishery, this ban has been ineffective and dolphin populations we once thought were secure are now in rapid decline. Unfortunately, at the time of writing, despite a major 'success' of convincing the President of Mexico to declare a 2-year, almost-total ban on gillnet fishing within the entire range of the Vaquita, there is clear evidence of continued illegal gillnetting for Totoaba. The above-mentioned rangewide Vaquita survey in late 2015 confirmed our worst fears regarding their decline; only tens of individuals remain.

## FUTURE GOALS & ACTIVITIES

In coming years, CSG members will continue efforts to identify and draw attention to threats facing cetaceans, update and improve Red List assessments, promote the recognition and protection of Important Marine Mammal Areas, and do everything we can to make the world's oceans, seas and rivers - within and beyond national jurisdiction - quieter, less polluted and otherwise safer for cetaceans. This will involve continuation of ongoing activities but also initiatives to tackle new threats as they arise. It will require collaboration with and active participation in institutions and organizations that share our goals. One emerging problem is the recent large die-offs of baleen whales - e.g. in the eastern North Pacific, western South Atlantic and southern Chile. Individual CSG members are engaged in efforts to diagnose the causes so that remedial measures can be recommended. Other emerging problems include the above-mentioned system-scale threats to river dolphins in the Asian subcontinent and the use of coastal and riverine cetaceans as fishing bait and as 'bushmeat'. Meantime, the battles to prevent extinction of the Vaquita and the Maui subspecies of Hector's Dolphin must continue.

## ACKNOWLEDGEMENTS

Among the many sources of major support for CSG work are various WWF offices, IWC, US Marine Mammal Commission, SOS, Ocean Park Conservation Foundation, Whale and Dolphin Conservation, Wildlife Conservation Society and NatureBureau-UK. Also we wish to acknowledge the great work by Gill Braulik and Natalie Sanders who maintain and update the CSG website (<http://www.iucn-csg.org/>) where much more information on our work can be found.



A South Asian River Dolphin surfaces in the Ganga River at Bhagalpur, Bihar. The background of the image shows a bridge under construction © Sushant Dey

# IUCN SSC Chameleon Specialist Group



Richard Jenkins

NAME: CHAIR / CO-CHAIRS	Richard Jenkins
NAME: RED LIST AUTHORITY CO-ORDINATOR	Krytal Tolley
LOCATION / AFFILIATION	Hosted by the IUCN Global Species Programme and South Africa National Biodiversity Institute
NUMBER OF MEMBERS	12

## MISSION STATEMENT

The mission of the Chameleon Specialist Group (CSG) is to improve the conservation status and sustainable use of wild chameleons. Specifically, we ensure IUCN Red List assessments are up to date for all species, assist Parties to implement CITES for the benefit of chameleon conservation and design, implement or support effective conservation measures that secure habitats and wild populations of the most threatened chameleons in priority sites.

## SUMMARY OF MAIN ACTIVITIES 2015

The Chameleon Specialist Group primarily supports decision-makers to act for the benefit of chameleon species. We are a small group and prioritize issues that threaten the status of wild chameleons and provision up to date information and objective, expert advice.

Supporting the IUCN's government members:

We assisted the governments of Austria, Czech Republic, Madagascar, South Africa and the United Kingdom in dealing with issues around the legality, provenance and sustainability of chameleon consignments.

We also advised the government of Tanzania on how to overcome challenges around the identification of wild-sourced chameleons. This led to a travel grant from the Darwin Initiative for members of the Chameleon Specialist Group to visit Tanzania and work with the government's CITES Authorities and other stakeholders to develop a road-map for wise use and conservation of the country's reptiles.

Advising CITES:

Members of the Chameleon Specialist Group provided detailed information to CITES through the United Nations Environment Programme's World Conservation Monitoring Centre (UNEP-WCMC) on chameleon species that are potentially threatened by unsustainable levels of trade.

IUCN Red List Assessments:

Published an additional 10 assessments on the IUCN Red List, taking the total number to 193 species. All of the world's chameleon species have therefore been assessed, except *Kinyongia msuyae* which was only described in 2015.

Species Conservation Surveys:

In March 2016, a field survey was conducted to determine whether small forest patches in the Malawi Hills still contain viable populations of the Critically Endangered Chapman's Pygmy Chameleon (*Rhampholeon chapmanorum*). A large, healthy population was found in an intact patch of forest, whereas the population in a degraded patch appeared to be in low density. Two additional intact patches were located but not surveyed.

## IMPACT ON CONSERVATION

### 1. Outreach

Our Facebook Page has grown to 2,957 "likes" as of 8 June 2016. This page is used regularly to post links and information relating to recent chameleon research, the results of research and conservation efforts, and other chameleon-related material. Since March of this year, all new content posted on the page has experienced a "reach" of 2.5k- 9.3k people per post through sharing, post "likes" and comments.

### 2. Chapman's Pygmy Chameleon

Advice and information from our members directly supported the decision-making process in CITES that led to the suspension of trade in a selected threatened *Kinyongia* species from Tanzania. Ongoing work with the government aims to determine sustainable quota and good management practices for certain species and to enhance conservation and protection measures for threatened and restricted-range species.

## FUTURE GOALS & ACTIVITIES

1. Identify Alliance for Zero Extinction sites for chameleons
2. Develop a 'wise use and conservation plan' for the chameleons of Tanzania
3. Update the IUCN Red List to reflect changes in chameleon conservation and taxonomic status
4. Continue to support the government of Madagascar's conservation and sustainable use of chameleons
5. Improve the conservation of *Rhampholeon chapmanorum* sites by expanding existing, or creating new, protected areas

## ACKNOWLEDGEMENTS

We are grateful to the government of Tanzania for inviting us to assist them improve their chameleon conservation and management. For the survey of *Rhampholeon chapmanorum*: Conforzi Tea Estate, Mantandwe Forest Reserve Yankho Chapeta (National Museums of Malawi), Lovemore Mazibuko (National Museums of Malawi) and Gary Brown and the generous RocketHub crowd-funding donations.



Chapman's Pygmy Chameleon (*Rhampholeon chapmanorum*) © Krystal Tolley

# IUCN SSC China Plant Specialist Group



QIN Hai-Ning

NAME: CHAIR / CO-CHAIRS	Haining QIN
NAME: RED LIST AUTHORITY CO-ORDINATOR	Quanru Liu
LOCATION / AFFILIATION	Institute of Botany, The Chinese Academy of Sciences, and Beijing Normal University.
NUMBER OF MEMBERS	50

## MISSION STATEMENT

The IUCN SSC Chinese Plant Specialist Group (CPSG) is a national network of specialists contributing from within our own institutions and in our own regions, to the conservation and sustainable use of Chinese plants. The CPSG was founded in the 1980s to increase public awareness of diversity and conservation threats to Chinese plants, and to promote sustainable use and conservation action.

## SUMMARY OF MAIN ACTIVITIES 2015

- 1) We released the "Catalogue of Life: China", a 2015 Annual Checklist, a CD-ROM, and published three issues of the "Species Catalogue of China, Plant volume": The catalogue features updated species information and covers all native species of Chinese plants.
- 2) A total of 350 000 specimens of 27 herbaria have been digitized and their data uploaded to the China Virtual Herbarium ([www.cvh.org.cn](http://www.cvh.org.cn)).
- 3) The Red Data Book of Chinese medicinal plants was compiled. More than 200 species of important Chinese medicinal plants are included in the book.
- 4) Many CPSG members at a regional level have undertaken the second national survey of protected plants and the fourth national survey of medicinal plants.



## IMPACT ON CONSERVATION

Based on our data included in "Catalogue of Life: China" and the "Chinese Plant Red List", we contributed a chapter to the book "China's Biodiversity: A Country Study" (second edition). It is a "white book" on national biodiversity and will make a significant influence to the future conservation of Chinese plants.

## FUTURE GOALS & ACTIVITIES

By reorganizing the CPSG for the next quadrennium, we hope we can recruit new, and more active members for advancing the conservation of plants in China. We plan to improve network communication by issuing a group newsletter and holding CPSG meetings. We also aim have the two volumes of the "Chinese Plant Red List" published.

## ACKNOWLEDGEMENTS

Acknowledgements are made to the Biodiversity Committee of the Chinese Academy of Sciences and to the Ministry of Environmental Protection, from which the CPSG receives significant support.



The Critically Endangered *Cystoathyrium chinense*. Previously thought to be Extinct in the Wild, in 2013 the Liu Quanru group from Beijing Normal University found one wild population in Erlang Mountain, Tianquan County, Sichuan Province. Based on this information, the species was re-classified.

# IUCN SSC Chytrid, Zygomycete, Downy Mildew and Slime Mould Specialist Group



Tetyana Kryvomaz



Mayra Camino Vilaro

<b>NAME: CHAIR / CO-CHAIRS</b>	1) Tetyana Kryvomaz and 2) Mayra Camino Vilaro
<b>NAME: RED LIST AUTHORITY CO-ORDINATOR</b>	Mayra Camino Vilaro
<b>LOCATION / AFFILIATION</b>	1) based in Kyiv, Ukraine and affiliated with Kyiv National Construction and Architecture University; NGO "Ukrainian Ecological Society"; and the European Mycological Association 2) affiliated with Jardín Botánico Nacional, La Habana, Cuba
<b>NUMBER OF MEMBERS</b>	25 members from 17 countries

## MISSION STATEMENT

Our mission is to promote the conservation of chytrids, downy mildews, myxomycetes and zygomycetes.

Key objectives:

Raise awareness of the ecological and economical importance of chytrids, downy mildews, myxomycetes and zygomycetes; identify any threats these organisms face; establish plans, policies and priorities for dealing with those threats; assess the conservation status of individual species; identify geographical areas and habitats important for their diversity; act as a focal point for organizations and individuals interested in their conservation; provide advice about methods and policies for conserving these organisms.

## SUMMARY OF MAIN ACTIVITIES 2015

A preliminary survey was made to evaluate the possible impact of climate change on myxomycetes. The primary emphasis is upon the assemblages of species present in a particular microhabitat or ecosystem. The survey found that species of myxomycetes are restricted to particular types of microhabitats (e.g., alpine snowbanks) or are confined to geographical areas that are limited in extent (e.g., small oceanic islands). Therefore the research on Nivicolous myxomycetes in the Alps pays specific attention to the impacts of climate change.

We organized a workshop during the 27th International Days for the Search and Study of Nivicolous Species of Myxomycetes (Italy, Alps, May 2014), where there was an opportunity to discuss the impact of climate change on myxomycetes with both specialists and amateurs.

Several expeditions were undertaken to search for myxomycetes on isolated tropical islands. Some specific patterns in ecology and distribution of myxomycetes were found on the islands of the Seychelles. An effort was made to apply the evaluation criteria proposed by the Intergovernmental Panel on Climate Change (IPCC) and IUCN for the impact of climate change on myxomycetes. This could also be used as a model for chytrids, downy mildews and zygomycetes, as well as for other microorganisms in the future. The Chytrid, Zygomycete, Downy Mildew and Slime Mould Specialist Group continues to promote the conservation of myxomycetes, chytrids, downy mildews and zygomycetes across scientific institutions, universities and to the public.

## IMPACT ON CONSERVATION

Our preliminary IUCN Red List assessment of myxomycetes, at a European and global level, classified every species as Data Deficient. The main problem is that features of myxomycetes don't allow the possibility for complete evaluation of conservation status, the same as for chytrids, downy mildews and zygomycetes. During 2015, we discussed these technical problems with world experts and are now working out a unified terminology system for myxomycetes which will align with the IUCN Red List Categories and Criteria.

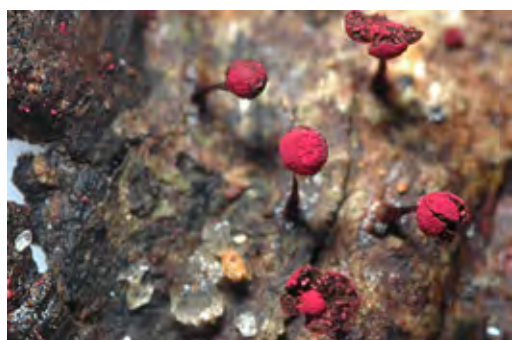
The Chytrid, Zygomycete, Downy Mildew and Slime Mould Specialist Group also organized investigations and conservation actions in the first private reserve for myxomycetes (Alps, Engins, France).

## FUTURE GOALS & ACTIVITIES

- 1) To study the impact of climate change on myxomycetes, chytrid, zygomycete, downy mildews;
- 2) Progress conservation activities for chytrids, zygomycetes, downy mildews and slime moulds;
- 3) Organize a network of specialists and stakeholders to discuss conservation problems for "lower fungi" and to exchange successful protection measures;
- 4) Analyze population trends, threats, and assess species using the IUCN Red List Categories and Criteria which will help to determine conservation actions for chytrids, zygomycetes, downy mildews, slime moulds; and
- 5) Promote the conservation of different groups of living organisms that were not considered to be in danger before, but are in need of protection today.

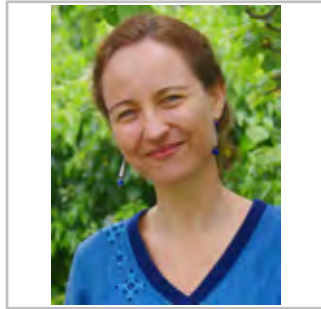
## ACKNOWLEDGEMENTS

Thanks to the Mohamed bin Zayed Species Conservation Fund for providing the opportunity to participate in the 3rd SSC Leaders' Meeting in Abu Dhabi.



*Physarum roseum* a rare myxomycetes species with fragmented distribution, more often located in the tropics. This specimen was found in July 2016 on Mahe and La Digue islands (Seyshelles) © Alain Michaud

# IUCN SSC Climate Change Specialist Group



Wendy Foden

NAME: CHAIR / CO-CHAIRS	Wendy Foden
NAME: RED LIST AUTHORITY CO-ORDINATOR	N/A
LOCATION / AFFILIATION	University of Stellenbosch, South Africa
NUMBER OF MEMBERS	22

## MISSION STATEMENT

To promote sound conservation decision-making and action under climate change, and to foster coordinated climate change responses by SSC Specialist Groups, partner organizations and IUCN program areas.

## SUMMARY OF MAIN ACTIVITIES 2015

Amongst the most exciting events of 2015 is the initiation of a new partnership between the Climate Change Specialist Group (CCSG) and the Yorkshire Wildlife Park, which has a strong focus on climate change through its polar bear exhibits. A primary focus of the partnership is to support the completion and launch of the IUCN SSC Guidelines for Assessing Species' Vulnerability to Climate Change. The group has worked intensively to complete guidelines, which provide the first "one stop shop" for information on this topic and aim to make this available in a user-friendly way. Activities included publishing a classification of available methods in the journal *Nature Climate Change* (Pacifci et al., 2015). The guidelines will be launched at the IUCN World Conservation Congress in September 2016.

The CCSG has also focused on integrating climate change considerations into three other important IUCN guidance documents. Firstly, the climate change section of the IUCN Red List Guidelines has been expanded and updated, in part based on published work by group members. The group has also been working with the Species Conservation Planning Sub-committee on updated to guidance for strategic planning, and thirdly on development of the criteria for Key Biodiversity Areas.

A highlight of 2015 was the SSC Leaders' Meeting in Abu Dhabi, attended by six CCSG members. Through the many valuable activities and our workshop on 'Assessing climate change vulnerability of species', we identified areas of need and potential collaboration. These supplement findings from our commission-wide survey on SSC Specialist Groups' concerns and support requirements regarding climate change and are helping us to refine our ongoing programme of work.

Finally, group members participated in and contributed to a number of important policy-related products and events, including the UNFCCC COP 21 (Paris) and IPCC's 'Our Common Future under Climate Change' conference.

### Reference:

Pacifci, M., W. B. Foden, P. Visconti, et al. (2015). Assessing species vulnerability to climate change. *Nature Climate Change* 5:215–225.

## IMPACT ON CONSERVATION

Climate change vulnerability assessment is an essential step in developing effective conservation strategies. To date, however, most information on how to carry this out has been in the form of a conflicting and hard-to-access body of academic literature. By developing clear, practitioner-focused, freely-available guidance on this topic, we believe that the CCSG will make an important contribution to conservation. We believe that the broad geographical and disciplinary spread of contributors, and the process of review which the document has undergone, will contribute to its uptake by the community. We note that to date our preparatory paper on the topic (Pacifci et al. 2015) has already been cited 55 times.

IUCN guidance documents such as the Red List and Species Conservation Planning guidelines are generally extremely well-used and influential, so by ensuring that these include appropriate updates to include climate change considerations will help to advance conservation practice. Through newly formed connections and collaborations with other Specialist Groups, we have been able to provide ad hoc guidance on specific challenges (e.g. Red Listing of Arctic marine mammals strongly affected by sea ice loss), and expect that this role will expand.

While the specific impacts of scientific papers, presentations at meetings and conferences and statements to the press are difficult to quantify, the group continues to make a concerted drive to ensure that the topic of climate change and biodiversity remains prominent, and to highlight the rapidly accumulating evidence of impacts and corresponding urgent need for evidence to minimise these.

## FUTURE GOALS & ACTIVITIES

The group has now largely completed the tasks set in 2013 under our seven key work themes. Over this time, new concerns and priorities have arisen, and members agree that it is time to re-evaluate both the group's activities and its membership. 2016 will see group members propose new work themes and theme leaders, as well as to confirm tasks such as maintaining the climate change section of the IUCN Red List guidelines which must remain on the agenda. We anticipate that by the end of 2016 we will have new priorities, as well as a broader and more diverse membership.

Key activities for 2016 include the launch of the IUCN SSC Guidelines for Assessing Species' Vulnerability to Climate Change at the IUCN World Conservation Congress, along with their online release.

## ACKNOWLEDGEMENTS

We thank the Yorkshire Wildlife Park Foundation (YWPF), the SSC Chair's office and the Norwegian Polar Institute for their financial support of the IUCN SSC Guidelines for Assessing Species' Vulnerability to Climate Change. We are particularly grateful to Kira Mileham and Simon Stuart for their help in establishing our partnership with the YWPF.



Hippos in Tanzania's Katavi National Park begin to congregate in the last remaining pools in June, and by the end of the dry season (October), several thousand are confined there and some die. The rivers supplying the park vary greatly in flow between seasons, but the bottleneck is exacerbated by recent increases in cultivation upstream from the park as well as by reported warming temperatures more erratic rainfall © Miho Saito

# IUCN SSC Conifer Specialist Group



Martin Gardner

NAME: CHAIR / CO-CHAIRS	Martin Gardner
NAME: RED LIST AUTHORITY CO-ORDINATOR	Philip Thomas
LOCATION / AFFILIATION	The Chair and the RLA Coordinator are based at the Royal Botanic Garden Edinburgh
NUMBER OF MEMBERS	40

## MISSION STATEMENT

The Conifer Specialist Group (CSG) helps to promote the long-term survival of the world's conifers through rigorous conservation assessments which help to guide conservation planning and conservation action.

## SUMMARY OF MAIN ACTIVITIES 2015

I took over the Chair of the Conifer Specialist Group from Aljos Farjon in October 2015. Aljos' impressive online database of the Conifers of the World, the taxonomy of which is the basis for the IUCN Red List, is now under the responsibility of the Red List Authority which is also based at the Royal Botanic Garden. During the year the Conifer Red List Authority has been supporting the IUCN's Threatened Species Unit in their project to assess all 35 conifers that occur within the European region. For the vast majority of taxa, the conservation status in the regional assessments will be the same as in the current global assessments. The work should be completed by the end of 2016. There has also been a continuous updating of the 'Threatened Conifers of the World' website <http://threatenedconifers.rbge.org.uk/> adding new information, updating maps and downloading more images.

## IMPACT ON CONSERVATION

The fact that the Conifer Specialist Group has completed the second assessment for the world's conifers, this is having a positive effect on the most threatened conifers in helping to promote their conservation.

## FUTURE GOALS & ACTIVITIES

The main activities for 2016/17 will include calculating the Conifer Red List Index in order to evaluate any genuine changes in the conservation status of the conifers over a period of 10 years between the first assessment in 1994 and the second assessment in 2014. The International Conifer Conservation Programme's website will also be modified so that it is able to accommodate the needs of the Conifers Specialist Group.

## ACKNOWLEDGEMENTS



The Endangered Atlas Cedar (*Cedrus atlantica*) © M.F.Gardner

# IUCN SSC Conservation Breeding Specialist Group



Onnie Byers

NAME: CHAIR / CO-CHAIRS	Dr. Onnie Byers
NAME: RED LIST AUTHORITY CO-ORDINATOR	N/A
LOCATION / AFFILIATION	Minnesota, USA
NUMBER OF MEMBERS	380

## MISSION STATEMENT

The Conservation Breeding Specialist Group (CBSG) provides conservation planning expertise to governments, Specialist Groups, zoos and aquariums, and other wildlife organizations. Our mission is to save threatened species by increasing the effectiveness of conservation efforts worldwide. By developing innovative and interdisciplinary methodologies, providing culturally sensitive and respectful facilitation, promoting global partnerships and collaborations, and fostering ex situ contributions to species conservation, CBSG transforms passion for wildlife into effective conservation.

## SUMMARY OF MAIN ACTIVITIES 2015

In 2015, CBSG led, co-led, or provided analysis for 24 conservation planning initiatives (eight of which involved collaboration with other SSC Specialist Groups) covering 30 species, including both Javan and Sumatran Rhino, Blue-Billed Curassow, and prairie butterflies.

To increase planning capacity, we conducted training courses in topics such as workshop facilitation, ex situ population management, and the use of science-based population modeling tools.

We facilitated wildlife health experts, genome resource banking experts, zoos, and zoo associations in creating conservation action plans for their organizations and initiatives.

Seven new species conservation plans (<http://www.cbsg.org/document-repository>) were published for species such as Takahē, Greater Bilby, and Vancouver Island Marmot. Many of these reports can also be found in the IUCN Library at <https://portals.iucn.org/library/dir/publications-list>.

Our One Plan Approach to species conservation planning was expanded through the new Integrated Collection Assessment and Planning (ICAP) workshop, a joint effort between CBSG and regional zoo associations. ICAP brings representatives from in situ (SSC taxonomic specialist groups, wildlife managers, field biologists) and ex situ (zoo-based taxon advisory groups, zoo associations) communities together to apply the decision process of the IUCN ex situ guidelines.

In our continuing effort to increase the impact of our work and assist conservation practitioners in moving from planning to implementation, CBSG introduced our Species Conservation Planning Workshop Summaries. The summaries present, in an easy-to-read format, key goals and recommendations as determined and prioritized by participants at our species conservation planning workshops. The summaries allow for broader distribution of workshop results and connect species conservation actors with the actions needed to save threatened species.

(<http://www.cbsg.org/new-initiatives/species-conservation-planning-workshop-summaries>)

CBSG launched the Species Conservation Planning Tools Library, a web-based resource to connect species conservation experts to the many tools and approaches available for designing and implementing an effective conservation planning process. The library includes a list of conservation planning tools that can be sorted by planning situation, step in the planning process, and tool type, as well as a framework for selecting the best tool for any given process. We invite all planning practitioners to contribute tools. (<http://www.cbsg.org/new-initiatives/species-conservation-planning-tools-library>).



## IMPACT ON CONSERVATION

Outcomes from recent CBSG-led planning workshops:

Information gleaned at three CBSG Population and Habitat Viability Assessment (PHVA) workshops for red pandas helped raise the alarm that the species was more threatened than previously thought. The PHVA reports were heavily referenced in the updated IUCN Red List assessment for the species.

The PHVA workshop for Blue-Billed Curassows helped progress creation of a National Action Plan for the species in Colombia, and a draft Action Plan will soon be presented to the Colombian government for its approval.

At the Greater Bilby Summit, it was agreed that mobilizing the support and knowledge of Traditional Owner communities is considered to offer one of the greatest opportunities for sustained on-the-ground conservation action for the Greater Bilby. An indigenous ranger forum on Greater Bilbies in Australia is planned for 2016, supported by Summit participants and helping to fulfill a priority action from the workshop.

A captive program for plains-wanderers was initiated to support species recovery, and more than US\$300K was pledged in support of the strategy laid out in the plan.

The ex situ breeding program for Vancouver Island Marmots was extended in response to CBSG's Vortex models revealing the necessity of continuing to augment the wild population.

The results of the 2014 Indian Rhino Population Viability Analysis were used this year by UNESCO World Heritage Committee to call for increased anti-poaching efforts in Manas National Park in India.

After walking through the decision process laid out in the IUCN ex situ guidelines, a way forward for conserving two prairie butterfly species (Poweshiek Skipperling and Dakota Skipper) was determined and is now being carried out by project partners. This includes working through the IUCN's reintroduction and translocation guidelines to develop a formal plan to augment Michigan populations of Poweshiek Skipperlings with larvae head-started at the Minnesota Zoo and expansion of Dakota Skipper collection to provide the numbers needed to begin reintroductions in 2017, as recommended.

Based on recommendations from the PHVA workshop for Javan Rhinos, additional funds have been secured to clear more land of the invasive Arenga Palm, which prevents growth of rhino food plants.

## FUTURE GOALS & ACTIVITIES

In December 2015, several CBSG representatives participated in a meeting of key leaders in species conservation planning at which an ambitious vision for conservation planning in the SSC was drafted. Realizing this vision will require harnessing conservation planning expertise and significantly scaling up current efforts. The CBSG community looks forward to helping the SSC fulfill this vision for enhancing the quantity and quality of planning across the commission.

Upcoming species conservation planning projects include American Bison (in collaboration with the American Bison SG, to inform the species' new Red List assessment), Colorado Pikeminnow, Whooping Cranes (in collaboration with the Crane SG), and Mexican Wolf recovery planning in the US and Mexico. The Orangutan PHVA workshop report is expected later in 2016.

## ACKNOWLEDGEMENTS

We thank all 380 CBSG members, our 10 volunteer CBSG regional network teams, many project partners, and the 130 generous and loyal donors of the Global Conservation Network that support CBSG's work.



A working group at the 2015 CBSG Annual Meeting in Al Ain.

# IUCN SSC Conservation Genetics Specialist Group



Mike Bruford



Gernot Segelbacher

NAME: CHAIR / CO-CHAIRS	1) Mike Bruford and 2) Gernot Segelbacher
NAME: RED LIST AUTHORITY CO-ORDINATOR	N/A
LOCATION / AFFILIATION	1) School of Biological Sciences, Cardiff University, UK and 2) University Freiburg, Germany
NUMBER OF MEMBERS	47

## MISSION STATEMENT

The mission of the Conservation Genetics Specialist Group (CGSG) is to promote the use of genetics in conservation management and decision making, to assist the Commission in applying genetics to threatened species and to lead the development and analysis of genetic data in conservation.

## SUMMARY OF MAIN ACTIVITIES 2015

Attendance of the following meetings: 1) SSC Meeting Abu Dhabi, introducing CGSG to other Specialist groups, establishing contacts and sending out a questionnaire to other groups, 38 responses indicated an enormous interest in linking genetic specialists within the groups to CGSG in order to facilitate exchange among often isolated experts to a larger conservation genetics community. Another important point was CGSG giving advice on a range of more specific requests (such as e.g. the taxonomic status of species or if we are dealing with different conservation units). Some groups also asked for more specific contacts when it comes to laboratory work and surely CGSG will help to establish contacts for genetic studies which indicate a high interest in the group. 2) ICCB Montpellier, organising a workshop and stimulating exchange between SCB and Conservation Geneticists 3) Bellagio workshop on Synthetic Biology and Biodiversity Conservation.

CGSG members provided advice and guidance on a) the population genetics implications of de-extinction methodologies and help to revise and review the IUCN De-extinction guidelines b) requests raised by other specialist groups such as e.g. the taxonomic status of African elephants or translocating manatees in South America.

CGSG members were publishing a comment to the Science article by Tittensor et al 2014 " Putting genetic biodiversity of wild species on the conservation agenda ".

CGSG has been actively involved in the consultations on Key Biodiversity Areas.

CGSG is linking with initiatives on the development on Biodiversity Indicators (BIP) as well as Biogenesis/Future Earth.

CGSG is trying to find representatives for most taxa and regions and the group has been significantly enlarged.

## IMPACT ON CONSERVATION

Species specific advice has been provided by members of the CGSG in assessing the taxonomic status of African elephants and in the question on the possible translocation of manatees in South America.

## FUTURE GOALS & ACTIVITIES

Future activities of CGSG will be enlarging the group with regional subgroups (North American group established early 2016, Oceania in progress) and initiating regional meetings on different continents. For 2016 several members will meet at the IUCN World Congress and at a workshop in November to develop genetic indicators for assessing biodiversity.

## ACKNOWLEDGEMENTS



CGSG at the SSC leader's meeting in Abu Dhabi, 15th September 2015. Marketplace session for new and established Specialist Groups to meet interested members from other groups and explain their approach, here Mike Bruford from CGSG is discussing genetics in conservation with other SSC members © Gernot Segelbacher

# IUCN SSC Coral Specialist Group



David Obura

NAME: CHAIR / CO-CHAIRS	David Obura
NAME: RED LIST AUTHORITY CO-ORDINATOR	Flavia Nunes
LOCATION / AFFILIATION	CORDIO East Africa, Kenya
NUMBER OF MEMBERS	18

## MISSION STATEMENT

To identify the key opportunity/advantage of the Coral Specialist Group (CSG) in the context of global action and interest in coral reefs to deliver on the goals of sustaining coral reefs into the future.

## SUMMARY OF MAIN ACTIVITIES 2015

Developed a proposal for revitalisation of the Global Coral Reef Monitoring Network (GCRMN) under the International Coral Reef Initiative (ICRI). This continued leadership is provided from the IUCN by the Global Marine and Polar Programme in supporting coral reef work globally and bridging from science/information to policy levels. This new effort will incorporate standards and experience developed by the GEO Biodiversity Observation Network (GEOBON) and the Global Ocean Observing System Biodiversity and Ecosystems Panel (GOOS-BioECO) to identify essential biodiversity and ocean variables, and the mechanisms for reporting them into a global system. This will serve the needs of countries to report on societal goals (e.g. Convention on Biodiversity Aichi Targets, Sustainable Development Goals), and provide data for conservation planning (Red Listing, identification of Key Biodiversity Areas) and in support of management down to local scales.

Continued inputs to the IUCN Global Marine Species Assessment (GMSA) and US offices on the proposed listing of 66 corals on the Endangered Species Act (ESA), USA. The final decision was to list 20 species of corals as threatened on the US ESA, comprising five Caribbean and 15 Indo-Pacific corals.

A number of proposals for coral reef conservation and capacity building were developed by members, but were not successful in generating funding.

## IMPACT ON CONSERVATION

The proposal on revitalising the GCRMN has played a key role in maintaining momentum for the GCRMN and ICRI in a time of transition, building up to 2015, which will be carried into implementation in 2016 and beyond. Support to the Endangered Species Act listing of coral species in the United States has contributed to the growth in attention to legal mechanisms and opportunities for improving the protection of corals, evidenced by a dedicated session on the topic, proposed in the International Coral Reef Symposium to be held in Hawaii, USA in June 2016

## FUTURE GOALS & ACTIVITIES

The primary focus for 2016 will be on consolidating support among multiple institutions for the GCRMN revitalisation process, carrying this through into a funded workplan for 2017-2020 and reporting of Aichi Target 10 in 2020.

Another focus will be expanding the membership and project base of the group, building on individual member interests and potential contributions.

## ACKNOWLEDGEMENTS



Coral bleaching and disease impacts in the Comoro archipelago - May 2016

# WI-IUCN SSC Cormorant Specialist Group



Mennobart van Eerden

NAME: CHAIR / CO-CHAIRS	Mennobart van Eerden
NAME: RED LIST AUTHORITY CO-ORDINATOR	Andy Symes (Birdlife International)
LOCATION / AFFILIATION	Rijkswaterstaat, PO BOX 17 NL8200A Lelystad The Netherlands
NUMBER OF MEMBERS	350

## MISSION STATEMENT

The main aim of the Cormorant Specialist Group (CSG) is to facilitate the exchange of information, on both ecology and biology, of the different species of cormorants, shags and darters worldwide and on resolving possible conflicts between cormorants and human fisheries' interests.

The Group was officially founded in 1993 and has always been aware that cormorants constitute an ecologically important group of species, as indicators of the health of the water ecosystems (either freshwater or marine) of which they are a part.

## SUMMARY OF MAIN ACTIVITIES 2015

The Cormorant Research Group Bulletin was published with the abstracts and papers of the proceedings of the meeting in Osijek, Croatia in 2014. In 2015 the hard copies of the final report of the EU project of INTERCAFE (led by David Carss, UK Centre for Ecology and Hydrology) were published. In 2015 much effort was given to the contributing information and expertise from the CSG to the EU projects on CorMan and CormoDist (Thomas Bregnballe, Danish National Environmental Research Institute). As part of this, the CSG organized two Pan-European counts of both breeding colonies and winter roosts.

The CSG maintained its website and coordinated the cormorant colour-ringing projects in Europe (see <http://cormorants.freehostia.com/index.htm>).

The CSG contributed to the IUCN SSC Leaders' Meeting in Abu Dhabi in September 2015, expanding the scope of the group into other parts of the world beyond Europe, including the Socotra Cormorant in the United Arab Emirates.

## IMPACT ON CONSERVATION

By continuously playing the role of an independent, science and knowledge based platform of specialists, we have contributed significantly to discussions and policy formulation on the various cormorant-fisheries conflicts in Europe and beyond. This has resulted in problems being resolved, has led to adequate measures adopted where necessary, whilst preventing large-scale culling or shooting, as these measures have proven to be of limited utility in resolving conflicts.

In global terms, the CSG's focus has been on the King Shag (*Leucocarbo carunculatus*) in New Zealand and Socotra Cormorant (*Phalacrocorax nigrogularis*) in Umm al Quwain, United Arab Emirates.

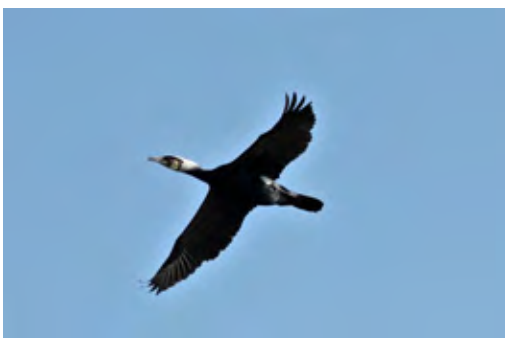
## FUTURE GOALS & ACTIVITIES

Preparation of an international meeting, in collaboration with the old world Pelican Specialist Group in Greece, March 2017.

Compilation of a special volume of the scientific journal ARDEA with some 30 papers about the Great Cormorant (*Phalacrocorax carbo*) to appear in 2017.

More activities related to ecological studies and conservation efforts of cormorants and shags worldwide.

## ACKNOWLEDGEMENTS



Great Cormorant (*Phalacrocorax carbo*) in breeding plumage, assessed as Least Concern © Mennobart van Eerden

# WI-IUCN SSC Crane Specialist Group



James Harris

NAME: CHAIR / CO-CHAIRS	James Harris
NAME: RED LIST AUTHORITY CO-ORDINATOR	Andy Symes (BirdLife International) Vice Chair: George Archibald / Programme Officer: Claire Mirande
LOCATION / AFFILIATION	Affiliated with International Crane Foundation, Wisconsin, USA
NUMBER OF MEMBERS	311 members from 57 countries

## MISSION STATEMENT

**Mission:** The Crane Specialist Group (CSG) promotes the study and conservation of the world's fifteen crane species and the ecosystems on which cranes depend.

**Our vision:** All 15 crane species are stable or increasing over the long term, living in harmony with people with mutual benefits from the ecosystems upon which cranes and people depend.

## SUMMARY OF MAIN ACTIVITIES 2015

Preparation of the Crane Conservation Strategy: We are completing the last parts of the first global assessment since the IUCN "The Cranes: Status Survey and Conservation Action Plan." in 1996. 92 specialists have contributed to assessments for 15 crane species, incl. current population estimates, and 82 specialists contributed to a threat analysis and assessments for each of the major threats. We are now completing consultations on an objective and suite of priority actions to address each threat. We also prepared 15 range maps, reflecting in some cases drastic changes in distribution. The global scope of the strategy (cranes occur on 5 continents) presented many challenges; we decided to focus this strategy on actions to be undertaken by specialists in order to identify an achievable number of activities with strong impact, while aiming to leverage governmental support. Preparation of the Handbook on Cranes and Agriculture: We reviewed and revised the draft manuscript for this publication aimed at giving specialists, managers, and land users tools for avoiding conflicts between cranes and agriculture. Ten chapters have been completed together with 18 case studies. Publication will follow soon after a knowledge café at the 2016 World Conservation Congress (WCC) provides input into strategies for disseminating information from the handbook. Completion of the Single Species Action Plan for the Endangered Grey Crowned Cranes: Under auspices of the African–Eurasian Migratory Waterbird Agreement (AEWA), specialists and government representatives from all range states completed this plan, endorsed at the Nov 2015 AEWA MOP. An international committee was formed to coordinate implementation. Completion of a Conservation Plan for the Eastern Population of the Siberian Crane: This critically endangered species is now almost exclusively concentrated along its eastern flyway from far northern Siberia to Poyang Lake in the Yangtze Basin of China. Two workshops in 2015 involved experts from Russia, China, and USA in the use of the Open Standards/Miradi process in assessing threats to the crane and its wetland habitats, setting conservation targets, identifying priority strategies and activities, and setting indicators for progress. Participants focused primary effort on the wintering grounds at Poyang Lake and on stopover/staging areas along the flyway in China, as those are facing the most severe threats. Formation and first meeting of the White-naped and Hooded Crane International Network: A team of specialists met in 2015 in China and will coordinate research and conservation activities for these vulnerable species across their 6-country range in East Asia. Specialist networks for Red-crowned Cranes and Black-necked Cranes also met during 2015. Addressing urgent threats: See next section for activity related to Poyang Lake (China) and domestic and international trade in African cranes. Web resources: In 2015 we posted information on CSG: <https://www.savingcranes.org/crane-specialist-group/>, plus 9 updates on cranes and CSG member activities on Global Crane News: <https://www.savingcranes.org/category/global-crane-news/>.



## IMPACT ON CONSERVATION

Poyang Lake, China: A water control structure was proposed for the outlet to Poyang Lake, the largest freshwater lake in China and winter home to 400,000 waterbirds (the largest concentration in E. Asia, incl. 98% of the world's Critically Endangered Siberian Crane). In 2010, CSG members together with the IUCN China Office and specialists from IUCN networks developed a 40-page report, "An Ecosystem Approach to Resolving Conflicts Among Ecological and Economic Priorities for Poyang Lake Wetlands." The Specialist Group led development of Recommendation #153, adopted by the 2012 IUCN WCC. The CSG had long-term data on cranes and their wetland habitats at Poyang that enabled us to contribute to assessments and intensive investigations within China regarding the proposed structure. During 2010-14, the operating plan for the sluice gates was adjusted, more ecological data collected, and much wider consultation occurred regarding potential impacts and alternatives. Approval was deferred several times, although the project is still under consideration. During this time several specialists have investigated intensive sand dredging at the outlet to the lake - a previously unacknowledged cause for changes in lake hydrology proposed in the 2010 IUCN report. Dredging activity was moved elsewhere in the lake. The CSG has shared research results and images regarding changes to the outlet channel, to help clarify understanding of the changing dynamics of water and vegetation at Poyang. Illegal Trade in African Cranes: Grey (GCC) and Black Crowned Cranes (BCC) were included in a CITES Significant Trade Review process in 2009, aimed at better understanding the wild caught trade in these species. Following a process whereby specific countries were earmarked for suspension of trade until they could show non-detriment findings and provide evidence of suitable permitting systems; the suspension in trade was maintained for GCC out of Tanzania, and for BCC out of Guinea, Sudan, and South Sudan at the Animals Committee Meeting in January 2016. Development of the Crane Conservation Strategy: Through its work on the strategy, the CSG identified research and conservation actions needed to address significant threats to cranes or changes in their status - already focusing conservation efforts of several organizations on previously unrecognized needs. For example, CSG members identified 10 locations holding a substantial part of the world population for GCC, with wetland encroachment as a major threat; community-based projects are now underway at 6 of the sites. The Demoiselle Crane, the 3rd most abundant crane, has a wide distribution but has received little conservation attention. The species assessment indicated declines in this species in several widely separated areas, alerting us to the need for more careful monitoring of the species – the Crane Working Group of Eurasia has committed to undertaking this task.

## FUTURE GOALS & ACTIVITIES

This coming year, we will complete and disseminate the Crane Conservation Strategy. We will also publish the Handbook on Cranes and Agriculture. As part of completing the handbook, we have organized a knowledge cafe at the IUCN World Conservation Congress to identify actions we will undertake to help ensure the handbook leads to changes on the ground for cranes. We will begin implementation of the Single Species Action Plan for Grey Crowned Cranes. We will implement the Conservation Plan for Siberian Cranes in Russia and China, including at Poyang Lake. We will undertake a workshop on White-naped Crane conservation, and the fifth meeting of the Black-necked Crane Network. We will establish a Hunting & Poisoning Work Team to identify priority hotspots for illegal hunting, develop awareness programs, and advocate for strengthened enforcement (for more information contact Elena Ilyashenko [ilyashenkoei@gmail.com](mailto:ilyashenkoei@gmail.com)).

## ACKNOWLEDGEMENTS

The International Crane Foundation supported international travel, salaries of the Chair, Vice Chair and Programme Officer,



Siberian Cranes (*Leucogeranus leucogeranus*) © Zheng Zhongjie, ICF Contributing Photographer

# IUCN SSC Crocodile Specialist Group



Grahame Webb

NAME: CHAIR / CO-CHAIRS	Professor Grahame Webb
NAME: RED LIST AUTHORITY CO-ORDINATOR	Dr. J. Perran Ross
LOCATION / AFFILIATION	The CSG has members in 67 countries, across 8 major regions of the world, with headquarters in Darwin, Northern Territory of Australia, together with Regional Offices in Argentina, Sri Lanka and South Africa.
NUMBER OF MEMBERS	570 members and conducts global working meetings biennially.

## MISSION STATEMENT

To assist the International Union for Conservation of Nature (IUCN), and its Species Survival Commissions (SSC), to meet their missions with regard to the conservation, management and sustainable use of world crocodylians.

## SUMMARY OF MAIN ACTIVITIES 2015

The Red List assessment for the Philippine crocodile (*Crocodylus mindorensis*) is complete, and assessments for Chinese alligator (*Alligator sinensis*), Australian freshwater crocodile (*C. johnstoni*), Western Nile crocodile (both clades; *C. suchus* and *C. niloticus*) and Spectacled caiman (*Caiman crocodilus*) are underway. Of the 24 species of living crocodylians, the Red List assessments now categorise the global populations of 7 crocodylian species as Critically Endangered and 5 as Vulnerable.

CSG members have been involved in reintroductions of 5 species listed in the IUCN Red List as Critically Endangered, namely *A. sinensis* (China), *C. mindorensis* (Philippines), *C. intermedius* (Venezuela, Colombia), *C. siamensis* (Cambodia, Lao PDR, Vietnam, Thailand) and *C. rhombifer* (Cuba). A CSG regional meeting in Siem Reap, Cambodia, in May 2015, focused on the conservation of *C. siamensis* in the region, and in particular efforts to re-establish wild populations.

The CSG remains concerned about the status of the last known wild population of *C. siamensis* located outside the Southeast Asian mainland, in Lake Mesangat, East Kalimantan, Indonesia. The population is seriously threatened by oil palm development. The area also contains a population of *Tomistoma schlegelii*. Planning is underway for population surveys to be undertaken in the Lake Mesangat area, to assess the impact of oil palm development, and to assess options through which the long-term protection of the population can be secured.

The CSG has developed "Best Management Practices for Crocodylian Farming" (CSG-BMP), which will be available on the CSG website in early 2016. The CSG-BMP provides guidance to crocodylian farming operations about current best management practices, and a checklist that can be used to assess farm husbandry practices and compliance with governance regimes. The capacity to achieve best management practices will probably be greater in high investment industrial-scale farms, than in smaller village-level farms. Similarly, the capacity to engage in research, development and innovation, and to be both aware of and implement new technologies, will not be uniform across all crocodylian farms. The aim of the CSG-BMP is not to be critical of low technology farms, but rather to provide options through which better management practices can simultaneously improve productivity and welfare in all farms. Complementing the CSG-BMP is a Wikipedia-style "Crocodylian Capacity Building Manual", that is nearing completion, and should be available by mid-2016.

The CSG has provided assistance to Madagascar through the "Madagascar Crocodile Conservation and Sustainable Use Program" (MCCSUP), in order to develop and implement a new management program for *C. niloticus*, following the lifting of a 4-year CITES trade suspension on the species at the end of 2014. The species is listed on Appendix II for the purposes of ranching, but an extensive wild harvest to supply skins for the artisanal crocodile leather industry suggests that the current Appendix-II listing may need to be changed to account for the wild harvest.

Recognising the need to foster and mentor "young" leaders, the CSG has established a Future Leaders Working Group, to develop a cadre of people to continue the CSG's work into the future.

## IMPACT ON CONSERVATION

Management programs for the 24 species of crocodilians, across some 100 countries, are highly diverse. All species are listed on the Appendices of CITES, with 11 species involved in regulated international trade, producing either “classic” (*A. mississippiensis*, *C. acutus*, *C. moreletii*, *C. niloticus*, *C. novaeguineae*, *C. porosus* and *C. siamensis*), or “caiman” (*Caiman crocodilus*, *C. yacare*, *C. latirostris*, *Melanosuchus niger*) skins. The conservation-management programs for these commercially valuable species are highly diverse. Production is through captive breeding, ranching (eggs or juveniles), wild harvest, or various combinations of these. The CSG is committed to fostering protection strategies where they are the ones most needed within a national context, and sustainable use strategies where incentives are required to tolerate crocodilians. A key CSG aspiration in countries which trade in crocodilians is that trade is legal, sustainable and verifiable. Through supporting sustainable use programs, the CSG contributes to economic development within countries managing their crocodilian populations for this purpose.

The CSG encourages students to work on crocodilians, and has made small grants available to graduate students studying crocodilians around the world. Since the scheme was initiated in 2009, 99 applications from 27 countries have been approved for funding.

## FUTURE GOALS & ACTIVITIES

Red List Assessments for the current 5 drafts (*suchus*, *niloticus*, *mindorensis*, Chinese alligator, *johnsoni*), and submit them to IUCN. Generate GIS maps to IUCN standard for the 8 recently completed assessments

Creation and development of a Future Leaders Working Group, to ensure intergenerational transfer of CSG leadership skills between veteran and aspiring CSG leadership members, so that the CSG retains the flexibility it has applied to the conservation and management of crocodilians globally.

Development of a Best Management Practices for Crocodilian Farming to provide guidance to crocodilian farming operations about current best management practices.

Development of a Crocodile Capacity Building Manual to provide a comprehensive reference document for information and tools to build capacity in crocodilian conservation and management.

## ACKNOWLEDGEMENTS

Virtually all donations in cash and in-kind received by the CSG come from or through its members. These donations are made to an NGO (International Association of Crocodile Specialists Inc.), whose mission is to support the IUCN SSC Crocodile Specialist Group.



Salt-water Crocodile (*Crocodylus porosus*) listed as Least Concern © Grahame Webb

# IUCN SSC Crop Wild Relative Specialist Group



Ehsan Dulloo



Nigel Maxted

NAME: CHAIR / CO-CHAIRS	Ehsan Dulloo and Nigel Maxted
NAME: RED LIST AUTHORITY CO-ORDINATOR	Shelagh Kell
LOCATION / AFFILIATION	Bioversity International (IT) and University of Birmingham (UK)
NUMBER OF MEMBERS	86

## MISSION STATEMENT

The mission of the Crop Wild Relative Specialist Group (CWRSG) is to help ensure that crop wild relatives (CWR) are adequately conserved and sustainably utilized, to enhance global food security and aid poverty alleviation.

## SUMMARY OF MAIN ACTIVITIES 2015

Members of the CWRSG contributed to the joint notification issued by the International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA), Convention on Biological Diversity (CBD), Bioversity International and Food and Agriculture Organization (FAO) on 'Strengthening the in situ conservation of PGRFA through incorporation of CWR under areas important for biodiversity in Protected Area Networks and other effective area-based conservation measures'.

In 2015, the European Cooperative Programme for Plant Genetic Resources (ECPGR) "Concept for in situ conservation of CWR in Europe" was published to guide EU and national policy development and provide a blueprint to drive concerted actions on CWR conservation and sustainable use throughout the region. Collaboration among the members of the CWRSG also resulted in obtaining funding from the ECPGR Activity Grant Scheme to convene the meeting 'Promoting implementation of national and regional CWR conservation strategies through sharing of knowledge and experience to create integrated European strategy for CWR conservation'. Members of the group have been leading and engaging in activities of the 'Adapting agriculture to climate change: collecting, protecting and preparing crop wild relatives' project managed by the Crop Trust and the Millennium Seed Bank (MSB), in partnership with the International Center for Tropical Agriculture (CIAT) and the University of Birmingham, national and international gene banks, and plant breeding institutes. The project has been supporting 20 national partners to collect CWR for long term conservation and for distribution to CWR pre-breeding programmes.

The project 'In situ conservation and use of crop wild relatives in three ACP countries of the SADC region' (SADC - Southern African Development Community), includes the development of National Strategic Action Plans (NSAPs) for the conservation and sustainable use of CWR in Mauritius, South Africa, and Zambia, undertaking diversity and conservation gap analyses on SADC priority CWR, and development of an online Interactive Toolkit for CWR Conservation to help nations worldwide to plan for CWR conservation. The project worked in close collaboration with the Southern African Plants SG and the Mascarene Island Plant SG.

Members of the group have been active in improving wheat productivity using *Aegilops* wild species; investigating the utilization of CWR to improve the adaptation of farming systems to abiotic and biotic stresses in the context of climate change in Benin; utilizing CWR as rootstocks resistant to soil borne diseases and as source of Mycorrhizal fungi to induce resistance in cultivated Cucurbitaceae in Jordan; identifying major habitats where CWR occur in the UK; surveying and collecting herbarium and seeds of wild relatives of economically important vegetable crops (*Allium*, *Asparagus*, *Citrullus*, *Cucumis*, *Cynara*, *Daucus*, *Lactuca*, *Spinacia* spp.) as well as investigating the presence of resistant genes to pests in wild carrots native to Jordan; developing conservation strategies for China, England, Mexico, Norway and Oman, and at regional level in Europe and North Africa.

The CWRSG continues its Red Listing activities, namely in the review of assessments carried out by experts and other Specialist Groups (e.g., Madagascar Plants SG) and in the preparation of global Red List assessments of more than 400 wild relatives of crops of high global importance for food security, including beans, brassicas, cassava, cotton oil, ground nut, millet, potato, rice, rye, sorghum, soybean, sweet potato, wheat and yam.

## IMPACT ON CONSERVATION

The joint notification on 'Strengthening the in situ conservation of PGRFA through incorporation of CWR under areas important for biodiversity in Protected Area Networks and other effective area-based conservation measures' addresses Aichi Biodiversity Targets 7, 11, 12 and 13, as well as Global Strategy for Plant Conservation Targets 5, 6, 7 and 9. This notification has a great impact on the conservation of CWR as it establishes a link between these important resources for food security and their conservation in the wild and emphasizes that action needs to be undertaken at national level to safeguard CWR for future generations. At European level, the 'ECPGR Concept for in situ conservation of CWR in Europe' was developed by seven members of the CWRSG and of the In Situ Conservation of Crop Wild Relatives in Europe Task Force which was established under the guidance of the 84 national members of the ECPGR In Situ and On-farm Conservation Working Group in response to a mandate provided by the ECPGR Steering Committee and reviewed by the ECPGR Steering Committee and members of the Wild Species Conservation in Genetic Reserves Working Group. The Concept is being promoted by the Executive Committee of the ECPGR at European Parliament and Commission level to guide the formulation of future European and national policy on in situ conservation of CWR diversity as part of a wider European strategy on agrobiodiversity. Additionally, the ECPGR grant that has been awarded in 2015 will be mainly implemented in 2016 and will initiate the discussion on how some of the actions recommended by the Concept can be implemented. In the SADC region, the conservation and sustainable use of CWR in the region has been boosted with the SADC Crop Wild Relatives project, not only by building capacity in the region but also with the development of exemplar NSAPs in the three target countries (Mauritius, South Africa and Zambia) and the CWR conservation planning at the regional level.

Collecting for long-term ex situ conservation and preparing CWR for breeding of new varieties adapted to climate change have been the primary objectives of the project 'Adapting agriculture to climate change: collecting, protecting and preparing crop wild relatives' as well as the projects undertaken in Benin and Jordan.

Finally, Red List assessments of globally important CWR species is the first step to recognize that CWR are indeed threatened with extinction at global level and that urgent conservation actions are needed in order to secure these vital resources for the future food security of humankind.

## FUTURE GOALS & ACTIVITIES

Survey of native wild lettuce (*Lactuca*) and wild carrot (*Daucus*) CWR species in Jordan.

Publish NSAPs for the conservation and sustainable utilization of CWR in Mauritius, South Africa and Zambia, as well as the Interactive Toolkit for CWR Conservation that helps other countries to develop their NSAPs, as part of the 'SADC Crop Wild Relatives' project. Global collection and ex situ conservation of CWR led by national plant genetic resource programmes as part of the 'Adapting agriculture to climate change' project.

Identification of the ideal sites to collect for ex situ conservation of priority CWR using the data sets gathered in the 'Adapting agriculture to climate change' project. Identification of the ideal sites to establish an in situ network of genetic reserves to conserve priority CWR using the data sets gathered in the 'Adapting agriculture to climate change' project.

Publish CWR conservation strategies for Mexico, Norway, as well as for Europe and North Africa.

Completion of Red List assessments for more than 400 priority CWR of crops of high global importance for food security.

Development of a CWR Index to monitor progress towards Aichi Target 13.

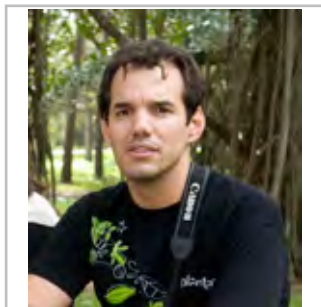
## ACKNOWLEDGEMENTS

The 'SADC Crop Wild Relatives' project is co-funded by the European Union and implemented through the ACP-EU Co-operation Programme in Science and Technology (S&T II) by the African, Caribbean and Pacific (ACP) Group of States, the project 'Adapting agriculture to climate change' is supported by the Government of Norway, and the project on Benin's CWR is funded by Benin's National Fund for Scientific Research and Innovation.



An in situ conservation site of wild rice (*Oryza rufipogon* Griff.) located in Gaozhou, Guangdong province, China © Wei Wei, Institute of Botany, Chinese Academy of Sciences

# IUCN SSC Cuban Plant Specialist Group



Dr. Luis Roberto González-Torres

NAME: CHAIR / CO-CHAIRS	Luis R. Gonzalez Torres
NAME: RED LIST AUTHORITY CO-ORDINATOR	Luis R. Gonzalez Torres
LOCATION / AFFILIATION	Department of Botany, University of British Columbia
NUMBER OF MEMBERS	30

## MISSION STATEMENT

To promote the long-term conservation and sustainable management of Cuban plants and their habitats by assessing the conservation situation of native plant life, identifying conservation priorities, raising public awareness and providing science-based information to decision-makers in order to increase the effectiveness of conservation actions.

## SUMMARY OF MAIN ACTIVITIES 2015

The Cuban Plant SG co-organized the II Workshop on Conservation of Cuban Cacti that was held at "Quinta de los Molinos" in Havana, from April 8th to April 11th 2015. At this meeting, we reviewed the state of knowledge about Cuban cacti and outlined an Action Plan draft for the Conservation of this group on the island in collaboration with researchers, collectors and enthusiasts. The workshop hosted about 60 participants.

During our Annual Meeting in May, we analyzed the status of the assessment process related to the 2016 edition of the Red List of the Cuban flora. The Group analyzed the conservation situation of 150 Cuban taxa. As part of the process to ensuring the continuity of the SG, we introduced a new member category "Junior Associate", granted to promising young professionals involved with the work of the group. Additionally, we organized a training session on the Red List process for junior associates and contributors. During the meeting, we introduced a new database designed for the Cuban Plant SG to facilitate the Red List assessment process. Also in May, the "National List of Invasive and Potentially invasive plants of the Republic of Cuba - 2015" by Dr. Ramona Oviedo and Dr. Lisbet Gonzalez-Oliva was published. This compilation reports a total of 337 invasive plant species and 241 potentially invasive for the country.

On September, we had a Red Listing workshop where we produced the taxon information sheets for a total of 1151 taxa: Extinct (EX) 18, Extinct Regional (RE) 2, Critically Endangered (CR) 328, Endangered (EN) 116, Vulnerable (VU) 105, Least Concern (NT) 78, Nearly Threatened (LC) 5, data Deficient (DD) 498. In getting ready for the new national Red List, we also produced the "Conservation Assessments of Cuban lycophytes and ferns - 2015" by Dr. Ledis Regalado, Dr. Carlos Sánchez and Dr. Lisbet González-Oliva. This compilation comprises the assessments for 75 taxa of ferns and lycophytes and the re-assessments of another 63, for a total of 138 taxa. Late in November, the Cuban Plant SG conducted the assessment of all Cuban palms.

During 2015, the Cuban Plant SG continued working to produce a Red Book for the province of Holguin, the region of the country with the highest plant diversity. This project is led by B.Sc. Jose L. Gómez and M.Sc. Wilder Carmentate.

In February 2016, the President of Cuban Plant SG, Dr. Luis Roberto González-Torres, was granted with the 2016 Julián Acuña Award by the Cuban Society of Botany for his "contribution to the development of Plant Conservation in Cuba and his contributions to the international visibility of the efforts undertaken by the country to protect its biodiversity." In April, the book "Top 50 - the 50 most endangered species of Cuba" prepared by the Cuban Plants SG won the Annual Award of the Cuban Academy of Sciences and the Special Prize of the Ministry of Science, Technology and Environment for its contribution to environmental conservation.

## IMPACT ON CONSERVATION

In 2015, we reached the milestone of having assessed the conservation situation of at least 65% of Cuban plant species.

## FUTURE GOALS & ACTIVITIES

In 2016, the group will continue working on the assessment of other taxa towards the goal of having at least the 80% of all Cuban plants evaluated by 2020. Additionally, the group will start developing Species Recovery Plans in order to provide additional advice and guidelines to decision-makers, protected areas and conservation practitioners. The new edition of the National Red List will be available in 2016.

## ACKNOWLEDGEMENTS

The IUCN SSC Cuban Plant SG is indebted to Mrs. Nora Hernández, General Director and Dr. Rosa Rankin Research Director of the National Botanic Garden, Cuba for their invaluable support to our group. We are also grateful to the National Center for Protected Areas, the Institute for Ecology and Systematics and the National Environment Agency – especially to its president, Dr. Maritza García for their support. The work of the Cuban Plant SG has benefited during the past year from grants provided to its members by Fauna & Flora International, the MBZ Species Conservation Fund, the Rufford Foundation and the Whitley Fund for Nature.



*Magnolia cubensis* assessed as Vulnerable on the IUCN Red List © Planta

# IUCN SSC Cup-fungi, Truffles & Allies Specialist Group



David Minter

NAME: CHAIR / CO-CHAIRS	David Minter
NAME: RED LIST AUTHORITY CO-ORDINATOR	David Minter
LOCATION / AFFILIATION	CAB International (formerly the International Mycological Institute), Egham, Surrey, UK.
NUMBER OF MEMBERS	10

## MISSION STATEMENT

**Mission:** To promote conservation of fungi in general, and cup fungi, truffles and their allies in particular. Their well-being is essential for sustainable life on this planet: plants (the producers) and animals (the consumers) could not exist without fungi (the recyclers). Widespread ignorance of their importance is a key problem for the conservation movement. The Group works to address this problem through education, information, infrastructure, policy and science.

## SUMMARY OF MAIN ACTIVITIES 2015

**Raising awareness:** The group was involved in the organization of a session on fungal conservation, providing keynote speakers at the European Mycological Congress (Madeira, September 2015) and the Asian Mycological Congress (Goa, October 2015). The Group Chair also led a successful bid and preparations for a symposium at the 2016 annual meeting of the Mycological Society of America. This is scheduled for August 2016 in Berkeley, California. Group members including the Chair have supported the establishment of the Arab Society for Fungal Conservation, the world's first regional society devoted to protecting fungi, and have been leading preparations for its first congress, scheduled for October 2016 in Ismailia, Egypt.

**Infrastructure:** In September 2015, the revised and enlarged version of the Cybertruffle online database (which provides information about when and where fungi have been observed) was made available. With over a million records, it is almost double the size of the previous version. The significance of this database is its global coverage (with information about fungi from parts of the world not covered by other online resources) and its flexible handling of ecological associations (making it possible to see which fungi occur on, for example, a particular plant), making it an important tool for evaluating the conservation status of fungi.

**IUCN Red Listing:** The group continued to participate in the Global Fungal Red List Initiative through contribution of data and attendance at IUCN Red List workshops.



## IMPACT ON CONSERVATION

Although there has been considerable change over the past ten years, individuals and organizations generally are still very unaware of just how important fungal conservation is. The work of this Specialist Group has concentrated on key target audiences. The first of these is people working with fungi. Many mycologists are still unaware that fungi need conservation and that this cannot be achieved as long as they are misrepresented as being plants. The second is people working with plants. They need to be made aware that plant conservation can only succeed if fungi are also conserved, and that it is in their interests too to make sure the distinction between fungi and plants is clear. A large amount of education is thus necessary and that will take time.

Another important component of fungal conservation is infrastructure. It is clearly a huge step forward to be preparing Red Lists of threatened fungi, but without fungal conservation groups explicitly oriented towards political action through lobbying, those Red Lists will not translate to conservation action. Again, the first step is to convince mycologists themselves that infrastructure is needed. Then, after establishing politically-oriented fungal conservation groups, it is necessary to populate them with dedicated individuals who have the ability to initiate action. As with awareness, a large amount of education is necessary and will take time.

Where fungi have been added to the IUCN Red List, and that has been one of the great achievements by the Global Fungal Red List Initiative in 2015, there is immediate conservation impact because at a global level the IUCN is a politically aware organization and it has recognized that fungal conservation is critically important.

## FUTURE GOALS & ACTIVITIES

- 1) Appoint a new Red List Authority Coordinator for this Specialist Group who is not also Chair.
- 2) Spread responsibilities for Specialist Group work to encourage greater activity by Group members.
- 3) Publish a more general review of the conservation status of desert truffles (not completed in 2015).
- 4) Support the Global Fungal Red List Initiative by completing existing entries and by contributing conservation status evaluations for new species.
- 5) Bid for, and organize fungal conservation symposia for the 2017 annual meeting of the Mycological Society of America and the 2017 Asian Mycological Congress.

## ACKNOWLEDGEMENTS



Ascomata (i.e. fruitbodies) of the Desert Truffle (*Terfezia alsheikhii*), Kovács, M.P. Martín & Calonge, 2011 (accepted name) © David Minter

# IUCN SSC Cycad Specialist Group



John Donaldson



M. Patrick Griffith

NAME: CHAIR / CO-CHAIRS	John Donaldson and Patrick Griffith;
NAME: RED LIST AUTHORITY CO-ORDINATOR	De Wet Bösenberg
LOCATION / AFFILIATION	Programme Office: Montgomery Botanical Center, Coral Gables, Florida, USA.
NUMBER OF MEMBERS	43 (including Vice-Chairs, M. Calonje and C. Lopez-Gallego)

## MISSION STATEMENT

The Cycad SG exists to bring together the world's cycad conservation expertise, and disseminate this expertise to organizations and agencies which can use this guidance to advance cycad conservation. Foremost objectives of the Cycad SG include developing a network of established ex situ genebanks for ex situ cycad conservation, maintaining an up-to-date consensus taxonomy for this group, promoting sustainable practices in trade and utilization of cycads, and advancing our understanding of these highly imperiled plant species.

## SUMMARY OF MAIN ACTIVITIES 2015

The most major activity was the Cycad Red Listing Workshop, held in Medellin, Colombia on August 15 and 16, 2015, in conjunction with the Cycad 2015 Conference, also in August. This Workshop brought together 30 experts from 13 countries to receive training on the SIS, and to provide cycad input and expertise. We emphasized those taxa newly-described since the last assessment, and provisionally assigned as Critically Endangered. The Workshop was also a major motivator to make other progress for the Cycad SG.

One important development was finding an "official home" for the Cycad SG: as of June 5, 2015, Montgomery Botanical Center now hosts the Programme Office for the group, providing leadership, coordinating finances and enhancing communications. As its first official action, the Programme Office created a new website for the Cycad SG, found at [www.cycadgroup.org](http://www.cycadgroup.org), which features updated content and findings.

Another action item taken by the Programme Office was to expand and broaden the Cycad SG, in anticipation of the Red Listing Workshop. The membership was expanded from 32 to 44 over the summer, recruiting new experts primarily from range states. This expansion also emphasized early-career cycad scientists, in order to help build the next generation of cycad conservation leadership.

All of this work was generously funded by a number of sponsors, listed below.

## IMPACT ON CONSERVATION

As a result of the Red Listing Workshop, the Cycad SG was able to improve assessments of 104 cycad taxa, representing 31% of currently known species. With special focus on 33 newly-described taxa (since 2008), we were able to assess 23 of these, or 70% of the new species. Ten of these new species are Critically Endangered.

## FUTURE GOALS & ACTIVITIES

Plans are underway to create and distribute an official newsletter for the Cycad SG. This will facilitate better communication within the Cycad SG and also to the public, and therefore aligns directly with our mission.

## ACKNOWLEDGEMENTS

For our 2015 Red Listing Workshop, we are especially grateful to the Mohamed bin Zayed Species Conservation Fund, which supported travel costs for experts from Cuba, Kenya, Vietnam, Panama, and The Philippines. The Cycad Society and the Cycad Society of South Africa provided generous funding which supported travel and conference registration for students, which brought together Cycad SG members from India, South Africa, Australia, Mexico, and Japan. These generous grants allowed for the broadest, most productive, and most successful gathering of our Cycad SG!



The Critically Endangered *Encephalartos whitelockii* © Michael McLeish

# IUCN SSC Deer Specialist Group



Susana González



William J. McShea

NAME: CHAIR / CO-CHAIRS	Susana González and William J. McShea
NAME: RED LIST AUTHORITY CO-ORDINATOR	Dr. Eveline Zanetti (New World species) and Dr. Sarah Brook (Old World species)
LOCATION / AFFILIATION	Instituto de Investigaciones Biológicas Clemente Estable MEC, Montevideo-Uruguay Conservation Smithsonian Conservation Biology Institute, Front Royal, VA 22630 USA
NUMBER OF MEMBERS	120

## MISSION STATEMENT

The mission of the Deer Specialist Group (DSG) is to contribute to biodiversity conservation through the improvement of the welfare and sustainability of deer populations around the world. Our challenge is to find conservation alternatives to mitigate conflict to enable rare and threatened species to survive. We started the quadrennium (2013-2016) by appointing our membership and organizing the assessment activities.

## SUMMARY OF MAIN ACTIVITIES 2015

The main activities of the DSG include the compilation, and synthesis of deer biology and management information and the dissemination of relevant data. As a part of the Species Survival Commission (SSC) one of our main tasks for this period is the Global Mammal Assessment. In consultation with our Red List Authority (RLA) and SSC staff, we shortened the Red List Assessment process to DSG-recognised 71 deer species. Sarah led the 2015 re-assessments of all 55 species of old world deer. The main bulk of the task has been completed and will be available online very soon, with the exception of Pere David's Deer (*Elaphurus davidianus*) and Fallow Deer (*Dama dama*). The re-assessment for Pere David's Deer has been postponed, until surveys of the 4 free-living populations have been conducted to assess their long-term viability, before any changes to the status of the species can be made. The re-assessment of Fallow Deer has been postponed until further work can be done to clarify the status of the various populations of this deer. Lastly, we are working with DSG members to conduct an assessment of the Hangul (*Cervus hanglu hanglu*), a threatened subspecies of Red Deer in India. Several Indian conservationists contacted the RLA to request a subspecies assessment in this deer, suggesting that conservation of the Hangul would benefit significantly from being evaluated.

Eveline and Susana led the assessment of 18 deer species that inhabit the New World and need to be re-evaluated for the Global Mammal Assessment. We performed a web forum in which all the species were listed for a month and we asked our specialists to send comments and update the information. Also we contacted the past assessors asking for data updates. We identified 3 species that have experienced dramatic changes in distribution and numbers as Taruka (*Hippocamelus antisensis*), Huemul (*Hippocamelus bisulcus*), and Brazilian Dwarf Brocket (*Mazama nana*).

With several other species, increased knowledge on their populations and distributions warranted updating their assessments: Marsh Deer (*Blastocerus dichotomus*), Red Brocket (*Mazama americana*), Amazonian Brown Brocket (*Mazama nemorivaga*), Pampas Deer (*Ozotoceros bezoarticus*), Southern Pudu (*Pudu puda*), and Mule Deer (*Odocoileus hemionus*). Lastly, we identified one species that was elevated from sub-species based on new genetic information; the Small Red Brocket (*Mazama bororo*).

## IMPACT ON CONSERVATION

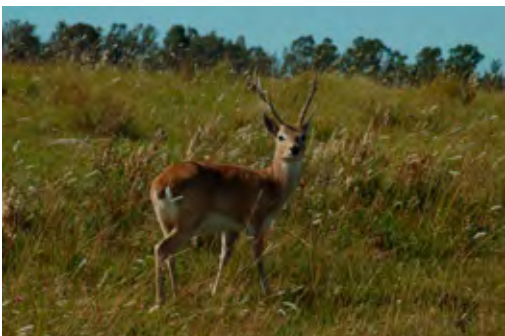
The biological database of all deer species of the world is being updated by our qualified membership considering the reference information for policy makers. We maintain a webpage with a database of current deer research and conservation articles. Our main dissemination channels include Deer Specialist Group Newsletter an electronic, peer-reviewed journal, and our list server exclusively devoted to deer biology and conservation. Our annual newsletter contains articles, abstracts from regional workshops, and news submitted by our members, it is available here: (<http://www.icneotropical.org/newsletters.htm>).

## FUTURE GOALS & ACTIVITIES

Our aims are: to explore new collaborations and networking to evaluate possible monitoring methodologies for surveying the deer species of the world. We will be seeking to share experiences and survey methodologies and how to create a database. We will focus on capacity building of new field deer biologists, who we hope will obtain the biological data needed to update the Red List information and inform policy makers about critical species and ecosystems, as well as those dealing with problematic overabundance and needing management guidelines.

## ACKNOWLEDGEMENTS

We thank Conservation Force ([www.conservationforce.org](http://www.conservationforce.org)) for providing funding for Eld's Deer ecology and conservation projects in Southeast Asia, and Comisión Sectorial de Investigación Científica (CSIC-UdelaR), and Agencia Nacional de Investigación e Innovación (ANII), from Uruguay.



Pampas Deer (*Ozotoceros bezoarticus*), Uruguay © Susana Gonzalez

# WI-IUCN SSC Diver / Loon Specialist Group



Neil Burgess

NAME: CHAIR / CO-CHAIRS	Neil Burgess
NAME: RED LIST AUTHORITY CO-ORDINATOR	Andy Symes (BirdLife International)
LOCATION / AFFILIATION	Environment Canada, Newfoundland & Labrador, Canada
NUMBER OF MEMBERS	36

## MISSION STATEMENT

The Diver/Loon Specialist Group (DLSG) is an association of amateurs and professionals from all parts of the world interested in divers/loons. Our objectives are to:

- 1) Provide an international network of experts on the world's divers/loons.
- 2) Stimulate, coordinate and promote diver/loon research and information exchange world-wide.
- 3) Provide research information and advice to Wetlands International/IUCN SSC and others in support of promoting the conservation management and wise use of divers/loons and their habitats.

## SUMMARY OF MAIN ACTIVITIES 2015

1) Neil Burgess represented the Diver/Loon Specialist Group at the 3rd IUCN Species Survival Commission Leaders' Meeting in Abu Dhabi, United Arab Emirates, 15-18 Sep 2015.

2) Jim Paruk, Jay Mager, and David Evers, finalized and distributed a special issue on "Loon Research and Conservation in North America" in the journal, *Waterbirds* (volume 37; 2014).

3) Only studies with the IUCN Red Listed Yellow-billed Loon (*Gavia adamsii*) are included in this report. The other four species of loons are listed as Least Concern. The Yellow-billed Loon is evaluated as Near Threatened. Studies for the species are being overseen by the U.S. Geological Survey in Alaska to track local and long-distance movements through satellite telemetry. Exposure to contaminants (such as mercury), also being conducted. Publications are below:

- Evers, David C., Joel A. Schmutz, Niladri Basu, Christopher R., DeSorbo, Jeff Fair, Carrie E. Gray, James D. Paruk, Marie Perkins, Kevin Regan, Brian D. Uher-Koch and Kenneth G. Wright. 2014. Historic and Contemporary Mercury Exposure and Potential Risk to Yellow-Billed Loons (*Gavia adamsii*) Breeding in Alaska and Canada. *Waterbirds* 37:147-159.

- Schmutz, Joel A., Kenneth G. Wright, Christopher R. DeSorbo, Jeff Fair, David C. Evers, Brian D. Uher-Koch and Daniel M. Mulcahy. 2014. Size and Retention of Breeding Territories of Yellow-Billed Loons (*Gavia adamsii*) in Alaska and Canada. *Waterbirds* 37:53-63.

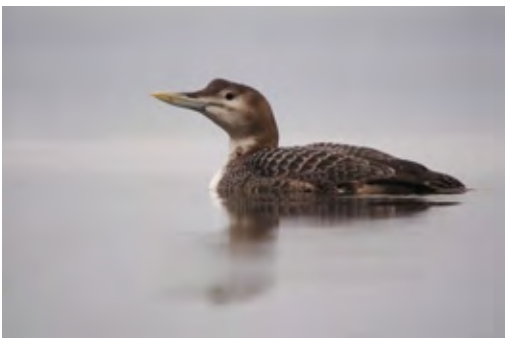
## IMPACT ON CONSERVATION

- 1) The mercury findings for the Yellow-billed Loon provide further concern about potential negative impacts from mercury pollution on its breeding and wintering areas – particularly in the face of rising global atmospheric mercury levels from regions proximate to its range (e.g., China).
- 2) The movement findings about the Yellow-billed Loon indicate that near-coastal breeding populations in North America generally overwinter on the western side of the Pacific Ocean (vs. the eastern side), which may influence its future conservation, research and management.

## FUTURE GOALS & ACTIVITIES

- 1) To increase the flow of information and advice on diver/loon research, monitoring, assessment and management to members around the world, Wetlands International and IUCN SSC.
- 2) To raise awareness of the impacts of human development and activities on diver/loon populations and habitats, and improve the management of those impacts.
- 3) To raise awareness of diver/loon symposia, workshops and meetings.
- 4) To facilitate international collaboration among members in diver/loon research, monitoring, assessment and management.

## ACKNOWLEDGEMENTS

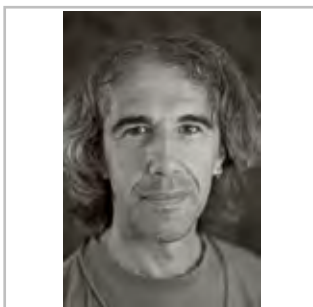


The Near Threatened Yellow-billed Loon (*Gavia adamsii*) © Aleš Prágr

# IUCN SSC Dragonfly Specialist Group



Viola Clausnitzer



Geert De Knijf

NAME: CHAIR / CO-CHAIRS	1) Viola Clausnitzer 2) Geert De Knijf
NAME: RED LIST AUTHORITY CO-ORDINATOR	Viola Clausnitzer
LOCATION / AFFILIATION	1) Senckenberg, Goerlitz, Germany and 2) INBO, Belgium
NUMBER OF MEMBERS	44

## MISSION STATEMENT

Our aim is to foster the conservation of dragonflies (Odonata) and their habitats globally; by assessing their threat status according to the IUCN Red List; education of non-specialists (field guides, workshops, publications etc.) and using dragonflies as a flagship species for monitoring water quality.

## SUMMARY OF MAIN ACTIVITIES 2015

In 2015 the "Atlas of the European Dragonflies and Damselflies" was published by Dragonfly Specialist Group (DSG) members. The Atlas results from the collaboration of a number of Odonatologists and national odonatological societies and includes both published and unpublished data. The book includes more than 200 maps, one for the European distribution (dot map in a 50x50 km UTM grid) and one for the world range (plain colour) for each of the 143 European species, from the Azores to the Ural. Further included is information on taxonomy, range, population trends, flight season, habitat, photos of nearly all species and for each country an overview of the history of odonatological studies. The distribution of the European species in the neighbouring countries is mapped.

African Odonatology has been greatly pushed forward in 2015 with the coordination and organisation of the first continent-wide freshwater workshop (AFRESH: African Freshwater Entomology Workshop). Thanks to a JRS grant to Michael Samways and KD Dijkstra ([http://jrdbiodiversity.org/grant/stellenbosch\\_dragonflies/](http://jrdbiodiversity.org/grant/stellenbosch_dragonflies/)) 69 delegates from 21 African countries working with dragonflies, damselflies, mayflies and caddisflies could be invited to Midmar in KwaZuluNatal, South Africa, as part of Michael Samway's and KD Dijkstra's JRS Biodiversity Foundation project ([http://jrdbiodiversity.org/grant/stellenbosch\\_dragonflies/](http://jrdbiodiversity.org/grant/stellenbosch_dragonflies/)). Though held in February in 2016, most of the organisation, which was done in cooperation with the Albany Museum of Rhodes University in Grahamstown in South Africa, was due in 2015. In South America, Odonatologists formed the SOL (Sociedad (e) Odonatologica Latinoamericana). A total of 1813 Odonata are known to occur in Latin America of which 523 are already on the global Red List. The Neotropical region is the most species rich, while at the same time Red List coverage is the lowest. To overcome this discrepancy in the future the SOL aim to 1) increase Red List assessments, 2) establish specialist networks in the region and 3) facilitate research on species distribution and ecology.

The DSG received Integrated Biodiversity Assessment Tool (IBAT) funding for working towards a complete global Red List. The money was used for the following targets:

- List all North American dragonflies on the Red List (Dennis Paulson)
- List all species from Micro-, Mela- and Polynesia (230 species) on the Red List (Milen Marinow)
- List all Australian species on the global Red List (420 species, plus 100 re-assessments) (Rory Dow, Ian Endersby and Günther Theischinger)
- Start a database and global assessments for South America, which resulted in the already mentioned formation of the SOL



## IMPACT ON CONSERVATION

The DSGs impact on conservation was largely indirectly through the publication of new data (e.g. The Atlas of the European Dragonflies and Damselflies), through awareness raising and establishment of cooperations (e.g. AFRESH workshop in Africa, formation of the SOL in South America).

Dragonfly research in Macedonia and work on the Key Biodiversity Areas (KBAs) in the Balkans helped to put on hold the hydropower projects inside Mavrovo National Park and as a result the European Bank for Reconstruction and Development (EBRD) and the World Bank (WB) are likely to stop their funding of this project.

Studies on the relict populations of the national Critically Endangered listed *Urothemis edwardsii* in Algeria resulted in restoration of habitats and the successful re-introduction of this species (publication in preparation). In Africa the publication of the identification key for Eastern Africa "The Dragonflies and Damselflies of Eastern Africa: Handbook for all Odonata from Sudan to Zimbabwe" and the organisation of a pan-African workshop for conservationists and scientists dealing with freshwater organisms lead to an increase in freshwater activities (both, science and conservation related).

In 2015 the National Red List for Uganda was coordinated and published and had already an impact in the planning for Oil drilling in the Albertine Rift area.

Odonata are also included in the Lake Victoria Catchment project by IUCN's Freshwater Unit, which will lead to the design of KBAs.

## FUTURE GOALS & ACTIVITIES

We are aiming to have all dragonflies on the Red List by 2019 and to enhance the knowledge of Data Deficient and Endangered species globally.

The SOL (Sociedad (e) Odonatologica Latinoamericana) will meet in October 2016 to organise the assessment of the South American dragonflies and damselflies.

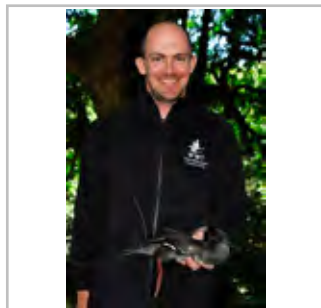
## ACKNOWLEDGEMENTS

The DSG wishes to thank the constant support and smooth cooperation with the IUCN SSC office, with the Freshwater Unit of IUCN and the Red List Unit.



Minagrion ribeiroi © Tom Kompier

# WI-IUCN SSC Duck Specialist Group



Richard Hearn

NAME: CHAIR / CO-CHAIRS	Richard Hearn
NAME: RED LIST AUTHORITY CO-ORDINATOR	Andy Symes (BirdLife International)
LOCATION / AFFILIATION	Wildfowl and Wetlands Trust, UK
NUMBER OF MEMBERS	189 members from 43 countries

## MISSION STATEMENT

The Duck Specialist Group (DSG) network works to generate and disseminate knowledge and best practice between members and others with an interest in duck conservation and management, and to ensure priority issues for duck conservation are identified and addressed.

## SUMMARY OF MAIN ACTIVITIES 2015

A number of conservation planning activities and milestones occurred in 2015. An Action Plan for the Long-tailed Duck was adopted by Parties to the African-Eurasian Migratory Waterbird Agreement (AEWA) and an Action Plan for Baer's Pochard was endorsed by Partners of the East Asian - Australasian Flyway Partnership (EAAFP). An EAAFP Baer's Pochard Task Force (BPTF) was also established to oversee the implementation of the Action Plan. The EAAFP Scaly-sided Merganser Task Force held its first meeting in Vladivostok to discuss the implementation of the Action Plan for that species.

DSG Europe played a key supporting role in the drafting of revised guidelines on sustainable harvesting for AEWA, which were adopted by Parties in 2015. These guidelines set out a clear framework for improving the monitoring and management of waterbird harvests in Europe and Africa. DSG Europe also supported a review of huntable waterbirds in the European Union, carried out by Oiseaux Migrateurs du Paléarctique Occidental (OMPO), and developed an English version of 'Guide de détermination de l'âge et du sexe des canards', published by Office National de la Chasse et de la Faune Sauvage (ONCFS).

Key research outputs in Europe included (i) an assessment of the role of Special Protection Areas in facilitating a shift in the winter distribution of Smew, and (ii) a coordinated census of Greater Scaup.

The 4th Pan-European Duck Symposium (PEDS4) was held in Finland and included a workshop on Common Pochard (newly uplisted to Vulnerable). A survey to assess the sex ratio of the European population was also organised in winter 2015/16, and a PhD project to investigate the causes of decline began at ONCFS/Tour du Valat in France.

The Sea Duck Joint Venture (SDJV) in North America continued to stimulate and support key conservation-focused research and monitoring projects. In 2015, SDJV funded 13 projects, including studies on population monitoring, movements and flyway delineation, and the identification of key sites.

## IMPACT ON CONSERVATION

The coordination of flyway-scale monitoring of European seaducks (and other marine waterbirds) is a significant area of progress. The DSG's European Seaduck Working Group met in late 2014 and again in spring 2016 and are developing a broad strategy to identify means of collecting key data and working towards a coordinated census in 2020, building on the coordinated census of the Baltic Sea and eastern North Sea that took place in January 2016, and the coordinated Greater Scaup census that took place in January 2015.

Conservation action for European seaducks has also been successfully enhanced by the DSG in recent years. The Long-tailed Duck Action Plan is now in place and an AEWA International Working Group will be established in 2016 to oversee implementation. Action Planning for Velvet Scoter will also now be progressed through a BirdLife International project funded by EU-LIFE (EuroSAP) to update and develop action plans for a number of European species (also including White-headed Duck).

The Common Pochard workshop held at PEDS4 resulted in a multi-authored publication on the status and threats of the species in Europe, which provides a sound basis for the development of other projects addressing threats and management needs. The group of DSG members interested in this species are now developing funding proposals for projects to improve the status of this species.

## FUTURE GOALS & ACTIVITIES

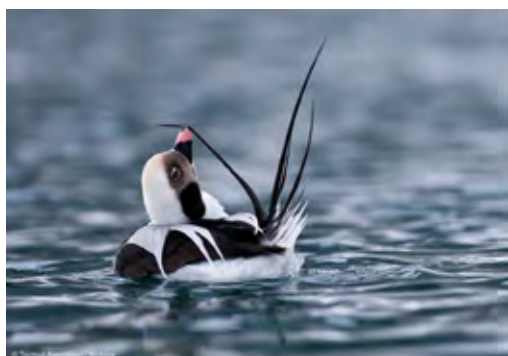
During the course of 2016-17 we intend to focus on:

1. Completion of an assessment of the status of Asian ducks
2. Completion of an AEWA Action Plan for Velvet Scoter (workshop to be held in October 2016).
3. Support the implementation of existing Action Plans - focusing on Baer's Pochard and Long-tailed Duck.
4. Develop surveys for European seaducks, working towards a flyway-wide census in January 2020.
5. Develop a DSG strategy for 2017-20.
6. Develop DSG membership, particularly in Asia and South America.

## ACKNOWLEDGEMENTS

Regional Chairs: Matthieu Guillemain (Europe; ONCFS, France), Doug Harebottle (Africa; Sol Paatje University, South Africa) and Diana Solovyeva (North Asia; Institute of Biological Programmes of the North, Russia).

Funding was received from The European Federation of Associations for Hunting and Conservation (FACE) and Tour du Valat. The DSG also supported the student prizes at the Pan-European Duck Symposium.



Male Long-tailed Duck (*Clangula hyemalis*) Preening © Tormod Amundsen / Biotope

# IUCN SSC Equid Specialist Group



Patricia D Moehlman

NAME: CHAIR / CO-CHAIRS	Patricia D Moehlman
NAME: RED LIST AUTHORITY CO-ORDINATOR	Sarah R B King
LOCATION / AFFILIATION	Tanzania/EcoHealth Alliance
NUMBER OF MEMBERS	68

## MISSION STATEMENT

The mission of the Equid Specialist Group (ESG) is to conserve biological diversity by developing and executing programs 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.

## SUMMARY OF MAIN ACTIVITIES 2015

In order to achieve these long-term goals, we work towards the following objectives; to work with scientists, government personnel and local residents in the countries where wild zebras, asses, and horses exist; to help raise funds for equid research and conservation programs; to secure funding for the training of nationals in equid range states, and to collaborate with and assist other IUCN SSC Specialist Groups.

The ESG is a worldwide (23 countries), science-based network of experts on equid behavior, ecology, physiology, population dynamics, population genetics, management and conservation. The ESG actively initiates and supports programs for research, training, monitoring, management and conservation of the world's seven wild equid species and their habitats. We are responsible for providing species assessments for the IUCN Red list of Threatened Species, facilitating the strategic planning for wild equid conservation, producing action plans and policy guidelines, as well as providing information to CITES.

A critical aspect of conserving wild equids and their ecosystems is capacity building in range states. In Ethiopia, Fanuel Kebede completed his PhD on African Wild Ass (*Equus africanus*) and Grevy's Zebra (*Equus grevyi*) with distinction and is the technical advisor to the Director General of the Ethiopian Wildlife Conservation Authority. He has secured funding and continues to do research, training and conservation on African Wild Ass and Grevy's Zebra. Futsum Hagos has completed his MSc thesis on the Population Distribution and Genetics of the African Wild Ass in the Danakil Desert, Eritrea. Redae Teclai has submitted his PhD research proposal on the African Wild Ass (*Equus africanus*) Distribution Pattern and Key Resources Use in the Danakil Ecosystem (Eritrea) to the University of Witwatersrand and will start his research in July 2016.

Wild Equids: Ecology, Management, and Conservation (John Hopkins University Press), J Ransom & P Kaczensky (eds) has been published.

Most of the assessments have been completed and submitted to the IUCN Red List Authority. Dr. Sarah King is serving as the Red List Coordinator. She has done excellent work with great expertise, diligence and patience.

Dr. Albano Beja-Pereira of CIBIO in Portugal, is coordinating research on the population genetics of African Wild Ass in Ethiopia and Eritrea. Analyses indicate that this is one genetic population with exchange of individuals between the two countries.

Turkmenistan :International Workshop on Sustainable Wildlife Management in Central Asia: Practical Experience and Way Forward. August 31-3 September 2015, Ashgabat, Turkmenistan. The purpose of the meeting was to prepare recommendations for wildlife management in Central Asia. A paper was presented on the Asiatic Wild Ass (*Equus hemionus*) distribution, genetics and IUCN Red List Status. The major purpose in attending this meeting was to alert the authorities and management personnel in Turkmenistan to the Critically Endangered status of the Asiatic Wild Ass subspecies (*Equus hemionus kulan*) in their country.

## IMPACT ON CONSERVATION

The training of national scientist has many benefits. Not only does it improve the capacity of the country to manage and conserve its biodiversity and natural resources, but it also means that there is a well qualified and committed advocate for the conservation of endangered wild equids.

Research in Eritrea has documented critical areas for African wild ass conservation. This information is being used in discussions with local communities with the goal of establishing more protected areas.

In both Ethiopia and Eritrea, scouts have been employed and trained, but the program needs to be expanded.

The newly revised IUCN Red List assessment of wild equids is critical for identifying which species are at risk and how best to improve their conservation status. The Plains Zebra (*Equus quagga*) is an example of a wide spread and abundant species. But the recent assessment indicates that there has been a global decline of 25%. This information is critical for alerting all range states that this species, though abundant, is in reality Threatened.

## FUTURE GOALS & ACTIVITIES

Dr. Fanuel has scheduled a Species Conservation Strategy Planning Workshop for all the wild equids which occur in Ethiopia, i.e. African Wild Ass, Grevy's Zebra and Plains Zebra. Dr. David Mallon has agreed to be the facilitator and the workshop will take place in December 2016. National Action Plans provide knowledge on biodiversity status/trends and directly influence policy in terms of needed conservation actions.

The ESG will participate with the Convention on Migratory Species (CMS) meeting of experts on the African Wild Ass in 2017.

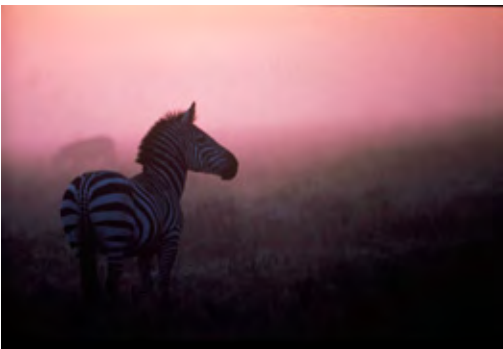
The ESG will continue to support the graduate training of national experts and the training of local scouts.

The ESG will continue to assess the status and trends of all wild equid species.

## ACKNOWLEDGEMENTS

We are very grateful to our donors who have provided essential support to wild equid research, training and conservation programs; Ecohealth Alliance, Basel Zoo, Liberec Zoo, Saint Louis Zoological Park, Sea World & Busch Gardens Conservation Fund, Gilman International Conservation Program, and Plock Zoo.

Hagos Yohannes was a valued member of both the Equid Specialist Group and the Antelope Specialist Group. He led the Wildlife Conservation Unit in the State of Eritrea from the year of its Independence and he was a tireless and committed champion for the conservation of all of Eritrea's wildlife. Date Of Birth 1943. Deceased April 19, 2015



Plains Zebra (*Equus quagga*) in the midst at dusk © Patricia Moehlman

# WI-IUCN SSC Flamingo Specialist Group



Rebecca Lee

NAME: CHAIR / CO-CHAIRS	Rebecca Lee
NAME: RED LIST AUTHORITY CO-ORDINATOR	Andy Symes (BirdLife International)
LOCATION / AFFILIATION	The Flamingo Specialist Group is coordinated by the Wildfowl & Wetlands Trust (WWT), UK.
NUMBER OF MEMBERS	201

## MISSION STATEMENT

The Flamingo Specialist Group (FSG) mission is to actively promote the study, monitoring, management and conservation of the world's six flamingo species by: 1) developing and maintaining an active and comprehensive international network of flamingo specialists; 2) stimulating and supporting information exchange between specialists; 3) taking a leadership role in the development and implementation of conservation action plans; 4) taking a leadership role in promoting innovative conservation approaches; and providing information and technical advice in support of Wetlands International, IUCN SSC, BirdLife International, the Ramsar Convention and others that promote the conservation of flamingos and their habitats.

## SUMMARY OF MAIN ACTIVITIES 2015

The FSG email discussion group continued to be active and well-used in 2015 with over 300 emails from members discussing and sharing information on a wide range of topics, including: botulism outbreaks; breeding successes and failures in Africa, South America and Europe; ringing/banding issues; re-sightings (including a record of a wild Lesser Flamingo reaching over 50 years of age); moult; ageing; and liver functioning, among other topics.

In 2015, group members were involved in activities supporting the conservation of all six flamingo species. The FSG's Eastern Hemisphere coordinator, Arnaud Béchet, continued to maintain the West African and Mediterranean Greater Flamingo Network and coordinate the synthesis of breeding and ringing numbers for the species. The FSG's Western Hemisphere coordinator, Felicity Arengo, continued to play an active role in the Grupo de Conservación de Flamencos Altoandinos (GCFA - High Andes Flamingo Conservation Group), a formalized network of flamingo practitioners in South America, coordinating regional research (monitoring, banding, database management) and conservation activities.

The GCFA is a technical advisor for the Memorandum of Understanding (MOU) for the Conservation of the Andean and Puna Flamingo, under the auspices of the UNEP Convention on the Conservation of Migratory Species of Wild Animals. In April 2016, the first meeting of signatories of the MOU took place in Cuzco, Peru. At this meeting, it was agreed that the Chilean Flamingo should be included under the MOU in addition to the Andean and Puna Flamingo; a detailed action plan was officially adopted by the signatories (Chile, Bolivia and Peru); a decision was made to establish a Network of High Andean Wetlands as Habitat for the Flamingos, in order to ensure adequate site protection and connectivity; and there was agreement to undertake simultaneous surveys of the flamingos in all range states every five years, and national surveys every year.

Thanks to the efforts of the FSG's communications coordinator, Paul Rose, the FSG has continued to have a thriving social media presence. Across Facebook and Twitter, the FSG has over 3,000 followers who regularly receive and interact with information about flamingo conservation and science. FSG Facebook posts reach around 4,600 people each week with an average of 400 people directly engaging with the page every week. FSG Twitter posts reach over 6,500 people per month.

## IMPACT ON CONSERVATION

In its current format as a large, entirely voluntary network with members based in 46 countries across five continents, the Flamingo Specialist Group itself does not participate in direct conservation action but rather facilitates communication between those who do. It is difficult to measure or estimate the conservation impact of this function. Since it was established in 1978 the group has played a role in stimulating a range of conservation initiatives, including, for example, the production of the International Single Species Action Plan for the Conservation of the Lesser Flamingo, which provides a framework for Lesser Flamingo conservation 2008–2018, and led to the production of national action plans in six range states.

The group has also encouraged and supported the development of smaller regional groups, such as the GCFA, the Grupo de Conservación de Flamencos del Caribe (Caribbean Flamingo Conservation Group) and the Mediterranean and West African Greater Flamingo Network. These groups are best placed to facilitate strategic on-the-ground action for flamingos. The GCFA is the main driving force for many of the conservation and research activities that take place on the ground for flamingos in the high Andes and played a key role in the production of the international action plan for the species which includes provisions on inter-institutional coordination, monitoring and research, conservation and management, and education and public awareness. The GCFA has coordinated range-wide simultaneous censuses for high Andes flamingos since 1997 with the most recent in 2015. These censuses have allowed the group to establish baseline population numbers for the Andean and Puna Flamingo, monitor the conservation status of Andean wetlands, identify priority wetlands and determine population trends. The Flamingo Specialist Group is well placed to encourage and facilitate the formation of additional regional groups, which we hope will be a focus for the future.

Important advocacy work by Specialist Groups often goes on unnoticed behind-the-scenes. A very good example of this is the considerable work done by the Chairs of the FSG and IUCN SSC in convincing the executives of Tata Chemicals not to proceed with the original soda extraction facility at Lake Natron in the late 2000s.

## FUTURE GOALS & ACTIVITIES

For the 2017–2020 IUCN quadrennium, the FSG is seeking a new Chair or Co-Chairs who will produce a strategic plan for that period. The group will continue to facilitate communication between members, hopefully with improvements that will increase information sharing, such as the establishment of a new website and increased production of newsletters and/or online news articles/blogs. The group aims to produce two editions of the FSG bulletin, Flamingo, in 2016 – the next in the series as well as the proceedings of the 2014 international symposium – and to provide funding in the form of small grants for activities in priority areas. Other potential future activities include further developing membership in east and southern Africa and Asia, encouraging the establishment of additional regional groups, and supporting the implementation of the Lesser Flamingo Action Plan.

## ACKNOWLEDGEMENTS

We would like to acknowledge the significant contribution that Mr. Bill Hunt has made to the FSG over the past two decades. This included funding on the ground conservation activities such as Lesser Flamingo satellite tracking in Kenya and making significant donations which will enable us to provide small grants for flamingo conservation work. We are also grateful to Detroit Zoo and Dublin Zoo for contributing funding for small grants.



Flamingo SG members at International Flamingo Symposium held in San Diego, October 2014

# IUCN SSC Freshwater Crustacean Specialist Group



Neil Cumberlidge

NAME: CHAIR / CO-CHAIRS	Neil Cumberlidge
NAME: RED LIST AUTHORITY CO-ORDINATOR	Darren Yeo (Freshwater Crabs); Keith Crandall (Crayfish); Sammy de Grave (FW Shrimp)
LOCATION / AFFILIATION	Northern Michigan University
NUMBER OF MEMBERS	27

## MISSION STATEMENT

The objectives of the Freshwater Crustacean Specialist Group (FCSG) are:

- To act as the Red List Authority and to update Red List species assessments
- To maintain up-to-date world species lists, track discovery of new species and list their Red List status
- To promote long-term conservation worldwide by developing conservation strategies for threatened species
- To educate non-specialists about all aspects of the group
- To promote integrated research on biodiversity and conservation of freshwater crustaceans

## SUMMARY OF MAIN ACTIVITIES 2015

The Freshwater Crustacean Specialist Group (FCSG) changed its name (and logo) from the FCCSG to reflect its expanded coverage beyond freshwater crabs and crayfish to now include freshwater shrimps. Our name change and new logo are aimed at accommodating future expansions. All three freshwater decapod groups now have global Red List conservation assessments available, and significant reports of the Red List results for each of these three groups have been published in top scientific journals.

We appointed several new members to the FCSG, including a new Red List Authority Focal Point for the freshwater shrimps.

The FCSG contributes more than 2,600 species of Red-Listed invertebrates to the Convention on Biological Diversity (CBD) targets.

Red Listing is currently underway for the 85 species of Aeglidae (anomuran freshwater crabs from South America) that is global coverage.

The FCSG responded to individual requests to reassess species of freshwater crabs, and to assess species of freshwater crustaceans (sesarmid crabs and water fleas) for the Red List that are not currently covered by the FCSG.

Ongoing Red List conservation assessments of the 100 plus new species of freshwater crabs described since the last global Red Listing in 2009.

Completed distribution maps for all of the assessed species of Afrotropical freshwater crabs made available on the IUCN Red List website.

FCSG members contributed a chapter to the IUCN report 'The Status and Distribution of Freshwater Biodiversity in the Arabian Peninsula'.

Future expansion of the FCSG taxonomic coverage aimed at including over 200 species of land crabs, mangrove crabs, and shore crabs, and (possibly) 200 species of freshwater fairy shrimps and clam shrimps.



## IMPACT ON CONSERVATION

### Conservation Action Plan Implemented

FCSG members published, and are now implementing an IUCN Species Conservation Strategy recovery plan for the critically endangered Singapore freshwater crab following a workshop in Singapore in March 2014. The plan was developed in conjunction with several interested groups in Singapore and the FCSG and the IUCN SSC Invertebrate Conservation Sub-Committee on Strategic Conservation Planning.

### Conservation Outreach Activities

FCSG members participated (and Crandall co-organized) a Royal Society Meeting on 'Phylogenetics, Conservation and Extinction' that had a broad array of IUCN Red List contributions and usages for conservation efforts.

FCSG members contributed three species of freshwater crustaceans to the IUCN's 'Amazing Freshwater Species' project. Three FCSG members co-edited a multi-author volume on freshwater decapod conservation "A Global Overview of the Conservation of Freshwater Decapods", Springer, 2016). The 16 chapters are based on presentations from two special symposia on fresh water decapod conservation held in Germany and Japan in August and September of 2014:

(1) the FCSG Chair presented a keynote address "Developing Conservation Strategies for Threatened Freshwater Decapods Worldwide" at a special symposium of the 8th International Crustacean Congress in Frankfurt, Germany.

(2) the FCSG Chair presented a keynote address 'Freshwater Crabs and the Biodiversity Crisis: Meeting the Conservation Challenges' at a special symposium on freshwater decapod conservation at the Joint International Conference of the International Association of Astacologists and the Carcinological Society of Japan, in Sapporo, Japan.

FCSG members published two major articles summarizing the results of the global Red Listing of (1) 572 species of freshwater crayfish (Philosophical Transactions of the Royal Society, 2015) and (2) 763 species of freshwater shrimps (PLOS One, 2015).

FCSG members published papers on the phylogenetic distribution of IUCN Red List conservation categories and the first EDGE analysis for the freshwater crayfish (Philosophical Transactions of the Royal Society, 2015).

## FUTURE GOALS & ACTIVITIES

To continue to implement the Species Conservation Plan aimed at saving the Critically Endangered Singapore freshwater crab from extinction.

To process the more than 100 first-time Red List assessments of new species of freshwater crabs, crayfish, and shrimps described since the last global assessments of these groups.

To encourage global Red Listing studies of other groups of freshwater crustaceans which have not yet been assessed.

To link updated freshwater crustacean species lists to the WoRMS taxonomic database.

To represent freshwater crustaceans as high priorities for genome sequencing and to provide genomic resources for conservation efforts for the Invertebrate Genome Alliance.

## ACKNOWLEDGEMENTS



The Vulnerable Madagapotamon humberti native to Madagascar and found in only 5 locations © Steven Goodman

# WI-IUCN SSC Freshwater Fish Specialist Group



Richard Sneider

NAME: CHAIR / CO-CHAIRS	Richard Sneider
NAME: RED LIST AUTHORITY CO-ORDINATOR	Rajeev Raghavan and Jörg Freyhof (Technical Officer: Ian Harrison)
LOCATION / AFFILIATION	In 2015, the FFSG did not have a host organization. Our Global Chair is based in Los Angeles, California, USA; the Technical Officer, supporting the Chair, is affiliated with Conservation International.
NUMBER OF MEMBERS	206

## MISSION STATEMENT

The mission of the Freshwater Fish Specialist Group (FFSG) is to achieve conservation and sustainable use of freshwater fishes and their habitats through generating and disseminating sound scientific knowledge, creating widespread awareness of their values, and influencing decision-making processes at all levels.

## SUMMARY OF MAIN ACTIVITIES 2015

The Global Freshwater Fish BioBlitz, a citizen science project engaging people to record their observations of freshwater fishes in their natural habitat, continued successfully through 2015. 1090 observations were added to the 1650 recorded in 2014; as of February 2016 there were 783 species registered. Generous support from WWF-US, GEO BON, and the FFSG Global Chair, allowed Alex Mauroner (FFSG Programme Officer) to present FFSG's work on the BioBlitz at the Citizen Science Conference, in San Jose, California in February.

FFSG continued collaborating as a partner of the World Fish Migration Platform (to create awareness, share knowledge and build solid networks on a global scale around the themes of fish migration and free-flowing rivers). The Platform's work in 2015 included the presentation of online webinars; contribution to Fish Passage 2015, with keynote addresses from FFSG Steering Committee members Claudio Baigún and Zeb Hogan; and planning for World Fish Migration Day 2016.

The Home Aquarium Fish Subgroup (HAFSG), formed in 2014, advanced significantly in 2015. The HAFSG promotes sustainable management of the freshwater fish trade and raises public awareness about freshwater fishes and their conservation. In February 2015 the subgroup Chair, Scott Dowd, led an expedition of 40 international specialists to the home aquarium fishery of the Rio Negro in the Amazon. The expedition gained information on the methods of capture, transport and export of the aquarium fishes from the Rio Negro, and examined water quality, fish populations, and fish health. In May 2015 Scott co-lead sessions at the Aquarama 2015 International Fish and Accessories Exhibition, in Singapore. This included a specially convened public aquarium committee, focused on the development of a strategic framework for coordination of home aquarium fisheries to provide socio-economic benefits and environmental stewardship.

Regionally, freshwater biodiversity assessments were published for the Arabian Peninsula, with input from FFSG. The Tropical Andes Freshwater Biodiversity Assessment is underway, and IUCN's Freshwater Biodiversity Unit has continued to work with NatureServe to update the Red List assessments for North American freshwater fishes. FFSG members contributed to a book published in 2015 by IUCN-World Commission on Protected Areas (WCPA) on Protected Area Governance and Management, and a book on Conservation of Freshwater Fishes (publication by Cambridge University Press in 2016).

## IMPACT ON CONSERVATION

The experts of the FFSG play an important role in assimilating information for IUCN's assessment of the distribution and conservation status of freshwater fishes, for the Red List. That information is then used to identify individual species of special concern and requiring improved conservation efforts, and for identifying regions that qualify as freshwater key biodiversity areas. In this way, FFSG's work is critical to making recommendations for conservation action. One such example is the recent re-assessment of the Japanese fish *Parabotia curtus*, conducted with the assistance of FFSG's Regional Chair for Japan. This work made national network media, highlighting the fact that a proposed football stadium would destroy the species' habitat. The matter was discussed by the national government and the construction plan for the stadium was halted and an alternate location is being investigated.

The FFSG has great effectiveness in raising public awareness to the diversity and importance of freshwater fishes, and to the serious threats they face. Examples of this are provided by our involvement in the Global Freshwater Fish BioBlitz, and the World Fish Migration Platform events, that reach thousands of people, and through the large numbers of scientific publications and general interest articles that are produced by our members.

Also, individually our members are involved in many, extremely important regional projects focusing on conservation of species and aquatic habitats. Summaries of many of these projects are given in the FFSG Newsletter, 'Saving Freshwater Fishes and Habitats', which can be downloaded from <http://www.iucnffsg.org/resources/ffsg-newsletter/>.

## FUTURE GOALS & ACTIVITIES

Predicted upcoming activities will include the following: Assessments of freshwater fishes for the Red List in Sundaland, Japan, and Mexico. The Blueprint for Freshwater Life is a collaborative project with the SSC Freshwater Conservation Subcommittee, the Leibniz-Institute of Freshwater Ecology and Inland Fisheries Berlin, and UNESCO. It will combine research, exploration, education, conservation planning, and diverse communications media to raise awareness of freshwater ecosystems and their species. FFSG members are working with an international group of collaborators to develop a review of the distribution, migration pathways, and conservation status of migratory freshwater fishes. The IUCN-SSC Invasive Species Specialist Group, the SSC Freshwater Conservation Subcommittee, and the FFSG are investigating collaborative project opportunities to address the problems of invasive alien species in freshwater ecosystems. The Home Aquarium Fish Sub-Group and the North East Council of Aquarium Societies has raised money that will support a Congolese student to review possible options for a sustainable aquarium fish trade from the Congo.

## ACKNOWLEDGEMENTS

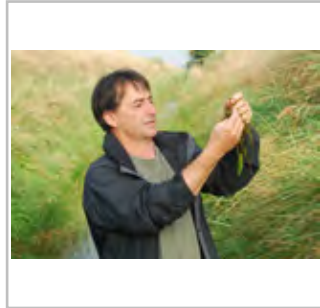
Thanks to the Chester Zoo for continuing to host the FFSG website through to September, and for Project Piaba for taking over this role and help on restoration of files after a cyber-attack. Many thanks also to the South African Institute for Aquatic Biodiversity, SAAIB) for offering assistance with our web site, and for providing an intern (Ann Wu) who provided essential editorial assistance for the FFSG Newsletter. We are also extremely grateful to Alex Mauroner for his exceptional work as Programme Officer from January to May 2015.

Finally, on behalf of the FFSG, I wish to express my sincere gratitude to Ian Harrison (FFSG Technical Officer). Ian's professionalism, attention to detail and passion is displayed in his daily diligence in tending to the many tasks he undertakes - whether they are academic, technical or administrative in nature. Ian pursues all of it with wisdom and audacity, with diplomacy and tenacity. I can't think of a better steward for FFSG! Ian, thank you for your work, your integrity and your friendship.



One of the five life-size sculptures from the Monster Fish exhibit co-curated by FFSG Steering Committee member Zeb Hogan and national Geographic. Photo: Carly Silverman (Conservation International).

# IUCN SSC Freshwater Plant Specialist Group



Richard V. Lansdown

NAME: CHAIR / CO-CHAIRS	Richard Lansdown
NAME: RED LIST AUTHORITY CO-ORDINATOR	Melanie Bilz
LOCATION / AFFILIATION	
NUMBER OF MEMBERS	174

## MISSION STATEMENT

The Freshwater Plant Specialist Group (FPSG) exists to promote and further the conservation of wetland-dependent plants and the habitats upon which they depend. To do this we need to identify which species, estimated to be at least 30,000 worldwide, are truly dependent upon wetlands, review their status against the IUCN Red List Criteria and then address their conservation needs.

## SUMMARY OF MAIN ACTIVITIES 2015

The most significant change in 2015 was the termination of the hosting agreement between the FPSG and The Wildfowl & Wetlands Trust (WWT) by mutual agreement, this has meant that we have been unable to obtain funding for projects to be carried out by the group. Richard Lansdown continues to populate the global wetland-dependent plant database but without funding this is a slow process. In 2015, a page on the FPSG was established on the IUCN web-site and Richard established a personal web-site which includes extensive information on the work of the FPSG. The members of the FPSG completed a global review of the threats to wetland-dependent species to inform the work of the IUCN Freshwater Conservation Sub-Committee and another 400 red list assessments for freshwater plants from Canada and the Tropical Andes have been prepared. The Freshwater bryophyte ecology group of Oporto University has established a network of experts and researchers working on aquatic bryophytes for research into the ecology, distribution and conservation of fluvial bryophyte communities throughout Europe. Research projects carried out by FPSG members include contribution of information on aquatic communities to a phytosociological classification of the vegetation of Switzerland by Aurélie Boissezon and Patrice Prunier, research into the status and conservation of *Luronium natans* in Belgium by Luc Denys and colleagues, research into adaptations of *Cyperus fuscus* to environmental dynamics by Karl-Georg Bernhardt, a study of the cytotoxicity of the genus *Echinodorus* by Arie de Graaf, identification of key factors determining the composition of plant communities and the seed bank of temporary ponds in Morocco by Mohammed Elmadihi and ongoing research into *Isoetes histrix* s.l. at its northernmost extent in the British Isles and the Channel Islands to increase understanding of its ecology and management needs by F.J. Rumsey. Surveys have also been a major focus of the work of FPSG members, including temporary ponds in Morocco along a dual climatic gradient by Mohammed Elmadihi, mapping of water plants ([www.flora-on.pt](http://www.flora-on.pt) Portuguese Botanical Society) in Portugal and documentation of the recently discovered and unprotected pools in bedrock exposures in the Lagoa area in the Algarve by U. Schwarzer, mapping and documentation of the aquatic plants of Suriname, including herbarium collections stored in the National Herbarium of Suriname by Gisla Jairam-Doerga, inventory of the aquatic and wetland plants of Rio de Janeiro State, Brazil by C.P. Bove and the Aquatic Plant Laboratory team of the National Museum of the Federal University of Rio de Janeiro (APL-NMFU), mapping the distribution of native and non-native plants in 100 ponds in the Canton of Geneva by Aurélie Boissezon with Stephane Joost (EPFL) and Damien Juat (hepica), a national survey of charophytes in Austria by Karl-Georg Bernhardt, publication online of an atlas of the distribution of vascular plants in the Czech Republic, surveys of Bhoj wetland (Bhopal) by H.K. Goswami and a survey of Danau Yamor in western Papua New Guinea to assess invasion by *Eichhornia crassipes* by Charlie Danny Heatubun.

## IMPACT ON CONSERVATION

The FPSG Chair obtained a grant from the Mohammed bin Zayed Species Conservation Fund to prepare a global conservation strategy for the genus *Callitriche*, the project will be completed in late 2016. The members of the *Isoetes* sub-group completed the first global list of recognised names in the genus *Isoetes*, while members of the *Podostemaceae* sub-group have compiled a list of the Neotropical *Podostemaceae* and *Hydrostachyaceae* and are working toward a list of the old world species. Both of these groups of species are threatened by climate change and development of an agreed global taxonomy will help to establish a basis for monitoring, as well as enabling applications for funding to launch global conservation strategies. The *Ranunculus* subgenus *Batrachium* sub-group has prepared a first list of accepted species names within the subgenus, this subgenus is extremely important, particularly in Europe, often representing the dominant vegetation in rivers, as well as being cited in a range of legislation controlling modification to and pollution of rivers. The FPSG also produced its first Species Conservation Strategy (SCS) (approved by the IUCN Species Conservation Sub-committee) for *Damasonium alisma* which is facing extinction due to loss of traditional habitat management practices. Other research and conservation work by FPSG members includes assessment of the conservation status of the Brazilian Aquatic Flora (CNCFlora Program) by C.P. Bove and the APL-NMFU, collection of endangered wetland plants for ex-situ conservation and research into conservation of *Stratiotes aloides* in Austria by Karl-Georg Bernhardt, contribution to the "LIFE charcos" project (Life12/NAT/PT/997) for conservation of Mediterranean temporary ponds by U. Schwarzer, Francois Pinet contributed to the French National Conservation Action Plan for *Luronium natans* and surveyed *L. natans* in the south of the Parc Naturel Regional de la Brenne, as well as preparing a synthesis of information on *Marsilea quadrifolia* and continuing research into the conservation of *Caldesia parnassifolia*, Patrick Grillas and Antoine Gazaix (Tour du Valat and CEF/CNRS Montpellier) established a research project into the ecology and conservation of *Lythrum thesioides*, a study of the distribution, ecology, population dynamics and conservation of charophytes in the Geneva region was completed by Dominique Auderset Joye and Aurélie Boissezon (University of Geneva) for the General department of agriculture and nature of Geneva, Jean-Paul Gogue and Green Connexion surveyed and undertook translocation of *Ledermanniella sanagaensis* and *Dicraeanthus zehnderi* on the Sanaga tributaries, Miguel Alvarez contributed to the vegetation-plot database for East Africa and a syntaxonomic classification of aquatic and semi-aquatic vegetation, while RVL and Ioannis Bazos with support from MAICh documented *Callitriche pulchra* on Gavdos.

## FUTURE GOALS & ACTIVITIES

The main aims of the FPSG for the coming year are to find the small amount of funding needed to enable the global wetland-dependent plant database to be made available on the internet, to establish a global Red List Index from freshwater wetland plants to inform wetland conservation worldwide and to find a new host for the SG.

## ACKNOWLEDGEMENTS

As always, we are very grateful to the support of Simon Stuart, Rachel Hoffmann and other members of the SSC.



The Waterwheel, *Aldrovanda vesiculosa*, is listed as Endangered on the IUCN Red List © Klaus van de Weyer

# IUCN SSC Galapagos Plant Specialist Group



Alan Tye

NAME: CHAIR / CO-CHAIRS	Alan Tye
NAME: RED LIST AUTHORITY CO-ORDINATOR	Alan Tye
LOCATION / AFFILIATION	IUCN, Mauritius
NUMBER OF MEMBERS	13

## MISSION STATEMENT

The Galapagos Plant Specialist Group (GPSG) promotes the conservation of all Galapagos native plants and plant-like organisms (including algae, fungi, lichens and similar taxa).

## SUMMARY OF MAIN ACTIVITIES 2015

The GPSG is a discussion group for people interested in the conservation of the Galapagos flora. The group includes the world's experts in the field of Galapagos plant conservation, and acts in an advisory role, formulating views on conservation policy and on the practical conservation of the islands' flora. The group develops conservation priorities for Galapagos plants, including those for applied research, survey and management, and communicates these priorities in the form of advice to the relevant research and conservation institutions on the islands. Research is carried out by GPSG members employed in Galapagos and by others as visiting scientists. GPSG members employed at academic institutions also encourage their research students to undertake Galapagos projects.

The Red List assessments of all of the endemic vascular plants of the Galapagos, completed some years ago, are now in the process of being incorporated onto the Red List. The endemic marine algae are already on the List. Red Listing of the endemic lichens is now in progress. The group plans a re-evaluation of the endemic vascular flora in the near future.

## IMPACT ON CONSERVATION

Plant conservation in Galapagos is largely carried out by two institutions, the Galapagos National Park Directorate and the Charles Darwin Research Station. The group has influenced the course of plant conservation in the islands by direct advice to these institutions, as well as by its members including botanical staff of the CDRS. Red-listing of the endemic plants has contributed to conservation planning for particularly threatened species and for managing threats on individual islands, as well as to drawing international attention to threatened plants, thereby contributing to support for their conservation.

## FUTURE GOALS & ACTIVITIES

Complete Red Listing of endemic lichens.  
Secure resources for vascular plant re-evaluation.  
Explore possibilities for a plant conservation planning workshop in Galapagos.

## ACKNOWLEDGEMENTS

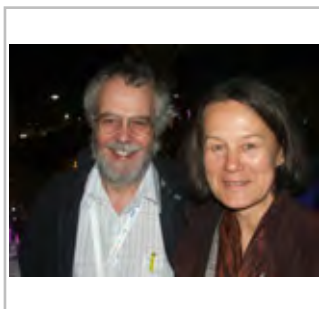


The Endangered Pink Wild Coffee (*Psychotria angustata*), a single-island endemic (Floreana Island) © Alan Tye

# IUCN SSC Galliformes Specialist Group



Galliformes Specialist Group



Peter Garson and Ilse Storch

NAME: CHAIR / CO-CHAIRS	1) Peter Garson 2) Ilse Storch
NAME: RED LIST AUTHORITY CO-ORDINATOR	Andy Symes (BirdLife International)
LOCATION / AFFILIATION	1) Newcastle University, UK and 2) University of Freiburg, Germany
NUMBER OF MEMBERS	263

## MISSION STATEMENT

The Galliformes Specialist Group (GSG) are committed to the worldwide conservation and sustainable management of all native populations of Galliformes (& Tinamiformes) species and their habitats, focusing on the globally threatened species. Objectives include: nurturing worldwide research and conservation expertise in our species via an inclusive international membership; assisting BirdLife International (as RLA) with reviewing species conservation status; assisting investigators with proposals, seeking funds and reporting findings; encouraging international cooperation for technology transfer and capacity building; organising meetings and workshops; communicating the plight of our species to a wider audience.

## SUMMARY OF MAIN ACTIVITIES 2015

There were three substantial meetings dedicated to the biology and conservation of our species in 2015: two sessions on Cracids and Tinamous at the Neotropical Ornithological Congress (Brazil, July), the International Grouse Symposium (Iceland, August) and a Population and Habitat Viability Assessment (PHVA) workshop on the Critically Endangered blue-billed curassow *Crax alberti* (Colombia, December).

GSG members and others have made further efforts to document the ecological requirements of individual threatened species and to engage with protected area managers and local communities to develop workable conservation plans for the long term. For instance, Taku Awa has been leading efforts to re-assess the status of the Endangered (EN) Mount Cameroon Francolin, *Pternistis camerunensis* in West Africa. Marcy Summers is continuing to encourage local communities in Central Sulawesi to protect Maleo *Macrocephalon maleo* (EN) nesting grounds, and WCS is leading another project in the north. Viet Nature (BirdLife partner for Vietnam) is managing a Working Group for the Critically Endangered (CN) Edwards's Pheasant, *Lophura edwardsi*, whilst camera trap surveys continue in the wild and work on the genetics and propagation of captive stocks in Europe and elsewhere is ongoing. Carolina Bertsch has been working on potentially crucial populations of Wattled Curassow, *Crax globulosa* (EN) surviving in Brazil. Progress towards a pilot reintroduction of the Extinct in the Wild (EW) Alagoas Curassow, *Mitu mitu* in Brazil continues. Elsewhere, survey updates have been conducted in NE India by Anwar Choudhury, NW India by Riyaz Ahmad, and NE Pakistan by Naeem Awan.



## IMPACT ON CONSERVATION

Most Galliformes species are difficult to survey in the wild, so it is still proving difficult to measure the real impact of conservation efforts made for the benefit of the targeted populations. Megapode species that nest communally are an exception, and the Maleo projects in Sulawesi are therefore known to be effective. The GSG champions the adoption of science-based conservation action, but it is also necessary to develop robust and locally-feasible techniques to objectively assess the effect of conservation action on more of our threatened species. Work is in progress on Green Peafowl, *Pavo muticus* (EN) in SE Asia, as a model for any of the more vocal species, to improve the reliability of results from call count surveys.

## FUTURE GOALS & ACTIVITIES

Peter & Ilse are standing down as the GSG Co-chairs after 8 years, and before that leading the Pheasant and Grouse SGs that were amalgamated with others to form the GSG in 2009. We anticipate changes in how the GSG operates under the new leadership, with some long awaited institutional support as a key component. As 85 of our species are Threatened, the focus on them must continue. Local capacity-building is still much needed in many places for the long term benefit of our species, their ecosystems and the local human populations that need to become their custodians.

## ACKNOWLEDGEMENTS

We would like to thank the twelve members of our Co-Chairs' Advisory Board for giving us the benefit of their international knowledge and experience when we have been responding to requests for advice from individual members and others, the IUCN family, NGOs and government bodies around the world. And we must thank Matt Grainger, Tor Spidso, Luis Fabio Silveira and Carolina Bertsch for editing and producing our newsletters.



The Critically Endangered Blue-billed Curassow *Crax alberti* © Bill Konstant

# IUCN SSC Giraffe & Okapi Specialist Group



Julian Fennessy and Noëlle Kümpel

NAME: CHAIR / CO-CHAIRS	Dr Julian Fennessy & Dr Noëlle Kümpel
NAME: RED LIST AUTHORITY CO-ORDINATOR	Dr David Mallon
LOCATION / AFFILIATION	Giraffe Conservation Foundation (GCF) & Zoological Society of London (ZSL)
NUMBER OF MEMBERS	50 members, 28 of which are giraffe subgroup and 22 are okapi subgroup

## MISSION STATEMENT

The IUCN SSC Giraffe and Okapi Specialist Group (GOSG) seeks to understand and provide technical support to conservation issues facing giraffe and okapi worldwide.

## SUMMARY OF MAIN ACTIVITIES 2015

Interest in both species conservation and awareness has continued to increase in 2015 and the support of the Giraffe Conservation Foundation (GCF) and Zoological Society of London (ZSL) as hosting institutions for the two subgroups has been invaluable. The two Co-Chairs of the GOSG met three times during 2015 and discussed all aspects of operations to plan out the next year of the quadrennium.

The GOSG website ([www.giraffidsg.org](http://www.giraffidsg.org)) has gone live and we hope that together with partner websites it will provide a valuable resource tool for the conservation, management and sharing of information regarding these two species. The website includes a publicly-accessible bibliographic database of giraffid literature, starting with the Okapi, for which more than 650 references have now been compiled. Discussions continue regarding the exact structure and accessibility of a survey database for the GOSG, with the compilation of the Okapi side almost complete and the Giraffe database currently housed by GCF. Additionally, the website hosts the Giraffid newsletter which provides up-to-date stories and news on all things Giraffe and Okapi throughout the year.

Support from numerous GOSG members during 2015 assisted in the ongoing development of the first-ever detailed draft Red List assessment of Giraffe and many of its subspecies which will ultimately change their conservation status and hopefully future management in the wild. The 2013 Okapi Red List assessment was also reviewed and updated in 2015.

In August 2015 the GOSG supported GCF in hosting Giraffe Indaba III in South Africa, which brought GOSG members and other Giraffe and Okapi experts and stakeholders together for a week of presentations and discussions about the species' future conservation and management. A two-day GOSG member meeting was also held immediately preceding the Indaba to discuss and propose details of the GOSG operations and activities including overall strategy.

The GOSG-led IUCN/ICCN Okapi Conservation Strategy and Status Review 2015-2025 was published in English and French, and officially launched in February 2016, generating a significant number of online, print and radio features in the international and Congolese media (IUCN press release: [http://www.iucn.org/es/noticias/noticias\\_por\\_region/?22454/Global-plan-aims-to-save-elusive-okapi-from-extinction](http://www.iucn.org/es/noticias/noticias_por_region/?22454/Global-plan-aims-to-save-elusive-okapi-from-extinction)). During 2015 the development of a new National Giraffe Conservation Strategy in Niger was completed, and to date still remains the only one of its type on the continent.

## IMPACT ON CONSERVATION

The completion of the first-ever detailed draft Red List assessment of Giraffe and many of its subspecies is expected to create wider awareness and support that will ultimately have a significant impact on their conservation status and future management in the wild. Throughout the process it has been clear that the education and awareness undertaken by all GOSG members involved has facilitated a greater understanding of the need for Giraffe conservation efforts across all stakeholders, from government to communities, raising Giraffe on the conservation priority list.

The Giraffe Indaba III and GOSG members meeting held in South Africa enabled sharing of invaluable research, conservation and management experience across the broader Giraffe and Okapi community, both in situ and ex situ, with a positive knock-on effect on the species' conservation and management across Africa. GOSG members currently work across 14 giraffid range states, on both species and all 9 subspecies, and since the formation of the GOSG in 2013 have published at least 51 scientific papers and reports on Giraffe and Okapi, including in 2015 a special issue of the African Journal of Ecology on giraffids and three new Okapi genetics papers.

During 2015 the development of a new National Giraffe Conservation Strategy in Niger provides a solid basis from which to target conservation management effort for this Endangered subspecies. By bringing together stakeholders locally and internationally, the development of the strategy has already facilitated increased financial and technical support for the West African Giraffe from the government and NGOs.

The GOSG-led IUCN/ICCN Okapi Conservation Strategy and Status Review was formally published at the end of 2015, providing a clear road-map of actions needed to ensure the long-term viability of Okapi populations, both at the species-level and across the wider-landscape. For example, GOSG members have (1) held Okapi monitoring discussions, (2) worked with ICCN to engage the Provincial Governor and the Congolese army to address the issue of illegal incursions into the Okapi Wildlife Reserve (RFO), removing illegal settlers and miners and re-establishing security, and (3) worked at policy level within the World Heritage Convention process and with the public and private sector to strengthen commitments that World Heritage sites such as RFO and Virunga National Park should be off-limits to extractive activities.

## FUTURE GOALS & ACTIVITIES

2016 is again set to be an important year in the development of the GOSG, with the finalisation of the first-ever detailed Red List assessment of Giraffe and many of its subspecies, which will ultimately change their conservation status and hopefully future management in the wild. A motion at the IUCN World Conservation Congress, and associated event, will highlight the currently largely unknown but substantial declines in both giraffid species and encourage action and support to implement the Okapi Conservation Strategy and equivalent activities for Giraffes, including the development of an Africa-wide Giraffe Conservation Strategy. GOSG members in both their personal and organisation roles will continue to provide valuable technical support and advice to governments across the continent, and to raise awareness of these iconic species and their urgent conservation needs. We also hope to further develop the GOSG website.

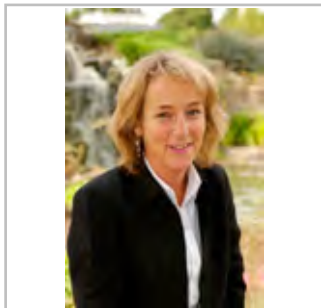
## ACKNOWLEDGEMENTS

We would like to thank IUCN's Simon Stuart, Mike Hoffmann and Rachel Roberts for their invaluable support and advice to the GOSG. The GOSG activities and administration were generously funded and supported by a host of organisations and individuals, and to all we are grateful.



Giraffe (*Giraffa camelopardalis*) recently uplisted to Vulnerable © Nico Smit

# IUCN SSC Global Tree Specialist Group



Sara Oldfield



Adrian Newton

NAME: CHAIR / CO-CHAIRS	Sara Oldfield, Adrian Newton
NAME: RED LIST AUTHORITY CO-ORDINATOR	
LOCATION / AFFILIATION	Botanic Gardens Conservational International, Richmond, UK
NUMBER OF MEMBERS	85

## MISSION STATEMENT

The aims of the Global Tree Specialist Group (GTSG) are:

- To promote and implement global Red Listing for trees;
- To act in an advisory capacity to the Global Trees Campaign

## SUMMARY OF MAIN ACTIVITIES 2015

In October 2015, the 3rd meeting of the GTSG was held at the Morton Arboretum. This followed immediately after the 8th International Oak Society Conference during which a very successful oak Red Listing workshop was held. Sara Oldfield, Co-Chair of the GTSG gave the opening keynote address at the Oak Society Conference on "Saving trees from extinction". During the GTSG meeting progress was discussed on Red Listing the families Ebenaceae, Hydrangeaceae, Juglandaceae, Sapotaceae and Theaceae together with the oaks, trees of Mexico, Brazil and commercial timber species. An interesting discussion was held on the use of Red Listing Criterion A for timber species. At our 3rd meeting, the GTSG enthusiastically committed to working together on the Global Tree Assessment. During the year 348 tree species assessments were added to the IUCN Red List including trees from the Theaceae and Magnoliaceae families and North American oaks. Detailed plans were drawn up to significantly increase this number in future years. This will depend on significantly increasing membership of the Group and developing new partnerships. Thirteen new members joined the GTSG in 2015. Working with other IUCN SSC Plant Specialist Groups on tree Red Listing will also be important building for example on the MoU with the East African Plant Red List Authority signed during the IUCN SSC Group Chairs meeting in Abu Dhabi. During 2015, members of the GTSG contributed significantly to the development of the first global list of tree species with country level distributions, compiled by Botanic Gardens Conservation International (BGCI), with over 65,000 verified tree species names. Of these 9641 tree species are recorded as threatened at global, regional or national level. This global tree list provides the baseline for the Global Tree Assessment a joint undertaking by BGCI and the GTSG. BGCI published a report 'Conserving the World's Most Threatened Trees: A global ex situ survey' using the global tree list with conservation assessments to highlight that a striking 74% of the world's most threatened trees remain 'uncollected' by botanic gardens and seed banks. The report is being used to ensure the most threatened trees are earmarked for collection, in order to provide an insurance policy against extinction – and to begin developing sufficient stock for restoration in their natural habitats.

The work of the GTSG was highlighted at various other events during 2015 with, for example, a symposium session at the EuroGard VII conference held in Paris in July and presentations at the National Botanical Congress at the University of Concepcion in Chile in October. A special edition of Oryx published in July 2015 focused on the conservation of trees with a paper on the Global Tree Assessment and another on regional assessment of Tropical Andean trees.

## IMPACT ON CONSERVATION

Currently around 25 percent of the threatened species included in the IUCN Red List are trees but only a relatively small proportion of all tree species have been assessed. Given the ecological, economic and social importance of tree species and the ecological services they provide, Red Listing of trees, as this becomes more comprehensive, should have major impacts on conservation planning, allocation of resources and action.

The work of the GTSG supports the Global Trees Campaign which takes direct action for tree species and provides training resources to leverage additional conservation action around the world. In 2015, training in tree conservation techniques including seed collection was undertaken in East Africa with 73 individuals in Uganda and Ethiopia participating and a new tree conservation project launched in Ethiopia. Planning for a new Mexican Oak conservation initiative was carried out with discussions between the Morton Arboretum, BGCI, Fauna & Flora International, GTSG and major partners in Mexico. Global Trees Campaign projects continue to enhance the population status of trees in the wild in countries from Central Asia and the Far East, to the Americas and Africa. Identifying the tree species that are most at risk of extinction is a vital part of the Global Trees Campaign.

## FUTURE GOALS & ACTIVITIES

Our goal is to undertake the Global Tree Assessment by 2020. Working with BGCI, a global list of trees with country level distributions will be available by the end of 2016. This will be used as a basis for prioritising species for full IUCN Red list assessments. Work already underway will be completed on European tree assessments, North American tree assessments together with assessments of magnolias, maples, oaks, camellias, ash species, ebonies, Nothofagus, Guatteria and Sapotaceae and commercial timber species.

## ACKNOWLEDGEMENTS

We are most grateful to BGCI for providing the Secretariat for the GTSG, and for the generous support from botanic gardens including the Missouri Botanical Garden, Morton Arboretum and Rio de Janeiro Botanic Garden. Support from the University of Bournemouth is also acknowledged. The rewarding partnership with Fauna & Flora International continues to be extremely important to the GTSG helping to ensure that IUCN Red List assessments for trees inform priority conservation action through the Global Trees Campaign, a joint activity with BGCI and partners worldwide. We also wholeheartedly thank Fondation Franklinia and the Environment Agency Abu Dhabi.



Members of the Global Tree Specialist Group at the Morton Arboretum © Peter Wilkie

# WI-IUCN SSC Goose Specialist Group



Barwolt S. Ebbing and Petr M. Glazov

NAME: CHAIR / CO-CHAIRS	Petr M. Glazov / Barwolt S. Ebbing
NAME: RED LIST AUTHORITY CO-ORDINATOR	Andy Symes (BirdLife International)
LOCATION / AFFILIATION	Institute of Geography Russian Academy of Sciences
NUMBER OF MEMBERS	628

## MISSION STATEMENT

The Goose Specialist Group (GSG) seeks to strengthen contacts between all researchers on migratory goose populations in the northern hemisphere by organizing regular scientific conferences, and stimulating research on goose population dynamics.

## SUMMARY OF MAIN ACTIVITIES 2015

The 17th conference of the Goose Specialist Group was held jointly with the Russian Goose, Swan and Duck Study Group of Northern Eurasia from 30 November till 6 December 2015 in Salekhard, Yamal, Russia.

The meeting was devoted to research, conservation and sustainable use of waterfowl in northern Eurasia, and attended by 93 participants from 16 different countries, viz. Belgium (1), Canada (1), China (1), Finland(4), France (1), Germany (2), India (1), Japan (2), Kazakhstan (2), Netherlands (7), Russia (62), Ukraine (1), South Korea (3), United Kingdom (3), USA (1).

Before the meeting, a seminar on management and control of waterfowl hunting was attended by 45 local YaNAO (Yamalo-Nenetskiy Autonomous Okrug) game managers and hunters.

80 oral presentations were given on the 4 conference days (1-4 December), during 13 sessions and 3 round-tables.

All papers will be published in the Russian journal Casarca.

Topics addressed were: the impact of hunting, surveying techniques using small aircraft, catching and marking techniques, migratory pathways using transmitters, breeding biology, interbreeding among waterfowl species (phylogenetic analysis of true geese (*Anser*)), climate change, impact on waterbirds of economic development in northern Russia (gas & oil), intraspecific nest parasitism.

Among the new results was the level of inter-breeding between established species, which provides new insights on the concept of species, and sheds new light on the current discussion between Norwegian and Swedish researchers about whether the newly introduced Lesser White-fronted Geese in Swedish Lapland are of a genuine nature.

We also saw beautiful results, including Brownian Bridge modelling, of the most likely migratory route of Greater White-fronted geese between the Yangtse river, Manchuria and the Lena Delta based on work of Yali Si from Tsinghua University.

This was the last meeting chaired by Dr. Barwolt S. EBBINGE of the Dutch research institute Alterra of Wageningen University, who has led the group for 15 consecutive meetings between 1998 (Bulgaria) and 2014 (China) after being elected as chairman in 1996 in the UK.

It was the fourth meeting in Asia (1999 Japan, 2008 India, 2014 China). It is rewarding to see how the gaps in our knowledge are now filled in since Korean and Chinese colleagues have joined our group.

From now on Petr M. GLAZOV, from the Institute of Geography of the Russian Academy of Sciences in Moscow, elected as co-chair during the meeting in Beijing in 2014, will lead the group.

## IMPACT ON CONSERVATION

Special concern was expressed on the marked decline in numbers of the Taiga Bean Goose (*Anser fabalis fabalis*), and the still low population level of the Lesser White-fronted Goose (*Anser erythropus*). Hunting organizations are now alerted and working on possibilities to restrict the impact of hunting on these two species in particular.

Spectacular results were presented on the new migratory connection between western Siberia and Poyang Lake in China where Bewick's Swans fitted with transmitters in Yamal (Russia) turned up. The Bewick's Swans from Yamal also migrate to the Black Sea and northern Greece. The international website [www.geese.org](http://www.geese.org) where volunteer observers can report their observations of marked geese and swans is an overwhelming success. The information thus gathered is of great importance to underpin the knowledge of the main stop-over sites for migratory geese and swans.

At present [www.geese.org](http://www.geese.org) is world-wide the largest single website where observations of colour-ringed birds are gathered. Its database currently contains c. 2 million observations of over 50,000 individually marked geese and swans gathered by about 9,000 observers from 35 different countries! It is primarily focused on Eurasian goose and swan populations. It is an initiative of Alterra, SOVON, and Vogeltrekstation - Dutch centre for avian migration and demography, in cooperation with NERI, Tournatur, Lunds Universitet, NIOO, Thomas Heinicke and Dmitrijs Boiko. The site can be approached using four different languages: English, Dutch, German and French. A team of dedicated volunteers helps in running the site.

## FUTURE GOALS & ACTIVITIES

The first initiative of the new chair is organizing the next (18th) GSG-meeting in March 2018 in Klaipeda, Lithuania, where during spring large concentrations of Greater White-fronted Geese are staging.

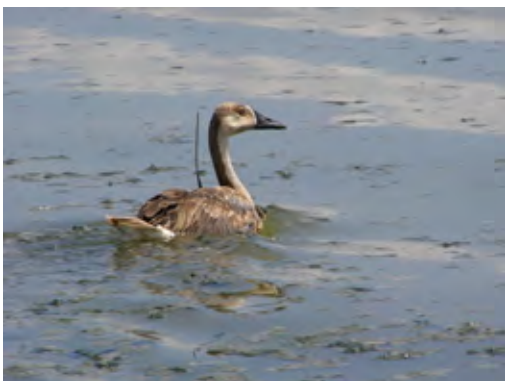
During this meeting the current problems of goose populations that have increased to locally undesired levels will be discussed.

More news about this upcoming meeting can be found in the autumn of 2016 on the website of the group. Further improvements to the website [www.geese.org](http://www.geese.org) are planned.

## ACKNOWLEDGEMENTS

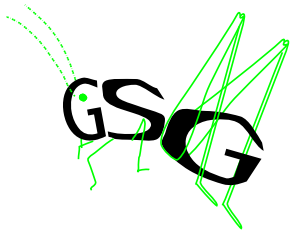
Special thanks go to the government of the Yamalo-Nenetskiy Autonomous Okrug and the Organizing Committee chaired by Konstantin Litvin for all their support and help in realizing this 17th GSG- conference. Just like the 13th GSG-meeting in Elista, Kalmukhia (Russia) in 2011 the meeting in Salekhard was perfectly organized by the company Monomax from St.Petersburg and held in both English and Russian with excellent simultaneous translation.

The 17th meeting was held in the Office building of the Government of Yamalo-Nenetskiy Autonomous Okrug (Prospect Molodezhi, 9, Salekhard, Yamalo-Nenetskiy Autonomous Okrug, 629008, Russia).



Swan Goose (*Anser cygnoides*) listed as Vulnerable © Taej Mundkur

# IUCN SSC Grasshopper Specialist Group



Axel Hochkirch



Mark Bushell

NAME: CHAIR / CO-CHAIRS	1) Axel Hochkirch 2) Mark Bushell
NAME: RED LIST AUTHORITY CO-ORDINATOR	Baudewijn Odé
LOCATION / AFFILIATION	1) Trier University, Trier, Germany 2) Bristol Zoo, Bristol, UK
NUMBER OF MEMBERS	91

## MISSION STATEMENT

The mission of our group is to foster the conservation of orthopteroid insects (grasshoppers, katydids, crickets, mantids, stick insects) and their habitats around the world. We assess their conservation status, raise awareness and engage in practical conservation of this amazing and highly diverse group of insects.

## SUMMARY OF MAIN ACTIVITIES 2015

**Red List Assessments:** Our main Red List project in 2015 was the start of the regional Red List assessments of the 1082 European species of grasshoppers, bush-crickets and crickets (Orthoptera). A total of 739 European Orthoptera species are endemic to Europe, so these assessments will also be published in the global Red List. In addition, we assessed the Red List status of the 10 praying mantis species which occur on the Canary Islands.

**Conservation Projects:** The conservation strategy for the Crau Plain Grasshopper (*Prionotropis rhodanica*), a Critically Endangered grasshopper from southern France is currently being implemented (led by Laurent Tatin). A PhD Student (Linda Bröder, Trier, Germany) started research on the population sizes and threats of this species. A captive breeding program has been started at Thoiry Zoo, France (led by Cathy Gibault). During the field season 2015, it became clear that one more subpopulation of this species is extinct, but a new one has been discovered within the centre of a car proving ground. A mark-recapture study of one of the remaining four subpopulations showed that this one is close to extinction, too. Strategic conservation planning will now also carried out for the Endangered Adriatic Marmorated Bush-cricket (*Zeuneriana marmorata*), a species which has only 3-4 subpopulations left at the Adriatic coast of Italy and in Slovenia, where it is threatened by transformation of its habitat into farmland (project led by Paul Veenvliet and Stanislav Gomboc). The Scaly Cricket (*Pseudomogoplistes vicentae*), which is listed as Vulnerable in Europe, has been successfully bred in captivity and translocated to a new site in Devon, UK (led by Karim Vahed).

**Conservation Research:** A conservation project for the Robust Grasshopper (*Brachaspis robustus*) in New Zealand is carried out and research on the reintroduction success will be conducted in 2016 (led by Tara Murray). Funded by the Mohamed bin Zayed Species Conservation Fund, our member Vassiliki Kati studies the ecology of the Critically Endangered Epirus Grasshopper (*Chorthippus lacustris*). Many members of the Grasshopper Specialist Group are also doing taxonomic research, which provides the basis for any future conservation projects. Research on the Orthoptera fauna of Kerala (India) is currently being started by a PhD student (Dhaneesh Bhashkar), a region which is known to be rich in biodiversity. During a study on the ecology and distribution of Orthoptera on the Seychelles, two students (Claude Kolwelter and Johanna Ewen) rediscovered the Critically Endangered Seychelles Crested Groundhopper (*Coptottigia cristata*), funded by the Mohamed bin Zayed Species Conservation Fund. Furthermore, the Limnos Plump Bush-cricket (*Isophya lemnotica*) has been rediscovered by Luc Willemse (Leiden, Netherlands) and appears to be common on the Greek Island of Lemnos.



## IMPACT ON CONSERVATION

IUCN Red List assessments are a fundamental basis for conservation action on the ground. The assessment of the Crau Plain Grasshopper (*Prionotropis rhodanica*) as Critically Endangered has helped to develop and implement a conservation strategy for this species. This example - as one of the first conservation strategies for a threatened insect species - has become a model for invertebrate conservation planning and has served as a model also for the recent conservation plan of the Desertas Wolf Spider. Our research on the Seychelles will hopefully help to develop strategies for the control of invasive species, which are a major threat to endemic invertebrates on this island. Particularly the invasive soap bush (*Clidemia hirta*) needs to be controlled. In 2016, we will conduct a conservation planning workshop for the Endangered Adriatic Marmored Bush-cricket (*Zeuneriana marmorata*). As a consequence of the ongoing conservation activities for the Epirus grasshopper, our member Vassiliki Kati was asked to provide advice on a new hotel construction project, which was planned in one of the remaining habitats of this species. Tim Gardiner has published a handbook on Sea Wall Biodiversity, including many management recommendations for Orthoptera.

## FUTURE GOALS & ACTIVITIES

In 2016, we will complete the European Red List assessments. Afterwards, we plan to start Red List assessments of Orthoptera from other parts of the world, including the Australian stick insects, grasshoppers from Madagascar and Tanzanian grasshoppers. We will also conduct our second conservation planning workshop and continue our research on the Canary Islands and the Seychelles. Furthermore, we plan to publish the next issue of our newsletter ("Newshopper") in 2016.

## ACKNOWLEDGEMENTS

We particularly thank the Mohamed bin Zayed Species Conservation Fund for the ongoing support of our projects. Without this fund, Orthoptera conservation would probably be nearly impossible. The German Academic Exchange Service also funded several internships of German students in Orthoptera conservation projects throughout the world.



The Endangered Adriatic Marbled Bush-cricket (*Zeuneriana marmorata*) © Paolo Fontana

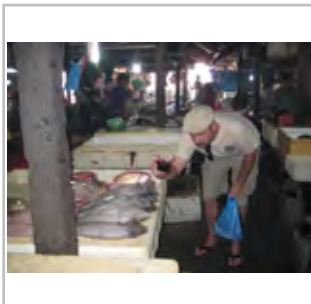
# IUCN SSC Grouper & Wrasse Specialist Group



Grouper & Wrasse Specialist Group



Yvonne Sadovy de Mitcheson



Matthew Craig

NAME: CHAIR / CO-CHAIRS	1) Yvonne Sadovy de Mitcheson and 2) Matthew Craig
NAME: RED LIST AUTHORITY CO-ORDINATOR	Matthew Craig
LOCATION / AFFILIATION	1) University of Hong Kong (Hong Kong) and 2) National Marine Fisheries Service (California, USA)
NUMBER OF MEMBERS	40

## MISSION STATEMENT

To promote the sustainable use of wrasses, and of groupers and their relatives, many of which are important food fishes and components of reef ecosystems, and some of which are threatened. We work towards improved stewardship and sustainable use and trade, with a focus on threatened and data deficient species. We promote and use good science to underpin management and conservation and to increase awareness and understanding of these taxa globally, appreciation for their fascinating life histories and recognition of their roles in marine ecosystems.

## SUMMARY OF MAIN ACTIVITIES 2015

During 2015, projects, collaborations and activities focused on several threatened species and many field studies. For the endangered Napoleon Fish (Humphead Wrasse), *Cheilinus undulatus*, the year was very active for field research which included finalizing assessments of population status changes over a 5-7 year period following its listing under CITES Appendix II in collaboration with the Indonesian government. Outcomes suggested the start of recovery where fishing had stopped but ongoing declines where fishing had continued. A workshop in December and ongoing studies included focus on illegal, unmonitored and unregulated (IUU) trade of the species into and through Hong Kong which undermines attempts to manage international trade sustainably. This work involves ongoing communication with the government of Hong Kong which is the principal global transport hub for the species. The IUU work and publication was done in collaboration with TRAFFIC and attracted press interest. Research on trade in live groupers in Southeast Asia has produced a better understanding of the high value and large volumes of this trade and identified ways in which it can be better managed and monitored.

Work by members continues on the biology, taxonomy and ecology of many grouper species with exciting results from South Africa on the refuge value of a Marine Protected Area (MPA) for depleted groupers, and tagging and genetic studies which clearly show the value of localized protection for several species in the western Pacific (Papua New Guinea and Pohnpei). Research has also identified shortcomings and challenges in attempts to manage threatened species, as for the Goliath Grouper, *E. itajara*, in Belize and Brazil, and the Nassau grouper in Mexico. Detailed studies on reproduction have helped to identify important spawning sites, as for the Gulf Grouper, *Mycteroperca jordani*, in Mexico, and for the Camouflage Grouper, *E. polyphekadion*, in French Polynesia; the BBC filmed the Camouflage Grouper aggregation and will include this in its new marine world series to be released in 2017 which will highlight the vulnerabilities of these spawning gatherings to a wide public.

## IMPACT ON CONSERVATION

Over several years we were able to input information into the consultation process under the United States Endangered Species Act (ESA) regarding the endangered Nassau Grouper, *Epinephelus striatus*; this species has just been determined to warrant a threatened status under the ESA. This is an important finding for the future of this threatened species and unusual for a marine commercial fish species. It is hopefully a first step towards much needed conservation attention for this species.

Several studies in the western Pacific have demonstrated positive outcomes from local, community, management initiatives with support from scientific studies which are extremely valuable for showing the value of such protection in marine species. Work in Palau since 2009 has identified signs of recovery of one species, *Plectropomus areolatus*, at a multi-species grouper spawning site that has been studied for multiple years, specifically highlighting the importance of well-designed monitoring and long term studies, in addition to enforcement, for assessing and achieving management outcomes. Such examples are important case studies of positive outcomes.

The IUU work conducted on the Napoleon Wrasse and also on internationally traded groupers in Asia has resulted in much greater attention to the matter of sustainable international trade in these species including by the government in Hong Kong, its major trade hub. This has resulted in reduced retail trade in the wrasse in the city, and progress towards improved monitoring of fishing vessels which will help us to better understand trade volumes, values and species provenance.

## FUTURE GOALS & ACTIVITIES

We have now started planning for another workshop to conduct Red List assessments of all 163 grouper species which will be conducted in 2016, and have successfully procured most of the necessary funding. This is important because all current assessments will expire in 2017 and it will also provide us with the opportunity to calculate Red List Index of changes over time for these taxa.

Work will continue on the international trade of live and chilled groupers and wrasses which is one of the major threatening factors for several species. One focus will be on value chain analyses for international trade to determine the overall value of these species, which is poorly documented, as well as enable a close look at major beneficiaries of trade. A better understanding of these issues should help to focus more attention on valuable but poorly documented trades.

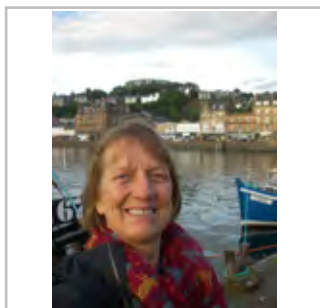
## ACKNOWLEDGEMENTS

CITES Secretariat has funded work on Napoleon Fish. The David and Lucile Packard Foundation has funded work on spawning aggregations.



The Endangered Nassau Grouper (*Epinephelus striatus*) © Stanley Shea

# IUCN SSC Hawaiian Plant Specialist Group



Vickie Caraway

NAME: CHAIR / CO-CHAIRS	Vickie Caraway
NAME: RED LIST AUTHORITY CO-ORDINATOR	Maggie Sporck-Koelher
LOCATION / AFFILIATION	Hawaii
NUMBER OF MEMBERS	124

## MISSION STATEMENT

Mission Statement of the Hawaiian Plant Specialist Group (HPSG): To prevent the extinction of native Hawaiian plants and provide for their recovery through a cooperatively administered off-site plant conservation system in collaboration with on-site management partners to sample, propagate, and reintroduce rare plants; and to advance the preservation of native plants and their habitats through effective communication and public education.

## SUMMARY OF MAIN ACTIVITIES 2015

The Hawaiian Plant Specialist Group was very active in 2015 preparing for the IUCN World Conservation Congress (WCC) to be held September 2016 in Honolulu. Training provided by IUCN and sponsored by the National Tropical Botanical Garden. The group expects to list an additional 250 Hawaiian plant species before the IUCN WCC, bringing the total to over 500 plant species listed. Members of the specialist group are organizing several activities. At the conference the Plant Extinction Prevention Program (PEPP) staff is sponsoring a Conservation Campus to encourage partnering on islands for effective plant conservation, Lyon Arboretum and National Tropical Botanical Garden staff are the lead for Knowledge Cafe events, initiating a new SSC group for seed conservation and establishing a code of conduct for viewing rare plants in the wild which was developed by the group. Our group also will participate in the SSC pavilion with a one hour event highlighting stories of extinction and recovery in the Hawaiian Flora.

The Hawaii Strategy for Plant Conservation, developed by two members of the group, identified the need for a coordinator to address in situ actions including collection and ex situ curation, creation of a database to track information, funding for ex situ support. This position was filled in December, supported by the funder of the Hawaii Strategy, Hauoli Mau Loa.

## IMPACT ON CONSERVATION

Our group was instrumental in the establishment and support of the Plant Extinction Prevention Program (PEPP), a statewide organization that addresses conservation actions for the 240 taxa in Hawaii with less than 50 individuals remaining in the wild.

Our seed bank partnership concentrated on collecting and storing species that cannot be stored conventionally, organizing and shipping seeds to our partners at the U.S. Department of Agriculture's Plant Germplasm Preservation Research unit.

The state of Hawaii supported transfer of Red Listed *Asplenium* species, grown at a botanical garden in Estonia, back to Hawaii and outplanting into the wild.

Our group addressed plant enthusiasts impact to rare plants in the wild and posting locations on social media by developing a code of ethics for viewing rare plants.

## FUTURE GOALS & ACTIVITIES

## ACKNOWLEDGEMENTS

We would like to acknowledge and thank our previous Red Listing and chair of our Hawaiian Plant Specialist Group, Marie Bruegmann for her years of service. Marie retired from her position as Plant Recovery Coordinator with the U.S. Fish and Wildlife Service in December, relocating to Michigan. Mahalo for your 20+ years of service to the Hawaiian Flora!

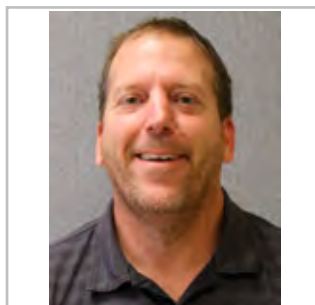


PEPP Coordinator Joan Yoshioka and Marie Bruegman

# WI-IUCN SSC Heron Specialist Group



James A. Kushlan



M. Clay Green

NAME: CHAIR / CO-CHAIRS	James A. Kushlan and M. Clay Green
NAME: RED LIST AUTHORITY CO-ORDINATOR	Andy Symes (BirdLife International)
LOCATION / AFFILIATION	Key Biscayne, Florida, USA
NUMBER OF MEMBERS	65

## MISSION STATEMENT

The Heron Specialist Group (HSG) devotes itself broadly to the conservation of herons with an overarching goal to facilitate planning and on-the-ground conservation. HSG facilitates communication and exchange among those interested in herons and their conservation. The HSG achieves its goals by maintaining a membership network that allows the interchange of information, scientific syntheses, practical guidance, technical methodology, and professional networking. The HSG works specifically through encouraging self-organizing topic-oriented working groups. The HSG also works through strategic representation of heron interests within more encompassing conservation planning and action programs.

## SUMMARY OF MAIN ACTIVITIES 2015

The Heron Specialist Group was very active in 2015. Below are an overview of the specific activities:

1. The HSG conducted a strategic review for the group and realignment of the membership. The outcome of that review led to the the following:
  - a) HSG being led by two Co-Chairs and a Steering Committee (10 people plus 2 Co-Chairs). The Co-Chairs term are 2015-2019 and the Steering Committee appointments are open-ended and additional committee members may be added as appropriate.
  - b) Membership to HSG is through nomination, including self-nomination. Members are expected to participate in the communication network and a review of membership will take place every 3 years.
  - c) Facilitation of communications is a primary function of the HSG. The group's primary means of communications are through the website ([www.heronconservation.org](http://www.heronconservation.org)), its Facebook Page (HeronConservation) and its technical journal (Journal of Heron Biology and Conservation)
  - d) HSG currently has 4 working groups (Communications Working Group, Captive Populations Working Group, White-bellied Heron Working Group, and Agami Heron Working Group). The HSG also liaisons with the Reddish Egret Working Group.
2. Both Co-Chairs (Kushlan and Green) as well as Steering Committee members (Gemma Goodman and Doug Harebottle) attended the IUCN Species Survival Commission Leaders' Meeting in Abu Dhabi, UAE in September 2015. During the meeting, the Co-Chairs met with representatives from Wetlands International and BirdLife International and discussed potential memorandums of understanding between these entities and HSG.

## IMPACT ON CONSERVATION

The Heron Specialist Group's primary means of impacting conservation of herons is through our relationship and support of species-specific working groups.

The Agami Heron Working Group completed the Agami Heron Conservation Plan in 2015 (Anna Stier, coordinator). The plan is available on HSG's website and has been produced in English, French and Spanish. Little is known about the status and biology of the Agami Heron. The Conservation Plan outlines available knowledge of the species as well as threats to the species, research and monitoring needs and future conservation strategies and actions. The Group will continue to provide an information exchange and coordination point for those interested in research and conservation.

The White-bellied Heron Working Group (Gemma Goodman-Hattie, coordinator) was formally established in January 2015 as an outcome of a meeting in December 2014 that brought together the world's most knowledgeable and relevant White-bellied Heron scientists, conservationists and government representatives. As the world's most endangered heron, the working group is currently developing a full species comprehensive strategy, updating comprehensive maps of breeding and non-breeding distribution and current known and historical data for the species.

The Reddish Egret Working Group (Troy Wilson, coordinator), established in 2005, finalized the first comprehensive Reddish Egret Conservation Plan in 2014 (available at [www.reddishegret.org](http://www.reddishegret.org)) and held a Reddish Egret Symposium at the 38th Annual Meeting of the Waterbird Society in La Paz, Baja California Sur in November 2014. In 2016, the working group will meet again to continue work towards implementation of the conservation plan as well as advocate for the Reddish Egret's inclusion in the Gulf of Mexico Avian Monitoring Network as part of larger plan to monitoring avian species within the Gulf of Mexico in response to the 2010 Deepwater Horizon oil spill.

## FUTURE GOALS & ACTIVITIES

In 2016, the HSG is organizing a "Hérons of the World" Symposium and a "Hérons Workshop" at the 40th Annual Meeting of the Waterbird Society in New Bern, North Carolina. Participants at the Herons Symposium and Workshop are coming from Africa, Asia, South America, the Caribbean and North America. Funds were raised from the Waterbird Society and a GoFundMe campaign to offset travel costs for non-North American participants. Additionally, plans are in place to publish papers from the Symposium in the journal *Waterbirds* and HSG's *Journal of Heron Biology and Conservation*.

## ACKNOWLEDGEMENTS

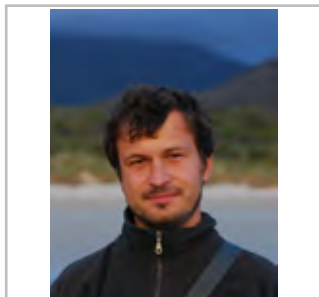


The Vulnerable Agami Heron (*Agamia agami*)

# IUCN SSC Hippo Specialist Group



Rebecca Lewison



Jan Pluháček

NAME: CHAIR / CO-CHAIRS	1) Rebecca Lewison and 2) Jan Pluháček
NAME: RED LIST AUTHORITY CO-ORDINATOR	Chris Ransom
LOCATION / AFFILIATION	1) San Diego State University, USA and 2) Institute of Animal Science, Czech Republic
NUMBER OF MEMBERS	25

## MISSION STATEMENT

The mission of the Hippo Specialist Group (HSG) is to support the protection and conservation of Common Hippo and Pygmy Hippo populations throughout their ranges. Our goal is to build a cohesive network of scientists, managers, conservation planners, non-governmental organizations, and government representatives to educate, inform, and conduct research necessary for this mission. As HSG members, we strive to provide hippo expertise to support ongoing conservation planning and research activities.

## SUMMARY OF MAIN ACTIVITIES 2015

The primary achievement for the HSG in past year was the completion of the Red List Assessments for both Common Hippos and Pygmy Hippos. Last updated in 2008, the new Red List Assessments (RLAs) provide important updates on both species.

The 2015 Pygmy Hippo RLA suggests that Pygmy Hippo populations continue to decline and that the Endangered status for this species continues to be warranted. Evidence from camera trapping and sign surveys suggests the Pygmy Hippo densities are low. Recent reports also point to ongoing habitat loss through deforestation in many key forest areas throughout the range. Deforestation presents the largest threat to the species, although opportunistic hunting continues to be a concern.

The updated RLA for Common Hippos finds that the conservation status for Common Hippos remains Vulnerable. Although populations in some areas where substantial declines were reported in 2008 have stabilized, Common Hippo populations declines continue in many areas. The RLA update also provided some important corrections and clarifications on the population sizes and distribution from some countries.

The conservation status of hippopotamus remains precarious and the need for direct conservation action to protect hippos and hippo habitat across their range is a priority. The growing and unabated threats of habitat loss and unregulated hunting are major challenges to hippo population viability and persistence.



## IMPACT ON CONSERVATION

Although Pygmy Hippos are legally protected throughout their range, the level of enforcement is limited due to a lack of capacity in terms of human and financial resources and adequate training. Building on the Regional Pygmy Hippo Conservation Strategy released in 2011, the Pygmy Hippo SubGroup led by Chris Ransom, continues to support conservation and research initiatives in all four range countries.

Common Hippos conservation activities are far less cohesive due to the disparate nature of its distribution. HSG continues to work at both the local and national level to support conservation and research. In several countries of the distribution local contacts are missing, although we succeeded to receive some new contacts. More regional work is needed to improve and strengthen coordination of population assessments and conservation planning.

## FUTURE GOALS & ACTIVITIES

We look forward to continuing to build the HSG membership and working closely with supporting organizations and agencies to support hippo conservation. Coordination and education are key priorities for our group. This year we plan to release a new HSG website to support these efforts. We are preparing joint meeting (conference) with Antelope SG and Giraffe SG which should take place in February 2017 in Prague.

## ACKNOWLEDGEMENTS

The HSG would like to acknowledge the support from all its members and from the many experts who provided information to support the current RLAs. Special thanks to David Mallon, Phil Robinson, Ben Collen, and Federica Chiozza.



The Endangered Pygmy Hippopotamus (*Choeropsis liberiensis*) caught on camera trap in the Loma Mountains, Sierra Leone © ZSL / NjalaUniversity

# IUCN SSC Horseshoe Crab Specialist Group



Mark Botton



Paul Shin

NAME: CHAIR / CO-CHAIRS	Mark L. Botton and Paul K. S. Shin
NAME: RED LIST AUTHORITY CO-ORDINATOR	Mark L. Botton and Paul K. S. Shin
LOCATION / AFFILIATION	Fordham University, New York, NY USA; City University of Hong Kong, Kowloon, Hong Kong
NUMBER OF MEMBERS	70

## MISSION STATEMENT

The four extant species of horseshoe crabs are threatened because of over-fishing for use as food, bait, the production of biomedical products derived from their blood, and because of habitat loss or alteration due to shoreline development and armouring against coastal erosion. The Horseshoe Crab Specialist Group (HCSG) aims to conserve horseshoe crabs in the world through collaborative efforts in conservation of their populations and habitats, and in raising public awareness of their importance in evolutionary history, marine coastal ecology and biomedical uses.

## SUMMARY OF MAIN ACTIVITIES 2015

- 1) IUCN SSC HCSG Co-Chairs, Paul Shin and Mark Botton, along with SSG members Siu Gin Cheung and Ruth Carmichael, edited the book entitled "Changing Global Perspectives on Biology, Conservation and Management of Horseshoe Crabs" published by Springer (<http://www.springer.com/us/book/9783319195414>). This book has 34 chapters, many of which were adapted from papers presented at the International Workshop on the Science and Conservation of Asian Horseshoe Crabs (Hong Kong, 2011) and a Special Session on Horseshoe Crabs that we sponsored at the 2013 Coastal and Estuarine Research Federation meetings. The book features a Forward authored by SSC Chair Simon Stuart.
- 2) A chapter summarizing the mission and accomplishments of the HCSG, written by Mark Botton, Paul Shin, and Kevin Laurie, was recently published in a popular book on species conservation entitled "No More Endlings: Saving Species One Story at a Time" edited by Allison Hegan (<http://www.allisonhegan.com/>).
- 3) The Horseshoe Crab Specialist Group organized the Third International Workshop on the Science and Conservation of Horseshoe Crabs, held June 15-19 2015 in Sasebo, Japan (<http://www.pearlsea.jp/iwscchc2015-e/index.html>). This was the largest and most geographically diverse of the three Horseshoe Crab meetings. Nearly 130 individuals attended the workshop, representing Japan, USA, Hong Kong, Taiwan, Malaysia, China, Singapore, India, Philippines, Poland, Denmark, Indonesia and Mexico. The programme included two plenary addresses, 36 oral presentations, and 27 posters.

## IMPACT ON CONSERVATION

We are pleased that the ban on the importation of Asian horseshoe crabs into the United States (for use as bait), enacted by the Atlantic States Marine Fisheries Commission (ASMFC), remains in place and has successfully halted this practice. When reports about the importing of Asian horseshoe crabs came to the attention of the HCSG in 2013, we responded to the potential ecological and human health threats caused by this activity by contacting various Federal and State agencies which have jurisdiction. Our efforts were influential in ASMFC's ruling that now prohibits this practice.

The IUCN Red List Unit submitted its comments on the IUCN Draft Assessment for the American horseshoe crab to the SSC Horseshoe Crab Red List Authority in Fall, 2015. The document was submitted to the IUCN early in 2016.

## FUTURE GOALS & ACTIVITIES

All three species of Asian horseshoe crabs are regarded as 'Data Deficient.' The group made contacts at the recent conference in Japan with scientists in Asia where information about the status of horseshoe crabs has been scarce. With most of the relevant data and documentation now in hand, the Asian Red List Working Group aims to complete a draft Red List assessment for the Asian horseshoe crabs in the coming year.

The Horseshoe Crab SG will be well represented at the 2016 IUCN World Conservation Congress. Our Knowledge Café proposal, "Conservation and Restoration of Estuarine, Beach and Mangrove Habitats: Horseshoe Crabs as a Flagship Species," was developed in collaboration with the SSC Mangrove SG, Nature Society (Singapore) and other NGO partners. We also developed a poster proposal, "Community Participation in International Horseshoe Crab Conservation: Education, Citizen Science and Research in Coastal Habitats," with Nature Society (Singapore) and others.

## ACKNOWLEDGEMENTS

The Horseshoe Crab SG acknowledges the generous support for the Third International Workshop on the Science and Conservation of Horseshoe Crabs provided by the Kujukushima Aquarium, Ocean Park Conservation Foundation (Hong Kong), Molloy College Center for Environmental Research and Coastal Oceans Monitoring, University of Nagasaki, Fordham University, The Shinwa Bank Co. Ltd., FM Sasebo Co., Ltd. and TV Nagasaki Co., Ltd.



American horseshoe crabs spawning in Jamaica Bay, New York © Mark Botton

# IUCN SSC Hyaena Specialist Group



Kay E. Holekamp



Stephanie M. Dloniak

NAME: CHAIR / CO-CHAIRS	1) Kay E. Holekamp and 2) Stephanie M. Dloniak
NAME: RED LIST AUTHORITY CO-ORDINATOR	Stephanie Dloniak
LOCATION / AFFILIATION	1) Michigan State University, USA and 2) Masai Mara, Kenya
NUMBER OF MEMBERS	30

## MISSION STATEMENT

The Hyaena Specialist Group (HSG) has two major goals: 1) to promote the conservation of hyaenas worldwide through integrated research in order to develop sound conservation strategies, and 2) through education, to change people's attitudes towards these much maligned animals that are so often persecuted unnecessarily.

## SUMMARY OF MAIN ACTIVITIES 2015

In 2015 our main achievement was the publication of the reassessment of the Hyaenidae. The Mara Hyena Project continues to manage and populate the sole Facebook Page and Instagram feed dedicated to the ecology and conservation of hyenas. We continue to answer myriad questions posed by lay people, print media, and film producers about members of the hyaena family, and helped local pastoralists develop predator-proof corrals to minimize conflict between hyaenids and livestock. We have removed wire snares from multiple hyaenas in Kenya.

We published multiple research papers on all four extant hyaenids in professional journals, and gave presentations to various lay audiences, including local and international school groups.

We assisted a student in Nepal with study design and referred him for funding from the Rufford Small Grants Program - he was successful and has embarked on a camera trap project. Lastly, Dr. Dloniak wrote a story about hyena research for Ndege News, the inflight magazine for Air Kenya (Kenya), Regional Air (Tanzania), and AeroLink (Uganda). "Spotted hyaenas of the Masai Mara - Misunderstood carnivores provide us with a wealth of knowledge" appeared in the Dec 2015 - Feb 2016 edition of the magazine.

## IMPACT ON CONSERVATION

The new assessment of the Hyaenidae should help guide conservation efforts across the ranges of the species. Assisting a student with a new project in Nepal has already led to the discovery of Striped Hyenas in an area previously not included in the species range and will hopefully generate interest in the conservation of the species there. Our presentations and publications in East Africa and elsewhere help with our education efforts, which are critical for such misunderstood animals.

## FUTURE GOALS & ACTIVITIES

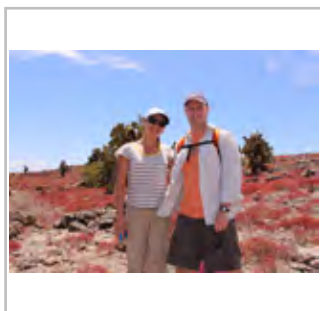
By the end of 2016, we hope to accomplish several things. Dr. Holekamp has already attended a global meeting for the ex situ conservation of canids and hyenids, attended also by member of the Canid Specialist Group, Todd Fuller, and will report on any outcomes. We will also report on the progress of a new children's book being written by celebrated author Sy Montgomery, who recently visited us in Kenya to collect information for "The Hyena Scientist." We would like to update our website and create a Facebook Page and Instagram account for the group. In addition to increasing our reach with educational materials, this should facilitate more interaction with the other HSG members.

## ACKNOWLEDGEMENTS



Spotted Hyaena (*Crocuta crocuta*) listed as Least Concern © David S. Green.

# IUCN SSC Iguana Specialist Group



Stesha Pasachnik and Charles Knapp

NAME: CHAIR / CO-CHAIRS	Charles Knapp and Stesha Pasachnik
NAME: RED LIST AUTHORITY CO-ORDINATOR	Tandora Grant
LOCATION / AFFILIATION	Shedd Aquarium (CK) and San Diego Zoo Institute for Conservation Research (SP, TG)
NUMBER OF MEMBERS	93

## MISSION STATEMENT

The mission of the Iguana Specialist Group (ISG) is to prioritize and facilitate conservation, science, and awareness programs that help to ensure the survival of wild iguanas and their habitats. To achieve these goals we implement, advise, and fundraise for programs that include population surveys, protected area management, invasive species control, field research, genetic studies, education, and captive breeding and headstarting initiatives. ISG members encompass a diverse group of skills: scientific, education and outreach, conservation management, husbandry, fundraising, information technology, and policy. Members represent universities, zoological organizations, the private sector, NGOs, and government agencies.

## SUMMARY OF MAIN ACTIVITIES 2015

In 2015, volume 14 of our ISG Newsletter was released highlighting group news, critical threats occurring in the Caribbean, and recent research reports for iguanas in the French West Indies, the Bahamas, and the Dominican Republic. Combined with our website, the annual newsletter helps promote communication within and outside the group. The website continues to expand its content with resources for members and the public, including updates on field research and news, sampling protocols, and taxon accounts. The Virtual Library now contains over 2,050 iguana-specific articles and presentations. The site has reached over 9,300 users worldwide. We are encouraged that 25% of site visitors click on the "contribute" page that highlights our relationship with the International Iguana Foundation and provides an opportunity to donate to iguana conservation projects. We also increased the number of our action plans available through the IUCN Library.

Our annual meeting was held at the Guana Tolomato Matanzas National Estuarine Reserve near St. Augustine, Florida. While there are no native iguanas in Florida, there are several introduced invasive species, making it an appropriate setting for one of the major discussion topics during the meeting. The group developed a position statement on the threats of invasive iguanas to be distributed to island countries that are particularly vulnerable. An entire day was devoted to reviewing the Red Listing criteria, procedure, and new features in the assessments. Members worked in small groups to draft ~14 assessments. By holding the meeting in the U.S. with relatively low costs, more of our members were in attendance as well as a large number of students, totaling a record 64 participants.

Throughout 2015 members of the ISG worked on drafting, reviewing, and editing a compilation of 18 research papers for a monograph titled Iguanas: Biology, Systematics, and Conservation, which is due to be published in the online journal Herpetological Conservation and Biology. The compilation highlights the diversity and unique ecology of iguanas, while emphasizing the threats to their survival and need for conservation action. The four editors of the monograph are ISG members, while 29 of the 69 authors (42%) contributing to the collection are ISG members.

## IMPACT ON CONSERVATION

In March 2015, members of the ISG translocated 27 White Cay Rock Iguanas (*Cyclura rileyi cristata*) from White Cay, southeastern Exuma Cays (The Bahamas), to an undisclosed cay within the proposed expanded boundaries of the Moriah Harbour Cay National Park. The purpose of the translocation was to establish a viable, secondary population of this Critically Endangered subspecies. The translocation was meant to augment nine iguanas that were introduced to the undisclosed cay in September 2014 after being confiscated at Heathrow Airport and repatriated to The Bahamas earlier that year.

The ISG continued to struggle with issues of illegal trade in iguanas. In 2011 and 2012, Galapagos Land (*Conolophus subcristatus*) and Marine (*Amblyrhynchus cristatus*) iguanas were successfully smuggled out of Ecuador and into Switzerland, through Mali. In 2014, the Swiss CITES management authority issued export permits for these iguanas to be moved to Uganda. The UNEP-WCMC CITES trade database confirms that Ecuador has never declared export of live specimens of either of these species for commercial trade, thus this exportation from Switzerland effectually laundered these species into the pet trade. In September 2015, a Mexican national was arrested in Ecuador for attempting to smuggle additional Marine Iguanas to Uganda.

Fijian Crested Iguanas (*Brachylophus vitiensis*) are listed as Critically Endangered on the Red List and are CITES Appendix I. Populations on most islands within its range continue to decline due primarily to habitat destruction and invasive predators. The Monuriki island population was prioritized for protection in the Species Recovery Plan (2008) because it is genetically unique and highly threatened. In 2010, it was agreed that a subset of the remaining iguanas on Monuriki would be removed for captive breeding, while the island's habitat was restored. In May 2015, following successful restoration of the island's habitat, 32 captive-bred offspring were released back to the island in an event that brought the community together. Post-release monitoring revealed the iguanas in healthy condition. This is a significant step forward in iguana conservation in Fiji and we hope that additional populations can be restored following this method.

ISG members continued to invest a considerable amount of time providing science-based information to environmental groups and individuals campaigning to change the location for a massive transshipment port proposed to be constructed in the last remnant habitat of the Critically Endangered Jamaican Iguana. We worked with the IUCN Director General and SSC Chair to deliver a letter to the Jamaican Government, as well as the development company backing the proposal, outlining our concerns regarding the project. We also contributed information intended for the general public in order to inform the debate concerning the impacts that the port would have on endemic and endangered wildlife and habitats in this protected area. We supported the development of a beautiful video as an informational and fundraising tool. The campaign is supported by several high profile Jamaican musicians and businesses. A website is maintained as a repository of information for stakeholders on this issue.

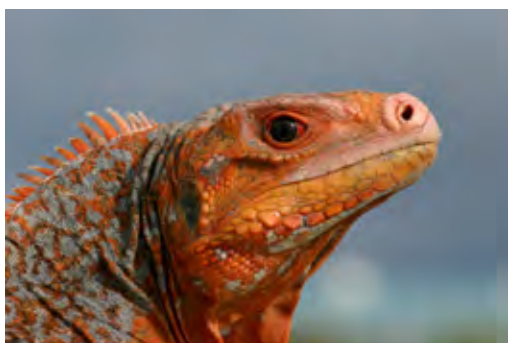
## FUTURE GOALS & ACTIVITIES

In 2016, our annual meeting will return to Fiji because of our ability as a group to contribute significantly to timely in-country conservation efforts for iguanas. Our contributions will include reviewing conservation actions to date (Malolo captive population, Monuriki restoration, etc.), discussing new data acquired since our last meeting in Fiji (2004), and developing/reviewing a new recovery plan for all Fijian iguana species to cover the next five years (2017–2022).

By the end of the year our goal is to submit at least 15 more species assessments to the IUCN Red List, bringing our total assessments to 32, and leaving only about a dozen remaining to be finalized. We intend to further develop the scientific information available through our website.

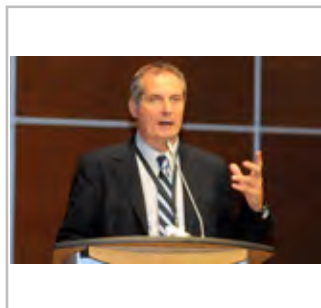
## ACKNOWLEDGEMENTS

We wish to thank the International Iguana Foundation, and their donors, for the financial support of nine projects to be conducted in 2016, totaling \$83,053 focused on iguana conservation in Central America, Mexico, the Caribbean, and Fiji. We also thank those members who made donations in order to offset meeting travel costs to those in need.



Sandy Cay Rock Iguana (*Cyclura rileyi cristata*) © Joe Wasilewski

# IUCN SSC Invasive Species Specialist Group



Piero Genovesi

<b>NAME: CHAIR / CO-CHAIRS</b>	Piero Genovesi
<b>NAME: RED LIST AUTHORITY CO-ORDINATOR</b>	Programme Officer: Shyama Pagad
<b>LOCATION / AFFILIATION</b>	Chair of IUCN SSC ISSG based at ISPRA, Rome, Italy. Programme Officer is based at University of Auckland, New Zealand
<b>NUMBER OF MEMBERS</b>	206

## MISSION STATEMENT

The Invasive Species Specialist Group (ISSG) aims to reduce threats to natural ecosystems and the native species they contain by increasing awareness of Invasive Alien Species (IAS), and of ways to prevent, control or eradicate them. The ISSG promotes and facilitates the exchange of invasive species information and knowledge across the globe and ensures the linkage between knowledge, practice and policy so that decision making is informed. The two core activity areas of the ISSG are policy and technical advice, and, information exchange through our online knowledge products and tools, and, through networking.

## SUMMARY OF MAIN ACTIVITIES 2015

ISSG has continued mainstreaming the IAS issue at the international level, working with the IUCN Secretariat, global conventions, regional bodies, national governments, conservation agencies and civil society to support the development of science based policies. Below are some of the highlights and successes of 2015:

### Policy and advocacy

In Europe, the ISSG Chair and members played a key role in the development and enforcement of EU Regulation on IAS which entered into force on January 2015. ISSG Chair co-authored a scientific paper on the legislative instrument, and is a member of the Scientific Forum that provides advice to the EC on the enforcement of the Regulation. Additionally, ISSG is collaborating with a number of initiatives aimed at sound implementation of this legislation, supporting the development of a list of species of EU concern, horizon scanning, risk analysis methodologies and pathways management analysis.

### Knowledge products

The ISSG has continued its leading work on knowledge products, completing the redesign of the Global Invasive Species Database (GISD), vastly improving search functionality including providing users a selection of options to search on the taxonomy of the species, the region of presence, the pathways of introduction, the impacts it causes, etc., and other annotations related to the species.

ISSG hosts the Global Register of Introduced and Invasive Species (GRIIS), implemented within the Global Invasive Alien Species Partnership of the Convention on Biological Diversity (CBD) with the aim of supporting countries to achieve Aichi Target 9. GRIIS presents annotated and validated country-wise inventories of introduced and invasive species.

ISSG is working with the Red List Unit to ensure full interoperability between its knowledge products and the IUCN Red List.

ISSG continues to populate the Island Biodiversity and Invasive Species Database (IBIS), integrating all data and information.



## IMPACT ON CONSERVATION

The efforts of ISSG have been crucial to raising awareness on the threats posed by IAS at all levels, and influencing the adoption of policies on this issue. For example, ISSG members played a key role in the adoption of the EU Regulation 1143/2014 on invasive species, and on the revision of national legislations and policies on the issue, including for Great Britain, Finland, etc.

ISSG has played a key role providing key inputs for the drafting of decisions/resolutions on IAS adopted by the CBD, Convention on Migratory Species (CMS), Ramsar Convention on Wetlands, and the Bern Convention on the Conservation of European Wildlife and Natural Habitats. More recently ISSG has led the discussion on the use of Biological Control agents to combat IAS, that will be discussed at the next COP of the CBD at the end of 2016.

ISSG's knowledge products are recognised as significant sources of global IAS related data and information on presence and the biological status of alien species, their pathways of introduction and their impacts. These knowledge products are key to supporting countries achieve their biodiversity targets -Aichi Target 9 and SDG Target 15.8

ISSG has contributed to the production of the Global Biodiversity Outlooks and key scientific articles, including on the role of IAS in the loss of biodiversity, and impacts on health and livelihood. ISSG has also contributed to several scientific analyses on the role of prevention, eradication and management for mitigating the impacts caused by invasive species.

## FUTURE GOALS & ACTIVITIES

ISSG aims to be the primary contributor of reliable and current scientific data and information related to alien and invasive species to all stakeholders from governments to civil society. ISSG also aims to support global conventions (like the CBD, CMS, Ramsar), countries and other institutions make progress to achieve Aichi Target 9 and SDG Target 15.8, by providing advice and scientific support to policy at all levels.

ISSG's goal in the next two years is to make freely available data and information on the presence of species, their biological status and impacts, pathways of introduction for every country of the world, this will be made possible with updates to the GISD, GRIIS, IBIS and the planned Pathway toolbox. This will be facilitated by the development of an integrated back-end database that will seamlessly feed data and information to all four of ISSG's knowledge products. ISSG also aims to continue strengthening collaboration and partnerships with the Red List Unit and other Specialist Groups.

## ACKNOWLEDGEMENTS

The work of the ISSG Secretariat in 2015 has been made possible by funding provided by IUCN SSC, within the Framework Grant from the Environment Agency of Abu Dhabi. The implementation of GRIIS was supported by the Secretariat of the CBD, based on the EU contribution. The Italian National Institute for Environmental Protection and Research (ISPRA) supports the implementation and maintenance of the knowledge products of the group. Last but not least, none of the outcomes of the ISSG work could have been possible without the contribution of the ISSG members and supporters, that have provided continued scientific support and advice.



Participants at the Joint workshop on validation and verification of inventory of alien and invasive species held by the ISSG with the UAE Ministry of Climate Change and the Environment (MoCCE) in Dubai in May 2016 © Pritpal Soorae

# IUCN SSC Korean Plant Specialist Group



Dr KIM Yong-Shik

NAME: CHAIR / CO-CHAIRS	Kim Yong-Shik
NAME: RED LIST AUTHORITY CO-ORDINATOR	Chang Chin-Sung
LOCATION / AFFILIATION	Yeungnam University, 280 Daehak-Ro, Gyeongsan, Gyeongbuk-do, Republic of Korea/ KPSG
NUMBER OF MEMBERS	33

## MISSION STATEMENT

To support the conservation of Korean plant diversity, for present and future generations, through interdisciplinary collaboration applied conservation biology and professional development.

## SUMMARY OF MAIN ACTIVITIES 2015

In 2015/2016, a major Korean Plant Specialist Group (KPSG) achievement was the first publication of The Red List of Selected VASCULAR PLANTS in Korea, produced with the Korea National Arboretum.

This Red List Data covers the entirety of the Korean peninsula, including the Republic of Korea and Democratic People's Republic of Korea. IUCN Red List assessments were made only at the global level. This global evaluation of their conservation status has been one of the few attempts to evaluate plants in Korea. In total there are about 33 taxa listed, but a list of more than 70 Korean endemic/subendemic plant taxa will be compiled and their status assessed within five years.

The development of monitoring manual was one of our priorities. It provided a diverse opportunity to review and evaluate endangered plant species in Korea.

We have recently obtained support from the Korea National Arboretum to support field surveys and evaluation of endangered plant species.

## IMPACT ON CONSERVATION

We are open to further discussion about the assessment information and contribution through provisions of a baseline data set reporting the status of Korean vascular plants from diverse sources as well as the government organization.

The Flora of Northeastern Asia project aims to produce a new guide for all vascular plants in China, Russia, Korea (the Korean peninsula), and Mongolia. We are interested in covering this geographic region.

Our group, working together with the IUCN SSC Chinese Plant Specialist Group would like to develop networks as regional Red List Authorities and hope to provide the much-needed link between the many national Red List initiatives and The IUCN Red List.

## FUTURE GOALS & ACTIVITIES

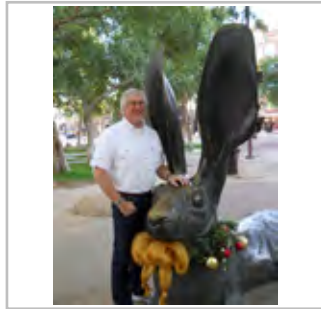
There are three main priorities:

- 1) The IUCN Red List of Korean plants both at the global and national level;
- 2) The plant conservation action plans for threatened species; and
- 3) The conservation strategy for Korean plants.

## ACKNOWLEDGEMENTS

We are grateful to all the members of the Korea National Arboretum and other colleagues from Korea who provided essential advice, invaluable guidance and supplementary information on the plant species included in the database.

# IUCN SSC Lagomorph Specialist Group



Andrew T. Smith

NAME: CHAIR / CO-CHAIRS	Andrew T. Smith
NAME: RED LIST AUTHORITY CO-ORDINATOR	Patrick Kelly (Deputy Chair - Neil Reid)
LOCATION / AFFILIATION	School of Life Sciences, Arizona State University, Tempe, Arizona, USA
NUMBER OF MEMBERS	65 - representing 21 countries

## MISSION STATEMENT

The mission of the Lagomorph Specialist Group (LSG) to promote the conservation and effective sustainable management of all species of lagomorph through science, education, and advocacy.

## SUMMARY OF MAIN ACTIVITIES 2015

The book: "Lagomorphs: Pikas, Rabbits, and Hares of the World" – under contract with John's Hopkins University Press, designed to update and replace our 1990 Lagomorph Action Plan, was nearly completed.

Several LSG members [Andrew Smith, Paulo Alves, Neil Reid] have participated actively in LaGomiCs (the Lagomorph Genomic Consortium), an international collaboration initiative designed to sequence the genome of all lagomorph species.

LSG member Penny Becker continues to spearhead the successful reintroduction efforts of the Pygmy Rabbit (*Brachylagus idahoensis*) into the Columbia Basin (USFWS Endangered Distinct Population Segment). A summary of this work was submitted for publication in the Re-introduction Specialist Group's publication "Global Re-introduction Perspectives: 2016."

The Amami Rabbit (*Pentalagus furnessi*) occurs only on two small islands in an archipelago in southern Japan. The primary conservation issue of this Endangered species is invasive carnivores, namely mongoose and feral cats. As reported by LSG member Fumio Yamada, the mongoose population has been successfully reduced – from 10,000 in 2005 to 130 in 2013. But efforts to capture feral cats have been disrupted by animal rights activists.

Also in Japan, the Pika Fan Club, led by LSG member Toshimi Ichikawa, has grown to be one of the largest green groups in Japan; its primary focus is the Hokkaido Island endemic subspecies of the Northern Pika, *Ochotona hyperborea yesoensis* (listed locally as Near Threatened and declining by the Ministry of Environment).

The Drylands Conservation Programme (DCP), an arm of the Endangered Wildlife Trust in South Africa, is led by LSG member Christy Bragg. This program works to ensure the survival of the Critically Endangered Riverine Rabbit (*Bunolagus monticularis*) and other species in this threatened ecosystem. They collect baseline population data, engaging in long-term monitoring of the species. They have established a nursery to provide indigenous plants for restoration of the region, and have partnered with the Department of Agriculture (LandCare) to construct erosion barriers. A critical part of the program is working with local farmers with the establishment of Riverine Rabbit Conservancies. Education and outreach are also an integral part of the DCP conservation efforts.

The publication of an overarching eco-hydrology paper (*Ambio* 44:16-22) showing that the Plateau Pika (*Ochotona curzoniae*) is an ecosystem engineer on the Tibetan-Qinghai plateau has been translated and led to discussions with regional and national policy-makers.

LSG members have worked to improve the systematic understanding and relationships among lagomorph species. Where necessary, GIS maps have been revised and constructed for many species of lagomorph.

## IMPACT ON CONSERVATION

The long-term impact on conservation by the LSG is manifested in several dimensions. Our work to produce a new over-arching and comprehensive book on all species of lagomorph will enhance knowledge of the species we represent. This work is coupled with the work of the LaGomiCs consortium, as well as the refined taxonomic work being conducted on many of the taxa of lagomorphs.

Much of our work throughout the world relies on community-based initiatives, such as the educational aspects promoted by the Pika Fan Club in Japan and the Drylands Conservation Programme in South Africa. Some of the work leading to the cessation of poisoning of Plateau Pikas on the Qinghai-Tibetan plateau has also been conducted at the local level through teacher-education workshops in remote pastoralist communities. Efforts to control feral cats on the Amami islands to stop their predation on Amami Rabbits has also necessitated work at the local level.

Significant lessons are being learned from the effort to re-introduce Pygmy Rabbits to their former range on the Columbia Basin, Washington. Similarly new techniques are being used to determine more accurately how temperature and other features of the environment may be impacting the American Pika, a sentinel species for climate change in the inter-montane west in the US.

## FUTURE GOALS & ACTIVITIES

All of the activities listed above are ongoing - and the LSG will continue to have significant impacts on conservation where it is engaged around the world. We are looking to further expand our efforts to embrace a wider number of species than we currently address.

A major activity in 2016 will be holding the once-every-four-years World Lagomorph Conference, to be held in July 2016 in California.

Our book "Lagomorphs: Pikas, Rabbits, and Hares of the World" will be completed in early 2016.

## ACKNOWLEDGEMENTS



A Plateau Pika (*Ochotona curzoniae*) investigating equipment used to measure water infiltration rates (Mekong River Drainage) © Maxwell Wilson

# IUCN SSC Large Carnivore Initiative For Europe



Luigi Boitani

NAME: CHAIR / CO-CHAIRS	Luigi Boitani
NAME: RED LIST AUTHORITY CO-ORDINATOR	N/A
LOCATION / AFFILIATION	Department of Biology and Biotechnologies, Viale Università 32, 00185 - Roma, Italy
NUMBER OF MEMBERS	42

## MISSION STATEMENT

The mission of the Large Carnivore Initiative For Europe (LCIE) is to maintain and restore, in coexistence with people, viable populations of large carnivores as an integral part of the ecosystems and landscapes across Europe.

## SUMMARY OF MAIN ACTIVITIES 2015

Our main achievements during 2015 have been linked to the follow up on the activities we implemented with a contract with the European Commission to promote coexistence between large carnivores and humans by developing best practices and engaging with stakeholders.

We participated in the stakeholder dialogue platform launched by the European Commissioner for Environment in June 2014. IUCN is represented by the IUCN-Europe Office in Bruxelles and the LCIE and we sit on the platform together with representatives of nature conservation, hunting, landowner and reindeer herding interests.

The Carnivore Damage Prevention News newsletter has been relaunched.

Members of LCIE have carried out numerous activities at national/regional scale including participation to several European Union's LIFE programs. These projects focus on Eurasian lynx, brown bears and wolves in Portugal, Spain, Italy, Slovenia, Croatia and Romania. LIFE projects fund direct actions to promote large carnivore conservation and reduce conflicts with human interests.

## IMPACT ON CONSERVATION

LCIE is the most influential group of conservation experts at European scale and it is largely regarded as a source of reliable data and unbiased positions. Our data on population sizes and distribution maps of the 5 large carnivore species of Europe are widely cited and used. Our impact on the interpretation of the Habitat Directive and the concept of Favourable Conservation Status has been deeply influenced by our report (Linnell et al 2008. Guidelines for population level management plans) to the European Commission. In the last few years a series of contracts with the Commission allowed us to produce more reports and documents that have been formally adopted by the European Commission, including a report on the Key Actions for the conservation of large carnivores in Europe (Boitani et al 2014). LCIE is central to much of the debate on management of large carnivores in many European countries. Our Science paper (Chapron et al. 2014) has stirred much discussion in Europe and North America suggesting that coexistence is indeed possible.

Products are available on <http://ec.europa.eu/environment/nature/conservation/species/carnivores/> and <http://www.lcie.org>

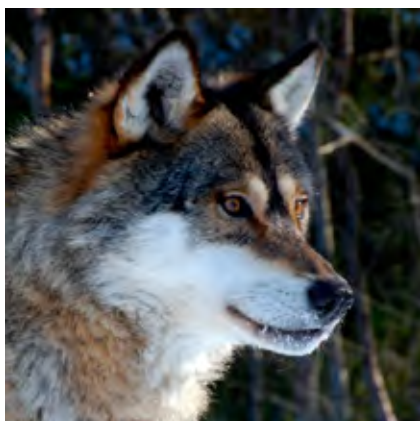
## FUTURE GOALS & ACTIVITIES

During 2016 and 2017 our work will continue to focus on supporting European level policy development that favour large carnivore – human coexistence. This will include:

- Working actively within the European Commission's stakeholder platform and trying to ensure the implementation of the key actions that have been identified.
- Re-thinking the entire strategy of LCIE in view of the changing landscape of human attitudes toward large carnivores.
- Communicate and provide evidence on the feasibility of human carnivore coexistence.
- We also need to explore ways to connect the members of the LCIE with the wider community of researchers and practitioners that are engaged in large carnivore conservation at national scale.
- In October 2016 we shall hold a meeting of LCIE in Portugal to re-focus our programme for the next quadriennium.

## ACKNOWLEDGEMENTS

Most of our activity in 2015 was funded via a policy support contract between the European Commission and the Istituto Ecologica Applicata (Rome)



Grey Wolf (*Canis lupus*) listed as Least Concern © John Linnell/NINA

# IUCN SSC Lichen Specialist Group



Olga Nadyeina



Christoph Scheidegger

NAME: CHAIR / CO-CHAIRS	Olga Nadyeina, Christoph Scheidegger
NAME: RED LIST AUTHORITY CO-ORDINATOR	Christoph Scheidegger
LOCATION / AFFILIATION	Swiss Federal Institute for Forest, Snow and Landscape Research, WSL Zürcherstr. 111, CH-8903 Birmensdorf, Switzerland
NUMBER OF MEMBERS	24

## MISSION STATEMENT

Promote studies assessing lichen diversity, population dynamics and conservation genetics – in order to evaluate the conservation status of lichen species according to IUCN criteria.

## SUMMARY OF MAIN ACTIVITIES 2015

We assessed 4 lichen species (*Buellia asterella*, *Cetradonia lineareis*, *Leptogium rivulare*, *Ramalina erosa*) for the 2015 revision of the IUCN Red List.

We continue communication within Lichen Specialist Group, which consists of 24 members, who are specialists either on regional floras (Europe, Asia, Africa, Australia, North and South America), or on ecological and taxonomic groups of lichens (like tropical lichens, arid lichens in steppe ecosystems, European deciduous forest lichens, Caucasian lichens, or lichens of the family Parmeliaceae).

We contributed to the Global Fungal Red List Initiative. During this year, the Lichen Specialist Group has continued with a process to Red List a considerable number of lichen species from various part of the world using the fungal Red List website (<http://iucn.ekoo.se/en/iucn/welcome>).

A project on population biology and conservation measures of the model lichen species *Lobaria pulmonaria* in Tanzania has been initiated and is being supported by a Rufford Small Grant.



## IMPACT ON CONSERVATION

The number of globally red-listed lichen species is increasing due to activity in our group. This enables the justification and legislation of the protected status of the sites where they occur.

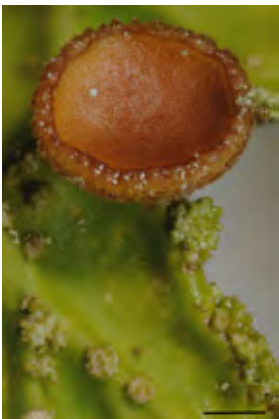
We received the first results from a project on the population genetics of Endangered lichen species, *Bactrospora dryina*, supported by Swiss Federal Agency. The output of this project will contribute to improving floodplain forest management in Switzerland.

## FUTURE GOALS & ACTIVITIES

Assessment of additional species for the 2016 revision of the IUCN Red List. The planned workshop on Lichen Red List assessments at the 2016 conference of the International Association for Lichenology had to be cancelled because the requested grant was not provided.

## ACKNOWLEDGEMENTS

The Mohamed bin Zayed Species Conservation Fund for evaluating a grant application, and the Rufford Foundation for supporting a project in Tanzania.



A macrophotograph of *Lobaria pulmonaria* with a young fruit body (sexual reproduction of the fungal partner) and soredia, which are symbiotic, vegetative propagules that allow for co-dispersal of both symbionts © Christoph Scheidegger

# IUCN SSC Macaronesian Island Plant Specialist Group



Ángel Bañares Baudet

NAME: CHAIR / CO-CHAIRS	Ángel Bañares Baudet
NAME: RED LIST AUTHORITY CO-ORDINATOR	Manuel V. Marrero Gómez
LOCATION / AFFILIATION	Santa Cruz de Tenerife. Dirección General de Protección de la Naturaleza (Gobierno de Canarias). España
NUMBER OF MEMBERS	9

## MISSION STATEMENT

The goal of the Macaronesian Island Plant Specialist Group (MIPSG) is to contribute to the conservation of Macaronesian plants through activities such as publications, conferences and courses to better understand and manage our flora. Our main objectives are: to increase accessibility to conservation biology tools; to encourage good diagnostic studies to correctly catalogue threatened species (including good information on taxonomy); and to promote recovery through developing conservation plans.

## SUMMARY OF MAIN ACTIVITIES 2015

1) As indicated in our 2014 Annual Report, our group is compiling data from a long-term monitoring programme conducted in the Canary Islands, in order to be included in a monographic series entitled “Monitoring of the Spanish Vascular Flora” as part of the Spanish Inventory of the Wild Heritage and Biodiversity. 2015 has also been an important year for promoting our knowledge on selected species (actually recognized as threatened species) of the Canary Islands by monitoring their population dynamics on each of the seven islands.

2) Another activity initiated in 2014 is a collaboration with several colleagues from mainland Spain to carry out an analysis of the conservation status of the plant species from the Canary Islands listed in EU Directives (Habitats Directive and Bern Convention). The aim is to provide a comparative analysis among several European countries and provide a useful framework to develop strategies for conservation. Initially, countries promoted in this initiative are: Italy, Portugal, France, Croatia, Greece, Malta, Cyprus, Bulgaria and Spain. The work consisted of assessing every species for its IUCN Red List Category and Criteria, and for the IUCN classification schemes for threat, habitat, conservation action, and research needed.

3) In 2015 our studies on the IUCN Red List Index (RLI) were published (Conservation Biology 29: 910–919). This tool can be used to measure trends in extinction risk of species over time. We used the Spanish Red Lists from 2000 and 2010 to assess changes in the level of threat at a national scale and at the sub-national scale in the Canary Islands, Balearic Islands, and peninsular flora. All measured national and sub-national RLI values decreased during this period, indicating a general decline in the conservation status of the Spanish vascular flora. The Canary RLI value was the lowest, although the fastest deterioration in conservation status occurred in mainland Spain. The role of the RLI in monitoring of changes in biodiversity at the global and regional scales needs further evaluation because additional areas and taxa are necessary to determine whether the index is sufficiently sensitive for use in assessing temporal changes in species' risk of extinction.

## IMPACT ON CONSERVATION

- 1) Promoting rare plants in monitoring and demographic studies over several years to provide the most important tool for correctly identifying the precise status of their populations.
- 2) Comparison of the plant conservation status among several European countries in order to provide a useful framework to develop strategies for conservation.
- 3) The application of the IUCN Red List Index is a useful tool to measure trends in extinction risk of species over time.

## FUTURE GOALS & ACTIVITIES

As for previous years, our future goal is to increase our knowledge of the conservation biology of threatened plants in Macaronesian archipelago.

## ACKNOWLEDGEMENTS

We gratefully acknowledge the Sociedad Española de Biología de la Conservación de Plantas (SEBICOP) for its support.



The Endangered Silver Thistle (*Stemmacantha cynaroides*) endemic to Tenerife © Eduardo Carqué Álamo

# IUCN SSC Madagascar Plant Specialist Group



Vololoniaina Jeannoda

NAME: CHAIR / CO-CHAIRS	Vololoniaina Jeannoda
NAME: RED LIST AUTHORITY CO-ORDINATOR	Bakolimalala Rakouth
LOCATION / AFFILIATION	Location: Antananarivo, Madagascar Affiliation: Dep. of Plant Biology and Ecology, Faculté des Sciences, University of Antananarivo, Madagascar
NUMBER OF MEMBERS	70

## MISSION STATEMENT

To assess and/or validate plant status according to Red List and/or CITES criteria; to assess the conservation state of plant diversity; identify species and habitat conservation priorities; give specific recommendations for species survival; reinforce private initiatives for the conservation of plant diversity; and census all crop wild relatives (CWRs) for the conservation of phylogenetic resources.

## SUMMARY OF MAIN ACTIVITIES 2015

Several workshops were held in 2015 by the Madagascar Plant Specialist Group (MPSG) aimed at strengthening MPSG members capacity in Red Listing and reviewing the conservation status of Madagascar's plant species.

Two workshops were held in March and September in the framework of the project funded by Agence Française de Développement (AFD) called "Integration of knowledge products by IUCN for supporting land-use planning and policy in Madagascar" where the status of 1000 species were reviewed and submitted to the IUCN Red List Unit (RLU) for publication. During the first workshop, the group also benefited from an in-depth training on the Species Information Service (SIS) which was given by Barbara Goettsch and Olivier Hasinger respectively from the RLU and Global Species Programme (GSP).

Two additional workshops were held to review the status of 34 species of yams (CWR species) and 6 species of orchids. A few MPSG members, together with staff from Kew Madagascar Conservation Center, were trained in September on full Red List methodologies incorporating the latest web tools and technologies, including the use of smartphones for observation recording. The training was given by Steven Bachman from Kew Royal Botanic Gardens in the framework of the "Madagascan Plants threats assessment" project funded by JRS Biodiversity Foundation. A special emphasis was given on the use of the iNaturalist Citizen Science project for plant conservation and the use of GeoCAT for calculating AOO and EOO. A 'BioBlitz' field survey was incorporated to the training.

Finally, a workshop was organized in December to enhance the capacity of MPSG members to apply the IUCN Red List categories and criteria to assess the risk of extinction of species. The training was given by George Schatz of Missouri Botanical Garden, who was contracted by Rio Tinto-QMM, and aimed mainly at highlighting the issue of mining as a threat to biodiversity and the potential use of IUCN Red List assessments to guide recommendations for conservation action for a net positive impact. Among different points, the concept of "location" with mining as a threat was developed together with illustrations of various assessment scenarios of priority species using the online SIS.

The chair of MPSG has been acting as a member of the Steering Committee in the elaboration of the National Biodiversity Strategies and Action Plan for Madagascar, and has taken an active part in finalising the strategy which has now been adopted by the Madagascar Government.

In September, the chair also attended the third SSC Leaders' Meeting in Abu Dhabi.

## IMPACT ON CONSERVATION

The MPSG was first formed in 2002, and since then it has had an increasing impact on conservation actions in Madagascar. Since its creation the MPSG has been solicited for different consultancy projects such as the elaboration of an IUCN pilot project to implement the Global Strategy for Plant Conservation (GSPC) in five countries including Madagascar. The mandate was given by the IUCN to Botanic Gardens Conservation International (BGCI) which contracted with MPSG for the project to be conducted in Madagascar. The contract ended with the inventory and assessment of the conservation status of "Madagascar wild plants for food and medicine". This project also developed a strategy for the conservation of plant species that are useful at a community level.

In 2010 the MPSG organized the 19th AETFAT Congress (Association for the Study of the Taxonomy and the Flora of Tropical Africa) in Antananarivo. The theme of the Congress was "systematic sustainable development" and conservation and sustainable use of plant diversity were major topics that were dealt with.

Members of MPSG who are based at the Plant Biology and Ecology Department of the University of Antananarivo are also members of the CITES Scientific Authority for Flora. Therefore, the MPSG has been involved in all CITES activities, such as determining Non-Detrimental Findings or the conservation status of CITES-listed plants in Madagascar. Previously, at CITES COP16 in 2013, the MPSG took a central role in advising on the proposals to include all species of rosewood, palissander and ebony from Madagascar on CITES Appendix II.

In recent years, MPSG expertise and data on threatened species have been used for many different purposes:

- Contribution to the identification of important plant areas for the creation of new protected areas, after the government pledged to triple the surface of protected areas in Madagascar (Durban vision). More than 100 new protected areas equivalent to 2 million hectares were formally in July 2015.
- Elaboration of the Madagascar ecosystem profile within the Critical Ecosystem Partnership Fund (CEPF) programme, thus influencing how CEPF funds are spent in the country.
- Species population restoration activities in and around protected areas or on mining sites .
- Advising on the 5th national report to the Convention on Biological Diversity (CBD) Secretariat.
- Elaboration of the National Biodiversity Strategy and Action Plan for Madagascar.

## FUTURE GOALS & ACTIVITIES

- 1) Review the status of another 1000 species in the second phase of the AFD-funded project with the collaboration of the IUCN Red List Unit and the Global Species Programme.
- 2) Assess the conservation status of all Madagascar's endemic woody species by 2020 in collaboration with BGCI and the IUCN SSC Global Tree Specialist Group.
- 3) Assess and review the status of precious wood species in collaboration with the Plant Biology and Ecology Department of the University of Antananarivo and Missouri Botanical Garden,

## ACKNOWLEDGEMENTS

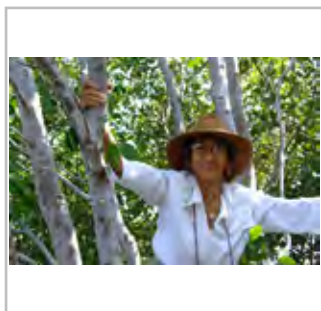
We are grateful to Agence Française de Développement, JRS Biodiversity Foundation and Rio Tinto - QMM Madagascar for funding the workshops that were held in 2015 by MPSG.

We also want to thank the Environment Agency Abu Dhabi who, thanks to its generosity, made the participation of the MPSG chair in the third SSC Leaders' Meeting in Abu Dhabi possible.

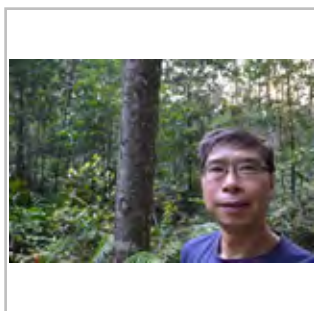


An endemic and Endangered species of Madagascar, *Asteropeia micrastrer* © Vololoniaina Jeannoda

# IUCN SSC Mangrove Specialist Group



Jurgene Primavera



Joe Lee

NAME: CHAIR / CO-CHAIRS	Jurgene Primavera and Shing Yip (Joe) Lee
NAME: RED LIST AUTHORITY CO-ORDINATOR	Jean Yong; Professor Norm Duke
LOCATION / AFFILIATION	Zoological Society of London, London, United Kingdom
NUMBER OF MEMBERS	51

## MISSION STATEMENT

To promote the conservation and sustainable management of mangrove species and ecosystems through the coordinated effort of scientists, managers and volunteers.

## SUMMARY OF MAIN ACTIVITIES 2015

The Mangrove Specialist Group (MSG) Co-Chairs and our programme officer participated in the 3rd IUCN SSC Leaders' Meeting held in September 2015 in Abu Dhabi. The Co-Chairs actively participated in the discussions on the "Red List of Ecosystems" initiative of the IUCN and have proposed that mangroves be assessed as a priority ecosystem in view of the global pressure on them.

The third MSG international symposium "Turning the tide on mangrove loss - a focus on Asia" was held in Xiamen, China, in November 2015. The symposium was attended by over 100 scientists, government and NGO representatives as well as students. Over 20 oral presentations were made, covering a diverse range of topics ranging from mangrove biology and genetics, to valuation and management. Special effort was made to bring speakers from Asian countries to present at the symposium, with representatives from Malaysia, Vietnam, India, China, Japan, Taiwan, Hong Kong, Brunei Darrusalam, Singapore and the Philippines present. Additional participants included those from Australia, Germany, the UK, and the USA.

A one-day internal meeting of the MSG was held after the symposium. Activities and progress were reviewed for the past year and protocols for membership changes (e.g., appointment of new members) and other operational issues were discussed. The group also devoted some time towards issues such as refining the definition of mangrove species, which has significant implications for Red Listing and conservation strategies.

The MSG has contributed to the organisation of two events to be held at the IUCN Congress 2016: 1) "Conservation and Restoration of Estuarine, Beach and Mangrove Habitats: Horseshoe Crabs as a Flagship Species" - a Knowledge Cafe event organized by the SSC Horseshoe Crab Specialist Group; and 2) A workshop on 'Moving towards a sustainable mangrove economy' run by IUCN France. The MSG is a co-organiser or sponsor of these events.

A significant change to the MSG was the departure of our programme officer Mr Zebedee Njisuh at the end of 2015. Zebedee has been very important in the operations of the MSG, especially in terms of communication and the internal administration. We wish him the very best in his future career.

## IMPACT ON CONSERVATION

The third annual symposium drew particular attention to the current state of mangroves in Asia. This agenda in mangrove conservation is further advanced by the publication of 11 full-length papers addressing the themes of: 1) the importance of mangroves; 2) threats to mangroves; and 3) monitoring and rehabilitating mangroves, in a special issue of Marine Pollution Bulletin (109: 673-782; edited by Dan Friess, S.Y. Lee and J. Primavera).

Members of the MSG have continued their regional work on mangrove conservation and rehabilitation.

The IUCN Red List reassessments of mangrove species will be reviewed shortly. This effort is urgently needed, because as data on species distribution, population genetics, and threats increase, the IUCN Red List status of various mangrove species needs to reflect the latest information on the current situation. One example is the status of *Bruguiera hainesii*, which is now considered as a hybrid rather than a full species (Ono et al. 2016, Conservation Genetics doi:10.1007/s10592-016-0849-y). The new data have significant implications for the IUCN Red Listing of this species. The taxonomy of many mangrove species/hybrids is yet to be further clarified and the MSG will keep a coordinating role in the process.

## FUTURE GOALS & ACTIVITIES

- Jurgene Primavera announced her retirement from her role at ZSL as well as the MSG in July 2015. The MSG thanks Jurgene for her untiring effort as the Co-Chair of the MSG over the past four years. After consultations with the SSC, a new Co-Chair will be appointed to work with Joe Lee.

- The membership of the MSG will also be reviewed coinciding with the quadrennial cycle of the IUCN. Currently there are over 50 members. The objective of the review is to maintain a high level of participation as well as good efficiency within the MSG, while ensuring a wide range of expertise and broad representation (geographic, organisational).

- One major goal will be to have the MSG website fully operational for sharing of information and external publicity.

- The IUCN Red Listing of mangrove species will be reviewed in the coming year. We shall also promote the assessment of mangroves as a priority of the IUCN Red Listing of Ecosystems.

It is planned that a fourth symposium/MSG meeting will be held in 2017.

## ACKNOWLEDGEMENTS

The MSG thanks Dr Jurgene Primavera and Mr. Zebedee Njisu for their outstanding contributions to our work in the past few years.

We thank the College of the Environment and Ecology, Xiamen University, for financial support towards the Third Annual Symposium held in 2015. Prof. Q. Li, Prof. B. Huang, Prof. W. Wang and Ms C. Zheng provided assistance in various ways towards the event. The continual support of Dr Heather Koldewey and the Zoological Society of London is gratefully acknowledged.



The IUCN SSC Mangrove Specialist Group 3rd Annual Symposium

# IUCN SSC Marine Turtle Specialist Group



Paolo Casale



Roderic Mast

NAME: CHAIR / CO-CHAIRS	Paolo Casale and Roderic Mast
NAME: RED LIST AUTHORITY CO-ORDINATOR	Bryan Wallace (Programme Officer: Brian Hutchinson)
LOCATION / AFFILIATION	Rome, Italy / University of Rome "La Sapienza" and Washington, DC, USA / Oceanic Society
NUMBER OF MEMBERS	220

## MISSION STATEMENT

To develop and support strategies, set priorities, and provide tools that promote and guide the conservation of marine turtles, and their ecological roles and habitats.

## SUMMARY OF MAIN ACTIVITIES 2015

In 2015, the Marine Turtle Specialist Group (MTSG) continued its work to improve the accuracy and utility of marine turtle status assessments through two primary efforts:

1) A new Red List Assessment of the loggerhead turtle, *Caretta caretta* was published in December 2015: The loggerhead turtle assessment was led by Paolo Casale and Tony Tucker and involved contributions from dozens of MTSG members worldwide. It was the second marine turtle Red List assessment (after the Leatherback Turtle) conducted at both the global and subpopulation levels. Red List assessments at the subpopulation level are much more meaningful for conservation planning than those done solely at the global scale, especially for wide-ranging species like sea turtles. Such assessments also represent the culmination of many years of work by the MTSG to describe subpopulations for all seven marine turtle species.

Globally, the loggerhead turtle is now listed as Vulnerable. The 10 loggerhead subpopulations have been assigned to categories ranging from Critically Endangered to Least Concern, representing in most cases a change from the Endangered category to which the species as a whole was assigned in the previous assessment from 1996.

2) Continued participation in the State of the World's Sea Turtles (SWOT) Program: The Marine Turtle Specialist Group is a co-founder and partner of the global State of the World's Sea Turtles (SWOT) Program. The SWOT Program was launched in 2003 in an effort to (a) build a global network of marine turtle researchers and conservationists, (b) create a comprehensive, useful, and usable database of geo-referenced bio-geographical information on all seven marine turtle species, and (c) develop a communications and outreach effort and small grants program that generates greater awareness and support for marine turtle and marine conservation issues.

In 2015, the SWOT Program published the first comprehensive map of sea turtle nesting biogeography in Costa Rica in collaboration with dozens of researchers in that country, and produced the State of the World's Sea Turtles Report, Vol. X, which was launched in February 2015. The SWOT Program also gave seven \$1,000 grants to marine turtle research and conservation projects in Bangladesh, Brazil, Ghana, Peru, Maldives, São Tomé and Príncipe, and the United States, and continued ongoing growth and maintenance of the SWOT database at <http://seamap.env.duke.edu/swot>.



## IMPACT ON CONSERVATION

Through the SWOT Programme, the MTSG facilitated seven small grants to sea turtle research and conservation projects in Bangladesh, Brazil, Ghana, Peru, Maldives, São Tomé and Príncipe, and the United States. The projects are working to reduce a variety of impacts to threatened marine turtle populations, including impacts from ghost/derelict fishing gear (Indian Ocean), coastal development (Peru and Bangladesh), small-scale fisheries (Ghana), and oil pollution (Brazil), as well as to identify key habitats for threatened Hawksbill Turtles in São Tomé, and to advance photo-identification techniques for sea turtles worldwide.

## FUTURE GOALS & ACTIVITIES

Completion of new global and subpopulation IUCN Red List Assessments for five marine turtle species (Olive Ridley, Kemp's Ridley, Flatback, Hawksbill, and Green Turtle).

Contribute to the creation of the first comprehensive maps of sea turtle biogeography for the South American and African continents.

## ACKNOWLEDGEMENTS

The MTSG Co-Chair, Nick Pilcher, tendered his resignation in May 2015 after ten years of outstanding service and leadership. The MTSG is very grateful to Nick for all that he has done for sea turtle conservation in general and to the MTSG in particular. MTSG members nominated candidates to replace Nick to an independent panel, and as a result of this the SSC Chair appointed Paolo Casale to replace Nick. We are delighted that Nick will remain engaged in the MTSG as a Senior Advisor. The Co-Chairs and Officers of the MTSG also wish to thank all the members for their commitments of time and expertise to assure the completion of global and sub-population IUCN Red List Assessments. We also thank Oceanic Society, Sapienza, University of Rome and the Marine Research Foundation for hosting our activities, and we express our gratitude for financial support to IUCN, the Moore Family Foundation, and the many donors whose generosity makes our work possible.



The Endangered Green Turtle (*Chelonia mydas*) © Roderic Mast

# IUCN SSC Mascarene Islands Plant Specialist Group



Vikash Tatayah



Stéphane Baret

NAME: CHAIR / CO-CHAIRS	Vikash Tatayah (Republic of Mauritius) / Stéphane Baret (La Réunion)
NAME: RED LIST AUTHORITY CO-ORDINATOR	Kersley Pynee (Republic of Mauritius) / Joel Dupont (La Réunion)
LOCATION / AFFILIATION	Mauritian Wildlife Foundation, Mauritius and Parc national de La Réunion, La Réunion, France
NUMBER OF MEMBERS	25

## MISSION STATEMENT

The mission statement of the Mascarene Islands Plant Specialist Group (MIPSG) is to conserve native plants of the Mascarene Islands.

## SUMMARY OF MAIN ACTIVITIES 2015

- 1) A new orchid endemic to Mauritius, *Angraecum jeanineanum*, was described (Fournel et al 2015, *Phytotaxa* 222 (3): 211-220); as well as a new species of the myrtaceous *Syzygium*, *Syzygium pyneei* (Byng et al 2015, *Phytokeys* 46: 61-66). These new species are unfortunately classified as Critically Endangered using the IUCN Red List categories and criteria.
- 2) A review of plant and animal remains of 4,000 years ago in the lake of Mare aux Songes showed that, even with a severe drought affecting Mauritius at that time, the native biodiversity was resilient and well adapted (Rijsdijk, et al 2015, *Journal of Vertebrate Paleontology* 35 (Suppl. 1): 3-20). However, today Mauritius is one of the most built-up countries in the world, a threat to native ecosystems that has been recently evaluated (Hammond et al 2015 *Environmental Conservation* 42 (3): 256-267). The environmental changes brought by humans is very severe and remaining native biodiversity will need management to survive the threat of current climate change.
- 3) The Forestry Service has erected a signboard at the fenced and weeded plot at Grand Bassin peak to increase awareness about the Critically Endangered *Elaeocarpus bojeri*.
- 4) A team from the Missouri Botanical Garden visited Mauritius and Rodrigues to investigate how they could support conservation of plants, as discussed with conservation agencies on both islands together with field visits. Plant materials were collected for the genetics lab for further taxonomic work. There were also discussions about the development of a Memorandum of Understanding between the Ministry of Agro-Industry, Missouri Botanical Garden and the Mauritian Wildlife Foundation.
- 5) There were discussions with the Arche des Plantes (support organisation to the Conservatoire Botanique de Brest, France) for the setting up of a collaborative project with the Mauritian Wildlife Foundation and other local institutions for the benefit of endemic plants of Mauritius and Rodrigues.
- 6) Sessions were regularly held on Mauritius to update the IUCN Red List status of its plant species. This is a collaborative effort between the Mauritian Wildlife Foundation, National Parks and Conservation Service, Forestry Service and Mauritius Herbarium, with the support of the Missouri Botanical Gardens and the IUCN Red List Unit, Cambridge.
- 7) The Native Terrestrial Biodiversity and National Parks Act was passed, repealing the Wildlife and National Parks Act 1983. This law has several improvements e.g., it is CITES compliant, formalises the National Invasive Alien Species Committee, and it allows the creation of 'Private Reserves' etc. However, more controversially, it allows a native species - if it is declared a 'pest' - to be controlled even if threatened.
- 8) For Réunion: Despite continuous increase in invasion in the dry forests of Réunion, native vegetation seems to still resist negative effects, although removal of invasive plants increases native regeneration (Barbe et al 2015, *Botany* 93 (12): 843-857).
- 9) Finalization of a project (2012-2015) initiated by the national Park of La Réunion, set up by the national botanical garden (CBNM) and the forestry service (ONF). Thanks to this project, entitled RHUM, we have reinforced 13 threatened species (414 individuals, 13 different places) inside natural areas of the national parks. This project was funded through the national strategy on biodiversity (SNB) by the Environmental Ministry and the National Park.
- 10) Robert et al. (2015) discovered two new localities of the fern *Haplopteris zosterifolia* in the Northeast of Réunion island. This species was only previously known from the Southeast of the island. This species is listed as Endangered on the Red List of the French IUCN Committee, and one of the new localities located along a path is seriously threatened by plant clearings and by the presence of an invasive alien species *Hiptage benghalensis*.
- 11) Fontaine et al. (2015) have rediscovered the Réunion island endemic *Lobelia parva*, 45 years after an unique observation.
- 12) Organisation of the first workshop for biodiversity conservation managers, including interesting information about rare plant species and their conservation such as for the orchidaceae.
- 13) Continuation of the indigenous plantation project piloted by the national park of La Réunion (PEI Run). The goal of this project is to favour indigenous plantations - an important aspect of a multi-stakeholder strategy is to consider the local uses and values of native plants (e.g., medicinal plants, bee-keeping, wood).

## IMPACT ON CONSERVATION

The IUCN Red List assessment process is allowing scattered information (amongst institutions and field botanists) on endemic plants to be consolidated into a single database, which will be extremely useful to guide policy and for the prioritisation of conservation actions. It has also improved collaboration between the various plant conservation institutions.

Mauritius (and Rodrigues) require local and international skills to be harnessed in order to restore declining endemic species. In this respect, greater collaboration with international plant conservation institutions such as the Missouri Botanical Garden (US) and Conservatoire Botanique de Brest (France) were developed.

## FUTURE GOALS & ACTIVITIES

- 1) Finalise the IUCN Red Listing of plants of Mauritius by the end of the 2013-16 quadrennium.
- 2) Memorandum of Understanding finalized between the Government of Mauritius, Missouri Botanical Gardens and the Mauritian Wildlife Foundation.
- 3) Efforts to save the Hurricane Palm (*Hyophorbe amaricaulis*) to be better coordinated.
- 4) An equivalent to the RHUM project is being created in order to reinforce populations of rare plant species. This project (ESPECE) will include research in areas when they are currently unknown, and also into in situ and ex situ (arboretum) plantations of threatened species at the island scale.
- 5) To track plantations and control alien plant species if necessary and in collaboration with the forestry service.
- 6) Conservation actions including finding new localities for species and/or discovering new species, plantations (in situ and ex situ), control of invasive alien plant species.
- 7) To limit invasive alien plant plantations at the island scale in order to decrease the threat on nearest natural habitats and their associated rare plant species.

## ACKNOWLEDGEMENTS

The MIPSOG wishes to thank (on behalf of the work of the group in Mauritius and Rodrigues) the National Parks and Conservation Service, Forestry Service, Mauritius Herbarium, Rodrigues Regional Assembly, Mauritian Wildlife Foundation, Missouri Botanical Garden, Conservatoire Botanique National de Brest, Chester Zoo and Royal Botanical Gardens (Kew). Thanks also to CBNM, SREPEN, APN, Naturalistes de Bourbon, Tamar'haut, ARDI, GHAP, Hibiscus, RHUMPPEI, forestry (or associated) services (CdL, ONF, CEN-GCEIP, PNRun), research organisations (University of La Réunion, CIRAD) and funders (Departemental and Regional Councils, DEAL, National Park, Conservatoire du littoral).



The last standing individual of the Critically Endangered Bottle Palm (*Hyophorbe amaricaulis*) © Vikash Tatayah.

# IUCN SSC Medicinal Plant Specialist Group

Medicinal  
Plant  
Specialist  
Group



Danna J Leaman



Anastasiya Timoshyna

NAME: CHAIR / CO-CHAIRS	Danna J Leaman and Anastasiya Timoshyna
NAME: RED LIST AUTHORITY CO-ORDINATOR	Danna J Leaman
LOCATION / AFFILIATION	Ottawa, Canada: Canadian Museum of Nature Cambridge, UK: TRAFFIC
NUMBER OF MEMBERS	150

## MISSION STATEMENT

The Medicinal Plant Specialist Group (MPSG) is a global network of specialists contributing within our own institutions and in our own regions, as well as world-wide, to the conservation and sustainable use of medicinal plants. The MPSG was founded in 1994 to increase global awareness of conservation threats to medicinal plants, and to promote sustainable use and conservation action.

## SUMMARY OF MAIN ACTIVITIES 2015

The Medicinal Plant Specialist Group (MPSG) is a major partner to the FairWild Foundation in the development and implementation of the FairWild Standard (<http://www.fairwild.org>). A focus of MPSG co-chairs and members in 2015 was the ongoing support for implementation of the FairWild Standard and the application of its third-party certification scheme for herbal teas, cosmetics, and other products, in national policy and regulatory schemes for wild-collected plants, and in international policy and governance tools (including the Convention on Biological Diversity (CBD) Global Strategy for Plant Conservation implementation toolkit; and CITES Non-detriment Findings). MPSG members provided risk analyses of wild-harvested plant species and populations for private sector companies as a service to the FairWild Foundation and other support to implementation of the FairWild Standard for sustainable wild collection. Members of the MPSG serve as members of the FairWild Foundation's Board of Trustees and as advisors to the FairWild Foundation on technical, license, and communications issues.

MPSG's risk analysis methodology has also been included as one of nine steps in the new guidance for Parties to CITES, undertaking non-detriment findings for perennial plants listed on Appendix II. Version 1.0 of this guidance, produced through a TRAFFIC/WWF Germany project funded by the German Federal Agency for Nature Conservation (BfN), was published in 2014 (<http://www.bfn.de/fileadmin/MDb/documents/service/skript358.pdf>). The guidance was presented at a side-event at the CITES Plants Committee meeting in October 2015, where considerable interest was expressed and guidance was commended by various CITES Parties. Version 3.0 will be launched at the CITES CoP17 in 2016.

In 2015 MPSG contributed to other global policy initiatives relevant to medicinal plant conservation and sustainable use, including the CBD Global Strategy for Plant Conservation implementation toolkit, in particular the recommendation of the FairWild Standard as an implementation tool for Target 12 (sustainable use). MPSG (through TRAFFIC) has contributed to the shaping of the State of Knowledge Review of the CBD Secretariat and World Health Organisation (WHO) on Biodiversity and Human Health, launched at the World Health Congress in 2015. MPSG continued to support the revision of the WHO/IUCN/WWF Guidelines on Conservation of Medicinal Plants, in partnership with TRAFFIC and other co-authors.

MPSG continued to enlarge the Global Checklist of Medicinal Plants (currently comprising more than 30,000 taxa), contributed to the development and population of the Royal Botanic Gardens Kew Medicinal Plant Names Service, and persevered in efforts to support the contributions of the MPSG and other relevant Specialist Groups to the IUCN Plants for People project.

## IMPACT ON CONSERVATION

MPSG members recognize that support for sustainable use is key to the conservation of wild-collected medicinal plants, which comprise approximately 80% of medicinally-used plant species. This has been MPSG's motivation for developing and contributing to implementation of the FairWild Standard. At present, there are many products available that contain wild-harvested plant ingredients certified as sustainably harvested according to the FairWild Standard. These include products that contain species in high demand such as liquorice root, elderflower, linden flower, and many species associated with Chinese Traditional Medicine and Ayurveda.

Under the FairWild certification scheme, operational for over five years (since 2010), 21 species were certified in nine source countries (Bosnia and Herzegovina, Bulgaria, Georgia, Hungary, India, Kenya, Kazakhstan, Poland, Spain), and over 20 products sold in the USA, the European Union, Japan and other countries, labeled as 'FairWild' in 2015. These products range from herbal teas, health ingredients and cosmetics to alcoholic beverages which is representative of how diverse the trade in wild plant ingredients is. Based on information through the FairWild trader registration system, it was estimated that around 300 tonnes of FairWild certified ingredients were traded in 2014. Time series information is not yet available, but the amount of sustainable ingredients on the market has clearly grown since the certification scheme was introduced in 2007, and is expected to have further increased in 2015. By volume, the largest proportion of certified ingredient is liquorice root. A third wild collection site for *Glycyrrhiza* spp. was certified in 2015, thus further stabilising certified supplies of this commercially important ingredient.

Beyond the application of the certification scheme, the FairWild Standard was used in 2015 as a resource management tool to guide the implementation of the project with the key traditional Chinese medicine (TCM) manufacturers in Zhejiang and Hunan provinces of China (see project website for more details [www.traffic.org/egp-maps](http://www.traffic.org/egp-maps)), and for the implementation of the FairWild Standard with communities Bac Kan province in Northern Viet Nam to ensure the sustainable wild-harvesting and trade in target medicinal plant species.

## FUTURE GOALS & ACTIVITIES

In 2016 and through the 2017-2020 Quadrennium, a major goal is to complete IUCN Red List Assessments of 1,500 medicinal plant species identified as health, trade, and livelihood priorities. We will support implementation of key in situ and ex situ conservation actions for medicinal plants, for example, in Europe recommended in the recently completed regional Red List assessment (<https://portals.iucn.org/library/sites/library/files/documents/RL-4-018.pdf>).

We continue to provide technical support to the development and implementation of the FairWild Standard for sustainable use and trade in wild plants. We are adapting the MPSG risk analysis methodology for fungi, lichens, and invasive species in discussion with the relevant SSC Specialist Groups. We will be benchmarking MPSG risk analysis matrix factors to support the publication of the methodology and to expand its applications.

To support market transformation activities and sourcing practices by key companies utilizing wild plants, we are, with TRAFFIC and other partners, convening a workshop on responsible sourcing of wild plants at the IUCN World Conservation Congress 2016.

## ACKNOWLEDGEMENTS

MPSG acknowledges the support of the Co-Chairs host institutions: TRAFFIC's Medicinal and Aromatic Plants trade programme and the Canadian Museum of Nature.



Fruit of Southern Schisandra harvested in Sichuan province © TRAFFIC Timoshyna

# IUCN SSC Mediterranean Plant Specialist Group



Bertrand de Montmollin

NAME: CHAIR / CO-CHAIRS	Bertrand de Montmollin
NAME: RED LIST AUTHORITY CO-ORDINATOR	Errol Vela
LOCATION / AFFILIATION	Bioconseils, Neuchâtel, Switzerland
NUMBER OF MEMBERS	62

## MISSION STATEMENT

The Mediterranean Plant Specialist Group (MPSG) was formed in 1995. Its objectives are to evaluate and monitor changes in Mediterranean plant diversity; to establish, co-ordinate and implement conservation action plans and to promote sustainable conservation of plants and their habitats among decision makers and the public.

## SUMMARY OF MAIN ACTIVITIES 2015

The main activities of the MPSG in 2015 were as follows:

- 1) Coordination and implementation of the programme "Conserving wild plants and habitats for people in the South and East Mediterranean (IPA-MED)" with the IUCN Centre for Mediterranean Cooperation and PlantLife International. This project represents an ambitious initiative to develop plant conservation actions in the South and East of the Mediterranean region (including north Africa, Middle East and the Balkans) by identifying and managing Important Plant Areas.
- 2) Contribution to the Mediterranean Biodiversity Assessment - Phase II, by co-organizing and participating in expert workshops for IUCN Red List plant assessments (project coordinated by the IUCN Centre for Mediterranean Cooperation).
- 3) Participation in activities of the Hotspot Advisory Committee of the Critical Ecosystem Partnership Fund (CEPF).
- 4) IUCN Red List assessments for rare endemic plant species in the region.
- 5) Conservation action plans for threatened endemic plant species in Mediterranean islands and North African countries.
- 6) Stakeholder meetings for plant conservation in Lebanon, Morocco, Tunisia, Sardinia, Corsica, Greece and Sicily.

## IMPACT ON CONSERVATION

The MPSG activities contribute to the conservation of many endemic plants species of the Mediterranean that are threatened with extinction. They increase the sensitivity of policy makers to the importance of plant and habitat conservation and allow the establishment of conservation plans for species or important plant areas.

## FUTURE GOALS & ACTIVITIES

- 1) Updating the "Top 50 Mediterranean Island Plants: Wild plants at the brink of extinction and what is needed to save them", ten years after their first assessment.
- 2) Coordinating the CARE-MEDIFLORA project / Conservation Actions for the Threatened Mediterranean Island Flora: ex situ and in situ joint actions.
- 3) Providing plant species data for updating the CEPF Mediterranean Ecosystem Profile.
- 4) Co-organization of the 1st Mediterranean Plant Conservation Week.
- 5) Identifying Important Plant Areas in Cabo Verde (for CEPF).
- 6) Preparation of a Top 500 Mediterranean Plant programme: addressing conservation issues for the 500 most endangered plants in the Mediterranean.

## ACKNOWLEDGEMENTS

The MPSG thanks the MAVA Foundation for its generous financial support. The MPSG also has an excellent partnership with the IUCN Centre for Mediterranean Cooperation and the Critical Ecosystem Partnership Fund.



The Critically Endangered Akamas Centaury (*Centaurea akamantis*), an endemic plant of Cyprus © Charalambos S. Christodoulou

# Mid-Atlantic Islands Invertebrate Specialist Group



Vicky Kindemba



Paulo Borges

NAME: CHAIR / CO-CHAIRS	1) Vicky Kindemba and 2) Paulo Borges
NAME: RED LIST AUTHORITY CO-ORDINATOR	David Pyrcce
LOCATION / AFFILIATION	1) Buglife and 2) the University of Azores (Azorean Biodiversity Group, CE3C)
NUMBER OF MEMBERS	20

## MISSION STATEMENT

To support and deliver Red Listing and invertebrate conservation work for the following islands: Gough, Tristan, St Helena, Ascension, Cape Verdes, Canaries, Madeira, Azores, and São Tomé and Príncipe.

## SUMMARY OF MAIN ACTIVITIES 2015

Establishment of the group in July 2015.

Representation of the group at the species leaders meeting in Abu Dhabi in September 2015 by Vicky Kindemba and Paulo Borges

Application to the Darwin Plus Initiative for Ascension Island Invertebrate project including Red Listing and wider invertebrate conservation work, unfortunately this was unsuccessful

As part of the Buglife St Helena invertebrate project "Bugs on the Brink", working with the IUCN conservation planning committee to develop a five year strategy for the island working with both international and local partners.

Spiky Yellow Woodlouse (*Pseudolaureola atlantica*) conservation planning sessions in UK and St Helena, and supported the recruitment of a new Spiky Yellow Woodlouse Officer to finish the delivery of the Darwin Plus project on this species.

Sixteen St Helena endemic invertebrate species listed and the collation of invertebrate data for 94 species on St Helena to allow Red Listing in 2016.

Update the database with the distribution and abundance of Azorean endemic arthropods within the project ATLANTISMAR and update their online distribution within the Azorean Biodiversity web portal:  
<http://azoresbioportal.uac.pt/pt/>

Within the project IMPACTBIO many of the endemic Azorean arthropods were modelled with SDMs: We used ensemble forecasting to evaluate the current and future distribution of well-studied endemic arthropods (128 species), for two of the largest Azorean Islands, Terceira and São Miguel.



## IMPACT ON CONSERVATION

New invertebrate conservation strategy 2016-2021 for St Helena adopted by St Helena government and local partners and being delivered on the island.

Conservation Plan for St Helena's Spiky Yellow Woodlouse (*Pseudolaureola atlantica*) was used to restart work, as work on this species had stalled. Now a new officer is in post finishing the Darwin project and the new conservation plan for the species being implemented.

The Red Listing process on St Helena started with 16 species listed and 94 species prepared.

The Ascension Island Government committed to starting invertebrate conservation work once resources have been secured.

Red Listing process on the Azores started with 109 species listed. In addition 22 endemic spiders are being Red Listed in collaboration with the IUCN SSC Spider Specialist Group.

We are monitoring the Azorean endemic species within the project "SLAM - Long Term Ecological Study of the Impacts of Climate Change in the natural forest of Azores" (<http://gba.uac.pt/research/projects/ver.php?id=18>)

## FUTURE GOALS & ACTIVITIES

The Island Biology Conference in July 2016 to list 94 St Helena endemic invertebrates and 109 Azore endemic arthropods.

A Symposium on Mid-Atlantic Islands Invertebrate group to exchange knowledge and ideas amongst the group and more widely.

Re-submission of Ascension Island invertebrate project to Darwin Plus.

We applied to a LIFE project with the Azorean Government, in which the main aim is to promote the conservation of NATURA 2000 sites, looking for removal of plant invasive species in key conservation areas.

## ACKNOWLEDGEMENTS

Projects ATLANTIS-MAR DRCT-M2.1.2//027/2011 and IMPACTBIO (DRCT- M2.1.2//005/2011).



The Critically Endangered Spiky Yellow Woodlouse (*Pseudolaureola atlantica*) © Ed Thorpe

# IUCN SSC Mollusc Specialist Group



Mary Seddon

NAME: CHAIR / CO-CHAIRS	Mary Seddon
NAME: RED LIST AUTHORITY CO-ORDINATOR	Elke Neubert (European Landsnails), Manuel Lopes-Lima (Freshwater Bivalves), Howard Peters (Cones and Abalone), Louise Alcock (Cephalopoda), Robert Cowie (Newsletter Editor)
LOCATION / AFFILIATION	UK
NUMBER OF MEMBERS	38

## MISSION STATEMENT

To conserve the diversity of Mollusca and their habitats globally by:

(1) assessing their threat status according to the IUCN Red List of Threatened Species; (2) communicating through production of newsletters, species profiles, workshops, social media; (3) developing conservation plans for management of Critically Endangered species; and (4) promoting sustainable use of harvested species (marine, freshwater and terrestrial realms).

## SUMMARY OF MAIN ACTIVITIES 2015

In the freshwater systems, work has continued on the Global Freshwater Mollusc assessment (c. 5,700 species), with regional projects in Canada, Tropical Andes, and Eastern Mediterranean. These projects have included identification of Key Biodiversity Areas (KBAs), in some cases using the new IUCN KBA criteria. New projects have started in Lake Victoria (East Africa) and Madagascar which will lead to reassessments, new assessments and the first review of impact of climate change on species in the region. All the new data continues to document the increasing threats to freshwater molluscs from dam construction, pollution and invasive non-native species. To date there are 3,518 species assessments of freshwater molluscs with 34.3% threatened and 3% extinct/extinct in the wild.

In Malaysia, a Mohamed bin Zayed (MBZ) funded project is allowing the assessment of impacts of oil palms on the freshwater mussels in the rivers of the region. This project is ongoing and will finish in 2016/17 with additional Red List assessments for the Global Freshwater Mollusc assessment. New distributional data has already added to our knowledge in this region.

In terrestrial systems, work has commenced on a new project in Europe funded by EU LIFE projects aimed at assessing the final 800 species, to make the first comprehensive assessment of landsnails within a region with over 2,800 species in total. There are significant challenges in this part of the assessment, as it includes the more poorly known slug species. This project is targeted for completion in 2017. In Galapagos new survey work is re-assessing the status of 80 species of endemic landsnails to work out if the Fire Ants and other invasive non-native species are impacting the native species. The last assessment was undertaken in 2001-13, and the current project should be completed in 2016.

In Australia new survey work in the last four years has dramatically changed our knowledge of the large landsnails in the family Camaeinae. Frank Kohler's team is re-assessing the status of 250 species of endemic landsnails (last assessed in 1996) and assessing 500 additional species now known in this family; this should be completed in 2016/17.

In marine systems, work has continued on the Global Cephalopod Assessment, with the project expected to be finalised in 2016/17. Notable additions expected are in the Nautilus species. A new conservation assessment project has started in the Abalone, another commercially exploited group of species (c. 75 spp); this should be completed in 2016/17.

Another issue of Tentacle, our newsletter was produced with news of conservation interest from around the globe.

## IMPACT ON CONSERVATION

During the Red List assessment process more attention is now being placed on collation of point data for range restricted species to enable identification of Alliance for Zero Extinction (AZE) sites, KBA sites and to inform the range mapping.

In Morocco, MBZ have funded survey work on several of the large freshwater mussels. This has led to discovery of small remnant populations in isolated regions, giving hope for some of these Critically Endangered and Endangered Species. Late last year with funds from the Save Our Species (SOS) Rapid Action Grants, a team reviewed the possibility of moving some specimens to an ex-situ conservation breeding facility. A TV documentary is being made to tell others about the progress in saving these species.

On French Polynesia work continues on the endemic *Partula* species, with constant monitoring of the external small populations maintained in 'nature reserves' protected from predation by electric fences.

On Bermuda recent work re-discovered a species previously considered to be possibly extinct within an artificial habitat. Work is ongoing to establish the extent of this population, as well as maintaining sub-populations within conservation breeding programmes.

In Asia, the IUCN SSC Cave Invertebrates Specialist Group (CISG) has identified some key areas and threats to species. Following the Red List species assessments, MSG worked with CISG to prepare data for a motion on the conservation of limestone regions for the IUCN World Conservation Congress 2016. Quarrying activities continue to provide loss of habitat in all parts of the world, a severe threat to range restricted species that are only found in these isolated habitats.

In marine environments, Howard Peters used the cone snail data to review the impact of climate change to predict future threats to cone species, to identify those species currently not Threatened, but possibly becoming Threatened. This review argued that species of restricted range are at highest risk. By adopting range-rarity scores where *Conus* species with the most restricted occupancy are graded highest (and vice versa), biogeographical areas with the greatest cumulative scores indicate clusters of high endemism. Where these regional clusters are exposed to all three stressors, the endemic species within them also become a primary focus for conservation effort.

## FUTURE GOALS & ACTIVITIES

- 1) Completion of the Global Freshwater Mollusc Assessment (major gaps requiring assessments are Australia, Japan, Caribbean, Central America, Southern parts of South America) (Funding dependent).
- 2) Completion of the European Non-marine Mollusc Assessment (due for completion 2017).
- 3) Completion of the Global Abalone Assessment (due for completion 2017).
- 4) Completion of the Global Cephalopod Assessment (due for completion 2017).
- 5) Conservation Status: Red List assessments of landsnails started in the Caribbean Islands (Cuba, Jamaica, Bermuda) (Funding dependent, but requests have come from these regions to start the process).
- 6) Production of Tentacle Newsletter 2017-2020.
- 7) Communication on results of current projects, including scientific publications.
- 8) Achieving 10,000 species of Mollusc assessed for the IUCN Red List.

## ACKNOWLEDGEMENTS

The MSG wishes to thank the EU LIFE programme, the MBZ Fund, the SOS Rapid Action Fund, and the Zoological Society of London (ZSL). MSG also wishes to express sincere thanks to all the volunteer efforts from the many members and helpers from around the world.



The Endangered Freshwater Pearl Mussel (*Margaritifera margaritifera*) © Paul E Aspholm

# IUCN SSC Monitor Lizard Specialist Group



Mark Auliya



André Koch

NAME: CHAIR / CO-CHAIRS	Dr. Mark Auliya & Dr. André Koch
NAME: RED LIST AUTHORITY CO-ORDINATOR	Dr. Daniel Bennett
LOCATION / AFFILIATION	Germany (Auliya): Helmholtz Centre for Environmental Research. Dept. of Conservation Biology Germany (Koch): State Natural History Museum Braunschweig; Cyprus (Bennett): Mampam Conservation
NUMBER OF MEMBERS	53

## MISSION STATEMENT

Knowledge of the conservation status of monitor lizards (*Varanus* spp.) is essential for the formulation of appropriate conservation measures that would also support the protection of demarcated ecosystems. In gaining this knowledge it is elementary to work hand in hand with national authorities and local communities.

## SUMMARY OF MAIN ACTIVITIES 2015

Major outcomes of the inaugural meeting of the IUCN SSC Monitor lizard Specialist Group (MLSG) (with 12 members attending, pictured below), held 26 July 2015 at the Phranakhon Rajabat University in Bangkok were as follows:

- 1) David S. Kirschner (Taronga Conservation Society, Australia) was appointed as a new member and he agreed to create a logo for the group.
- 2) Clay Fisher (University of California) was also appointed as a new member and agreed to create a website for the group.
- 3) The compilation of a flyer was discussed outlining all the key information of the group and a core group for this matter was founded (Tim Jessop, Michael Cota, Robert Mendyk).
- 4) Daniel Bennett agreed to take over the responsibility for the compilation of the first newsletter that will be linked to the website; volunteers to cooperate on a regular basis are most welcomed.
- 5) An ID guide was discussed for the purpose of highlighting species most demanded in trade and the need of producing one overall consensus; funding opportunities are still being explored.
- 6) 2nd meeting is planned for 2017 and Indonesia has been proposed to host this meeting due to the high diversity and endemism of *Varanus* spp. next to its central role in the international trade.
- 7) Tim Jessop proposed to compile a species reference and image database including information on the distribution of natural history traits, population statuses and threats of single species.
- 8) The urgent need for field research (based on the numerous [scientific] uncertainties apparent in many species) was stressed, and for this the cooperation of local students and helpers was recommended; while simple achievements (local helpers contracted over a short term period) could be made through questionnaires and data collection through the accompaniment of local traders, more science research could be accumulated through students within their BSc. or MSc thesis; funding opportunities for this are likewise being explored.
- 9) The bi-annual BIAWAK journal (<http://varanidae.org/biawak>) of the International Varanid Interest Group was discussed as official publication organ of the MLSG, but no broad consensus was achieved.

Additional activities included the accumulation of new members to the group particularly from *Varanus* range states and the allocation of members for species' assessments. At the time of the inaugural meeting regional assessments were provided for some Philippine and Australian species.

Aside, further activities included the support of national and international customs officials and other relevant stakeholders in species identification next to the ID of skins and products made of the leather of *Varanus* spp.

Drafting of publications on the taxonomy and trade issues is continuing; publication date of few studies will be in 2016.

## IMPACT ON CONSERVATION

As the IUCN SSC MLSG was only recently established, we can only highlight the conservation impacts that should be targeted in the future. Monitor lizards are in general impacted by a combination of anthropogenic threats; for some species the detriment of single threats is relatively evident whereas it remains difficult to ascribe major threats to other species.

To date, field studies particularly on species of insular Southeast Asia and New Guinea remain largely absent, that can deliver facts on the population status/trend of single species. The MLSG therefore will also share their expertise with relevant scientific and management authorities to establish new and improve current management schemes to maintain the viability of species and populations in the long term. These envisaged collaborative actions would also include the making of non-detriment findings (NDFs) and the evaluation of other mechanism tools to assess the threat status of a species, e.g., environmental vulnerability scores and refining population viability analyses. IUCN Red List Assessments of single species may also inspire national laws to update their protected species' listings.

## FUTURE GOALS & ACTIVITIES

During the 3rd SSC Leaders' Meeting in Abu Dhabi 2015, the IUCN SSC MLSG agreed to assess the species within the group; therein the group wants to assure that relevant information is readily shared among assessors and other members. This approach is currently being refined. Therefore the most prominent activities remain the assessment of all non-assessed species through voluntarily proposed and suggested experts within the group.

## ACKNOWLEDGEMENTS

At present the IUCN SSC MLSG has no donors.



The Vulnerable Gray's Monitor Lizard (*Varanus olivaceus*)  
© Mark Auliya

# IUCN SSC Mushroom, Bracket and Puffball Specialist Group



Gregory Mueller

NAME: CHAIR / CO-CHAIRS	Gregory Mueller
NAME: RED LIST AUTHORITY CO-ORDINATOR	Gregory Mueller
LOCATION / AFFILIATION	Chicago Botanic Garden
NUMBER OF MEMBERS	31

## MISSION STATEMENT

Advance the conservation of mushrooms and related fungi through enhancing awareness, building capacity, and Red Listing.

## SUMMARY OF MAIN ACTIVITIES 2015

Efforts in 2015 focused on Red Listing and engaging the mycological community, both professionally employed and citizen scientists, in fungal conservation activities. Presentations on fungal conservation were given at a number of national and international events including conferences in Australia, Canada, Chile, Cuba, India, Sweden, and the United States. Two Red Listing workshops were held in Sweden, one focused on European regional assessments and the other on global assessments. Another workshop was held in Australia focused on Australasian taxa. Red Listing protocols for fungi were refined, and nearly 100 species were preliminarily assessed during these workshops resulting in an additional 25 species listed on the IUCN Global Red List. Chairs of four of the five fungal specialist groups met during the SSC Chairs meeting in Abu Dhabi to enhance collaboration among the specialist groups and agree future directions for fungal conservation efforts.

## IMPACT ON CONSERVATION

Fungal conservation is still in a formative state. The Mushroom, Bracket, and Puffball Specialist group was formed at the end of 2009. Only one mushroom was included on the IUCN Global Red List until the 2015 update. So 2015 continued efforts to increase awareness of the importance of fungi and the need to conserve them, engage the mycological community, build capacity to undertake conservation assessments, and set into motion processes to significantly increase the number of fungi on the Global Red List over the next several years.

## FUTURE GOALS & ACTIVITIES

Significant work remains to mainstream fungal conservation. Efforts will continue to build awareness and buy-in for conservation efforts by the mycological and conservation community, land managers, policy agencies, and the general public. Red Listing efforts will focus on edible fungi and their relatives, fungi symbiotic with critical forest tree species, and species that are potentially significantly threatened.

## ACKNOWLEDGEMENTS

Key funding for the Red Listing workshops was provided by grants from the Mohamed bin Zayed Species Conservation Fund and the Foundation of Lilli and Oscar Lamm (Sweden).



*Leptonia cornea* is listed as VU and is restricted to the Coast Redwood forests of California, USA © The Santa Cruz Mycoflora Project ([scmycoflora.org](http://scmycoflora.org))

# IUCN SSC New World Marsupial Specialist Group



Gabriel Martin

NAME: CHAIR / CO-CHAIRS	Gabriel M. Martin
NAME: RED LIST AUTHORITY CO-ORDINATOR	Leonora Pires Costa
LOCATION / AFFILIATION	Centro de Investigación Esquel de Montaña y Estepa Patagónicas (CIEMEP) CONICET and Universidad Nacional de la Patagonia San Juan Bosco Argentina
NUMBER OF MEMBERS	20

## MISSION STATEMENT

The goal of the New World Marsupials Specialist Group (NWMSG) is to agree on a framework that will generate knowledge of American marsupials, evaluate the different aspects threatening them, and provide guidelines for their conservation.

## SUMMARY OF MAIN ACTIVITIES 2015

Our Specialist Group activities have focused on creating a unified taxonomic list, which has settled the number of species as 108, grouped in 22 genera within three orders, exclusive to the Americas; Didelphimorphia, Microbiotheria and Paucituberculata. We have been gathering ecological and distributional information that will allow us to identify the hotspots of New World marsupial richness at different categories (i.e., Species, Genera, Sufamily, Order), while identifying the main threats to their conservation. A significant amount of information is being published yearly on several aspects of New World marsupial ecology. Our specialist group, comprised of 20 members, is working on the integration of the critical data to evaluate the conservation status of all species of marsupials found throughout the New World under the IUCN Red List Criteria. The main objective for this period was to reassess/reevaluate the conservation status of every New World Marsupial species for the IUCN 2016 mammal reassessment. During 2015 we reassessed 35 species, 31 didelphids, 3 caenolestids and 1 microbiotherid. We look forward to having all New World marsupials reassessed for the end of 2016.



## IMPACT ON CONSERVATION

For the first time since its creation, we are looking forward to having all New World marsupial species assessed following the IUCN guidelines. This will provide scientists and decision makers throughout America with information about each marsupial species.

## FUTURE GOALS & ACTIVITIES

The current goal is to assess or reassess each and every New World marsupial by the end of 2016.

## ACKNOWLEDGEMENTS



The Least Concern Patagonian Opossum (*Lestodelphys halli*) © Gabriel Martin

# IUCN SSC Orchid Specialist Group



Michael Fay

NAME: CHAIR / CO-CHAIRS	Michael F. Fay
NAME: RED LIST AUTHORITY CO-ORDINATOR	Hassan Rankou
LOCATION / AFFILIATION	Royal Botanic Gardens, Kew, Richmond, Surrey, UK
NUMBER OF MEMBERS	c. 150

## MISSION STATEMENT

To assist in international efforts to conserve plant diversity, by providing technical support and encouragement for the development and execution of programmes to study, document, save, restore and manage orchids and their habitats wisely.

## SUMMARY OF MAIN ACTIVITIES 2015

With > 27,000 species of orchid worldwide, getting a significant proportion onto the global IUCN Red List remains one of the Orchid Specialist Group's (OSG) biggest challenges. In 2015, the major achievement of the OSG was the completion of the global Red Listing of all 175 species of subfamily Cyripedioideae (slipper orchids), led by the Red List Authority (RLA) Coordinator, with input from members of the OSG in the regions where these species grow. The results for slipper orchids revealed that c. 90% of species are threatened, placing them among the most threatened groups of organisms covered by the IUCN Red List to date. Of the 88 species of Paphiopedilum (tropical Asian slipper orchids) assessed, 87 are Threatened and an alarming 49 species are Critically Endangered. Addressing the under-representation of orchids on the Red List is one of our major aims going forward, and this project and other new Red List assessments for orchids that appeared on the Red List, many led by members of the group, are beginning to address this situation.

In September, the OSG Chair attended the 3rd SSC Leaders' Meeting in Abu Dhabi. At this meeting, there was an opportunity to talk with IUCN and CITES staff. This resulted in the production of an information document relating to trade issues that was presented to the CITES Plants Committee in Switzerland. This document can be downloaded from:

<https://cites.org/sites/default/files/eng/com/pc/22/Inf/E-PC22-Inf-06.pdf>.

Other discussions with members of the IUCN SSC Medicinal Plants Specialist Group and other Specialist Groups will hopefully lead to fruitful interactions in addressing problems relating to trade.

The Chair and other members of the OSG attended TORC'17 (International Conference on Terrestrial Orchids Research & Conservation) on Samos, Greece, and the European Orchid Conference in London. These were both held in April and included a wide range of papers and posters relevant to orchid conservation. The meetings provided useful opportunities for members of the OSG and other colleagues to discuss conservation issues and potential collaborative projects. Trade issues also featured prominently in these meetings (salep production (a flour made from the tubers of the orchid genus *Orchis*) in the eastern Mediterranean; chikanda (a Zambian delicacy made of boiled orchid tubers) in East Africa; traditional medicines in East Asia and elsewhere).

Members of the OSG (particularly in Hong Kong and Mainland China) led the organization of the 6th International Orchid Conservation Congress (to be held in May 2016).

Three issues of the OSG newsletter were produced by Marilyn Light (Canada); these can be downloaded from the webpage:

<http://www.iucn.org/species/specialist-groups/about/ssc-specialist-groups-and-red-list-authorities-directory/plants-16>.

## IMPACT ON CONSERVATION

Members of the OSG are involved in a wide portfolio of conservation projects on all continents where orchids occur. These include population monitoring, translocations, propagation, reinforcement/reintroduction, conservation genetics, Red Listing, trade investigations and studies of mycorrhizal associations and pollination etc. Although not all of these are directly led by the OSG, they constitute a large body of work that will lead to the improved conservation of orchids.

Members of the OSG act as advocates for orchid conservation, particularly drawing attention to the completion of the Red List assessments for a complete subfamily of orchids (Cypripedioideae). This will help to highlight the plight of these species and the threats facing them.

In addition to habitat degradation, significant threats to orchids include unsustainable collection for the horticultural trade, traditional medicine and food. Progress was made on setting up groups and collaboration to address trade issues and we will build on this progress in 2016 and beyond. Exciting new molecular technologies for identification of the species in orchid products, including traditional medicines, salep and chikanda, are a major development that will facilitate forensic work needed to underpin activities relating to trade.

## FUTURE GOALS & ACTIVITIES

In May 2016, the OSG will hold the 6th International Orchid Conservation Congress in Hong Kong. An important focus of this meeting will be trade issues, as orchids are used as traditional medicines and food as well as in horticulture (legally and illegally). Sustainability assessments of the harvesting involved are not in place for many of these uses and we see the formulation of working group/s to address this issue as a high priority. The OSG will initiate planning for the 7th International Orchid Conservation Congress to be held in 2019 (the location to be decided at the meeting in Hong Kong). We will continue to increase the number of orchid species on the global IUCN Red List, with the work being undertaken by members of the OSG or by colleagues who are experts on particular species. Providing training in Red Listing and help with assessments will continue to be an important activity. Members of the OSG will become increasingly important as reviewers as the number of assessments rises.

We will continue to produce the OSG's newsletter and we will investigate the use of social media (e.g., FaceBook).

## ACKNOWLEDGEMENTS

The OSG is grateful for funding from the Environment Agency - Abu Dhabi, which facilitated the Red List assessments of all slipper orchids. The OSG also wishes to thank the Management of Kadoorie Farm and Botanic Garden, Hong Kong, for providing the infrastructure for the 6th International Orchid Conservation Congress.



The Endangered Hennis' Paphiopedilum (*Paphiopedilum hennisianum*) © Dalton Holland Baptista (CC BY-SA 3.0)

# IUCN SSC Otter Specialist Group



Dr Nicole Duplaix

NAME: CHAIR / CO-CHAIRS	Dr Nicole Duplaix
NAME: RED LIST AUTHORITY CO-ORDINATOR	Dr Syed A. Hussain
LOCATION / AFFILIATION	Dept. Fisheries and Wildlife, Oregon State University, Corvallis OR 97331, USA Nicole.Duplaix@oregonstate.edu www.iucnosg.org
NUMBER OF MEMBERS	280 (including Deputy Chairs: Dr Arno Gutleb and Lesley Wright)

## MISSION STATEMENT

The Otter Specialist Group (OSG) was founded in 1974. The aims of the Group, as set out by the SSC, are to:

1. Provide leadership for the conservation of all 13 otter species (Lutrinae).
2. Determine and review on a continuing basis the status and needs of otters, and promote the implementation of necessary research, conservation and management programs by appropriate individuals, organizations and governments.

## SUMMARY OF MAIN ACTIVITIES 2015

2015 was a banner year of activities and accomplishments thanks to our very active members.

Phase II of The Asian Otter Plan launched: "Developing Recovery Strategies for Otters in Southeast Asia"

### New Beginnings

1. The Otter Welfare Advisory Group was established to discuss and advise on otter welfare and ethical issues. The scope of the new group includes: a) Otter research design; b) Captive otters; c) Management of wild otter populations
2. The OSG/TRAFFIC Otter Trade Task Force. The OSG formalized its long partnership with TRAFFIC-Southeast Asia with this new sub-group which will focus on the illegal trade of otters and remedial actions.

### Meetings

1. European Otter Workshop, July 2015, Natural History Museum, Stockholm, Sweden, with over 100 participants. The OSG Bulletin is publishing the proceedings.
2. Funding secured for our 13th International Otter Congress which will be held in Singapore, July 2016.

### Media and Outreach

1. Our Facebook, Instagram and Twitter pages post daily entries to raise awareness about the OSG and otter conservation. We have 2,000 + followers.
2. E-book: "Why We Love Otters" with photos of all 13 species and personal contributions from our members. It will be downloadable from our website.
3. New website dedicated to the otters of the Himalayan foothills <http://www.himalayanotternetwork.org/>

### Publications

1. A special issue of the Latin American Journal of Aquatic Mammals devoted to Giant otters 10(2). Open access.
2. The Otter in Zoos OSG Task Force published Summary of Guidelines for Giant Otters in Captivity. Downloadable.
3. The OSG Bulletin published one issue in 2015 with 14 articles (volume 32). Downloadable.

## IMPACT ON CONSERVATION

Recognizing the need to reverse the escalating otter population declines in Asia, the OSG launched OSG Asian Otter Action Plan in 2007 to curb the illegal trade, establish recovery protocols and increase otter populations in key wetland areas. Phase I included gathering otter status data and holding otter field research and conservation workshops in four countries to train a new generation of otter field biologists.

In 2015 we launched Phase II "Developing Recovery Strategies for Otters in Southeast Asia" with a 5-country project coordination trip to reinforce our working relationships with local NGOs and government agencies and outline specific otter conservation strategies, tailored to the needs of each country.

We met with TRAFFIC-Southeast Asia and OSG members from mainland Malaysia and Sabah, Singapore, Lao PDR, India and the UK. As a result, we launched the OSG Otter Trade Task Force, to track, coordinate and disseminate otter trade data information with the assistance of TRAFFIC Southeast Asia and secured funding for the first two years. As our first task we created a database of otter seizures by querying law enforcement agencies, CITES, and NGOs in 13 countries, supplemented by a search of public records and journals. This database will be part of a joint report in 2016 that details the threats of poaching to otter populations and outlines a strategic approach to regional conservation. We created the Asian Otter Network Database to collect direct sightings and camera trap records of otters observed throughout Southeast Asia. Based on a Google Group interactive listing, the data is updated on an ongoing basis and the maps are downloadable.

We scheduled our next 13th OSG International Congress to take place in Singapore in July 3-8, 2016. The location of the triennial congress of the Otter Specialist Group is chosen in relation to the OSG's current conservation priorities. The Singapore Zoo's Wildlife Reserves Singapore foundation has agreed to host and partially fund the event. Funds from Fondation Segre will also help Asian students, researchers and VIPs attend the Congress. We secured funding from the Full Circle Foundation to launch a 2-year project in Borneo (Sabah) in 2016 to document the status of the four otter species there which is unknown and develop local outreach programs.

## FUTURE GOALS & ACTIVITIES

### Goals:

1. Increased otter populations in areas where threats are reduced
2. Eradication of illegal otter trapping, commerce, and conflict
3. Effective otter conservation and monitoring through research, education and public awareness programs

### Ongoing Activities:

1. Protect otter species worldwide: conduct status surveys and raise awareness for better otter protection
2. Conserve habitat: develop and promote country-specific human dimensions programs
3. Reduce trade: expand the efforts of the OSG Otter Trade Task Force, review CITES status of Asian otters
4. Build capacity: organize more otter field research and conservation workshops in key areas

## ACKNOWLEDGEMENTS

We thank our 280 members worldwide who volunteer their time and effort to advise and participate in otter conservation activities and compile the otter Red List entries.

Our major donors include: The Altman Foundation; Fondation Segre, Wildlife Reserves Singapore Conservation Foundation (WRSCF), Wildlife Reserves Singapore (WRF), the Full Circle Foundation and Amigos Bravos who have funded the 13th International Otter Congress and the activities of the OSG-TRAFFIC Task Force.



Hairy-nosed Otter (*Lutra sumatrana*) © Nicole Dupliax

# IUCN SSC Palm Specialist Group



William Baker

NAME: CHAIR / CO-CHAIRS	Dr. William J. Baker
NAME: RED LIST AUTHORITY CO-ORDINATOR	Dr. Lauren M. Gardiner
LOCATION / AFFILIATION	Royal Botanic Gardens, Kew, United Kingdom
NUMBER OF MEMBERS	42

## MISSION STATEMENT

The IUCN SSC Palm Specialist Group (PSG) is a network of experts on the diversity and conservation of palms worldwide. The group aims to be a forum for conservation research on palms, delivering critical expertise to IUCN and the SSC network, and the conservation community in general.

## SUMMARY OF MAIN ACTIVITIES 2015

The IUCN SSC Palm Specialist Group continues to draw attention to the critical threats facing palms through Red Listing. Thanks to funding from Environment Agency Abu Dhabi, the group has been able to facilitate the Red Listing of all 65 species of the palm from the African continent and 76 species of Cuban palm. The African assessment is led by Thomas Couvreur and Ariane Cosiaux (Institut de Recherche pour le Développement, Yaounde) in collaboration with the Royal Botanic Gardens, Kew and Geneva Botanic Garden. The Cuban palm assessment is led by Luis Roberto González Torres of the IUCN SSC Cuban Plant Specialist Group. In South America, the second volume of the Red Book of Bolivian endangered plants has been completed. This volume covers Bolivian lowland species (in the regions of Amazonia, Cerrado and Chaco), and includes assessments of the conservation status of 14 species of Bolivian palm by Mónica Moraes. The book is expected to be published in late 2016.

The highly endemic palm flora of Madagascar, now thought to comprise over 200 species, remains an active focus for members of the specialist group from the Royal Botanic Gardens, Kew. Bill Baker and Wolf Eiserhardt have explored the eastern forests extensively over the past year, sourcing material for a genomic project on palms that aims to understand the historic and landscape processes driving palm hyperdiversity in Madagascar. As is inevitable on Madagascar palm fieldwork, their expeditions uncovered at least five undescribed species of palm, all rare and undoubtedly threatened. Using a combination of prioritisation techniques and ethnobotanical work, Lauren Gardiner has been focusing on the conservation of Madagascan palms, working with the Kew Madagascar Conservation Centre (KMCC), Mijoro Rakotoarinivo from the University of Antananarivo, and Missouri Botanical Garden. Lauren is also working with KMCC and the Madagascar Flora and Fauna Group, based at Parc Ivoloïna in eastern Madagascar, to secure more Madagascan palms in ex situ collections. The Conservation Leadership Programme supported Irene Gauto of the Asociación Etnobotánica Paraguaya (San Lorenzo, Paraguay) to work on a project that aims to study the distribution and population status of *Butia marmorii* Noblick, though it is also presumed to be present in Argentina and Brazil. It is a critically endangered species mainly due to habitat loss. In the project, carried out between 2013 and 2015, the power of potential distribution analyses was exploited, providing data about its distribution and ecology. As a result, new populations were discovered, population densities were measured and others ecological features of the species were recorded. An ex situ conservation program was also initiated at two Paraguayan botanical gardens. The team are now preparing a more ambitious project that would ensure the preservation of this highly threatened species.

## IMPACT ON CONSERVATION

Continued pressure on national authorities by Colombian palm specialists and SSC members Rodrigo Bernal and Gloria Galeano has led to the imminent creation of a National Sanctuary for the Quindío Wax Palm, *Ceroxylon quinduense*, Colombia's National Tree and the world's tallest palm. The Sanctuary was first proposed in the 2015 species action plan by Bernal et al. (<http://tinyurl.com/pcmuscq>). Further pressure through social networks last April (<http://tinyurl.com/pfspdcymc>) unleashed a national movement in favor of this palm (see <http://tinyurl.com/hy67xum> and <http://tinyurl.com/zvd8rjf>), which was followed by a newspaper article by Bernal

([www.elespectador.com/noticias/medio-ambiente/un-santuario-nacional-palma-de-cera-articulo-631846#](http://www.elespectador.com/noticias/medio-ambiente/un-santuario-nacional-palma-de-cera-articulo-631846#)), proposing the creation of the Sanctuary. The proposal received immediate attention from the Alexander von Humboldt Institute, Colombia's national biodiversity agency, and was duly passed on to the minister of environment, who has now announced that the proposed sanctuary will be created. The National Sanctuary for the Quindío wax palm is expected to cover an area of 8500 hectares in the Central Andes of Colombia, where the world's largest populations of this palm still thrive, including ca. 600,000 adult individuals.

Mike Balick and colleagues from the New York Botanical Garden (NYBG) are working with project partners in Tafea Province, Vanuatu, with many goals including understanding the diversity and distribution of the plants and fungi as well as their ethnobotany and conservation. The partnership has been working with communities to help strengthen conservation areas managed by those communities. One of the communities in Green Hill, Tanna Island is home to *Carpoxyton macrospermum*, a remarkable and spectacular Critically Endangered palm that was thought to be extinct until it was rediscovered in 1987. There are thought to be only ca. 40 plants of this endemic palm remaining in the wild and it is important that the habitat and in situ genetic diversity be preserved. Seeds of the species have been collected in the past and widely distributed to gardens and collectors around the world, but this project is concentrating efforts on ensuring that the wild habitat is conserved. The team has also documented this palm on Aneityum Island. Many of the rarest palms of Vanuatu have been illustrated in new book on the country's extraordinary plant life, *Remarkable Plants of Vanuatu*, by project partners Laurence Ramon and Chanel Sam.

## FUTURE GOALS & ACTIVITIES

A complete, global conservation assessment of all ca. 2600 palm species remains a high priority for the palm specialist group. Targeted species conservation work informed by conservation assessments, such as that which is taking place in Colombia, is also a primary goal.

## ACKNOWLEDGEMENTS

Thanks to the Royal Botanic Gardens, Kew for ongoing support in the hosting of the IUCN SSC Palm Specialist Group.



*Ceroxylon quinduense* in Colombia © WJ Baker

# IUCN SSC Pangolin Specialist Group



Dan Challender



Jonathan Baillie

NAME: CHAIR / CO-CHAIRS	Daniel W. S. Challender, Jonathan E. M. Baillie
NAME: RED LIST AUTHORITY CO-ORDINATOR	Carly Waterman
LOCATION / AFFILIATION	Jonathan Baillie (London/ZSL), Dan Challender (Cambridge/IUCN), Carly Waterman (London/ZSL)
NUMBER OF MEMBERS	83

## MISSION STATEMENT

The Pangolin Specialist Group's mission is to be a global voice for pangolins by working to advance worldwide knowledge and understanding of pangolins, their conservation, natural history and ecology and catalysing action to meet these needs.

## SUMMARY OF MAIN ACTIVITIES 2015

In 2015 we worked towards our mission in a number of ways. We informed international level policy relating to pangolins through attendance at and participation in the 28th meeting of the Animals Committee of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), and delivered key technical contributions to the First Pangolin Range States Meeting hosted and organized by the Vietnamese and US governments. We also actively contributed to the CITES inter-sessional working group on pangolins.

Our members also contributed to knowledge and the evidence base pertaining to pangolins and their conservation. Selected contributions include the following:

Challender, DWS., Harrop, SR., MacMillan, DC. (2015). Understanding markets to conserve trade-threatened species in CITES. *Biological Conservation* 187: 249-259.

Boakye, MK., Pietersen, DW., Kotze, Dalton, DL., Jansen, R. (2015). Knowledge and uses of African pangolins as a source of traditional medicine in Ghana. *PLoS ONE* 10(1): e0117199.

Chin, SCC., Lien, CY., Chan, Y., Chen, CL., Yang, YC., Yeh, LS. (2015). Hematologic and serum biochemical parameters of apparently healthy rescued Formosan pangolins (*Manis pentadactyla pentadactyla*). *Journal of Zoo and Wildlife Medicine* 46 (1), 68-76.

A number of members also attended and shared their work at the International Conference on Pangolin Conservation, Trade and Rehabilitation organized by the African Pangolin Working Group in October 2015.

Our membership also worked to raise the profile of pangolins through a diverse range of activities to celebrate World Pangolin Day and through ongoing engagement with print, broadcast and social media globally.



## IMPACT ON CONSERVATION

The Pangolin Specialist Group continues to champion pangolins and works to secure their conservation. Our membership consistently contributes to the evidence base and knowledge of pangolins regarding levels of legal and illegal trade and use, pangolin biology, ecology and behavior, and veterinary health. We are also working with pangolin range states on understanding the threats to pangolins, including actions to address the threats, including through national conservation planning, informing international policy (e.g. CITES), and raising the profile of pangolins which has started to generate further support for their conservation.

## FUTURE GOALS & ACTIVITIES

Our future goals and activities focus on realizing our mission statement. We are seeking to do this by working with range states on national action planning, revising our global conservation action plan and securing funding to implement it, developing monitoring methods through which to determine the status of pangolin populations and continuing to inform national and international policy.

## ACKNOWLEDGEMENTS

Thank you to the Zoological Society of London for hosting the Pangolin Specialist Group and the group's Programme Officer and Red List Coordinator, and Research Intern. Thank you to all our donors, especially the United States Fish and Wildlife Service which supported the attendance of members at the First Pangolin Range States meeting. Thank you to all our members and thank you to Hannah Khwaja, our research intern in 2015.



Pangolin SG members and delegates at the First Pangolin Range States meeting in Da Nang, Vietnam in 2015 © Frank Kohn

# IUCN SSC Peccary Specialist Group



Harald Beck



Mariana Altrichter

NAME: CHAIR / CO-CHAIRS	Dr Harald Beck and Dr Mariana Altrichter
NAME: RED LIST AUTHORITY CO-ORDINATOR	Dr. Arnaud Desbiez
LOCATION / AFFILIATION	Mariana Altrichter - Prescott College, Arizona, USA; Harald Beck - Towson University, Maryland, USA
NUMBER OF MEMBERS	43

## MISSION STATEMENT

The overall aim of the SSC Peccary Specialist Group (PSG) is to promote the long-term conservation of peccaries and their natural habitats and the recovery or restoration of peccary species, populations, and communities. The specific objectives are: (a) contribute to peccary conservation through management and research; (b) consolidate the group of researchers and other people interested in the biology, conservation, and management of peccaries; and (c) foster communication, coordination, collaboration, and exchange of information.

## SUMMARY OF MAIN ACTIVITIES 2015

Members of the PSG have been engaged in diverse activities including research, numerous peer reviewed publications, conservation projects, and education across the Neotropics.

One of our most important accomplishments as a group was the conservation planning workshop for the Endangered Chacoan Peccary (*Catagonus wagneri*), which we organized in collaboration with the local Paraguayan NGO Guyra, the IUCN SSC Conservation Breeding Specialist Group (CBSG), and the IUCN SSC Species Conservation Planning Sub-Committee (SCPSC). Over 31 representatives of Argentina, Paraguay, and Bolivia, from various academic institutions, government agencies, local communities, including indigenous and Mennonite communities, and NGOs, met from 29 Feb to 3 March 2016 (with most of the preparatory work done in 2015). One of the main tasks was to review the species' status and distribution, and to develop a plan for action based on identified threats and goals. We also developed population viability and habitat suitability analyses. One of the major outcomes was the creation of a network of professionals and institutions committed to put into practice all the recommendations and necessary actions listed as priorities during this meeting. Another goal was that the governments of the three range countries will incorporate our results in their planning processes as these are based on the best available scientific research and created by a representative group of stakeholders. The report and publications to communicate and share results and recommendations from this workshop are underway.

To carry out this workshop, we successfully applied for a grant to the Mohamed bin Zayed Species Conservation Fund. We also received a generous support from the CBSG, SCPSC, the World Land Trust, the Paraguay Secretaría del Ambiente, and the Copenhagen Zoo.

Our members published over 10 peer-reviewed publications and gave presentations at national and international meetings. A team of eight peccary experts from four countries wrote an ecological review paper compiling information from across one of our species' ranges. We started to advise and actively participate in two peccary re-introduction programmes in Argentina. During the last year we updated the IUCN Red List assessments for two of the three peccary species. In addition, we were engaged in outreach programmes and collaborated with local communities and policy makers.

## IMPACT ON CONSERVATION

Our group will continue to focus on range assessment and developing conservation strategies for all three peccary species. This can only be done in collaboration with locals, governments and conservationists.

## FUTURE GOALS & ACTIVITIES

- 1) Implementation of the goals and actions developed during the Chacoan Peccary workshop.
- 2) Assessing the status of White-lipped Peccaries in Mesoamerica.

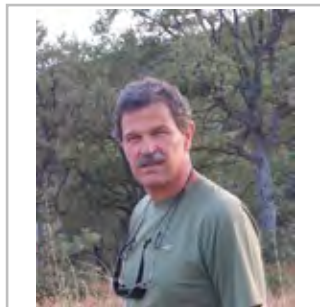
## ACKNOWLEDGEMENTS

The PSG would like to thank the Mohamed bin Zayed Species Conservation Fund, CBSG, SCPSC, the World Land Trust, the Paraguay Secretaría del Ambiente, and the Copenhagen Zoo for financially supporting the Chacoan Peccary workshop.



Participants of the workshop organized by the Peccary SG and local NGOs to design a Chacoan Peccary Conservation Plan. Asuncion, Feb 29-March 3, 2016 © GUYRA Paraguay

# WI-IUCN SSC Pelican Specialist Group



Giorgos Catsadorakis

NAME: CHAIR / CO-CHAIRS	Giorgos Catsadorakis
NAME: RED LIST AUTHORITY CO-ORDINATOR	Andy Symes (BirdLife International)
LOCATION / AFFILIATION	Society for the Protection of Prespa (SPP), Laimos Prespa, GR-530 77 Agios Germanos, Greece.
NUMBER OF MEMBERS	61

## MISSION STATEMENT

The aim of the Pelican Specialist Group (PSG) is to carry out, support and promote scientific research and conservation activities aimed at pelicans and enhance cooperation and diffusion of knowledge.

## SUMMARY OF MAIN ACTIVITIES 2015

- 1) January 2015: Publication of the review article: Catsadorakis, G. et al. 2015. Current status of the Dalmatian pelican and the great white pelican populations of the Black Sea/Mediterranean flyway. *Endangered Species Research* 27: 119–130, a joint work with contributions from 15 members of the Pelican Specialist Network.
- 2) June 2015: The Society for the Protection of Prespa (SPP) and the Hellenic Ornithological Society (HOS, Birdlife partner) organized jointly with the PSG the 2nd National Workshop on Pelicans at Lake Kerkini, Greece. Representatives of nine management agencies of protected wetlands hosting pelicans participated. The aim of the workshop was to share recent developments in pelican conservation issues and present the progress of pelican monitoring activities at wetlands in Greece.
- 3) May 2015: The SPP, HOS and PSG organized jointly for the third consecutive year a simultaneous census of Dalmatian and Great White Pelicans throughout Greece on May 2015 in order to assess numbers present during the breeding season. The census targeted adults plus immatures regardless of breeding status. The results of the three-year nationwide pelican census, carried out in collaboration with 12 management agencies of protected areas, the volunteer network of HOS and SPP, were presented in a poster presentation in the 13th International Congress on the Zoogeography and Ecology of Greece and Adjacent Regions, Heraklion, Crete, on 7th-12th October 2015.
- 4) September 2015: The 2nd meeting of the Noé Conservation project funded by MAVA for “Wetland Management and Dalmatian Pelican Conservation in the Mediterranean Basin” was hosted at Prespa. The meeting focused on exchanging best practices, with stakeholders from Lake Kerkini, Divjaka-Karavasta National Park and Lake Skadar, presenting the situation at their wetlands and Tour du Valat, the SPP, EuroNatur and the PSG offering technical knowledge related to pelican conservation.
- 5) The PSG has maintained operation of the PELECANUS GROUP, an email forum for exchanging information about pelicans and which has now a record 61 members. This forum's significance was especially highlighted in 2015, as it has been the main means for information exchange about the avian influenza outbreak among pelicans.
- 6) The PSG collects, compiles and circulates (once a year) the most current data on the status of breeding colonies of the Dalmatian pelican in almost all countries of SE Europe and Turkey where they occur.
- 7) The PSG has continued helping managers of Greek protected areas hosting colonies of Dalmatian pelicans to organise breeding censuses and train their staff.
- 8) The PSG has maintained the network of 12 protected areas hosting pelicans in Greece for working together for pelicans.

## IMPACT ON CONSERVATION

The work of the PSG has had the following impact on conservation:

- 1) An increase in number of Dalmatian Pelican breeding pairs in 4 out of 7 colonies closely monitored.
- 2) Increase in breeding success in 4 out of the 5 Dalmatian Pelican colonies where BS (young per breeding pair) are recorded.
- 3) Increase of overall number of Dalmatian Pelican breeding pairs in SE Europe.
- 4) Increase of management agency capacity in Greece to assist with ageing, counting, monitoring, guarding and the census of Dalmatian and Great White Pelicans.

## FUTURE GOALS & ACTIVITIES

- 1) Further increase the degree of contact and info-exchange between our members.
- 2) Expand membership to include experts on pelican species other than Dalmatian and Great White Pelicans.
- 3) Recruit more members working in central and west Asia and Russia and collect recent data on the status of nesting colonies of Dalmatian and Great White Pelicans in those countries.
- 4) Collect sufficient data to contribute to the most recent Red List assessment of the global population of the Dalmatian Pelican.
- 5) Enhance the interaction of the group with the Cormorant Specialist Group since the two groups of species are closely interrelated. To this end a joint meeting of the two groups will be organized in Lakes Prespa in March 2017.
- 6) To contribute substantially to the preparation of the Dalmatian Pelican Action Plan, through BirdLife International's preparatory LIFE project, "LIFE14 PRE/Coordinated Efforts for International Species Recovery (EuroSAP)". In November the PSG will participate in an international workshop organized by AEWA, HOS and SPP at Lake Kerkini, Greece.

## ACKNOWLEDGEMENTS

There are currently no donors to the Pelican Specialist Group, only to those organizations with whom its members are affiliated. The Chair is supported by the Society for the Protection of Prespa through funding provided by the MAVA Foundation - the PSG wishes to express thanks for this support and assistance.



The Vulnerable Dalmatian Pelican (*Pelecanus crispus*) © Giorgos Catsadorakis

# IUCN SSC Penguin Specialist Group



P. Dee Boersma and Pablo Garcia Borboroglu

NAME: CHAIR / CO-CHAIRS	1) Pablo Garcia Borboroglu & 2) P. Dee Boersma
NAME: RED LIST AUTHORITY CO-ORDINATOR	Andy Symes (BirdLife International)
LOCATION / AFFILIATION	1) CONICET Argentina, Global Penguin Society and University of Washington 2) University of Washington and Global Penguin Society
NUMBER OF MEMBERS	40

## MISSION STATEMENT

**Vision:**  
Wild Penguins in Perpetuity

**Mission:**  
The IUCN SSC Penguin Specialist Group (PSG) provides scientific advice that informs policy and engages people in effective conservation action.

## SUMMARY OF MAIN ACTIVITIES 2015

- 1) Preparation of information to elaborate "Amazing Species" fact sheets for penguin species.
- 2) Advice and follow-up regarding little penguin colony decline at Victor Harbour, South Australia through PSG Steering Committee member Andre Chiaradia.
- 3) Advice on penguin conservation to South Atlantic Environmental Research Institute through Megan Tierney, Falkland Islands.
- 4) Interaction with Joel Merriman and Deborah Luke at the Association of Zoos and Aquariums (AZA) with regard to African penguins. This included a presentation by PSG Co-Chair Dee Boersma to AZA on 24 March 2015.
- 5) Endorsement of the book "Penguins: Natural History and Conservation" in Spanish. It summarizes all the updated information on all penguin species.
- 6) Endorsement of an educational booklet published by the Global Penguin Society, given free to schools in South American countries where penguin species occur: Ecuador, Peru, Chile, Argentina, and Uruguay. The new booklet contains information about penguins and their environments, and is aimed at generating ocean conservation values through penguins.
- 7) Institutional support to create the Biosphere Reserve Patagonia Azul in Chubut, Patagonia, Argentina. It protects 3.1 million hectares and 20 penguin colonies. This reserve includes 200 miles of coastline and it corresponds to the coastal sector of Argentina with the highest biodiversity. This effort was coordinated by the Global Penguin Society.
- 8) Institutional support to designate the Punta Tombo Magellanic Penguin colony as a Marine Protected Area. This effort was supported and coordinated by the Global Penguin Society.
- 9) Preparations for the first workshop of the PSG, Jacksonville, Florida, USA, 26-29 March, 2016.
- 10) Nine researchers appointed as Steering Committee members of the PSG.
- 11) Fifty researchers appointed as members of the PSG.

## IMPACT ON CONSERVATION

- 1) Updating the IUCN Red List for all penguin species is underway.
- 2) Marine Protected Areas for penguins in Argentina and in the Galapagos Islands approved by governments to benefit penguins and many other species.

## FUTURE GOALS & ACTIVITIES

- 1) Identify the need for management actions and/or studies for particular species, critical areas, and threats to penguins;
- 2) Provide scientific advice on conservation and management issues concerning penguins to interested parties;
- 3) Coordinate input from penguin experts for the IUCN Red List assessments;
- 4) Facilitate dissemination of scientific information concerning penguins, including supporting publications and regional and international meetings.

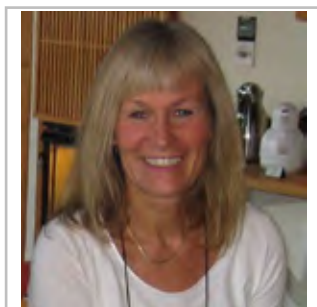
## ACKNOWLEDGEMENTS

We thank the Global Penguin Society, which serves as the PSG's partner organisation, for the financial support to hold the events and the first Workshop of the Steering Committee.



PSG Steering Committee at its first workshop, Jacksonville, Florida © P. Dee Boersma

# IUCN SSC Pinniped Specialist Group



Kit M. Kovacs

NAME: CHAIR / CO-CHAIRS	Kit M. Kovacs
NAME: RED LIST AUTHORITY CO-ORDINATOR	Lloyd Lowry
LOCATION / AFFILIATION	KK Norwegian Polar Institute
NUMBER OF MEMBERS	20

## MISSION STATEMENT

The Pinniped Specialist Group (PSG) aims to inform the public and policy makers/managers about conservation concerns involving the World's seals and actively seek solutions to threats to their survival.

## SUMMARY OF MAIN ACTIVITIES 2015

Critically Endangered species and populations remain a focal point for the PSG, but members of the group are also heavily engaged with local threats to pinniped populations presented by climate change, fisheries operations, industrial development and in some cases, unsustainable harvesting of the pinnipeds themselves.

The activities of the Pinniped Specialist Group in 2015 included: 1) extensive interface with, and participation in, the Climate Change Specialist Group – including contributing case study work to the new climate change guidelines 2) serving as a contact point for the IUCN Marine and Polar Programmes, various regional offices and the SSC/CEESP Sustainable Use and Livelihoods Specialist Group on seal-related issues 3) and our primary task in 2015 involved completing re-assessments for all species and subspecies of pinniped on the IUCN Red List. This was the first time that subspecies reviews have ever been undertaken.

The PSG met in December 2015 in San Francisco to assess group size and composition and to reflect on recent past and near future activities.



## IMPACT ON CONSERVATION

Our Red List assessments are heavily used in National Red List activities and conservation planning in many countries.

## FUTURE GOALS & ACTIVITIES

We will expand the group by several members to cover expertise gaps particularly in the Southern Hemisphere. Our key activities will continue to be keeping the Red List updated at 5-year intervals and being a advisory body to management authorities regarding key threats facing pinnipeds - especially climate change and fisheries conflict issues for seals. We will also strive to clarify several taxonomic classification issues that complicate conservation assessment and planning.

## ACKNOWLEDGEMENTS

The Ministry of Climate and Environment of Norway financed our 2015 meeting expenses (members arranged finances for their travel to the meeting via research grants or institutional support).



The Vulnerable Hooded Seal (*Cystophora cristata*) © Kit M. Kovacs & Christian Lydersen

# IUCN SSC Polar Bear Specialist Group



Dag Vongraven

NAME: CHAIR / CO-CHAIRS	Dag Vongraven
NAME: RED LIST AUTHORITY CO-ORDINATOR	Dr. Øystein Wiig
LOCATION / AFFILIATION	Chair: Senior adviser, Norwegian Polar Institute, Tromsø, Norway
NUMBER OF MEMBERS	28

## MISSION STATEMENT

To coordinate, synthesize and distribute scientific information necessary to guide the long-term viability of polar bears and their habitats.

## SUMMARY OF MAIN ACTIVITIES 2015

- 1) Finalizing and submitting to IUCN the new and updated Red List assessment for the world's polar bears.
- 2) Participating in the development of a circumpolar action plan for polar bears.
- 3) Participation with delegation in the Meeting of the Parties of the 1973 Agreement on the conservation of polar bears in Ilulissat, Greenland, September 1-3.
- 4) Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) - In May 2014, CITES conducted a Significant Trade Review and reached the conclusion that current international trade in Polar Bears was considered to be sustainable. No new proposal had been planned from the United States to uplist polar bears to Appendix I at the upcoming COP17. However, the European Union is considering a motion that would ban international trade in all Appendix I and II species, including polar bears. The PBSG will seek input from the IUCN on the matter and will consider submitting a letter to CITES pending review of the draft resolution.

## IMPACT ON CONSERVATION

The group's impact can almost not be over-estimated, as the group is soon the only player in the world of polar bear politics that compiles and pushes scientific knowledge front and center.

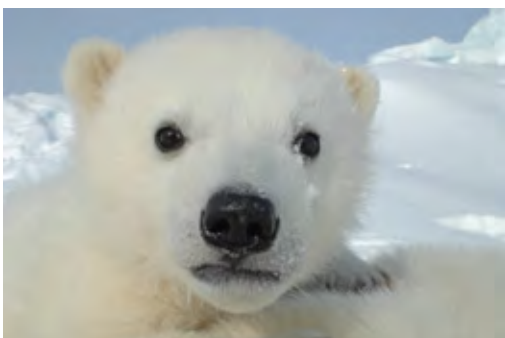
## FUTURE GOALS & ACTIVITIES

New regular meeting of the group in June 2016, where there will be election of Chair and new Red List Authority.

Continue to develop the group's Terms of Reference, and work to increase the group's capacity.

Continue to give scientific advice to the Polar Bear Range States, or Parties to the 1973 Agreement on the conservation of polar bears.

## ACKNOWLEDGEMENTS



The Polar Bear (*Ursus maritimus*) listed as Vulnerable © A.E. Derocher

# IUCN SSC Primate Specialist Group



Russell A. Mittermeier

<b>NAME: CHAIR / CO-CHAIRS</b>	Chair - Russell A. Mittermeier; Deputy Chair - Anthony B. Rylands; Vice Chair, Section on Great Apes - Liz Williamson (retd.), Liz Macfie (current); Vice Chair, Section on Small Apes - Benjamin M. Rawson
<b>NAME: RED LIST AUTHORITY CO-ORDINATOR</b>	Christoph Schwitzer (Bristol Zoological Society, Bristol, UK), Sanjay Molur (Zoo Outreach Organisation [ZOO], Coimbatore, India), Liz Williamson (great apes) (Stirling University, Stirling, UK)
<b>LOCATION / AFFILIATION</b>	Conservation International, Arlington, VA, USA
<b>NUMBER OF MEMBERS</b>	c. 495

## MISSION STATEMENT

Maintain the full diversity of the order Primates, ensuring the survival of threatened taxa, and protecting primates in areas of high primate diversity and abundance. Role: minimize the loss of primates by: (1) monitoring the conservation status of primates worldwide, (2) promoting research and conservation measures for threatened primates, (3) maintaining protected area integrity and enforcing protective legislation; (4) creating new protected areas; (5) determining ways for human and non-human primates to coexist in multiple-use areas; (6) ending illegal and destructive traffic in primates; (7) promoting public awareness of the need for primate conservation, especially through Primate Ecotourism, Primate-Watching, and Primate Life-listing.

## SUMMARY OF MAIN ACTIVITIES 2015

The taxonomic list of primates maintained by the Primate Specialist Group (PSG) has 502 spp. and 694 taxa (species and subspecies). Three new primates were described: Montagne d'Ambre Dwarf Lemur (*Cheirogaleus andysabini*), Urubamba Titi (*Plecturocebus urubambensis*), and the White-cheeked Macaque (*Macaca leucogenys*). Two new genera were established: *Cheracebus* Boubli et al. for the collared titis; and *Plecturocebus* Boubli et al. for the Amazonian titis.

### Section on Great Apes

Publications: (1) IUCN Regional Conservation Action Plan for Western Lowland Gorillas and Central Chimpanzees highlighting main measures for great ape survival in Western Equatorial Africa: (i) law enforcement with improved regulations and sanctions; (ii) holistic national and regional land-use planning; and (iii) outreach to and sensitisation of all sectors dealing with natural resources: law enforcement and judiciary, protected area staff, extractive and agricultural industries, local communities and tour operators. ([www.primatesg.org/action\\_plans](http://www.primatesg.org/action_plans)). The action plan has been adopted by the "Gorilla Agreement" of the UN Convention of Migratory Species: ([www.cms.int/gorilla/en/documents/action-plans](http://www.cms.int/gorilla/en/documents/action-plans)). (2) IUCN Best Practice guidelines for health monitoring and disease prevention in great ape populations, providing governments, policy makers, conservation practitioners, researchers, great ape tourism professionals and funding agencies with recommendations of best practices for great ape health monitoring and disease prevention. ([www.primatesg.org/best\\_practice\\_disease](http://www.primatesg.org/best_practice_disease)).

### Section on Small Apes

Coordinated, promoted and participated in a series of events worldwide celebrating the Year of the Gibbon ([www.gibbons.asia/year-of-the-gibbon/](http://www.gibbons.asia/year-of-the-gibbon/)). Published the Best Practice Guidelines for the Rehabilitation and Translocation of Gibbons (Occ. Pap. IUCN SSC No. 51). The final report from the 2014 International Conservation Planning Workshop for the Hainan Gibbon (179pp.) was also published ([www.gibbons.asia/download-links/](http://www.gibbons.asia/download-links/)).

IUCN Red List Assessment Workshops: (1) Neotropical primates: 25–29 January 2015, at Houston Zoo, Houston, Texas, USA. 28 participants. 215 taxa assessed: 47% threatened. (2) Asian primates: 23–27 November 2015, at Wildlife Reserves Singapore. 36 participants. 182 taxa assessed: 88% threatened.

### Madagascar

Since 2015, the Lemur Conservation Network (LCN) ([www.lemurconservationnetwork.org/](http://www.lemurconservationnetwork.org/)), an online guide for donors to support lemur conservation and for organizations to promote lemur conservation has been run under the auspices of the PSG. We secured the first tranche of funding for projects in the IUCN Lemur Conservation Strategy 2013–2016, partnering with the IUCN's Save Our Species (SOS) Fund. The 2nd World Lemur Festival was held October 29–31, 2015, led by the Malagasy Primatological Group GERP (Le Groupe d'étude et de recherche sur les primates de Madagascar). It raised awareness about lemur diversity and highlighted critical conservation needs. "Lemur News" 19:1–52 (2015) was published.

### Asia

Publication of Asian Primates Journal 4(2):1–61 (2014).

### Neotropics

Organization of a symposium and field course, Puerto Maldonado, Peru, and a national primate congress and field course, Manaus, Brazil. Publication of Neotropical Primates 22 (1):1–58. Pocket guide for the Primates of Peru.

Other publications: (1) Primates in Peril: The World's 25 Most Endangered Primates 2014–2016, result of a meeting at the International Primatological Congress, Hanoi, Vietnam, 2014, was published in 2015. (2) Primate Conservation 28(1):1–192 (2014); 29(1):1–131 (2015).

The 2015 Andrew Sabin Primate Conservation Prize was awarded to Cecilia Kierulff for her work with lion tamarins and yellow-breasted capuchins. The 2015–2016 cycle of the Primate Action Fund awarded 36 grants averaging \$3,475 per grant.

## IMPACT ON CONSERVATION

- 1) Action plans have focused attention where funds need to be spent – donors have paid attention to IUCN plans, especially the IUCN Lemur Conservation Strategy 2013–2016 and the great ape action plans (notably the U. S. Fish and Wildlife Service (USFWS) and the Arcus Foundation).
- 2) The listing of the 25 Most Endangered Primates continues to attract funding and focus measures for their conservation.
- 3) The Margot Marsh Biodiversity Foundation (MMBF), the Primate Action Fund (PAF) and the SOS fund for lemurs and the Mohamed bin Zayed Species Conservation Fund align their priorities with the recommendations of the action plans and the IUCN Red List assessments.
- 4) The Best Practice Guidelines series has helped to produce reliable trustworthy data from which to build conservation strategies, and improved on the ground measures for conservation of apes.
- 5) The species overviews and range-wide analyses of threats, including disease (especially Ebola), have enabled national international conservation decision-making that is underpinned by both science and highly-informed expertise.
- 6) The field courses and national meetings supported by these various funding sources have been particularly relevant in terms of in-country capacity building in primate conservation.

## FUTURE GOALS & ACTIVITIES

- 1) Employing a PSG Madagascar Programme Officer to assist with implementation of IUCN Lemur Conservation Strategy.
- 2) Conduct the IUCN Red List Assessment Workshop for African Primates (scheduled for April 2016).
- 3) Publication of an annotated taxonomy of primates.
- 4) Completion of "A field guide to the Neotropical Primates", and publication of regional and national primate pocket guides.
- 5) Continued management of the Primate Action Fund.

## ACKNOWLEDGEMENTS

The PSG: thanks Liz Williamson for ten years of dedication, brilliance, diplomacy and remarkable productivity in leading the PSG's Section on Great Apes; welcomes Liz Macfie who has replaced her to continue her successful leadership; thanks Jean-Christophe Vié (Director, IUCN SOS Fund) for his idea of the SOS Lemurs special initiative; thanks Ella Outlaw for her management of numerous PSG activities, most especially Conservation International's Primate Action Fund; and thanks Stephen D. Nash for his artwork that contributes so wonderfully to the PSG publications. Logistical support, sponsorship and funding of IUCN Red Listing Workshops: Margot Marsh Biodiversity Foundation, Mohamed bin Zayed Species Conservation Fund, Wildlife Reserves Singapore, Andrew Sabin Family Foundation, Conservation International, Houston Zoo, Bristol Zoological Society, and Arcus Foundation (apes).



The Critically Endangered Diademed Sifaka (*Propithecus diadema*) © R. A. Mittermeier

# IUCN SSC Reintroduction Specialist Group



Axel Moehrenschlager

NAME: CHAIR / CO-CHAIRS	Axel Moehrenschlager
NAME: RED LIST AUTHORITY CO-ORDINATOR	Programme Officer: Pritpal Soorae
LOCATION / AFFILIATION	Centre for Conservation Research, Calgary Zoological Society
NUMBER OF MEMBERS	205

## MISSION STATEMENT

To combat biodiversity loss through responsible conservation translocations that link sound inter-disciplinary scientific information, policy, and practice to establish viable wild populations with valuable ecological functions in their natural habitats.

## SUMMARY OF MAIN ACTIVITIES 2015

As a thematic group, the Reintroduction Specialist Group (RSG) is well positioned within IUCN to potentially affect the conservation of any species anywhere on Earth. Published evidence suggests that the use of conservation translocations continues to escalate for more species in more places more of the time. In the beginning of a renewed strategic planning process, RSG advanced planning in 2015 to increase the impact of potentially responsible conservation translocation activities, while attempting to avert irresponsible releases.

Significant effort was invested to increase the number of translations of the IUCN SSC Guidelines for Reintroductions and Other Conservation Translocations (2013). The Guidelines advise on the suitability, feasibility, planning, design, implementation, monitoring and exit from conservation translocation projects and are designed to be applicable to all taxa. Completed translations now include English, French, Spanish, Portuguese, Korean, and Russian; advancements were made towards Arabic and Chinese translations. Plans were advanced to:

- 1) Utilize translations to directly contact national governments and leading non-government agencies of all IUCN member countries to illustrate precedents of policy implementation in some nations, and invite country-specific policy implementation of the guidelines;
- 2) Develop and trial a face-face training program to assist government or non-government agencies in the application of the IUCN Guidelines;
- 3) Develop and trial an online practitioner certification program that instructs and tests knowledge regarding the IUCN Guidelines for Reintroductions and Other Conservation Translocations.

Productive meetings and workshops were held with other IUCN SSC thematic and taxon-specific Specialist Groups groups to: 1) Align conservation translocation policy and practice with other thematic considerations such as wildlife health and genetics; and 2) Advance taxon-specific conservation translocation planning.

## IMPACT ON CONSERVATION

In 2015, the RSG worked in partnership with regional, national, and IUCN groups to facilitate workshops for the planning and implementation of conservation translocations in Europe, North America, Oceania, and the Middle East. Subsequent recommendations are now being implemented in respective regions through endangered species action plans.

The RSG also advanced the publication of the 5th issue of the Global Re-introduction Perspectives series for completion in 2016. Moreover, RSG completed respective systematic reviews of all conservation translocations in marine environments worldwide and all animal conservation translocations in North America. The culmination of documented case studies and reviews now suggests that over 1300 species have been translocated for conservation translocations worldwide. This momentum is expected to increase exponentially over the decades to come. This realization has prompted opportunities and actions in 2015 to link future science, policy, and implementation at an unprecedented scale in the future.

## FUTURE GOALS & ACTIVITIES

- 1) Science: Solidify conservation translocations as a distinct conservation discipline
- 2) Guidelines: Determine when rehabilitated or confiscated animals could be used in conservation translocations
- 3) Policy: Increase regional, national, and international policy statutes integrating the 2013 International Guidelines for Reintroductions and other Conservation Translocations
- 4) Engagement: Increase RSG membership and conservation translocations in underrepresented regions of the world
- 5) Training: Developing in-person and online training and facilitation tools for conservation translocations
- 6) Alignment: Align synergies with other IUCN-affiliated groups
- 7) Communication: Connect practitioners, decision-makers, and the public to conservation translocation practices, outcomes, and knowledge products

## ACKNOWLEDGEMENTS

The Reintroduction Specialist Group wishes to acknowledge the financial, administrative, and logistical support of the Environment Agency-Abu Dhabi, and the Calgary Zoological Society. Moreover thanks go to Pritpal Soorae, Program Officer of RSG, and to the Office of the SSC Chair for their formidable support. Finally, RSG is grateful for the support of all IUCN commissions, subcommittees, and specialist groups that link productively with RSG to advance meaningful conservation action for species and ecosystems worldwide.



The Arabian Tahr (*Arabitragus jayakari*), an Arabian Peninsula endemic species, is the subject of a Conservation Introduction in the United Arab Emirates where individuals, bred in semi-wild conditions outside their historic range, will be used for release projects within their historic distribution range.

# IUCN SSC Rust and Smut Specialist Group



Cvetomir M. Denchev

NAME: CHAIR / CO-CHAIRS	Cvetomir M. Denchev
NAME: RED LIST AUTHORITY CO-ORDINATOR	Teodor T. Denchev
LOCATION / AFFILIATION	Institute of Biodiversity and Ecosystem Research, Bulgarian Academy of Sciences, Sofia, Bulgaria
NUMBER OF MEMBERS	9

## MISSION STATEMENT

The main goals of the Rust and Smut Specialist Group (RSSG) are as follows: (1) organization of global conservation of so-called “microscopic fungi”, placed in the basidiomycetes; and (2) estimation of species conservation status.

## SUMMARY OF MAIN ACTIVITIES 2015

Our efforts in 2015 were focused on (i) taxonomic revisions, (ii) accumulation of distribution records, (iii) assessment of the conservation status of smut and rust fungi, and (iv) organization of Rust and Smut Fungus Red Listing Workshop.

In the framework of the project Global Fungal Red List Initiative, members of our SG and guests from other fungal SGs organized a Rust and Smut Fungus Red Listing Workshop which was held in the Royal Botanic Gardens, Edinburgh (30 March –1 April 2015). Twenty-one species of smut and rust fungi with occurrences in countries from Africa, Asia, Australasia, Europe, North and South America had been nominated for assessments. Their conservation status was discussed during the workshop. Preliminary assessments of all nominated species were prepared and uploaded on the Global Fungal Red List Initiative.

The Red List Authority Co-Ordinator of the RSSG took part in the 3rd IUCN SSC Leaders' Meeting, 15–18 September 2015, Abu Dhabi, United Arab Emirates.



#### IMPACT ON CONSERVATION

The initiated Red Listing of threatened rust and smut fungi will contribute to conservation of these groups of fungi.

#### FUTURE GOALS & ACTIVITIES

We will continue to study the conservation biology of rust and smut fungi and prepare a global checklist of threatened rust and smut fungi.

#### ACKNOWLEDGEMENTS

The Mohamed bin Zayed Species Conservation Fund is acknowledged for the support of Global Fungal Red List Initiative.



*Microbotryum piperi* © T.T. Denchev

# IUCN SSC Salmonid Specialist Group



Peter Rand

NAME: CHAIR / CO-CHAIRS	Peter S. Rand
NAME: RED LIST AUTHORITY CO-ORDINATOR	Steven Weiss
LOCATION / AFFILIATION	Cordova, Alaska, USA
NUMBER OF MEMBERS	12

## MISSION STATEMENT

We are committed to understanding and conserving salmonid fishes in their native habitat across the world.

## SUMMARY OF MAIN ACTIVITIES 2015

We carried out reviews of draft assessments of North American salmonids.

During 2015 we convened a special session on Masu or Cherry Salmon (*Oncorhynchus masou*) research and conservation at the annual American Fisheries Society meeting held in Portland, Oregon, USA. Important information on the current status of this species was presented and discussed. An agreement was made to collaborate on a range-wide assessment on this species, whose natural range includes Korea, Taiwan, Japan and Russia.

We initiated and contributed to a white paper describing guidelines for responsible angling of threatened fishes.

We continue research and conservation work on a group of threatened Asian fishes in the genus *Hucho* and *Parahucho*. These fish, known as huchen or taimen, are some of the largest salmonids in the world, and their native range includes Russia, Japan, Mongolia, China and North Korea. We maintain an active group of specialists studying these species.

## IMPACT ON CONSERVATION

Our work has contributed to the creation of a number of freshwater protected areas in Japan and Russia. We have also contributed our expertise in sustainable seafood assessments involving salmon fisheries. Through a variety of communication media, we have raised awareness about taimen conservation.

## FUTURE GOALS & ACTIVITIES

We are planning on two expeditions to Hokkaido, Japan and Sakhalin, Russia during spring 2017.

We are planning on an international meeting of pink salmon (*Oncorhynchus gorbuscha*) and chum salmon (*O. keta*) specialists during February 2018, to be held in Cordova, Alaska, USA. We intend to invite specialists from Korea, China, Japan, Russia, US and Canada.

We will be making progress on a range-wide assessment of Masu or Cherry Salmon (*Oncorhynchus masou*).

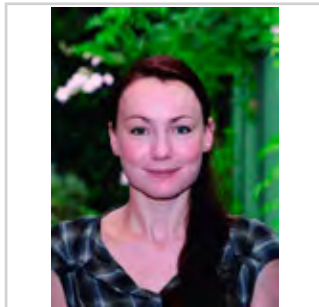
## ACKNOWLEDGEMENTS

Our taimen research and conservation projects are supported by a number of organizations, including Ocean Park Conservation Foundation Hong Kong, Mohammed bin Zayed Conservation Fund, and Oji Holdings, Inc.

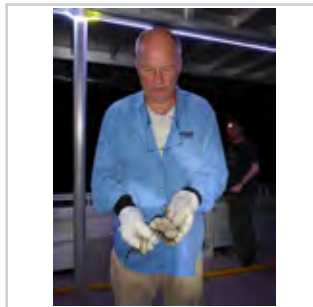


Sockeye Salmon (*Oncorhynchus nerka*) listed as Least Concern © Barrie Kovish, Wild Salmon Center

# IUCN SSC Sea Snake Specialist Group



Kate Laura Sanders



Arne Redsted Rasmussen

NAME: CHAIR / CO-CHAIRS	Kate Laura Sanders and Arne Redsted Rasmussen
NAME: RED LIST AUTHORITY CO-ORDINATOR	
LOCATION / AFFILIATION	We are based in the School of Earth and Environmental Sciences, university of Adelaide, South Australia 5000, Australia and the Royal Danish Academy of Fine Arts, School of Architecture, Design and Conservation, Esplanaden 34, DK-1263, Copenhagen, Denmark, respectively
NUMBER OF MEMBERS	35 members in 20 countries

## MISSION STATEMENT

The Sea Snake Specialist Group (SSSG) aims to promote the conservation of the world's sea snakes by identifying, documenting and developing practical strategies for mitigating threats to their long-term survival and promoting, where necessary, the recovery of sustainable wild populations. We also work to advance our knowledge and raise awareness of sea snakes and their habitats. Our focal species are the marine and coastal hydrophiines, and marine and freshwater homalopsids and acrochordids.

## SUMMARY OF MAIN ACTIVITIES 2015

This year the focus has been on investigating species' ranges, abundance and the threatening processes influencing sea snake declines. Despite the research efforts of SSSG members, the decline of the Critically Endangered Short-nosed (*Aipysurus apraefrontalis*) and Leaf-scaled Sea Snakes (*A. foliosquama*) remain unexplained. Though the discovery of several previously overlooked populations of both species gave hope for their continued existence (Sanders et al. 2015) and extended the known range of *A. foliosquama* by 500km (D'Anastasi et al. 2016), disturbingly, many individuals from the new populations were collected from demersal prawn trawl by-catch surveys. As trawling is not conducted at Ashmore or Hibernia reefs (Australia), where the species have recently become locally extinct, this is not the likely cause for their declines. Until the causes for these declines are known, it is challenging to implement effective conservation strategies. Trawling has not been directly implicated in the local extinctions of the aforementioned species, but sea snakes are still an important component of by-catch in many commercial and small-scale trawl fisheries and are highly vulnerable to fishing-related mortality. Boat surveys have shown that shallow tidal habitats are serving as refugia from trawl fishing, with at least one species (*Hydrophis curtus*) using the bay adjacent to a fishing ground as a nursery (Udyawer et al. 2016). The identification and protection of such habitats may further mitigate risks to sea snake populations from trawl fishing. While by-catch is a threatening process for many sea snakes, so are targeted harvests, particularly in Asia, where these animals have long been part of the wildlife trade. These harvests have not abated. Harvesting of snakes can be particularly intense in areas where individuals aggregate. Sea snakes of a variety of species have been found in large aggregations over the years, either in sea caves, nesting sites or on drift lines in the open ocean. Large aggregations of Yellow-Bellied Sea Snakes (*Pelamis platurus*) were recently observed in the oceans of Costa Rica, with one drifting mass numbering more than 1,000 sighted per hour (Lillywhite et al. 2015). Sighting of these aggregations of Yellow Bellied Sea Snakes, in combination with the species extensive range, suggest that it is likely to be the most abundant of all sea snakes. While not indicative of an official range extension, an individual Sea Krait (amphibious sea snake: *Laticauda colubrina*) was found in the Northern Territory of Australia, lending weight to the possibility of an unauthenticated population in Australian waters (Chatto et al. 2015). While we must currently assume that this individual was a stray, it does raise questions into how climate change might affect the distribution of sea snakes in the future.

## IMPACT ON CONSERVATION

## FUTURE GOALS & ACTIVITIES

SSSG members will continue monitoring threatened sea snake populations in the Indian and Pacific Oceans and attempt to ascertain the reasons for declining number of sea snakes in these regions. We will increase our community engagement with the recently established Australian Sea Snakes Facebook group which provides a place for community members to report sea snake sightings. Visit the page here: <https://www.facebook.com/Australianseasnakes>. We are also establishing a bibliography for all SSSG members so that we can collaborate most effectively.

## ACKNOWLEDGEMENTS

We thank the University of Adelaide and the Royal Danish Academy of Fine Arts for their in-kind support to the work of the SSSG.



Olive-headed sea snake (*Hydrophistasi major*) © Blanche D'Anastasi

# IUCN SSC Seagrass Specialist Group



Fred Short

NAME: CHAIR / CO-CHAIRS	Fred Short
NAME: RED LIST AUTHORITY CO-ORDINATOR	Fred Short
LOCATION / AFFILIATION	Jackson Estuarine Laboratory, University of New Hampshire, Durham, NH, USA
NUMBER OF MEMBERS	65

## MISSION STATEMENT

The IUCN SSC Seagrass Specialist Group (SSG) contributes to seagrass science and conservation, with the aim to protect seagrass species biodiversity, to conserve seagrass habitat and to protect other threatened species that depend on seagrasses for their survival

## SUMMARY OF MAIN ACTIVITIES 2015

- 1) The SSG has begun a review of seagrass taxonomy in preparation for updating the IUCN Red Listing of seagrass species;
- 2) Several studies have proposed major changes to seagrass taxonomy based on genetics;
- 3) Large-scale seagrass and dugong research program in the Indian Ocean;
- 4) Monitoring seagrass bed recovery after the Fukushima earthquake and tsunami, Japan;
- 5) Recent publication on seagrasses and global climate change;
- 6) Testing seagrass restoration techniques in many areas of the globe;
- 7) Undertaking risk assessment of seagrasses Australia-wide in addition to assessing knowledge gaps;
- 8) Undertaking seagrass studies in Abu Dhabi including mapping and floral/faunal assessments;
- 9) Updated of maps for the seagrass distribution for North America and evaluation of primary threats to seagrass continent-wide;
- 10) Several Specialist Group members initiated studies of "blue carbon" in seagrass ecosystems (USA, Canada, Mexico, Australia, Philippines, Japan, UAE, Wales);
- 11) The publication of Seagrass-Watch E-Bulletin providing global seagrass updates;
- 12) Increased studies of the extensive seagrass ecosystem on the Great Barrier Reef, including a seagrass spatial database;
- 13) Seagrass mapping has been carried out in the Torres Strait between Australia and Papua New Guinea.

## IMPACT ON CONSERVATION

- 1) Large seagrass recovery effort in Tampa Bay, Florida (USA) meets estuary program goals;
- 2) Expanded restoration efforts for seagrasses in several locations worldwide (China, Japan, Australia, Denmark, USA, Philippines, United Arab Emirates, Spain);
- 3) Successful seagrass restoration of 45 hectares at a RAMSAR site in the Murray-Darling River system, South Australia;
- 4) Successful seagrass restoration of 20 hectares in Swan Lake, Shandong Peninsula, North China;
- 5) Expanded seagrass restoration efforts in Florida, USA and evaluation of total restoration costs;
- 6) Successful eelgrass restoration after green crab devastation in northeastern USA;
- 7) Community education and outreach regarding the value of seagrasses (China, Indonesia, Spain, USA, and other countries);
- 8) Many difficulties in restoration attempts in Victoria, Australia due to poor water clarity from pollution.

## FUTURE GOALS & ACTIVITIES

- 1) Plans for ISBW-12 in Wales, October 2016, will include a Seagrass Specialist Group meeting;
- 2) India creating a conservation plan for seagrasses with participation of several Seagrass Specialist Group members;
- 3) Promote mangrove protection to stop the loss of the associated vulnerable seagrass species *Halophila beccarii*
- 4) Initiating activities to establish MPAs focused on specific protection of seagrasses as well as other species related to seagrasses including dugongs and seahorses;
- 4) Call attention to seagrass losses worldwide.

## ACKNOWLEDGEMENTS



*Thalassia hemprichii* and *Cymodocea rotundata* Red Listed as Least Concern © Frederick T. Short

# IUCN SSC Seahorse, Pipefish and Stickleback Specialist Group



Amanda Vincent

NAME: CHAIR / CO-CHAIRS	Prof. Amanda Vincent
NAME: RED LIST AUTHORITY CO-ORDINATOR	Riley Pollom
LOCATION / AFFILIATION	Project Seahorse - Institute for the Oceans and Fisheries, University of British Columbia, Canada and Zoological Society of London, UK
NUMBER OF MEMBERS	16

## MISSION STATEMENT

To promote the long-term conservation of the world's Syngnathiform and Gasterosteiform fishes through the illumination and alleviation of threats to wild populations and their ocean habitats.

## SUMMARY OF MAIN ACTIVITIES 2015

Project Seahorse ([www.projectseahorse.org](http://www.projectseahorse.org)) was appointed to act as the Seahorse, Pipefish, and Stickleback Specialist Group (SPSSG), with support from notable colleagues around the world. We here report Project Seahorse achievements that bear directly on SSC responsibilities and on activities by other SPSSG members.

### IUCN Red List

- Published IUCN Red List global assessments for 45 species.
- Completed/reviewed IUCN regional Red List assessments for Persian Gulf (11 species) and for Mediterranean (14 species).
- Mentored nine biologists to pass the IUCN Red List assessors course exam.

### Field projects and support

- Provided ongoing support for a colleague challenging a development in Malaysia that involved destruction of seahorse habitat by land filling.
- Helped obtain an emergency grant for a colleague who patrols against illegal trawling in Cambodia, as well as providing technical advice and input.
- One SPSSG member launched a project on the life history and conservation of a vulnerable population of *Hippocampus erectus* in the Bahamas.
- One SPSSG member mentored two seahorse Species Survival Programs for the Association of Zoos and Aquariums.

### CITES

Seahorses, which are all listed on Appendix II, were the first fully marine fishes to be brought under the CITES Review of Significant Trade (RST). This process highlights implementation and enforcement obligations for CITES-listed species. Work with seahorses is thus setting a precedent for other marine fishes listed on CITES.

In 2015, Project Seahorse / SPSSG did the following:

- Worked with Vietnam to address the CITES-imposed suspension of exports for *Hippocampus kuda*. Completed research on the largest seahorse fishery in Vietnam, off Phu Quoc Island, revealing that 24 trawlers were now targeting seahorses as a primary catch.
- Assisted Thailand as it responded to CITES expressions of Urgent Concern, dating from 2012 and 2014, for four seahorse species: *Hippocampus kelloggi*, *Hippocampus kuda*, *Hippocampus spinosissimus*, and *Hippocampus trimaculatus*. One SPSSG member completed research on seahorse distribution, fisheries, trade and policy in Thailand.
- Obtained a grant to support the Philippines as revisions to the national fisheries code led to possible re-opening of seahorse fisheries and trades.

### Citizen Science

- Enhanced participation in the citizen science website, [www.iseahorse.org](http://www.iseahorse.org)
- 1080 new observations, bringing the total to 1805,
- 251 unique observers, bringing the total to 531,
- 5 new population trends monitors, bringing the total to 11,
- Directly contacted 339+ Instagram users and 64+ Flickr users with seahorse photos

### Outreach

- Developed and launched our first SPSSG website ([www.iucn-seahorse.org](http://www.iucn-seahorse.org)), with profiles for all 340 species, links to their IUCN Red List assessments, and more.
- A member gave two presentations at the International Seadragon Husbandry Symposium in 2015.



## IMPACT ON CONSERVATION

The SPS SG was established in 2013, with Project Seahorse acting as its core structure and membership. Project Seahorse – established in 1996 – is a partnership of the University of British Columbia (Canada) and the Zoological Society of London (UK), that focuses seahorses for their own sake and to advance marine conservation more generally.

The Chair of the SPSSG and Project Seahorse put seahorse conservation on the agenda, starting 30 years ago. We embarked on the first underwater biological studies of seahorses, the first trade surveys of seahorse exploitation, the first seahorse conservation assessments and the first seahorse conservation projects.

Our work has led to a huge suite of outputs and outcomes, including IUCN Red Listings, fisheries and trade assessments globally, 35 marine protected areas in the Philippines, voluntary codes of conduct in Hong Kong's traditional Chinese medicine industry, and acquisition and de-acquisition policies in the world's zoos and aquariums. It also led to legal protection for seahorses at national levels and the first global export regulations for any fully marine fishes, under CITES Appendix II.

The CITES listing provides remarkable top-down directives for local and national seahorse conservation efforts. The CITES listing for the entire genus of seahorses (41 species) led to the first (and so far only) analysis of how well CITES Parties were regulating exports for fully marine fishes. The outcome was the first export bans on seahorses from three countries (beginning in 2013), and requirements that one more country take action to make exports more sustainable. Such top-down directives need to be met by effective bottom up ventures, which we are working to generate.

Project Seahorse, acting as the SPSSG, has a long history of effective collaboration with stakeholders and partners. Most of our successes have come from listening to – and building with – small-scale fishers and their families, the zoo and aquarium community, industrial enterprises, government agencies and other conservation organizations. Many of these have made great contributions to effective new management measures and metrics for change, not least through [www.iseahorse.org](http://www.iseahorse.org).

## FUTURE GOALS & ACTIVITIES

During 2016, the SPSSG will undertake the following:

- Complete IUCN Red List assessment and evaluation of the remainder of the species in the remit of the SPSSG (~200 more species including reassessments).
- Publish A Global Revision of the Seahorses *Hippocampus Rafinesque 1810* (Actinopterygii: Syngnathiformes): Taxonomy and Biogeography with Recommendations for Further Research (now in press).
- Initiate an SPSSG Action Plan to set priorities and guide conservation initiatives.
- Assist CITES Parties to implement fully and effectively the Convention's export restrictions on seahorses.
- Support front line SPS conservation projects as requested and as resources allow.
- Recruit more SPSSG members, especially for pipefishes and other families.
- Organize and fundraise for SyngBio, the global meeting for syngnathid scientists and managers to be held in 2017.

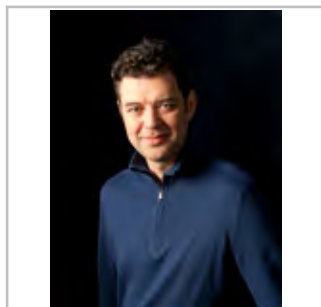
## ACKNOWLEDGEMENTS

The SPSSG has no dedicated funds. Project Seahorse is grateful to Guylian Chocolates Belgium, Synchronicity Earth, the Taiwan Forestry Bureau, and an anonymous donor for supporting the SPSSG Red List Coordinator as well as Project Seahorse expenses. The University of British Columbia hosted the SPSSG and facilitated student involvement in IUCN Red Listing.



Great Seahorse (*Hippocampus kelloggi*) listed as Vulnerable on the IUCN Red List of Threatened Species © John van Lent/Guylian Seahorses of the World

# IUCN SSC Shark Specialist Group



Nicholas Dulvy



Colin Simpfendorfer

NAME: CHAIR / CO-CHAIRS	1) Nicholas K. Dulvy & 2) Colin A. Simpfendorfer
NAME: RED LIST AUTHORITY CO-ORDINATOR	Dr Peter Kyne & Ms Rachel Walls
LOCATION / AFFILIATION	1) Simon Fraser University, Vancouver, Canada; 2) James Cook University, Townsville, Australia
NUMBER OF MEMBERS	128

## MISSION STATEMENT

The mission of the Shark Specialist Group (SSG) is to secure the conservation, management and, where necessary, the recovery of the world's sharks, rays and chimaeras by mobilizing global technical and scientific expertise to provide the knowledge that enables action.

## SUMMARY OF MAIN ACTIVITIES 2015

The SSG works in three main areas: developing a marine IUCN Red List Index for Sharks and Rays, conserving sawfishes, devil and manta rays and angel sharks, and also to provide policy advice.

2015 saw a turning point in the SSG's mission: we embarked on a 5-year plan to reassess all chondrichthyans by 2020. Many IUCN Red List assessments are close to their 10-year lifespan and this will provide the base data to evaluate any outcomes of the recent increase in policy progress for chondrichthyans and report on both Convention on Biological Diversity (CBD) Aichi targets (T6 fisheries sustainability, T11 extinctions prevented, conservation improved) and Sustainable Development Goals (SDG; T14.4). We contributed 132 regional EU-wide assessments to the European Red List of Marine Fishes published in 2015. In 2015, we submitted 198 complete reassessments out of all 331 Australian species, 38 out of 74 North East Pacific Chondrichthyans, and 70 complete reassessments for a regional Mediterranean assessment. This work will mainstream Red List Assessment into Australian National Reporting. The next phase is to expand out from Australia, adding New Zealand and Oceania status in 2016, with western Indian Ocean, Red Sea, and Gulf region assessments in 2017, and an oceanic pelagic shark and ray workshop in 2017. Rachel Walls (RLA), Julia Lawson (Program Officer), Peter Kyne (RLA), and Nick Dulvy all passed the Red List Trainer certificate course, and officially became Red List Trainers at a workshop run by the IUCN Red List Unit in Cambridge, UK.

Our progress on sawfish and mobulid (devil and manta ray) conservation planning and implementation are detailed below. We took the first steps toward conservation planning for the 19 angel sharks, some of which are Critically Endangered. Today, the Canary Islands are the only place where the Critically Endangered Angelshark is regularly sighted. In partnership with Shark Trust and the Angel Shark Project to develop a Canary Island Action Plan for the Angelshark in the Canary Islands in June 2016. We will also begin drafting a wider European Angel Shark Conservation Strategy.

Our role as honest brokers of scientific advice is wide-ranging; here are two examples: 1) With TRAFFIC, we provide Cathay Pacific airline with advice on the sustainability of sharkfin cargo; 2) In collaboration with Kent Carpenter of the IUCN Global Marine Species Assessment and Tom Brooks IUCN Science, and Kim Friedman (UN Food and Agriculture Organization), we have formed a FAO-IUCN Ad Hoc Joint Technical Working Group to evaluate the utility of Red List indicators for reporting on marine fisheries targets (e.g. SDG goal 14).

## IMPACT ON CONSERVATION

Our development of a conservation strategy for devil and manta (mobulid) rays has engaged and connected a wide range of scientists and policy makers, sharing critical information on bycatch quantities, post release survival, and consumer attitudes. The key threat is target and bycatch fisheries for their meat and gill plates (Peng Yu Sai) the later are traded internationally as part of a recently emerged Chinese market.

Since the 2013 CITES Appendix II listing to regulate the trade in manta rays (two species traded for their gill plates), we are concerned that the international trade will shift to gill plates of the closely related devil rays (*Mobula* spp.). In response, we have begun to reassess the Red List status of the three largest devil rays and to undertake productivity analyses (used in FAO-CITES panel assessment).

Under Julia Lawson's leadership, we published a preprint of the devil and manta ray conservation strategy in time for incorporation into a 2016 CITES proposal to list devil rays (*Mobula* spp.) on Appendix II, and was provided to signatories as an Information Document at the Convention on the Conservation of Migratory Species of Wild Animals (CMS) Memorandum of Understanding for Migratory Sharks (Sharks MoU) Second Meeting of the Signatories, where all mobulid rays were added to Annex I of the MoU.

The SSG hired Dr. Ruth Leeney as our first Sawfish Conservation Officer. She has been training and coordinating members in sawfish survey techniques in Central America and leading sawfish searches in Mozambique and Madagascar. Ruth is working on raising awareness of the rarity of sawfishes by writing an illustrated book and creation of an educational sawfish film to be translated into Portuguese and two local dialects.

Arguably our greatest potential conservation impact arises from the formation of a Global Shark and Ray Initiative, comprised of IUCN SSG, Shark Advocates International, Shark Trust, TRAFFIC, Wildlife Conservation Society, and WWF. Most efforts were spent writing a 10-year strategy to save sharks and rays. A short version of the strategy was launched at a CMS side-event in Costa Rica February 2016.

## FUTURE GOALS & ACTIVITIES

Key future goals are laid out in the Global Shark & Ray Initiative 10-year Strategy, e.g.:

- (1) Ensuring protection for threatened sharks and rays, by ensuring multilateral agreements and MPAs are implemented to support their long-term.
- (2) Halting declines and initiating recovery of Critically Endangered and Endangered species, focusing on sawfishes, angel sharks, guitarfishes and freshwater species.
- (3) Gathering and analysis of essential data for IUCN Red List assessments for hundreds of Data Deficient and 'Lost' species.

## ACKNOWLEDGEMENTS

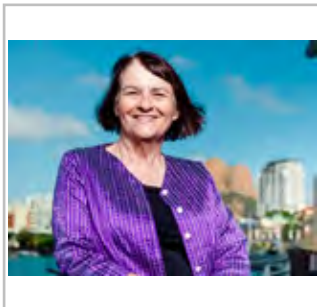
Canada Research Chairs Program, Disney Conservation Fund, Environment Agency - Abu Dhabi, Fisheries Headquarters Program Office (FHQ), IUCN SSC Species Conservation Planning Sub-Committee, John D. and Catherine T. MacArthur Foundation, Leonardo DiCaprio Foundation, Natural Science and Engineering Research Council, Canada, Mohamed bin Zayed Species Conservation Fund, Save Our Seas Foundation, Paul G Allen Foundation, US Department of Commerce, NOAA/NMFS, US State Department, Wildlife Conservation Society.



The Critically Endangered Largetooth Sawfish (*Pristis pristis*) in an aquarium © David Wachenfeld

# IUCN SSC Sirenia Specialist Group

IUCN SSC Sirenia Specialist Group



Helene Marsh



Benjamin Morales-Vela

NAME: CHAIR / CO-CHAIRS	1) Helene Marsh 2) Benjamin Morales-Vela
NAME: RED LIST AUTHORITY CO-ORDINATOR	Alejandro Ortega Argeta
LOCATION / AFFILIATION	1) James Cook University, Australia 2) El Colegio de la Frontera Sur, México
NUMBER OF MEMBERS	14 (executive members)

## MISSION STATEMENT

Effective conservation of all four species of sirenians throughout their ranges, especially developing range states.

## SUMMARY OF MAIN ACTIVITIES 2015

A meeting of the Sirenian Specialist Group (SSG), South American Region and the First Latin American Symposium for Manatee Research and Conservation (SILAMA) was held within the 16th Meeting of Specialists on Aquatic Mammals of South America (SOLAMAC), which in turn was inserted in the Colombian Congress of Zoology in Cartagena de Indias, Colombia.

Several members of the Meso-American Sub-Group participated in the Manatee regional monitoring in the Meso-American reef region workshop in Guatemala City, to present the initiative Regional Monitoring and Management of Manatees in the region, understand the needs of protected area managers regarding manatee monitoring and, to establish collaboration among partners.

The seventh International Sirenian Symposium was held in conjunction with the 21st Biennial Conference of Society of Marine Mammalogy in San Francisco. It was attended by more than 100 delegates from 19 countries with 26 presentations given plus posters presented.

The SSG newsletter, 'Sirenews' was published in April and October.

The IUCN Red List assessments of the African Manatee, South American Manatee and Dugong were reviewed plus a review of status report for the extinct Steller's Sea Cow was produced.

The Meso-American Regional Sub-Group compiled information to assist the IUCN SSC Climate Change Specialist Group in promoting sound conservation decision-making and action in relation to climate change.

## IMPACT ON CONSERVATION

Members provided technical advice for:

- 1) A review of status for the Florida Manatee and Antillean Manatee by the US Fish and Wildlife Service.
- 2) A Convention on Migratory Species (CMS) project to conserve the Dugong and its seagrass habitats, including an e-resource kit to facilitate choice of appropriate methodologies to study the conservation biology of Dugongs, their seagrass habitats and the human dimensions of the associated issues by managers and researchers.
- 3) Actions to conserve the four extant species of sirenians in their range states.
- 4) The IUCN SSC Climate Change Specialist Group.

## FUTURE GOALS & ACTIVITIES

- 1) Increased knowledge of the distribution and relative abundance of all four species throughout their ranges to inform effective conservation.
- 2) Regional Red Listing of all major Dugong subpopulations.

## ACKNOWLEDGEMENTS

The SSG wishes to thank Yaqu Pacha, the Parc Zoologique de Paris, Save the Manatee Club and Cabildo Verde provided funds for the SILAMA Funding for Sirenian Symposium was provided by Columbus Zoo, Secretariat of CMS Dugong MOU. Thank also to Nicole Adimey, Environmental Agency Abu Dhabi, Antonio Mignucci, Bob Bonde for their support of the Sirenian Symposium, and to the MAR Fund and LightHawk who supported attendance at the Meso-American reef region workshop.



Antillean manatee in the Meso-American reef system, Xcalak, Mexico  
© Phil Davidson



Antillean manatee in the Meso-American reef system, Xcalak, Mexico  
© Phil Davidson

# IUCN SSC Small Carnivore Specialist Group



Jan Schipper



Jose F. Gonzalez-Maya (right)

NAME: CHAIR / CO-CHAIRS	1) Jan Schipper and 2) Jose F. Gonzalez-Maya
NAME: RED LIST AUTHORITY CO-ORDINATOR	William Duckworth
LOCATION / AFFILIATION	1)The Phoenix Zoo, Arizona, USA; 2) ProCAT Colombia, Bogotá, Colombia
NUMBER OF MEMBERS	77

## MISSION STATEMENT

A central theme of the Small Carnivore Specialist Group (SCSG) is to improve our scientific knowledge and understanding of conservation needs of the diversity of small carnivore species; including over 150 species in 9 families (Ailuridae, Eupleridae, Herpestidae, Mephitidae, Mustelidae, Nandiniidae, Prionodontidae, Procyonidae, and Viverridae). Our mission is to bring the best people and science together, to promote and inspire conservation and research activities globally, related to this group of species. We accomplish this through the production of the Small Carnivores Conservation journal, and by setting research and conservation priority targets for fundraising and education.

## SUMMARY OF MAIN ACTIVITIES 2015

Our major accomplishment for 2015 was the complete reassessment of all small carnivores for the IUCN Red List of Threatened Species, an effort led by Will Duckworth. This monumental task represents a major milestone as it is the first systematic update since 2008, which therefore allows us to start evaluating trends across all small carnivores at the same time.

Another major accomplishment was the relaunch of the SCSG journal, Small Carnivore Conservation. In 2015 we completely overhauled the journal, moving it entirely online and with a new website, format and hopefully increased accessibility. This effort both redefined the journal (via a working group) and the editorial board to be more regionally inclusive. Research findings, interesting natural history observations, records and reviews of species distributions are all published in our biannual journal Small Carnivore Conservation at (<http://www.smallcarnivoreconservation.org>).

The SCSG also launched a new website, and has reevaluated its means of internal and external communications following the loss of our list-serve. The group's website is now also linked with IUCN (<http://www.iucn-scs.org/>) which we hope will reduce confusion and allow us better fundraising options. The group's Facebook page has been very effective at sharing information and stories from around the world, and now has over 4,500 "likes". We continue to seek new and creative means of communicating our message(s) as they are defined.

Much of the 2015 calendar year was spent in planning and evaluating of past successes and failures. We formed several working groups to tackle a number of issues: the first being our journal; the second being our role and focus; and finally another on defining priorities and linking with resources (i.e., funding species conservation). Initially we identified a number of constraints to our success "on the ground", namely that we lacked a means to accept and manage resources. In order to address this issue we approached the Phoenix Zoo which has since agreed to be our fiscal sponsor - and effectively a host organization. We are extremely grateful to the Phoenix Zoo for stepping in to help at a time of need. With this relationship now in place we can move forward to effectively identify priority projects and bring together resources and people. In 2016 we will focus on getting resources into the hands of the people working towards preventing extinction and filling critical data

## IMPACT ON CONSERVATION

Our members have been very active promoting small carnivore research and conservation globally. Two of our members produced a new book, "Badgers: Systematics, Ecology, Behaviour and Conservation" (Alpha Wildlife Publications, Alberta, Canada) which will be a definitive resource for these species. Another member has initiated an SCSG-endorsed effort in Europe, with recent success establishing a European mink island population in Estonia. In addition, several members attended the EAZA small carnivore Taxon Advisory Group in February as conservation advisors on issues regarding the IUCN Red List status updates. Yet another member discovered a population of American Marten at the Green Mountain National Forest in southern Vermont.

In a recently concluded study aimed at improving our understanding of the ecology of Western Ghats small carnivore species relevant to their conservation, SCSG members from the Wildlife Conservation Society India Programme and Manipal University employed a diversity of approaches in terms of both field methods and analytical frameworks. These included large-scale secondary information surveys of forest-edge communities, a radio-telemetry study of the endemic Brown Mongoose, and camera trap surveys across a c. 40,000 sq. km landscape in the central Western Ghats. The camera trap data were used to assess the influence of ecological and anthropogenic factors on habitat use by three viverrid, three herpestid and three small felid species, as well as to examine spatial, temporal and spatio-temporal overlap/segregation between species. Part of a recently submitted doctoral dissertation, the results are currently either in review in peer-reviewed journals or being written up as journal articles.

In Sarawak, SCSG members and partners are now trying to identify the distribution of carnivore species in protected areas and proposed protected areas. This involves nearly 100 cameras set across from the western tip of Borneo all the way up the northern regions of Sarawak. They are investigating occupancy and habitat requirements for these species, especially those of conservation importance. They have also collected information on hunting and realized that some species are really sought after as food. The information on areas where these species are hunted also provides locality information.

## FUTURE GOALS & ACTIVITIES

Keeping a volunteer editorial board active is a daunting task, thus our goal is to seek new means to make the journal more collaborative and to expand its geographic reach. We seek to get more manuscript submissions from the Americas, Europe and Africa in the future.

The SCSG Co-chairs will be meeting with other carnivore Specialist Group (SGs) chairs at the IUCN World Conservation Congress to better coordinate efforts across taxa - especially since many similar species are represented in different SGs. This will be an opportunity to better collaborate to increase conservation effectiveness.

The primary focus of 2016 for the SCSG will be getting resources to priority conservation and research projects.

## ACKNOWLEDGEMENTS

We would like to thank the SCC editorial board for the successful changes initiated in 2015; Emmanuel Do Linh San, Francesco Angelici, Alfredo Cuarón, Mauro Schiaffini, Roland Wirth, Anthony Giordano, Alexei Abramov, Frank Hawkins, Philippe Gaubert, Geraldine Veron, Angela Glatston, Divya Mudappa, Daniel Willcox, John Mathai and Hector Chaves. Paul Hapeman was instrumental in creating our new web presence. Bert Castro, Ruth Allard, and Stuart Wells of the Phoenix Zoo and Andrew Smith of Arizona State University, for support and assistance in establishing the Phoenix Zoo as a fiscal sponsor.



Back-striped weasel (*Mustela strigidorsa*) listed as Least Concern © Andy Merk/Khaoyainews

# IUCN SSC Small Mammal Specialist Group



Richard Young



Thomas Lacher

NAME: CHAIR / CO-CHAIRS	1) Richard Young and 2) Thomas E. Lacher, Jr.
NAME: RED LIST AUTHORITY CO-ORDINATOR	Giovanni Amori
LOCATION / AFFILIATION	1) Durrell Wildlife Conservation Trust, Bath, UK and 2) Texas A&M University, Texas, USA
NUMBER OF MEMBERS	37

## MISSION STATEMENT

The mission of the Small Mammal Specialist Group (SMSG) is to serve as the “global authority on the world’s small mammals through developing a greater scientific understanding of their diversity, status and threats, and by promoting effective conservation action to secure their future”. In addition, through the IUCN Red List reassessment of all small mammal species, approximately 3,000 species of mammals in the Orders Rodentia, Eulipotyphla and Scandentia, we will develop clearer priorities for their conservation.

## SUMMARY OF MAIN ACTIVITIES 2015

The SMSG has five guiding objectives. These are:

- 1) Knowledge: To strengthen the taxonomic and ecological knowledge-base and to identify conservation status and needs for small mammals through the IUCN Red List process.
- 2) Capacity: To equip scientists and conservationists with the skills, tools and knowledge required to conduct field research on high priority small mammals, including planning and delivering conservation actions.
- 3) Conservation: To promote field conservation actions at sites which support globally important assemblages of small mammals, and for the most threatened and evolutionary distinct small mammal species.
- 4) Awareness: To raise the profile of the small mammals in the conservation community to ensure they are appropriately represented in high-level conservation processes and strategies.
- 5) Operational Effectiveness: To develop responsible governance and effective coordination of the SMSG and to grow the SMSG leadership and membership to ensure it is geographically, thematically and taxonomically representative.

The major development for the SMSG in 2015 was the appointment of Dr. Ros Kennerley as Programme Officer, a position that is based in the UK. The key focus of SMSG activities during the year has been an extensive programme to assess and reassess small mammals for the IUCN Red List. This Red List update is a huge task, because the group contains half the world’s mammals and much fundamental taxonomy has changed along with many new species having been recently added. Old World species have been coordinated from the UK and New World species from Texas A&M by a group of volunteers led by PhD student Nicolette Roach and 11 undergraduate students, all trained in the Red List assessment process. Assessments for South American species have been supported by the SMSG’s first Regional Chair, Dr. Alexandre Percequillo. The Red List assessments involved collaboration with the Global Mammal Assessment Team of Rome’s Sapienza University.

We are developing a Taxonomic Advisory Group to support the Co-chairs, with Dr. Nate Upham of Yale University as the Taxonomy Lead, and a specialised group of advisors of species, regions, and sites of conservation concern coordinated by Conservation Lead Dr. Sam Turvey.

We have continued to improve our main communication platforms, focusing on adding content to the SMSG website.



## IMPACT ON CONSERVATION

In 2015 we completed Red List assessments and reassessments for 415 Old World species and 165 New World species. A significant amount of additional work and assessments have been completed in 2016 as well, though not presented as part of this 2015 report. Taxonomic changes and the discovery of new species have led to the expansion in the number of species within the group to over 3,000. These new species have been assessed for the first time; consequently our work has produced the first account which brings together all known information and highlights where knowledge gaps remain. The data collated during the Red List process is providing the base for priority setting for the SMSG. For example, the SMSG led production of a scientific paper, currently in press, on the status, threats and conservation needs of the Caribbean small mammals.

Through the Red List work we have engaged extensively with small mammal researchers, practitioners and the captive breeding community. This has strengthened partnerships, built the network of experienced biologists, improved communications and has encouraged new collaborations and discussion between researchers. The reassessment and work done by the SMSG has resulted in a number of projects focused on Critically Endangered species, including new funding to find viable populations of the Santa Marta Toro (*Santamartamys rufodorsalis*) in Colombia.

## FUTURE GOALS & ACTIVITIES

In September 2016, both Co-Chairs of the SMSG will attend the IUCN World Conservation Congress in Hawaii, where the Red List outputs will form part of the global mammal results presented. A global analysis of the Red List results is essential for directing future efforts, as it will inform the group on priority geographical areas, such as those with high densities of globally Threatened species and those regions with large aggregations of Data Deficient species. The results of this will be prepared for a peer-reviewed publication. Additionally, we have begun arrangements for developing a captive breeding strategy, which will involve an audit of species currently held in animal collections globally, followed by a set of workshops to undertake a systematic needs assessment for ex-situ and in-situ captive breeding across all SMSG species. The SMSG will be holding a workshop at the International Mammalogical Congress in Perth, Australia in July 2017 entitled 'Developing an action plan for the world's small mammals: global priorities and future research directions'. Fundraising activities will continue in the coming year and we have several promising contacts and opportunities to pursue.

## ACKNOWLEDGEMENTS

We wish to thank all of the institutions with which we are affiliated (Durrell Wildlife Conservation Trust, Texas A&M, Zoological Society of London) for logistical and financial support.



The Near Threatened Kluchor Birch Mouse (*Sicista kluchorica*) © Dr. Tamás Cserkés

# IUCN SSC Snapper, Seabream, Grunt Specialist Group



Barry Russell



Ken Lindeman

NAME: CHAIR / CO-CHAIRS	Dr. Barry Russell, Dr. Ken Lindeman
NAME: RED LIST AUTHORITY CO-ORDINATOR	Dr. Barry Russell
LOCATION / AFFILIATION	Curator Emeritus of Fishes, Museum & Art Gallery of the Northern Territory - <a href="mailto:barry.russell@nt.gov.au">barry.russell@nt.gov.au</a> Professor, Sustainability Program Chair, Florida Institute of Technology, USA - <a href="mailto:lindeman@fit.edu">lindeman@fit.edu</a>
NUMBER OF MEMBERS	Approximately 70

## MISSION STATEMENT

To achieve sustainable use and global conservation of snappers, seabreams, grunts, and associated reef-fish species through improved scientific knowledge, community engagement, and management decision-making.

## SUMMARY OF MAIN ACTIVITIES 2015

With over 500 species within this specialist group, major global efforts to achieve the first Red Listings of the majority of species were completed as follows:

### European Union Red List Assessments

Support of an IUCN European regional assessment with completion of assessments of 32 sparid, centracanthid, haemulid and lutjanid species occurring in the EU region. The IUCN EU regional office in Brussels coordinated this assessment and following expert review, the regional assessments were published in March 2015.

### Coral Reef Fishes of Oceania Red List Assessments

Two back-to-back regional marine Red List workshops were held in Suva and at Pacific Harbour, Fiji, in March 2015. Accounts are being processed at the Marine Biodiversity Unit, Old Dominion University.

### Persian Gulf Marine Bony Fishes Red List Assessments

Assessments were published November 2015

### Tropical East Atlantic Red List Assessments

Assessments were published in November 2015

### Western Atlantic Red List Assessments

Assessments of lutjanids and haemulids were published in November 2015 and June 2016

### Gulf of Mexico Red List Assessments

Regional assessments from the GoM have also been completed

## IMPACT ON CONSERVATION

### Species Conservation Planning

The IUCN Species Conservation Planning Sub-committee is developing updated guidance for Specialist Groups. The Snapper Seabream and Grunt Specialist Group (SSG SG) has been providing guidance on marine and climate issues for these products to advance the Sub-committee's goal of bringing species conservation planning and implementation deeper into SG activities.

### Regional Fishery Management Organizations (RFMOs) and Spawning Reserves

A new legal process to protect reef spawning locations and habitats of deep water snapper and grouper species in the southeast U.S. was recently approved by the South Atlantic Fishery Management Council (Amendment 36 to the Snapper Grouper Fishery Management Plan). This work included continuous input from SSG SG members who have served on the South Atlantic Fishery Management Council (SAFMC) Marine Protected Area Workgroup since 2012. The group developed a list of potential protected areas with a focus on spawning areas. After years of review by other SAFMC panels and intensive public comment, the Council voted to protect five spawning areas in Florida through the Carolinas with new Spawning Special Management Zones. These areas will prohibit all fishing and anchoring within these sites to protect habitat and larval production for snapper-grouper complex species. The process also generated new System Management Plans which provide research, outreach, and enforcement criteria for improved Marine Protected Area management.

Various SSG SG members are engaged in habitat conservation or fishery management activities in their regions as time and resources allow. The SSG SG provides services in support of such activities as feasible. The increasing number of finalized Red List accounts provide benchmarks for current and future conservation opportunities.

## FUTURE GOALS & ACTIVITIES

As the SSG SG progresses through remaining Red Listing of lutjanids and haemulids, >100 species from several other families still require assessment, including emperors (Lethrinidae), threadfin breems (Nemipteridae) and fusiliers (Caesionidae).

With the progress on Red Listing, the SSG SG will focus more attention on species conservation planning and implementation for select groups of species and regions, with a partial focus on the development of spawning reserves in new regions.

A website is in development to report on SSG SG activities and provide additional resources.

We will continue to solicit SSG SG members to assist the Marine Conservation Subcommittee's efforts on bycatch reduction.

## ACKNOWLEDGEMENTS

We thank many SSG SG members for their work on completing the numerous Red List account reviews needed to web-publish for the regions listed above. We also thank the IUCN Marine Biodiversity Unit, and Old Dominion University with whom we collaborate.



Mixed school of snappers and grunts, Little Bahamas Bank © David B. Snyder

# IUCN SSC Southern African Plant Specialist Group



Domitilla Raimondo

NAME: CHAIR / CO-CHAIRS	Domitilla Raimondo
NAME: RED LIST AUTHORITY CO-ORDINATOR	Lize von Staden
LOCATION / AFFILIATION	Southern Africa, members come from Mozambique, South Africa, Zimbabwe, and KEW in England
NUMBER OF MEMBERS	31

## MISSION STATEMENT

To assess the conservation status of southern African plants and to mainstream priority areas for plant conservation into land-use decision making and protected area expansion planning in Southern Africa.

## SUMMARY OF MAIN ACTIVITIES 2015

The Southern African Plant Specialist Group (SAPSG) had a focus on the Maputaland Centre of Plant Endemism during 2015. Four field trips searching for endemic plants took place in Southern Mozambique and northern Kwa-Zulu Natal. Field data were combined with herbarium specimen records that were digitised and georeferenced to create a comprehensive set of occurrence records that were used to conduct Red List assessments. 22 Endemic plants were assessed by our group and are currently in the process of being submitted to the IUCN. Many species especially those restricted to southern Mozambique are under high threat from deforestation linked to charcoal production. A booklet is being produced to raise awareness of the plight of these species, additionally a workshop with Mozambican politicians will be conducted later this year to request improved protection for threatened plants and to gain support for a comprehensive assessment of Mozambique endemic and near endemic plants. This Maputaland work has been led by a Mozambican member of the group, Hermenegildo Matimele from the Instituto de Investigação Agrária de Moçambique (IIAM).

In South Africa 700 plant assessments were conducted. The focus of this Red List assessment was the Richtersveld, Spergebied plant hotspot that extends from southern Namibia into the Northern Cape in South Africa. Areas with a high concentration of threatened plants were identified for the Richtersveld (see <http://redlist.sanbi.org/>).

The Southern African Plant specialist group also trialled the first bulk assessment import from our Regional Red List database to the IUCN's SIS system via the newly created portal SIS connect. This was successful and means that during the next quadrenium 4000 Southern African plant assessments will be included on the IUCN Red List.

## IMPACT ON CONSERVATION

During 2015, threatened plant information was successfully mainstreamed into a number of governmental initiatives in South Africa. Including the Strategic Environmental Assessment for Shale Gas Development taking place in the Central Karoo Basin of South Africa and the Strategic Environmental Assessments for Renewable Energies (Solar and Wind).

Threatened plant distribution data were fed into conservation planning process to produce South Africa's updated Protected Area expansion strategy produced by the Department of Environmental Affairs. This strategy includes priority sites to conserve unprotected threatened plants, and if implementation is successful, will allow South Africa to meet Target 7 of the Global Strategy for Plant Conservation: At least 75% of threatened plant species protected.

Data-sharing agreements have been set up with all nine provincial conservation authorities in South Africa as well as large urban municipalities. This has resulted in data on threatened plants being used in land-use decision making taking place in South Africa and in land-use planning processes.

From 2016 to 2018 we aim to both assess Mozambican plants against the IUCN Red List Criteria and in the process produce fine scale distribution data for threatened species that will be used to identify important plant areas and be shared with governmental departments for land-use and protected area planning in Mozambique.

## FUTURE GOALS & ACTIVITIES

During 2016 and 2017 we aim to assess all endemic plant species for Mozambique and identify important plant areas as part of KEW's Tropical Important Plant Areas programme.

## ACKNOWLEDGEMENTS

The funding for the work conducted by the SAPSG during 2015 came from the project "Building capacity for ecosystem and biodiversity assessment in the Southern African region", implemented by the South African National Biodiversity Institute and funded by the Norwegian Government through the Norwegian Environment Agency.



Members of the Southern African Plant Specialist Group: John Burrows, Hermenegildo Matimele, Timm Hoffman, Tilla Raimondo & Jonathan Timberlake doing fieldwork in Bilene, Mozambique, Oct 2015 © Sandy Burrows

# IUCN SSC South American Camelid Specialist Group



Benito González

NAME: CHAIR / CO-CHAIRS	Benito A. González
NAME: RED LIST AUTHORITY CO-ORDINATOR	Benito A. González
LOCATION / AFFILIATION	Universidad de Chile, Chile
NUMBER OF MEMBERS	35

## MISSION STATEMENT

To promote the conservation and sustainable use of (wild) South American camelids in their geographical area of distribution.

## SUMMARY OF MAIN ACTIVITIES 2015

The South American Camelid Specialist Group (GECS) implemented the following activities in 2015:

- 1) Published the GECS News No 15 in February 2015.
- 2) Widely distributed and promoted the document "Poaching of Vicuña and Illegal Commercialization of its Fiber: A Persisting Problem" to the national focal points of the Vicuña Convention, national CITES Management Authorities and Scientific Authorities in countries involved in the trade in Vicuña products, and the US Fish and Wildlife Service.
- 3) The GECS Chair participated in the SSC Leaders' Meeting in Abu Dhabi in September 2015.
- 4) The GECS Chair participated in the meeting of the Vicuña Convention in September 2015 in Antofagasta, Chile.
- 5) Gabriela Lichtenstein stepped down as the GECS Chair after 10 years of outstanding service. The GECS members proposed candidates to replace Gabriela, and Benito González was appointed as the new Chair in October 2015.
- 6) The GECS participated in the meeting "Ecological basis for Guanaco management in Patagonia", organized by the Instituto Patagónico para el Estudio de los Ecosistemas Continentales in Puerto Madryn, Argentina, in November 2015.
- 7) The GECS participated in the meeting "Taller sobre Técnicas Forenses de Investigación de Crímenes contra la Vicuña" organized by CITES Chile in Arica, Chile, during December 2015.
- 8) The GECS prepared a dossier about Vicuña poaching for presentation by the Chilean Government at the 66th meeting of the CITES Standing Committee in Geneva, Switzerland, which took place in January 2016.
- 9) Work continued on the reassessment of Vicuñas and Guanacos for the IUCN Red List, to be completed in 2016 and 2017.

## IMPACT ON CONSERVATION

The GECS highlighted two major conservation problems in various fora during 2015:

- 1) Poaching and illegal traffic of Vicuña fiber.
- 2) Antagonism towards Guanaco by livestock owners and landowners who have put pressure on governments to control Guanaco numbers without a "sustainable-use" approach.

The GECS is slowly succeeding in influencing the Vicuña Convention to recognise that illegal hunting is an important threat affecting the recovery of Vicuña populations, many of which are still at low density. Moreover, poaching harms programmes based on the sustainable use of Vicuña fibre, and jeopardizes the livelihoods of local people.

## FUTURE GOALS & ACTIVITIES

- 1) To secure a resolution from CITES that helps to increase international control of Vicuña poaching and illegal trade, to improve information flow among countries, and to concentrate funds for tackling Vicuña trafficking.
- 2) To promote sustainable programmes of Guanaco use that benefit the local economy.
- 3) To create a within-GECS group on the control of illegal trade and poaching in wild South American camelids (done).
- 4) To update the GECS webpage including a ".org" domain (done during 2016).
- 5) To recruit new members from countries with low GECS representation.

## ACKNOWLEDGEMENTS

The GECS would like to thank Copenhagen Zoo for its ongoing support, and Environment Agency - Abu Dhabi for its generous funding of GECS participation in the SSC Leaders Meeting. The members of GECS thank Gabriela Lichtenstein for her exemplary and strong leadership of the GECS over ten years, and are delighted that she continues as a GECS member.



Members of the GECS (from left to right: Corsino Huallata, Domingo Hoces, Bibiana Vilá, Jorge Baldo, Yanina Arzamendia and Benito A. González) during the meeting of the Vicuña Convention in Antofagasta, Chile, 2015 (Photo: Bibiana Vilá).

# IUCN SSC South Asian Invertebrate Specialist Group



B.A. Daniel



Muhammad. Ather Rafi

NAME: CHAIR / CO-CHAIRS	B.A. Daniel and Muhammad. Ather Rafi
NAME: RED LIST AUTHORITY CO-ORDINATOR	Sanjay Molur
LOCATION / AFFILIATION	South Asia (Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan and Sri Lanka)
NUMBER OF MEMBERS	30

## MISSION STATEMENT

To influence, encourage, and assist societies in South Asia to conserve invertebrate diversity; to achieve it through knowledge, empowerment, governance and operations.

## SUMMARY OF MAIN ACTIVITIES 2015

The South Asian Invertebrate Specialist Group's (SAsISG) activities for 2015 were focused towards fulfilling the IUCN Species Strategic Plan 2013-2016. The group committed to complete assessment of butterflies of India and completed collating species information for 1100 species, however, focus has been given to complete assessment of South Asian endemic species by end of 2016. Assessments of theraphosid spiders and millipedes are in progress. Conservation education was one of the main activities taken up in 2014 and 2015. In continuation of 2014 programmes, trainers training programmes for conservation educators on freshwater biodiversity of the Western Ghats of India were conducted. The Mosquito Surveillance Onset Initiative project in Tamil Nadu was initiated, an initiative of WAZA and ZSL.

As a network, SAsISG encouraged researchers from this region to publish their research findings in the monthly peer reviewed Journal of Threatened Taxa ([www.threatenedtaxa.org](http://www.threatenedtaxa.org)). A total of 58 invertebrate articles have been published in the Journal during 2015. Articles include a variety of species groups such as as: Corals, Nematodes, Orthopods, Molluscs, Hemiptera, Beetles, Arachnida, and a large number of articles on Butterflies, Moths, Hymenopterans and Odoantes.

The SAsISG has three sub-networks: Invertebrate pollinator, Aquatic invertebrate conservation and, a newly formed, Marine invertebrate conservation network. As part of these groups biannual newsletters were published.



## IMPACT ON CONSERVATION

South Asia, as a region, is diverse in many aspects such as culture and language. The region has many constraints in addition to population increase and economic instability. With all these impediments it is necessary that conservation initiatives be carried out. With regard to this, the activities of SAsISG have worked to achieve the objectives of the strategic plan during the year 2015-16. The activities of SAsISG have brought in attitudinal change among biologists, researchers and forest officials which can be claimed as a major impact that will favour species and habitat conservation in this region. The SAsISG has actively helped to bring in invertebrate experts to a single platform that helps species conservation.

## FUTURE GOALS & ACTIVITIES

As the only regional based Specialist Group for invertebrates, species assessments and outreach will be major activities in the coming years. Similarly strengthening the sub-network groups and involving new members in a wide range of species, such as marine invertebrates, will be one of the priority of the SG. Activities in the subsequent years will be framed based on these objectives.

## ACKNOWLEDGEMENTS

We would like to thank Zoological Society of London for their generous support to carry out invertebrate conservation activities in this region. Thanks to Mohamed bin Zayed Conservation Fund, Chester Zoo for project support. Thanks to Paul Pearce-Kelly, Curator at ZSL, for his constant encouragement and support.



The Critically Endangered Rameshwaram Parachute Spider (*Poecilotheria hanumavilasumica*) © BA Daniel

# IUCN SSC Spider & Scorpion Specialist Group



Pedro Cardoso

NAME: CHAIR / CO-CHAIRS	Pedro Cardoso
NAME: RED LIST AUTHORITY CO-ORDINATOR	Sergio Henriques
LOCATION / AFFILIATION	Finnish Museum of Natural History, University of Helsinki, Finland
NUMBER OF MEMBERS	70

## MISSION STATEMENT

The main objectives of the Spider & Scorpion Specialist Group (SSSG) are to assess the extinction risk of a representative sample of arachnid species globally; assist on international law and agreements (e.g. Habitats Directive, Convention on International Trade in Endangered Species - CITES); contribute towards national and regional legislation protecting threatened species; develop scientifically sound species conservation strategies in cooperation with relevant authorities; and promote the public knowledge of arachnids.

## SUMMARY OF MAIN ACTIVITIES 2015

This year was the first as a fully functioning group (as it started only at the end of 2014). We are in the process of structuring it and currently have four main working lines: (1) development of tools, (2) species assessments, (3) conservation planning, and (4) teaching members on criteria and guidelines.

(1) Two main tools are being developed by the group and soon will be available to everyone within IUCN:

a. An R package that will facilitate species assessments, namely by partly automating the process of species distribution modeling, calculation of AOO (Area of Occupancy) and EOO (Extent of Occurrence) (including confidence limits), output of maps in GIS, image and Google Earth formats, among many other functions.

b. A manuscript template in Biodiversity Data Journal that will allow the publication of assessments as peer-reviewed papers, whose information will be automatically exported to SIS avoiding duplication of work.

(2) We are assessing a number of arachnid species within different projects:

- a. Nephilidae (39 spp.) and Archaeidae (71 spp.) within the "Charismatic Invertebrates" project.
- b. Macaronesian endemics (ca. 170 spp.).
- c. Outdated species (15 spp.).
- d. CITES species (26 spp.).

(3) We started organizing a conservation planning workshop for *Hogna ingens*, a Critically Endangered wolf spider species.

(4) We have conducted a Red Listing workshop during the European Congress of Arachnology (Brno, Czech Republic) in August 2015.

## IMPACT ON CONSERVATION

In cooperation with the SSC Species Conservation Planning Sub-Committee and local authorities we are now developing a Conservation Strategy for the Critically Endangered Desert Wolf Spider (*Hogna ingens*). A strategic planning workshop took place in Funchal, Madeira already in 2016 and the document should be signed soon. Among other achievements, we were able to secure alternatives for the recovery of the species natural habitat and guarantee its ex-situ breeding with the cooperation of Bristol Zoo.

We secured funding from the Mohamed bin Zayed Species Conservation Fund to study and protect the Critically Endangered Frade Cave Spider (*Anapistula ataecina*). Preliminary results already point to optimal environmental conditions for the species and these will be used to propose guidelines on the use and protection of caves in the region.

## FUTURE GOALS & ACTIVITIES

As most important activities for 2016 we emphasize:

- Finishing and releasing the tools under development (R package and BDJ template).
- Starting the Sampled Red List of Spiders at the global level.
- Signing of a conservation strategy for *Hogna ingens*.
- Conducting a Red Listing workshop during the next International Congress of Arachnology (Golden, CO, USA) in July 2016.

## ACKNOWLEDGEMENTS

The groups activities were supported by the Mohamed bin Zayed Species Conservation Fund (project 152511159) and Chicago Board of Trade (CBOT) Endangered Species Fund.



The Critically Endangered Rameshwaram Ornamental Spider (*Poecilotheria hanumavilasumica*) © Manju Siliwall

# WI-IUCN SSC Stork, Ibis and Spoonbill Specialist Group



Gopi Sundar



Luis S. Cano Alonso

NAME: CHAIR / CO-CHAIRS	1) Dr K. S. Gopi Sundar and 2) Dr Luis S. Cano Alonso
NAME: RED LIST AUTHORITY CO-ORDINATOR	
LOCATION / AFFILIATION	1) International Crane Foundation (U.S.A.) and Nature Conservation Foundation (India) 2) Vertebrate Conservation Research Group", Complutense University of Madrid (Spain)
NUMBER OF MEMBERS	65

## MISSION STATEMENT

The Stork, Ibis and Spoonbill Specialist Group (SISSG) is a global network of scientists, conservationists, governmental and non-governmental institutions, and people committed to the scientific understanding and conservation of stork, ibis and spoonbill (SIS) species and their habitats.

## SUMMARY OF MAIN ACTIVITIES 2015

- 1) Mr. Willem Van den Bossche stepped down as Co-Chair of the SISSG in 2015 after 15 years of excellent service to the group. Dr. Gopi Sundar was invited to fill the Co-Chair role for the group and accepted the position in September 2015.
- 2) This year, we decided to focus on rebuilding the SISSG to include scientists and conservationists with expertise covering all the SIS species around the world. Membership increased from 22 in 2014 to 65 by June 2016, and now covers 48 out of 60 SIS species.
- 3) Using email, the SISSG started to share conservations and scientific news on SIS species from around the world, especially the work being conducted by members of the SISSG itself. Information exchange focused on published papers, reports from working groups focusing on individual species, newspaper articles celebrating scientific discoveries, and news of conservation interest particularly focusing on threatened species.
- 4) Both Co-Chairs participated in the 3rd SSC Leaders' Meeting in Abu Dhabi (September 2015), strengthening the relationship and collaboration with other IUCN SSC Specialist Groups.
- 5) A logo for the group was designed which aims to show the diversity of the three broad taxonomic groups that the SISSG focuses on. The logo showcases: (1) endangered species, represented by the Milky Stork, (2) geographically restricted and poorly-studied species, represented by the Black Ibis, and (3) very widespread species, represented by the Eurasian Spoonbill. The logo was unanimously approved by the membership and IUCN SSC in June 2016.
- 6) Preparations have been initiated for a website for the group. It is anticipated that the website will showcase the work of the members, provide information on species-specific working groups, and will be a global resource to scientists and conservationists interested in SIS species. The website will host a revised mission statement, aims, membership criteria, and related administrative aspects of the SISSG.

## IMPACT ON CONSERVATION

The SISSG also encouraged initiatives to further new scientific endeavours (e.g., a new global network on the Glossy Ibis (*Plegadis falcinellus*), and provided support to conservation interventions. Newly published scientific papers on SIS species were highlighted with an aim to improve the science of SIS species' ecology and conservation.

## FUTURE GOALS & ACTIVITIES

- 1) Establish a management board of the SISSG with regional coordinators;
- 2) Create the SISSG website;
- 3) Find resources to organize the first Stork, Ibis and Spoonbill International Conference as well as a workshop on White-shouldered Ibis (*Pseudibis davisoni*) in Indonesia;
- 4) Promote coordinated research/studies of the most threatened species.

## ACKNOWLEDGEMENTS

The SISSG wish to thank the volunteers who designed the logo, particularly Swati Kittur, L. Shyamal, and Team Conceptz and Beyond. Thanks also to the SISSG members for assisting with various aspects of the group this year, particularly David Manry and Jessie Williamson. The SISSG is very grateful to Alejandro Torés for volunteering to design the new website and, finally, thanks are due to the International Crane Foundation, the Nature Conservation Foundation and the Vertebrate Conservation Research Group for agreeing to host the SISSG.



Glossy Ibis (*Plegadis falcinellus*) listed as Least Concern © K S Gopi Sundar

# IUCN SSC Sturgeon Specialist Group



Phaedra Doukakis-Leslie



Mohammad Pourkazemi

NAME: CHAIR / CO-CHAIRS	Phaedra Doukakis-Leslie, Mohammad Pourkazemi
NAME: RED LIST AUTHORITY CO-ORDINATOR	Jörn Gessner
LOCATION / AFFILIATION	University of California - San Diego; Iranian Fisheries Science Research Institute.
NUMBER OF MEMBERS	80

## MISSION STATEMENT

To conserve and restore sturgeons and paddlefishes.

## SUMMARY OF MAIN ACTIVITIES 2015

Some Sturgeon Specialist Group (SSG) members have been involved in the following:

- 1) The SSG has been working with the North American Sturgeon and Paddlefish Society (NASPS) to create an approach to updating the IUCN Red List for North American sturgeon and paddlefish species.
- 2) The SSG has been active in corresponding on the status of Sakhalin Sturgeon in Russia and the potential for a restoration initiative.
- 3) The development of a Sturgeon Action Plan for the Caspian Sea.
- 4) Carrying out a workshop on sturgeon trade and enforcement in November 2015 with German enforcement agencies to verify the drawbacks in the current practice of control in trade and aquaculture.
- 5) Preparing for a joint workshop in conjunction with the World Sturgeon Conservation Society on caviar production in aquaculture to be held in Krasnodar, Russian Federation, in June 2016.
- 6) Supporting the publication of a chapter on illegal caviar trade for a UN Office on Drugs and Crime report.

## IMPACT ON CONSERVATION

The SSG workshops helped to identify the global sturgeon caviar production and the pathways of trade for processing. The overall amount of production was verified, thus helping to assess the future trends on the markets, while the Berlin workshop in November identified means to improve the framework for enforcement agencies and to increase the awareness for the illegal trade and the routing of illegal products.

Combating illegal trade is of the utmost importance due to its impacts on the remaining stocks of wild sturgeons throughout the Black Sea, Caspian Sea and far east sturgeon stocks. Illegal caviar trade is taking place mostly domestically at a level of 80-120 tons per year, according to experts from the range countries.

## FUTURE GOALS & ACTIVITIES

- 1) Update of IUCN Red List classifications for all North American species. A meeting will be held prior to the NASPS meeting in September 2016 to review initial IUCN Red List classification revisions. Finalization of the North American species assessments is expected by early 2017.
- 2) Continued assistance to enforcement agencies to combat the illegal caviar trade.

## ACKNOWLEDGEMENTS

The NASPS has generously provided much of the manpower behind coordinating the IUCN Red List update. The SSC also thanks the World Sturgeon Conservation Society Board members for their constructive input into the development of the Caspian Sea Action Plan and into the preparation of the meetings on enforcement and illegal trade; and thanks the German enforcement agencies for an open and constructive discussion on these critically important matters.



The Critically Endangered Atlantic Sturgeon (*Acipenser sturio*) © Tony Gilbert

# CEESP/SSC Sustainable Use and Livelihoods Specialist Group



Rosie Cooney

NAME: CHAIR / CO-CHAIRS	Rosie Cooney
NAME: RED LIST AUTHORITY CO-ORDINATOR	
LOCATION / AFFILIATION	Wentworth Falls, Australia
NUMBER OF MEMBERS	304

## MISSION STATEMENT

To promote both conservation and livelihoods through enhancing equitable and sustainable use of wild species and their associated ecosystems

## SUMMARY OF MAIN ACTIVITIES 2015

- With partners, the Sustainable Use and Livelihoods Specialist Group (SULi) convened a groundbreaking international symposium "Beyond Enforcement: Communities, Governance, Incentives and Sustainable Use in Combating Wildlife Crime" (see <http://pubs.iied.org/G03903.html>) in South Africa, February 2015, involving 70+ researchers, community representatives, government officials, UN agencies and NGOs from five continents and generating recommendations for policy and decision-making. See Report <http://pubs.iied.org/G03903.html>; and Briefing Paper <http://pubs.iied.org/17293IIED.html>.
- Developed thinking and theory on when and how community-based approaches are likely to help reduce Illegal Wildlife Trade (IWT), including a conceptual paper setting out a framework to help guide thinking about the incentives facing individuals in local communities ("protect" vs "poach") (in review in a leading conservation journal); a "Theory of Change" articulating the key pathways for community-level action to affect IWT; a Discussion Paper (<http://pubs.iied.org/14656IIED.html>) and academic paper (in review).
- Engaged with policy and decision-makers to increase understanding, including briefing in European Parliament
- Produced (with UN International Trade Centre) "Conservation and Livelihoods: An Analytic Framework for Understanding Impacts of International Wildlife Trade", in May (<https://portals.iucn.org/library/sites/library/files/documents/2015-014.pdf>).
- Led for the IUCN in the Collaborative Partnership for Wildlife (CPW), established under the Convention on Biological Diversity (CBD), including extensive contributions to CPW authoritative information summaries on topical global wildlife management issues, particularly human-wildlife conflict.
- With ResourceAfrica and CPW partners, helped convene and deliver the Wildlife Forum at the Food and Agriculture Organization (FAO) World Forestry Congress in Durban.
- With Pinniped SG, led a global study of range state policy and management responses to growing and/or abundant seal populations.
- Provided financial and technical support to an FAO-led study on wild meat in southern Africa.
- Played a lead role in developing guidance on and communicating complexities of conservation and livelihoods issues surrounding trophy hunting, including through blog posts, media engagement, establishment of an SSC Trophy Hunting Working Group, and initiating development of Briefing Paper.
- Finalised Discussion Paper on integrating Traditional Knowledge into IUCN Red List assessments.



## IMPACT ON CONSERVATION

The CEESP/SSC Sustainable Use and Livelihoods Specialist Group (SULi)'s work has increased the knowledge base, enhanced understanding, and influenced policy and practice around some key conservation challenges and how to address them.

- In the area of communities and combating IWT, SULi's work with partners (International Institute of Environment and Development, TRAFFIC, and African Elephant Specialist Group in particular) has greatly increased understanding of how and where community level interventions are likely to effectively reduce IWT. Outputs and key lessons learned have been very widely disseminated and presented to key constituencies, including major donors and international organisations. This understanding is critical for effective policy and programme development. We have significantly affected the profile and acceptance of the proposition that Indigenous People and Local Communities (IPLCS) have a critical role to play in IWT interventions, and that incentives, including those generated by sustainable use, need to be fully considered and integrated into IWT policy and interventions. For example, recognition of this within international policy statements (e.g. Brazzaville Declaration, African Union Strategy) has become considerably stronger.
- We have increased understanding and guidance available for practitioners and decision-makers of why and where legal wildlife trade chains can positively contribute to species and habitat conservation, and what factors need to be addressed to generate positive outcomes.
- We have increased understanding and awareness of the rationale for integrating Traditional Knowledge into species assessments and the challenges surrounding this.
- We have helped provide accessible and credible technical guidance for those addressing key wildlife management issues.

## FUTURE GOALS & ACTIVITIES

- Expanding the "Beyond Enforcement" work by synthesising further regional experience and lessons learned, in particular, through a West/Central regional workshop (for February 2016) and a Southeast Asia regional workshop (November 2016);
- Improving understanding among key policy and decision-making constituencies of current conservation and livelihood impacts of recreational hunting, through supporting an SSC Situation Analysis on this topic and other knowledge products;
- Finalising guidance on integrating TK in specific assessment/management approaches, including the Red List;
- Improving understanding of how local benefits and incentives from wildlife trade chains can be increased;
- Expanding the influence of this work and other work on sustainable use and livelihoods on policy and practice through strategic engagements at CITES, the World Conservation Congress, the CBD and in the European Union.

## ACKNOWLEDGEMENTS

We thank the Abu Dhabi Environment Agency for their generous support for the core operations of SULi. The Beyond Enforcement symposium and follow up work was made possible by support from USAID, GIZ and the Austrian Ministry of the Environment.



Beyond Enforcement: Engaging Indigenous Peoples and Local Communities in Combating Illegal Wildlife Trade Regional workshop for West/Central Africa, Limbe, Cameroon, February 2016, convened by IUCN SULi, PACO, IIED, TRAFFIC and NESDA  
© Stanley Dinsi/NESDA

# IUCN SSC Swan Specialist Group



Eileen Rees

NAME: CHAIR / CO-CHAIRS	Eileen Rees
NAME: RED LIST AUTHORITY CO-ORDINATOR	Andy Symes (BirdLife International)
LOCATION / AFFILIATION	Wildfowl & Wetlands Trust, Slimbridge, Gloucester GL2 7BT, UK
NUMBER OF MEMBERS	368

## MISSION STATEMENT

The Wetlands International / IUCN SSC Swan Specialist Group (Swan SG) is a global network of over 300 swan specialists from 32 countries who undertake monitoring, research, conservation and management of swan populations.

The Swan SG strives to facilitate effective communication between its members and others with an interest in swan management and conservation world-wide, in order to improve national and international links for cooperative research, to identify gaps in knowledge and to provide a forum for addressing swan conservation issues.

## SUMMARY OF MAIN ACTIVITIES 2015

Following the 5th International Swan Symposium held in Maryland, USA, in February 2014, several key initiatives for improving communication within the Swan SG were taken forward in 2015, as follows:

- After several years without a Swan SG newsletter, Swan News 11 (edited by Carl D. Mitchell) was published in May 2015.
- A Swan Specialist Group forum was put in place to facilitate exchange of news and ideas (via email) within the group.
- In addition to renewing the roles of species coordinators within the Swan SG, an organising committee was put in place, including a Regional Coordinator (North America), Newsletter Editor, Membership Secretary and Website developer.
- A new Swan SG logo has been designed by Oscar Langevoord.
- A Swan SG website is in development, for launch in 2016.

The latest international census of migratory Bewick's Swans (NW European Population) and Whooper Swans (Icelandic Population and Mainland Europe Population), generally held at 5-year intervals, was undertaken in January 2015. Counts extended to include the Caspian Population for both species, to determine any range shifts particularly for Bewick's Swans which are currently of conservation concern.

Several activities were taken forward by the Bewick's Swan Expert Group (BSEG), in accordance with key actions identified within the African–Eurasian Migratory Waterbird Agreement (AEWA) Bewick's Swan Action Plan, including:

- A questionnaire was developed (under AEWA guidelines) and circulated to BSEG members and AEWA focal points for each of the range states, to record national actions undertaken under the auspices of the Bewick's Swan Action Plan.
- Collaborative research programme was developed for analysis of UK and Dutch ringing/resightings data to determine changes in Bewick's Swan distribution and demography.
- GPS/GSM loggers were fitted to Bewick's Swans caught in Britain to describe their flight-lines in relation to wind farm development. Also to 6 birds caught on the Yamal Peninsula to determine for the first time the wintering areas for swans from this part of the Russian arctic.
- A special session on implementation of the Bewick's Swan Action Plan was convened at the "Waterfowl of Northern Eurasia: study, conservation, and sustainable use" conference, held in Salekhard, Russia, in December 2015.

## IMPACT ON CONSERVATION

Information from the Bewick's Swan tracking study will be used to inform appropriate siting of turbines (i.e. to reduce collision risk) within offshore wind farm sites in British coastal waters, as part of the UK government's Strategic Environmental Assessment (SEA) programme for offshore energy development.

Methods for reducing the risk of swans colliding with man-made structures were also described in the final report of a study on swan and goose flight behaviour in the vicinity of power-lines, undertaken for Electricity North West Ltd. in 2014.

Issues raised during the Bewick's Swan session of the Salekhard conference were included in the Conference Resolution ([http://onlinereg.ru/salekhard2015/resolution\\_eng.pdf](http://onlinereg.ru/salekhard2015/resolution_eng.pdf)). In particular, the conference recommended taking the measures to preserve the Bewick's (Tundra) Swan in the Russian Federation indicated in the AEWA Bewick's Swan Action Plan. These measures included minimizing losses due to poaching, and social surveys are now underway in 2016 in order to understand the motivation underlying illegal shooting and to identify robust practical solutions to this issue.

## FUTURE GOALS & ACTIVITIES

Main activities specific to the Swan SG scheduled for 2016 are as follows:

- Compile and publish Swan News 12
- Complete development and launch the Swan SG website
- Identify the reasons underlying the decline in the NW European Bewick's Swan Population
- Determine the motivation for and solutions to the illegal shooting of swans
- Convene conservation workshops and swan festivals in Bewick's Swan range stages for the as part of the "Flight of the Swans" initiative (<https://fots.wwt.org.uk/>), including a hunters' workshop in the Russian arctic, conservation workshops in Estonia and Lithuania, a scientific meeting in the Netherlands, and outreach programmes in Poland and Belgium.

## ACKNOWLEDGEMENTS

Several members of the Swan SG committee - including the Chair, Membership Secretary and Website Coordinator - are employed by the Wildfowl & Wetlands Trust (WWT), and we are most grateful to the WWT for supporting their Swan SG activity. We also thank Carl D. Mitchell for his careful editorship of the Swan News, Oscar Langevoord for designing the new Swan SG logo, Janissa Balcomb for the Bewick's Swan Expert Group logo, Stuart Harris for website development and WWT and IUCN for facilitating attendance at meetings (including the IUCN SSC Leaders meeting) in 2015.



Whooper Swans (*Cygnus cygnus*) in Finland © Juha Soininen-WWT

# IUCN SSC Tapir Specialist Group



Patrícia Medici

NAME: CHAIR / CO-CHAIRS	Patrícia Medici, PhD
NAME: RED LIST AUTHORITY CO-ORDINATOR	Manolo García Vitorazzi
LOCATION / AFFILIATION	IPÊ - Instituto de Pesquisas Ecológicas, Brazil
NUMBER OF MEMBERS	124

## MISSION STATEMENT

The IUCN SSC Tapir Specialist Group (TSG) is a global group of biologists, zoo professionals, researchers and advocates dedicated to conserving tapirs and their habitat through strategic action-planning in countries where tapirs live, information sharing, and through educational outreach that shows the importance of the tapir to local ecosystems and to the world at large.

## SUMMARY OF MAIN ACTIVITIES 2015

The TSG, in collaboration with the Association of Zoos & Aquariums (AZA) Tapir Taxon Advisory Group (TAG), European Association of Zoos & Aquaria (EAZA) Tapir Taxon Advisory Group (TAG), Houston Zoo in the USA and Copenhagen Zoo in Denmark, form the primary coalition working on developing and implementing tapir research, conservation and management programs globally. An important aspect of the mission of the five organizations is to contribute to the development of coordinated international conservation efforts for tapirs. While we have had considerable success in this endeavor previously, we have observed a certain common weakness of our group that we decided to address throughout 2015. Given our status as volunteer researchers, research and conservation activities in tapir range countries tend to ebb and flow and occasionally disappear completely because most researchers and conservationists rely on temporary project funds, university research funds, or only work in their spare time; when these opportunities end or volunteers must look for paid positions, their projects are severely diminished or simply end. We, as a group, realized we needed a more stable tapir research and conservation model across tapir range countries, in which long term initiatives are established and maintained through strategic fundraising and project development. Therefore, we decided to design, raise funds for and implement joint projects involving the four tapir species. The first of these joint projects was submitted to and approved by Fondation Segré in Switzerland in 2015. With the support from Fondation Segré we will support five different research and conservation programs covering the four tapir species in South and Central America and Southeast Asia: Mountain Tapir in Colombia; Malayan Tapir in Sumatra, Indonesia; Baird's Tapir in Nicaragua; Baird's Tapir in Guatemala; and, Lowland Tapir in Brazil. We have designed this project proposal together, will share strategies and progress throughout the three-year duration of this project, and collaborate on data analyses and publications. Our goal is to use this international initiative in partnership with Fondation Segré as the flagship project of the IUCN SSC Tapir Specialist Group. The world is facing many conservation crises and confronting them will require international teams of researchers and conservationists in the field and from zoological institutions to join efforts with foundations, governments and non-governmental organizations to design and implement creative, context specific research projects and conservation solutions. We expect that the visibility of this collaborative program will raise the profile of tapir conservation worldwide and help us raise additional funds for the continuation of the five projects included as well as the establishment of other similar, collaborative initiatives involving other conservationists in other tapir range countries.

## IMPACT ON CONSERVATION

The TSG continues to make steady progress in developing and implementing National Action Plans for tapirs in each tapir range country in South and Central America and Southeast Asia. TSG Country Coordinators and Regional Committees are working tirelessly towards implementing the priority actions and goals developed for each plan. Most plans have been endorsed by relevant governmental agencies in range countries.

In addition, results from tapir research and conservation programs worldwide have been used to substantiate Red Listing assessments in the global and national levels. Lastly, the TSG continues to seek ways to increase tapir awareness opportunities and through its website, social media profiles and media (printed and online press, TV shows, documentaries, TED talks etc.) we have been able to reach over one million of people worldwide.

## FUTURE GOALS & ACTIVITIES

Some of the goals included in the TSG Strategic Plan 2015-2017 include: (1) Double TSG funding budget for grant programs (TSG Conservation Fund, annual funding cycles), operational costs and TSG activities. We will continue to work to replicate the Fondation Segré model within the group and work on several joint projects involving the four species of tapirs in different range countries; (2) Continuous implementation of Species Action Plans and National Action Plans for Tapir Conservation; (3) Further implementation of the One Plan Approach fully integrating the TSG in-situ and ex-situ activities; (4) Continue to increase and use tapir awareness opportunities; and, (5) Have the conservation status of *Tapirus kabomani* defined and the need for Red Listing and Action Planning evaluated.

## ACKNOWLEDGEMENTS

The TSG would like to acknowledge its main partners the Association of Zoos & Aquariums (AZA) Tapir Taxon Advisory Group (TAG), European Association of Zoos & Aquaria (EAZA) Tapir Taxon Advisory Group (TAG), Fondation Segré (Switzerland), Copenhagen Zoo (Denmark), and Houston Zoo (United States), as well as a pool of over 200 zoological institutions worldwide including zoos, zoo associations (AZA, EAZA, WAZA, ALPZA and many others), AAZK chapters and many others. In addition, we would like to thank all governmental agencies involved with the implementation of our Species and National Action Plans.



Lowland Tapir (*Tapirus terrestris*) © Jason Woolgar

# IUCN SSC Temperate South American Plant Specialist Group



Pablo Demaio

NAME: CHAIR / CO-CHAIRS	Dr. Pablo Demaio
NAME: RED LIST AUTHORITY CO-ORDINATOR	Dr. Ana Villalobos
LOCATION / AFFILIATION	Botanical Museum of Córdoba National University, Córdoba, Argentina
NUMBER OF MEMBERS	28

## MISSION STATEMENT

With more than 19,800 species of plants under the scope of the Temperate South American Plant Specialist Group (TSAPSG), and considering that the strategic plan for the SSC indicates that the assessment of plants needs to be substantially enlarged to represent adequately the diversity of life, we are focusing our efforts to assess: endemic species, whose vulnerability is more likely because their restricted distribution; wild harvested species, which are under different pressure of use; and trees, because we want to work in synergy with Global Trees Specialist Group.

## SUMMARY OF MAIN ACTIVITIES 2015

During 2015 we held two local workshops, in the Provinces of Santiago del Estero and Córdoba, involving local experts and environmental authorities. Workshops were focused on the use of IUCN Red List categories, and how to perform a species assessment, tending to train experts to work in a decentralized way, using internet facilities.

Working on assessments, we have realized that local botanists in Argentina usually do not consider the conservation status of the species they study. We contacted authorities of the Darwinian Institute of San Isidro (Buenos Aires), whose web page "Flora del Cono Sur" (Southern Cone Flora, [www.darwin.edu.ar](http://www.darwin.edu.ar)) is the main reference for botanical work in Argentina, Chile, Uruguay, Paraguay and Southern Brazil. We agreed to include, on each species page a field with the IUCN status, linked to the Red List. We are currently working on data input for this project.

Finally, at the 3rd SSC Leaders Meeting in Abu Dhabi, we established contact with Global Tree Specialist Group, to get involved with the efforts of the Global Trees Assessment.

## IMPACT ON CONSERVATION

We hope that the inclusion of IUCN categories on the Southern Cone Flora website will focus the attention of botanists on the huge amount of work that remains to be done to provide a realistic picture of the state of conservation of local flora. Thereby, we hope to stimulate interest in learning IUCN assessment protocols and encourage taxonomists to join the Specialist Group. We also hope that the interaction with other Specialist Groups, such as the Global Trees Specialist Group, allow us to move forward in the assessment of charismatic species, drawing attention to the conservation status of plants to a wider audience.

## FUTURE GOALS & ACTIVITIES

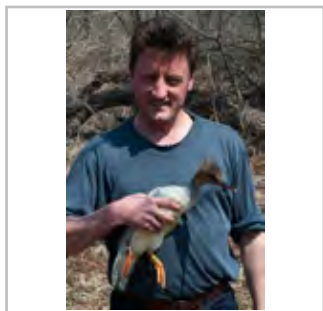
We aspire to increase and to renew the number of botanists involved in the Specialist Group, helping to achieve the goal of assessing 500 endemic species in the period 2017-2020. In this sense, we will develop a lecture in the 2nd Meeting of Young Botanists of Argentina, in October of 2016. Lectures will focus on inspiring and inviting new people to the group. Considering that meetings and workshops, although useful, are expensive and difficult to manage, we will try a new approach to assessments, using web tools to meet on-line with specialists. We have planned the first attempt at this kind of work for November of 2016.

## ACKNOWLEDGEMENTS



Monkey puzzle (*Araucaria araucana*) an Endangered species of Argentina and Chile © Pablo Demaio

# WI-IUCN SSC Threatened Waterfowl Specialist Group



Baz Hughes

NAME: CHAIR / CO-CHAIRS	Dr. Baz Hughes
NAME: RED LIST AUTHORITY CO-ORDINATOR	Andy Symes (BirdLife International)
LOCATION / AFFILIATION	Wildfowl & Wetlands Trust (WWT), Slimbridge, UK
NUMBER OF MEMBERS	266 members in 70 countries worldwide

## MISSION STATEMENT

The mission of the Threatened Waterfowl Specialist Group (TWSG) is to conserve the world's most threatened waterfowl by focusing on direct action; developing, demonstrating and disseminating best conservation practice and processes; and actively promoting and encouraging information exchange on threatened waterfowl monitoring, research, conservation and public awareness worldwide.

We will do this through producing and implementing international action plans, incorporating in situ and ex situ conservation tools, as necessary; by providing advice to policy makers, international conventions and practitioners; encouraging information exchange and cooperation amongst threatened waterfowl conservationists and with other relevant conventions and organisations, particularly the IUCN SSC, Wetlands International, the Ramsar Convention on Wetlands, the Convention on the Conservation on the Conservation of Migratory Species of Wild Animals (CMS), the African-Eurasian Waterbird Agreement (AEWA), and BirdLife International.

## SUMMARY OF MAIN ACTIVITIES 2015

### Baer's Pochard (Critically Endangered)

- Baer's Pochard Task Force formed under the East Asian - Australasian Flyway Partnership (EAAFP). Funds raised towards Action Plan implementation workshop.

- Around 165 Baer's Pochard were located during a coordinated census of key sites in China in January 2015 – c.125 in the Yangtze floodplain and c.40 at a site in Shandong. This is the largest known count since 2010/11 and, whilst probably a reflection of awareness and effort, rather than a true increase in numbers, it is encouraging that we now know of the existence of a greater number of birds.

- Winter census in central Myanmar in January 2016 located c. 20 individuals at three sites. This is a positive result, particularly as the main site where 12 birds were found (Pyu Lake) was not previously known to support important waterbirds. This suggests further sites may also exist undetected in Myanmar.

- Genetics study at WWT found that captive birds are not hybrids and are not inbred. Conservation breeding programme established from pure birds - 24 birds (12 male and 12 female) were reared in 2015. Began new project called Aquackponics (which could reduce water use in the Madagascar Pochard Breeding Centre in Madagascar). A mixture of aquaponics and hydroponics (comprising two duck ponds, a silt trap and a large aquatic plant 'grow-bed') are being used to house Baer's Pochard at Slimbridge. This will convert ammonia from duck droppings into nitrates, which act as nutrients for plants growing in the water. We will then harvest the plants once they've cleaned the water and use them as duck food.

### Madagascar Pochard (Critically Endangered)

Madagascar Pochard Species Action Plan draft finalised for approval by the Government. In December 2015, the captive population stood at 77 individuals, with 25 chicks reared during the year, the first to be reared entirely by Malagasy aviculturists without supervision from overseas experts, making the long-term future of this population far more secure. The wild population remained stable at approximately 25 birds, but fledging success continued to be extremely low. The Bemanevika National Protected Area, which contains the lakes on which the wild population lives, along with the surrounding forests, was officially declared - a huge step towards conserving this important landscape. Work was started towards creating a site suitable for releasing pochards. Initial activities focused on developing management structures through which habitat management and restoration can occur. Biodiversity-friendly farming practices were also promoted among local villagers, as a first step towards management of the watershed.

### Red-breasted Goose (previously Endangered, now Vulnerable)

Completed LIFE project to: understand how Red-breasted Geese use coastal Dobrudzha in Bulgaria; identify their distribution and favoured locations; enforce existing protection; minimise disturbance; develop new tools to minimise potential conflict between geese and people; and raise awareness of the importance of Dobrudzha for Red-breasted Geese.

### White-headed Duck (Endangered)

The invasive Ruddy Duck is the main threat to this species in Europe. Ruddy Duck eradication programmes continued in the UK (20 birds remaining), France (200 birds remaining), the Netherlands (70 birds remaining) and Belgium (10 birds remaining).



## IMPACT ON CONSERVATION

### Baer's Pochard (Critically Endangered)

This is an example of a conservation programme in its infancy. The precipitous decline combined with the nature of the threats (suspected but not proven) present a massive conservation challenge. Nevertheless, as this species is Critically Endangered, we have embarked on the species recovery journey – so far just identifying the probable threats and monitoring the wild population to determine whether, and if so how, we can save this species (a close relative of the Madagascar Pochard and thus with transferable recovery techniques). We have also established a conservation breeding programme which will provide a source of birds for reintroduction should the wild population go extinct.

### Madagascar Pochard (Critically Endangered)

Collaborative work by WWT, Durrell Wildlife Conservation Trust, The Peregrine Fund and the Madagascar Government over the last seven years has undoubtedly saved the Madagascar Pochard from extinction. While the species is still hanging on a thread in the wild, due to low productivity at the single remaining breeding site, we now have a viable captive population in Madagascar as a source of birds for reintroduction into the wild. We have identified a suitable release site where we will empower local communities to benefit from natural resources at the lake while also improving conditions for the pochard and for wider biodiversity.

### Red-breasted Goose (previously Endangered, now Vulnerable)

The Red-breasted Goose was recently downlisted on the IUCN Red List from Endangered to Vulnerable, given the population appears to have remained largely stable over the last ten years. While the TWSG cannot claim to have achieved this conservation outcome, the recent LIFE project has had a significant conservation impact. It has reduced disturbance of geese roosting on lakes by illegal fishing to near zero and the number of Red-breasted Geese illegally killed to zero. Dobrudzha has embraced the Red-breasted Goose: at the end of the project, 98% of local residents knew of the species, 96% were aware of its protection status, and 71% would be concerned if it disappeared from the area. Scientific findings helped prevent the development of a major wind farm adjacent to the key roost at Durankulak Lake and agri-environment measures for Red-breasted Geese have been produced and adopted as part of the Ministry of Agriculture and Food's national scheme. Red-breasted Goose biological and ecological requirements have been mainstreamed into the Bulgarian National Priority Action Framework for Natura 2000 sites.

### White-headed Duck (Endangered)

Hybridisation with the North American Ruddy Duck remains the most critical threat to the White-headed Duck. The TWSG have played a leading role in conducting the research and advocacy needed to ensure that eradication from Europe happens - a process that has taken the best part of 30 years. This has included conducting research into the impact of Ruddy Ducks on native species in the UK; assessing possible control measures; a regional control trial, then a full scale eradication programme; and producing and advocating for the implementation of a Europe-wide eradication strategy under the Bern Convention, including the ongoing monitoring of its success.

## FUTURE GOALS & ACTIVITIES

### Baer's Pochard (Critically Endangered)

- Raise funds for and hold a Baer's Pochard Action Plan implementation workshop in China.
- Use the captive flock at Slimbridge to trial satellite tag attachments which will then be used on wild Madagascar Pochard.

### Madagascar Pochard (Critically Endangered)

- Maintain captive breeding population of Madagascar Pochard in Madagascar. Finish development of release plan and begin trials of equipment and methods. Begin releases into the wild in 2018.
- Establish Aquacaponics systems in the breeding facilities to ensure sustainable management of water.
- Start habitat management and restoration activities at the proposed release site, working through newly created local associations.
- Finish construction of public exhibit in Madagascar.

### Red-breasted Goose (previously Endangered now Vulnerable)

- Assess impact of hunting along migration route, through satellite tracking and other studies.
- Restore and manage key roost sites in Dobrudzha, including reedbed management to address the encroachment of trees and shrubs.
- Assess winter energetic requirements to inform management schemes and prescriptions.

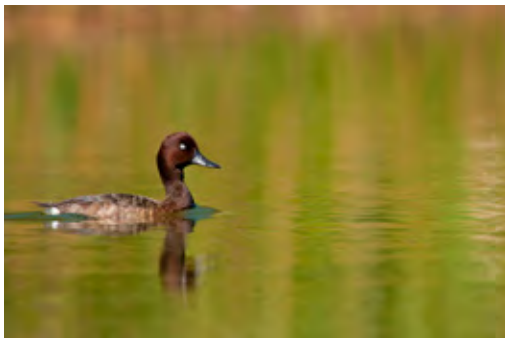
### White-headed Duck (Endangered)

- Review implementation of European Ruddy Duck eradication strategy and produce recommendations for its further implementation.
- Support EC LIFE project to eradicate the species from France and the Netherlands.

## ACKNOWLEDGEMENTS

The Madagascar Pochard project has been funded by: Darwin Initiative, Mitsubishi Corporation Fund for Europe and Africa, HSBC, Fota Wildlife Park, BBC Wildlife Fund, Synchronicity Earth, Mohamed bin Zayed Species Conservation Fund, US Fish & Wildlife Service, Aviornis UK, British Birds, private donors, and WWT and Durrell members.

'Safe Ground for Redbreasts' LIFE09/NAT/BG/000230 was funded the contribution of the LIFE financial instrument of the European Community.



The Critically Endangered Madagascar Pochard (*Aythya innotata*), Matsaborimena in 2010  
© Iñaki Relanzon/ www.photosfera.com

# IUCN SSC Tortoise and Freshwater Turtle Specialist Group



Brian Horne



Peter Paul van Dijk

NAME: CHAIR / CO-CHAIRS	1) Brian D. Horne and 2) Peter Paul van Dijk
NAME: RED LIST AUTHORITY CO-ORDINATOR	Anders G. J. Rhodin
LOCATION / AFFILIATION	1) Wildlife Conservation Society, California, USA, ; 2) Global Wildlife Conservation, Virginia, USA
NUMBER OF MEMBERS	300

## MISSION STATEMENT

The mission of the IUCN SSC Tortoise and Freshwater Turtle Specialist Group (TFTSG) is to identify and document threats to the survival of all species of tortoises and freshwater turtles, and to help catalyze conservation action to ensure that none become extinct and that sustainable populations of all species persist in the wild.

## SUMMARY OF MAIN ACTIVITIES 2015

In 2015 the TTSF:

- 1) Provided information and advice on turtle natural history, distribution and occurrence, conservation status, and recommended action to governments, field conservationists and academic researchers.
- 2) Facilitated information exchange, communications and debate among TFTSG members through our dedicated closed-membership ListServ and as part of the annual turtle symposium organized by the Turtle Survival Alliance.
- 3) Made slow progress towards completing new and updated IUCN Red List assessments for tortoises and freshwater turtles.
- 4) Prepared guidelines for making Non-Detriment Findings for tortoise and freshwater turtle populations subject to offtake for international trade. Guidelines were discussed and accepted at 28th CITES Animals Committee meeting (Tel Aviv, August 2015).
- 5) Assisted the Scientific Authority of Viet Nam in preparing the Periodic Review of the Critically Endangered Indochinese Box Turtle (*Cuora galbinifrons*) and the Vietnamese Pond Turtle (*Mauremys annamensis*) also Critically Endangered.
- 6) Prepared and published a checklist of recently extinct turtle and tortoise species, and continued preparations for an updated version of the Turtles of the World checklist.

## IMPACT ON CONSERVATION

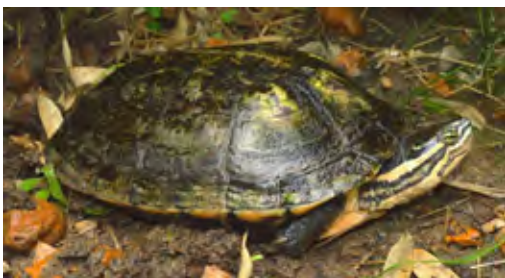
- 1) Supported and empowered TFTSG members and their institutions to implement on-the-ground and other conservation actions.
- 2) Progressively increasing knowledge of turtle biology, status and conservation needs helps prioritize actions in the field, in ex-situ managed populations, in policy development and general awareness.

## FUTURE GOALS & ACTIVITIES

- 1) Complete and up-to-date Red List assessments for all tortoise and freshwater turtle species included on the IUCN Red List.
- 2) Continue providing pertinent information to governments, conservationists and others.
- 3) Continue working to ensure that any permitted exploitation and offtake of tortoises and freshwater turtles from the wild is not detrimental to survival of the exploited populations.
- 4) Ensure that tortoises and freshwater turtles are adequately and accurately incorporated into the Key Biodiversity Areas process and other initiatives.

## ACKNOWLEDGEMENTS

The TFTSG thanks all members and partner organizations for the constructive information exchanges that eventually lead to better conservation outcomes. The TFTSG gratefully acknowledges the support of the Environment Agency - Abu Dhabi for Red Listing efforts, and of the CITES Secretariat for Non-Detriment Finding guidance work. The TFTSG Co-Chairs are deeply grateful to their respective employers for enabling time to be devoted to activities of the Specialist Group.



The Critically Endangered Vietnamese Pond Turtle (*Mauremys annamensis*) © Jeffrey E. Dawson

# IUCN SSC Tuna and Billfish Specialist Group



Bruce B. Collette

NAME: CHAIR / CO-CHAIRS	Bruce B. Collette
NAME: RED LIST AUTHORITY CO-ORDINATOR	Beth Polidoro
LOCATION / AFFILIATION	NOAA National Marine Fisheries Service, Washington DC
NUMBER OF MEMBERS	17

## MISSION STATEMENT

The mission of the Tuna and Billfish Specialist Group (TBSG) is to promote conservation action for the world's tuna and billfish species, including the provisioning of increased knowledge on the state of their global and regional populations.

## SUMMARY OF MAIN ACTIVITIES 2015

Bruce B. Collette (TBSG Chair) and John Graves (TBSG member) continued working on a book entitled "Tunas and Billfishes of the World," to be published by John Hopkins Press. In addition to nomenclature, morphology, geographic distribution, ecology, reproduction, and early life history, each species account in the book also includes fishing interests, threats, conservation, and IUCN Red List status.

In collaboration with several members and the SSC Tuna and Billfish Red List Authority, regional IUCN Red List assessments for tunas and billfishes were completed for populations present in the Persian Gulf, the Gulf of Mexico, and European waters.

The FAO Guide to the Living Marine Resources of the Eastern Central Atlantic (a 10-year project to update information and taxonomic guides for all marine fishes in the region) was finally completed and published online.

Based on the results of the 2014 SSC Fisheries Summit (Vancouver, BC) to better quantify methods for assessing the extinction risk of commercial fishes, a manuscript is being prepared for publication in a peer-reviewed journal.

Maria Jose Juan Jorda (TBSG member) is in the process of collecting the most updated stock assessment data and generation lengths for the large tunas, in order to calculate an IUCN Red List Index (RLI) from the 1960s to present.

## IMPACT ON CONSERVATION

Information on the regional status of tunas and billfishes in the Persian Gulf, Gulf of Mexico and the European Union will hopefully aid in improving conservation and research priorities in these regions.

Results and recommendations from the 2014 SSC Fisheries Summit were included in the updated 2016 Guidelines for Using the Red List Categories and Criteria, which will aid in assessing the conservation and population status of subsequent tuna and billfish assessments, in addition to other commercial fishes.

The availability of the 2016 FAO Guide to the Living Marine Resources of the Eastern Central Atlantic, in combination with regional FAO training on taxonomic identification, will help regional fisheries managers, scientists and others to improve species identification and reporting of fisheries landings.

## FUTURE GOALS & ACTIVITIES

As the vast majority of tunas and billfishes are in need of updated global IUCN Red List assessments before 2020, plans are underway as to how funds can be raised for a workshop or series of workshops.

We are also trying to devise methods to assess species that had previously assessed as Data Deficient in their first assessments published in 2011.

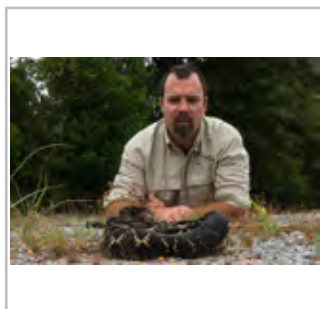
## ACKNOWLEDGEMENTS

Regional UCN Red List assessments were made possible with funding from the Qatar National Research Fund, National Fish and Wildlife Foundation, and the European Commission.



The Tuna and Billfish SG is actively seeking funds to support a synthesis workshop to reassess all of the world's large tunas in the next 5 years, including the Atlantic Bluefin (*Thunnus thynnus*, Endangered)  
© OCEANA, Keith Ellenbogen

# IUCN SSC Viper Specialist Group



Christopher L. Jenkins

NAME: CHAIR / CO-CHAIRS	Dr. Christopher L. Jenkins
NAME: RED LIST AUTHORITY CO-ORDINATOR	Dr. Johannes Penner
LOCATION / AFFILIATION	The Orienne Society, 11 Fruitstand Lane, Tiger, GA, USA 30576
NUMBER OF MEMBERS	186

## MISSION STATEMENT

The Viper Specialist Group's mission is to advance the conservation of the world's vipers. Specific objectives include: (1) bring together a global group of viper conservation biologists to facilitate communication and collaboration; (2) Complete and maintain Red List assessments for all viper species; (3) facilitate focal projects on highly endangered viper species; and (4) serve as a voice and a source of communication material for viper conservation issues and associated projects.

## SUMMARY OF MAIN ACTIVITIES 2015

The greatest achievement of the Viper Specialist Group (VSG) in 2015 was to publish a ground breaking scientific paper focused on global viper conservation. In 2016 the VSG published a paper in a special edition of Biological Conservation titled "Identifying Global Priorities for Viper Conservation". The paper involved the work of many VSG members but was spearheaded by the efforts of Dr. Bryan Maritz, VSG Africa Regional Coordinator. The paper identifies global hotspots of viper species richness and endemism, including areas where richness and endemism hotspots are most threatened. The paper also provides a list of the top twenty species in each of three prioritisation categories, 1) Threatened Species, 2) Ecological and Evolutionary Distinct Species, and 3) Threatened Ecological and Evolutionary Distinct Species.

The VSG was involved in many other activities in 2015. First, the VSG developed our Red List Authority (RLA) to include members from around the world and the RLA worked with IUCN staff to assist with multiple species assessments. In an effort to take a more proactive approach to viper species assessments, the VSG is polling its membership to identify the greatest gaps on the IUCN Red List of Threatened Species for vipers.

Second, the VSG worked on and completed a first draft of a strategic plan with goals to publish the plan in 2016 or 2017. As part of the plan, the VSG is revising its communication plan both internally and externally to further involve members and to provide outreach.

Third, the VSG is launching an effort to develop regional conservation plans. To achieve this goal in 2015 the VSG began outlining a standardised conservation planning process that will be implemented across the regions.

Fourth, the VSG Chairman is working with other reptile and amphibian Specialist Groups to determine the feasibility and value of creating an IUCN SSC Amphibian and Reptile Sub-Committee. In 2015, initial meetings were held among relevant Specialist Groups and efforts were made to discuss the concept with other Sub-Committee chairs.

Finally, the VSG continued to explore ways to engage in focal species conservation projects. As an example, the Orienne Society in partnership with the VSG conducted the first ever radio telemetry projects on the extremely rare Black-headed Bushmaster (*Lachesis melanocephala*).

## IMPACT ON CONSERVATION

The overall mission of the Viper Specialist Group (VSG) is heavily focused on having a conservation impact for one of the world most heavily persecuted groups of animals. However, the VSG is just moving into a phase where significant conservation impacts are being made on the ground. One of the greatest challenges for implementing viper conservation is that we know little about the conservation status of vipers as compared to many other groups of animals. The remedy this, the VSG has laid the groundwork for completing IUCN Red List species assessments for all of the worlds vipers. With the appropriate tools in place, the VSG group is identifying gaps in our knowledge and will begin completing species assessments for all viper species in the next 5 years. However, there are many species of vipers that we do not know enough about to make an accurate status assessment, and thus the VSG is working to support research projects on viper ecology. To date, we have supported many projects by writing letters of support but are working on strategies that would allow us to fund and directly implement research.

The recent publishing of "Identifying Global Priorities for Viper Conservation" is a significant conservation impact. The paper provides a critical guide to where we need to focus the limited resources available for viper conservation. In the short time since the paper has been available, there have been multiple organizations interested in the results and more importantly interested in providing resources for activities such as land conservation focused on the priorities outlined in the paper. The paper is also an important document that will help fuel increased levels of outreach for vipers. With a series of conservation priorities in hand, the VSG is increasing its efforts to outreach to governments and communities on viper conservation. Given that persecution is one of the greatest threats to vipers world-wide, outreach efforts can have some of the greatest impacts for these species.

One of the greatest impacts the VSG is working on is the development of regional conservation plans. Unlike many groups of animals there has been very little conservation planning work for any viper species. By providing a road map to conservation, the VSG is providing a critical first step that will ultimately result in direct conservation impact around the world.

## FUTURE GOALS & ACTIVITIES

The Viper Specialist Group goals for the next three years are to:

- 1) Complete and publish the VSG strategic plan.
- 2) Increase the efficiency and amount of internal and external communication.
- 3) Identify knowledge gaps in IUCN Red List assessments.
- 4) Make significant progress in updating and completing assessments for all viper species.
- 5) Complete conservation action plans for at least 50% of VSG regions.
- 6) Determine how to develop and implement focal species initiatives.

## ACKNOWLEDGEMENTS

The Viper Specialist Group (VSG) thanks all of our partners for their time and resources dedicated to viper conservation. These partners include the Oriante Society for hosting the Specialist Group; all of the organizations that allow their staff to participate in the VSG as officers, committee members, and members; granting organizations that are working towards viper conservation such as the Mohamed bin Zayed Conservation Fund; and the staff of IUCN that work hard to support the efforts of all the species Specialist Groups.



Sahara Sand Viper (*Cerastes vipera*) listed as Least Concern © Wildlife Wanderer\_CC on flickr.com

# IUCN SSC Vulture Specialist Group



André Botha



Chris Bowden

NAME: CHAIR / CO-CHAIRS	André Botha & Chris Bowden
NAME: RED LIST AUTHORITY CO-ORDINATOR	Andy Symes (BirdLife International)
LOCATION / AFFILIATION	Chris Bowden - Royal Society for the Protection of Birds; André Botha - Endangered Wildlife Trust
NUMBER OF MEMBERS	90

## MISSION STATEMENT

The IUCN SSC Vulture Specialist Group (VSG) aims to advocate and create greater awareness of the plight of vultures and coordinate effective conservation activities to their benefit.

The Vulture Specialist Group will support and work closely with BirdLife International as the Red List Authority for birds, but with particular reference to the global status of vultures.

## SUMMARY OF MAIN ACTIVITIES 2015

- 1) July 2015: Volume 68 of Vulture News published on-line.
- 5th September 2015: saw the celebration of the 7th International Vulture Awareness Day with 125 organisations worldwide registering events on the website [www.vultureday.org](http://www.vultureday.org).
- 2) 4-10 October 2015: The VSG, working in partnership with the Convention on Migratory Species (CMS) Raptors MoU and BirdLife International, received support and approval from CMS Raptors MoU Signatories for the drafting of a Multi-species Action Plan (MSAP) for Old World vultures which will coordinate conservation action across the range of all species in Africa and Eurasia. This also launches an initiative to raise funds that will enable the collection of appropriate field data on vultures, specifically in gap-areas in Africa.
- 3) 26-28 October 2015: There was a 'vulture seminar' at VulPro in South Africa 26-28 October 2015 and the BirdLife African Partnership meeting (also October) featured vultures more prominently than previously.
- 4) November 2015: SAVE meeting (Asia) updated conservation priorities. It also reported the progress with legislation on size restrictions on human diclofenac vials declared by Indian Government to curb its misuse - a major achievement in August 2015. Also signs of growing Asian government support for vulture conservation, particularly surrounding the approach of release phases of the conservation breeding programs in India, and more widely with Pakistan and Bangladesh on unsafe drugs.
- 5) September 2015 - June 2016: Sadly, several poisoning events resulting in the deaths of hundreds of vultures across Africa have been reported from countries including Senegal, Kenya, Tanzania, Zambia and South Africa. A significant number of these incidents are either associated with the killing of birds to mask poaching activities, the collection of vulture parts for trade or through poorly managed human-wildlife conflict incidents.
- 6) A feature story focused on African vultures featured in the January 2016 issue of National Geographic magazine.
- 7) 18-21 October 2016 - The second Pan-African Vulture Summit will be held in Dakar, Senegal.



## IMPACT ON CONSERVATION

In response to the poisoning of vultures in Africa, the Endangered Wildlife Trust (EWT), in association with the VSG and working in partnership with a range of in-country organisations have drafted a protocol and training program to train conservationists and other stakeholders in the effective intervention and investigation of wildlife poisoning events in an African context. Training has been presented to more than 650 individuals in South Africa, Namibia, Zambia, Mozambique and Lesotho to date while further training is planned in Kenya, Tanzania and a number of other countries on the continent during 2017. The training is also supported with the assessment of needs and the issue of Poisoning Response Kits to sites where these are required for use during the investigation and decontamination of poisoning scenes. Funding for this is sourced from a range of donors and coordinated in partnership with The Hawk Conservancy Trust.

The VSG has also established an African Wildlife Poisoning database and is keen to work with other SSC Specialist Groups to capture data on wildlife poisonings throughout the continent. The completion of a web-enabled interface which will enable contributors to up-load data through a few simple steps is near completion and will likely be launched in September 2016.

Surveys to assess vulture populations in gap-areas in Africa have commenced with the first of these being conducted in Kenya, Zambia, Mozambique and Zimbabwe before the end of 2016. It is believed that these surveys will contribute significantly to our knowledge of vulture populations in areas where little or no data is currently available.

Over all, although difficult to quantify, the group has served to raise the profile of vulture conservation worldwide (and particularly in Africa), and this is attracting more attention of funders, of governments and of major implementing agencies.

Finally, a number of motions (and events planned) focused on the conservation of vultures and addressing some of the threats that face them have been submitted for consideration at the IUCN World Conservation Congress which will be held in Hawaii in September 2016.

## FUTURE GOALS & ACTIVITIES

- 1) Developing baseline data in terms of vulture populations in gap-areas that have been identified and establishing effective long-term monitoring at key sites in Africa.
- 2) Collation of regional action plans for Africa and Eurasia into a combined MSAP for Old World vultures.
- 3) Work continues on the development of the group's journal, Vulture News, as an on-line resource
- 4) The IUCN SSC VSG webspace portal will be developed during 2016

## ACKNOWLEDGEMENTS

Thank you to the substantial and growing number of VSG members who have actively participated in discussions and contributed to the work of the VSG during the last 12 months.



Cape Vulture & African White-backed Vulture, Kruger National Park © Andre Botha



Slender-billed and White-rumped Vultures, Cambodia © Chris Bowden

# IUCN SSC Wild Pig Specialist Group



Erik Meijaard

NAME: CHAIR / CO-CHAIRS	Erik Meijaard (Chair)
NAME: RED LIST AUTHORITY CO-ORDINATOR	Kristin Leus
LOCATION / AFFILIATION	Borneo Futures and University of Queensland - Jakarta, Indonesia
NUMBER OF MEMBERS	70

## MISSION STATEMENT

The SSC Wild Pig Specialist Group (WPSG) has not yet defined a mission statement. Key components of such a statement would be: (1) viable wild pig populations; (2) all wild pig taxa; (3) threat management; (4) conservation breeding; (5) habitat management; and (6) resolution of conflicts with people. Most wild pig species are in decline, especially the various species and subspecies in Indonesia and the Philippines. The WPSG uses a combination of strategies to try reduce these population declines. This primarily includes (1) research on taxonomy and distribution (the cornerstone of any conservation management); and (2) management of captive and wild populations to prevent the extinction of the most threatened species.

## SUMMARY OF MAIN ACTIVITIES 2015

In 2015, we have significantly expanded conservation activities for a number of threatened suids. This includes the Javan Warty Pig, for which there is now a second captive breeding programme facility. Also, we finalised the surveys of the Endangered Bawean Warty Pig and a scientific paper was subsequently published summarising the first ever ecological observations on the species as well as developing the first conservation status assessment. The WPSG visited the Pygmy Hog Programme in Assam once, and the Indonesia pig programme twice in 2015 to assist in their programme management and fundraising. The Pygmy Hog Programme is continuing to successfully breed these Critically Endangered animals and release them into new and safe sites.

The WPSG engaged in an MOU with the IUCN SSC Asian Wild Cattle Specialist Group, the Indonesian Zoo and Aquarium Association (PKBSI), the European Association of Zoos and Aquaria (EAZA), the Association of Zoos and Aquariums (AZA, North America) and the SSC, witnessed by the Indonesian Ministry of Forestry, for the creation of Global Species Management Plans (administered by the World Association of Zoos and Aquariums (WAZA)) for Anoa, Banteng and Babirusa. The MOU was signed at the end of 2014 and in 2015 the partners jointly worked on identifying how the ex situ populations and communities can best contribute to the conservation of these taxa within the framework of their Indonesian National Action Plans. This entails setting integrated roles and goals for the ex situ populations globally and regionally and supporting various ex situ and in situ conservation activities including species and habitat management, research, capacity building and education. Implementation of the plans started early 2016.

In 2015, we started work on a book to be published by the Cambridge University Press on the wild pigs and peccaries of the world. The book is edited by Mario Melletti and Erik Meijaard and will contain 37 chapters on wild and feral pig and peccary species. This forthcoming volume brings together the contributions of almost 100 international experts on the ecology, conservation status and management of the Suidae and Tayassuidae families.

Finally, like many other Specialist Groups, we updated the IUCN Red Listing for the wild pig species. For some species this was straightforward as expertise was forthcoming, but for others we struggled to get appropriate expert input, and this indicates the need for the WPSG to expand its membership and look for new species experts on the 19 suid taxa that have been assessed on the IUCN Red List.

## IMPACT ON CONSERVATION

Our main impact on conservation is probably to be sought in increased awareness about the conservation plight of threatened pig taxa. We are very active through the twice-yearly published *Suiform Soundings* newsletter, which also represents the SSC Peccary and Hippo Specialist Groups, in publishing information on these often overlooked species. We are also active in research on species like Bearded Pigs, Bawean Warty Pig, Javan Warty Pig, Pygmy Hog, Common and Desert Warthog, Giant Forest Hog, and others. Although this may not directly benefit the species' conservation status, an improving understanding of their ecology, threats, and also taxonomy and phylogenetics allows for better conservation planning and ensures that conservation strategies are optimised as much as possible. Another good example of such research is a study led by WPSG member Laurent Frantz of Oxford University on the Evolution of Suidae (published in the *Annual Review of Animal Biosciences*). This study more than any previous ones reveals the complex and deep evolutionary history of the Suidae. It also indicates the important role of hybridization and inter/intra-species gene flow for speciation, making us rethink what is actually a species.

Real on-the-ground conservation impact is most tangible in the Pygmy Hog Conservation Programme where a team of long-term pig experts are successfully bringing back this species from the brink of extinction and slowly repopulating parts of its former range. Furthermore, a number of breeding programmes, including for the Visayan Warty Pig, the Javan Warty Pig, Babirusa species and of course the Pygmy Hog provide a safety net for these highly threatened taxa.

Successful on-the-ground conservation activities are implemented by the Pygmy Hog Conservation Programme that assists in the improved management of vital tall grassland areas where small populations of the species now survive. It is obvious that without the three decades of focused conservation work, the Pygmy Hog would have gone extinct from the wild a long time ago. We use the lessons learned from the Pygmy Hog programme to develop programs for other highly threatened pig taxa, including Visayan Warty Pig, and the Javan Warty Pig for which a second new breeding programme with state-of-the-art facilities have been established in Taman Safari Zoo, on Java, Indonesia.

## FUTURE GOALS & ACTIVITIES

We will continue the implementation of the action plan for the Babirusa GSMP (Global Species Management Plan), finalize the pig and peccary book, continue the twice-yearly publication of *Suiform Soundings*, further expand our research programs (with a PhD student starting to work on Bearded Pig Ecology), and generally support the India, Philippine and Indonesia in situ and ex situ programs for the most threatened pig species, as well as any other species, including the increasingly abundant Wild Boar (*Sus scrofa*) that require improved conservation management or more study. As a group we remain firmly committed to highlighting how important and cool the wild pigs of the world are.

## ACKNOWLEDGEMENTS

We would like to thank our many sponsors that have helped our various pig programs, including the Zoological Society for the Conservation of Species and Populations (ZGAP), the People's Trust for Endangered Species (PTES), Los Angeles Zoo and Botanical Gardens, the Species Conservation Foundation (Stiftung Artenschutz), Jersey Zoo, Chester Zoo, Disney's Animal Kingdom Fund, and others.



The Endangered Javan Warty Pig (*Sus verrucosus*) © Florian Richter

# IUCN SSC Wildlife Health Specialist Group



William B. Karesh



Richard Kock

NAME: CHAIR / CO-CHAIRS	William B. Karesh and Richard Kock
NAME: RED LIST AUTHORITY CO-ORDINATOR	Programme Office: Catherine Machalaba
LOCATION / AFFILIATION	EcoHealth Alliance (NY, USA) and Royal Veterinary College (London, UK)
NUMBER OF MEMBERS	321

## MISSION STATEMENT

To serve as a first response for wildlife health concerns worldwide, and promote wildlife health as it relates to the conservation of nature.

## SUMMARY OF MAIN ACTIVITIES 2015

The Wildlife Health Specialist Group (WHSG) actively participated in the compilation and dissemination of science-based information to promote wildlife health as a critical component of conservation. In collaboration with the Vulture SG and other IUCN partners, the WHSG contributed technical information and advanced policies to raise awareness to address the threat of poisoning of wildlife (including participation in a side event at the SSC Leaders' Meeting, and provision of input on a briefing document and a proposed Motion for the 2016 IUCN World Conservation Congress).

The WHSG continued to disseminate information on Wildlife Disease Risk Analysis, including through distribution of print and electronic copies of the IUCN-OIE Guidelines to Wildlife Disease Risk Analysis and the associated technical Manual of Procedures. We also organized a session on Wildlife Disease Risk Analysis at the IUCN SSC Leaders' meeting (September 2015) to promote awareness and use of wildlife health tools by other SGs. We also raised key wildlife health concerns expressed by members via this forum to promote synergies in efforts across SGs.

WHSG leaders also provided text on wildlife disease and risk mitigation measures for the World Health Organization-Convention on Biological Diversity publication "Connecting Global Priorities: Biodiversity and Human Health, a State of Knowledge Review", and completed inputs as authors of "Healthy Planet/Healthy People" (UNEP GEO 6).

We addressed health-related priorities emerging from the IUCN Red List of Threatened Species, including development of a position summary on best practices for rabies vaccination in the Endangered Ethiopian Bale Wolf (in coordination with the Canid SG). We also compiled member input on various IUCN calls for information (e.g., the Climate Change SG survey).

We continued to grow out our network of experts as well as disseminate information to the wider public via our website and social media channels (with currently over 1,400 followers on Facebook).

WHSG Co-Chair Richard Kock was involved in the investigation of the Saiga antelope mass die-off in May 2015, frequently communicating updates to IUCN partners. This investigation informed the WHSG's ongoing efforts on a solution to facilitate timely international movement of emergency diagnostic specimens for health and conservation purposes.

## IMPACT ON CONSERVATION

The collective efforts of the WHSG members improved knowledge of wildlife health as a critical component of species conservation. One key area was promoting more proactive consideration of wildlife health and wildlife disease risks in decision making (for example, for veterinary pharmaceuticals such as diclofenac, which typically undergo weak environmental impact assessment before their licensing for use). The IUCN-OIE Guidelines to Wildlife Disease Risk Analysis in particular support a more proactive understanding of wildlife disease risks and risk mitigation opportunities.

The WHSG liaised closely with other organizations and partners (e.g., CBD, OIE, WHO, FAO, UNEP and CMS), providing technical guidance on environment and wildlife health as needed, and presenting on the WHSG as a key implementation resource for wildlife health expertise at the 19th meeting of the CBD's Subsidiary Body on Scientific, Technical and Technological Advice.

The WHSG's emphasis on wildlife health in the context of conservation as well as the wider relation to domestic animal and ecosystem health, food security, and public health, as well as the shared drivers (e.g. climate change, land use change/habitat loss, wildlife trade, etc.) of biodiversity loss and human disease, showcase the importance of a 'One Health' approach that brings together many sectors for mutual benefits, providing opportunities to leverage health to promote the conservation of biodiversity and ecosystem services.

Given the many pressures that wildlife populations currently face, disease outbreaks may threaten species survival, as seen with the devastating 2015 die-off of Saiga antelope that reduced the global population by more than 50%. Discussions with CITES partners helped advance awareness of health aspects as they relate to international trade, informing initial proposed solutions to promote timely and comprehensive diagnostic testing in wildlife disease and mortality events.

## FUTURE GOALS & ACTIVITIES

- Continue to promote constructive dialogue for development and implementation of solutions by CITES countries to facilitate timely movement of emergency diagnostic specimens for conservation purposes.
- Continue to advance policies to raise awareness about the conservation threat of unregulated use of poisons.
- Collaborate with the World Organisation for Animal Health (OIE) Working Group on Wildlife, UN Convention on Biological Diversity, Future Earth and other platforms on One Health initiatives for the promotion of wildlife health to support biodiversity as well as the health of humans and domestic animals.

## ACKNOWLEDGEMENTS

We thank the generous support of the USAID Emerging Pandemic Threats PREDICT program, EcoHealth Alliance, and the Royal Veterinary College.



Professor Richard Kock presented on the IUCN-OIE Guidelines to Wildlife Disease Risk Analysis at the 2015 IUCN SSC Leaders Meeting in Abu Dhabi, UAE. The Guidelines and associated Manual provide a tool to assist conservation managers and other sectors in more proactively identifying wildlife disease risks and potential mitigation or preparedness strategies © IUCN SSC WHSG 2015

# WI-IUCN SSC Woodcock & Snipe Specialist Group



Yves Ferrand

NAME: CHAIR / CO-CHAIRS	Dr Yves Ferrand
NAME: RED LIST AUTHORITY CO-ORDINATOR	Andy Symes (BirdLife International)
LOCATION / AFFILIATION	Nantes (France) / affiliated with the Office national de la chasse et de la faune sauvage
NUMBER OF MEMBERS	50

## MISSION STATEMENT

The Woodcock and Snipe Specialist Group (WSSG) is a network of specialists (both scientists and non-scientists) concerned with the study, monitoring, management and conservation of the 8 woodcock and 18 snipe species in the world. Its first aim is to provide an up-to-date knowledge, to encourage new research and to facilitate contacts between researchers. As these are mainly game species, the final objective is to ensure the sustainable use of the populations. The WSSG publishes an annual Newsletter, which is available on-line on the IUCN website.

## SUMMARY OF MAIN ACTIVITIES 2015

Monitoring of populations of woodcock and snipe species is a permanent work for the WSSG and represents a great part of the annual activity for biologists and members of hunter associations as well. This schedule is essential for the management of the game species. Three species are principally concerned: European Woodcock, American Woodcock and Common Snipe. For this last species, the monitoring launched in European Russia has been pursued and should give robust data to estimate the demographic trend. For European Woodcock, the harmonization in data collection to establish homogeneous indices of abundance in several countries of the wintering area is in progress. This will make the estimation of the demographic trend easier.

Thanks to the miniaturisation of Argos platforms, several projects are set to improve our knowledge on migration. Currently, about 80 European Woodcock are equipped with PTT solar tags in Spain, Italy, Great Britain and France. First results show that Siberia is a non-negligible origin area for birds wintering in West and South-West Europe which enlarged the area of concern. A similar project has been initiated in North America to better understand the migration phenology of American Woodcock. A Latham's Snipe project was also started in 2015 to better understand the ecology of *Gallinago hardwickii* and their use of wetlands.

## IMPACT ON CONSERVATION

In terms of regulation, a European Woodcock bag limit including tools of control has now been routinely applied in France for 5 hunting seasons and surely will help to increase sustainability.

All monitoring of course provides major information for the sustainable use of the Woodcock and Snipe harvested species.

## FUTURE GOALS & ACTIVITIES

As well as the constant development of demographic models in the context of exploited populations, an effort has to be made to provide efficient models for our species which support a high hunting pressure. In the same time, predictive models of abundance should be developed to prevent over-exploitation in case of demographic problem and regulation tools, as bag limits, be applied to control this over-exploitation.

A project to improve our knowledge on Common Snipe migration and origin of birds wintering in France will be launched in 2017 using satellite/GSM tags.

Finally, the WSSG plans to organize a Workshop in 2017 in the Azores.

## ACKNOWLEDGEMENTS

We thank the Office National de la Chasse et de la Faune Sauvage (France) for its constant financial support of the WSSG.



Woodcock (*Scolopax rusticicola*) in wintering in France © Stéphane Beillard/ONCFS

# IUCN SSC / WCPA Joint Task Force on Biodiversity & Protected Areas



Dr. Stephen Woodley



Dr. Penny Langhammer

NAME: CHAIR / CO-CHAIRS	Dr. Penny Langhammer and Dr. Stephen Woodley
NAME: RED LIST AUTHORITY CO-ORDINATOR	N/A
LOCATION / AFFILIATION	Portland, Oregon and Chelsea, Canada (Affiliations: SSC and WCPA)
NUMBER OF MEMBERS	approx 300

## MISSION STATEMENT

The IUCN SSC-WCPA Joint Task Force on Biodiversity and Protected Areas has two main objectives: (1) To determine the best predictors of success for protected areas in conserving biodiversity and to establish mechanisms to maintain such analysis into the future, and (2) To consolidate a standard for the identification of sites contributing significantly to the global persistence of biodiversity, or Key Biodiversity Areas (KBAs).

## SUMMARY OF MAIN ACTIVITIES 2015

### Objective 1

We completed several key global analyses of drivers of biodiversity outcomes in protected areas, teasing apart the role of funding, social and economic drivers. A large amount of time was spent assisting the United Nations Development Programme (UNDP) and Global Environment Facility (GEF) Independent Evaluation Offices with a complex analysis of the impact of GEF investments on biodiversity outcomes in protected areas. This analysis is completed and is available on the GEF Evaluation Office web site (<https://www.thegef.org/gef/sites/thegef.org/files/documents/biodiversity%20summary-web-nov10.pdf>). We also completed and published a global analysis of management effectiveness and another paper on the role of funding agencies in protected areas outcomes. Separate research papers on the global effectiveness of terrestrial and marine protected areas are under review at major journals.

### Objective 2

In early 2015, the draft KBA standard was revised in response to more than 1,200 comments submitted during a first global consultation held in 2014. A group of experts undertook testing of the KBA criteria and thresholds for a diverse set of taxonomic groups in terrestrial, freshwater and marine realms, leading to further improvements in the draft Standard. A second global consultation was held in Sept-Oct 2015, including dedicated sessions at the SSC Leaders Meeting in Abu Dhabi, resulting in more than 600 comments. As with the first consultation, each comment received an individual response explaining how it was addressed, and all of the responses were posted online. Following review by the SSC and WCPA steering committees, the KBA standard was finalized and formally adopted by IUCN Council in April 2016.



## IMPACT ON CONSERVATION

### Objective 1

Protected Areas are the most common conservation tool on the planet. They respond to the greatest cause of species loss, which is habitat loss. Understanding conditions for protected area effectiveness is essential to species conservation.

### Objective 2

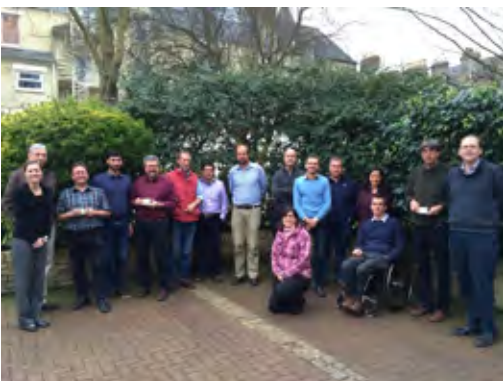
KBAs are guiding the investments of major conservation donors, including the Global Environment Facility (GEF) and Critical Ecosystem Partnership Fund (CEPF), informing private sector safeguard policies and environmental standards such as the IFC Performance Standard 6, and guiding decisions about creation and expansion of protected areas as countries work to achieve the Aichi Targets. Eleven international organizations are forming a KBA Partnership to implement the new KBA Standard including identifying, documenting, updating, and monitoring KBAs and to contribute to their conservation through policy, promotion, and communication of these sites. Both the KBA Standard and the KBA Partnership will be launched at the 2016 World Conservation Congress in Hawaii.

## FUTURE GOALS & ACTIVITIES

The Joint Task Force, in collaboration with IUCN Global Species Programme, is organizing or co-organizing seven events at the World Conservation Congress, including a workshop "What factors determine PA success?" and a half-day conservation campus on "Applying the new Global Standard for the Identification of Key Biodiversity Areas". A number of papers are in press or in development including two global studies on the best predictors of success, in terms of achieving biodiversity conservation outcomes, for terrestrial and marine protected areas. A series of peer-reviewed papers on the KBA standard, including explanation and justification for the KBA criteria and thresholds, and the results of the multi-taxa testing work, will be a Task Force goal in 2016-17.

## ACKNOWLEDGEMENTS

We would like to thank Environment Agency Abu Dhabi, IUCN Global Species Programme, IUCN Science and Knowledge Programme, members of the KBA editorial team and the Task Force, the experts who volunteered their time to conduct testing of the KBA criteria and thresholds, and the hundreds of people who contributed to the development of the KBA Standard through participation in technical and regional workshops and through submission of comments during the online consultations.



KBA Criteria B Workshop, February 2015, Cambridge, UK

# IUCN SSC/WCPA Task Force on Marine Mammal Protected Areas



Erich Hoyt



Giuseppe Notarbartolo di Sciara

NAME: CHAIR / CO-CHAIRS	1) Erich Hoyt 2) Giuseppe Notarbartolo di Sciara
NAME: RED LIST AUTHORITY CO-ORDINATOR	N/A
LOCATION / AFFILIATION	1) Bridport, UK (WDC) 2) Milano, Italy (Tethys Research Institute)
NUMBER OF MEMBERS	32

## MISSION STATEMENT

Marine mammal MPAs form some of the most iconic of all MPAs because the species themselves have a very high resonance with people. However, although some areas of the ocean are high in importance to marine mammals based on reproduction, feeding, migration, and other vital activities, their role is currently underplayed in conservation practice. The main goal of the Task Force is to facilitate mechanisms by which the marine mammal community of practice can collaborate, share information and experience, access and disseminate knowledge and tools for establishing, monitoring, and managing MMPAs and promote effective spatial solutions and best practices for marine mammal conservation.

## SUMMARY OF MAIN ACTIVITIES 2015

The core of the Task Force's activities during 2015 has consisted in the development and promotion of Important Marine Mammal Areas (IMMAs).

What are IMMAs? IMMAs are discrete portions of habitat, important to marine mammal species, that have the potential to be delineated and managed for conservation. IMMAs can be seen as a "marine mammal layer" which represents a pre-selection for consideration by governments, conservation groups, and the general public of areas that deserve consideration for place-based protection. IMMAs can help supply the basis for future marine protected areas (MPAs), MPA networks, and marine spatial planning (MSP), and will help support marine biodiversity conservation in general. In addition, by linking IMMAs to the larger world of the Convention on Biological Diversity's Ecologically or Biologically Significant Areas (CBD EBSAs), IUCN Key Biodiversity Areas (KBAs), and Convention on Migratory Species (CMS) work, IMMAs will accelerate the process of habitat protection for marine mammals and the ecosystems that support them. The creation of a network of IMMAs represents a cost-effective approach to conservation. The rationale for developing IMMAs includes: (1) the specific vulnerability of many marine mammals, (2) the fact that marine mammals have been overlooked by national efforts to create MPAs (particularly in the Mediterranean), (3) the role of marine mammals as indicators to support the identification of MPAs and spatial protection measures, because they are more easily monitored than most other pelagic vertebrates, (4) the role of marine mammals as umbrella species which helps ensure that a properly designed conservation plan will be beneficial to the broader ecosystem communities, and (5) the role of marine mammals as flagship species representing powerful political and public levers for the conservation of less popular or well-known organisms, communities or habitats. Marine mammals are, in short, catalytic species. Thus, knowledge of areas that are important for them will facilitate the balancing of human uses of the sea with the imperative of conserving marine biodiversity. This is particularly needed in the Mediterranean Sea, where in spite of the existence of a considerable body of knowledge about the ecology and conservation status of the resident marine mammal species, coastal nations have been slow to implement place-based initiatives targeting marine mammal conservation. By pointing to the presence of marine areas of particular ecological value, IMMAs will serve the function of promoting the conservation of a much wider spectrum of species, biodiversity and ecosystems in the Mediterranean region, well beyond the specific scope of conserving marine mammals.

The main activities in 2015 have consisted in the development and review of IMMA Criteria.

## IMPACT ON CONSERVATION

As the IMMAs are still in the planning phase, no IMMA has been identified yet on the world's map and therefore no impact on conservation has been obtained yet. However, Task Force Members have actively collaborated with the Secretariat of the Convention on Biological Diversity through their participation to several workshops for the identification of Ecologically or Biologically Significant Areas, and contributed with spatial information on marine mammal habitat.

## FUTURE GOALS & ACTIVITIES

Funds have been secured for the organization of 6 regional workshops in the next 5 years (Mediterranean, South Pacific, Southeast Pacific, Northeast Indian, Northwest Indian) to identify IMMAs in such regions. In addition, 4 areas will be selected (Mediterranean, South Pacific, Northeast Indian, Northwest Indian) where proposals for the creation of protected/managed areas will be formulated on the basis of IMMA identification.

## ACKNOWLEDGEMENTS

Task Force Members for their contributions. Michael Tetley for his hard work on criteria and setting the technical stage for the identification of IMMAs. Randall Reeves and Greg Donovan for helpful comments and constructive criticism. Vienna Eleuteri for support by the Eulabor Institute. Mava Foundation for ongoing Mediterranean IMMA work. Vikki Gunn and GOBI Secretariat for facilitating inclusion of IMMAs in a project supported by the IKI Programme. Tethys Institute and WDC for various support.



The Endangered Galápagos Sea Lion (*Zalophus wollebaeki*) © IUCN Photo Library, Trond Larsen

# IUCN SSC & CEM joint Task Force on Systemic Pesticides



Maarten Bijleveld van Lexmond

NAME: CHAIR / CO-CHAIRS	Maarten Bijleveld van Lexmond
NAME: RED LIST AUTHORITY CO-ORDINATOR	N/A
LOCATION / AFFILIATION	Neuchatel, Switzerland
NUMBER OF MEMBERS	59

## MISSION STATEMENT

The Task Force on Systemic Pesticides (TFSP) is the response of the scientific community to concern around the impact of systemic pesticides on biodiversity and ecosystems. Its intention is to provide the conclusive view of science to inform more rapid and improved decision-making. It continues to carry out comprehensive, objective, scientific reviews and assessments of the impact of systemic pesticides (neonicotinoids and fipronil) on the environment, and to make any recommendations that might be needed with regard to governmental (re)approval of existing and new systemic pesticides.

## SUMMARY OF MAIN ACTIVITIES 2015

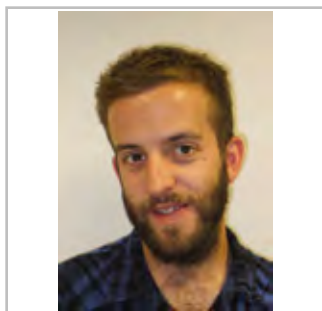
The "Worldwide Integrated Assessment of the Impact of Systemic Pesticides on Biodiversity and Ecosystems" (WIA), TFSP's first major output, was published in the peer-reviewed scientific Journal 'Environmental Science and Pollution Research' (Springer Verlag) in January 2015.

The WIA was translated in Japanese, and subsequent translations of its introductory and conclusions chapters also appeared on the website in Chinese, French, German, Italian, Russian and Spanish ([www.tfsp.info](http://www.tfsp.info)). TFSP's Public Health Working Group published a paper on human neonicotinoid exposure in Japan.

Two symposia on 'Impacts of and Alternatives to Systemic Pesticides : a Science -Policy Forum' were held in Paris (June 2015) and Berlin ( December 2015) with subsequent symposia being prepared in Toronto, Montréal, Manila, Tokyo and Padua to be held in 2016.



# IUCN SSC Bird Red List Authority



Andy Symes

NAME: CHAIR / CO-CHAIRS	
NAME: RED LIST AUTHORITY CO-ORDINATOR	Andy Symes
LOCATION / AFFILIATION	BirdLife International, Global Secretariat, David Attenborough Building, Pembroke Street, Cambridge, UK.
NUMBER OF MEMBERS	184

## MISSION STATEMENT

BirdLife International is the world's largest nature conservation partnership, with 120 Partners worldwide, and growing. Together, we strive to conserve birds, their habitats and global biodiversity, working with people towards sustainability. We are driven by our belief that local people, working locally but connected through our global Partnership, are key. This unique local-to-global approach delivers high impact and long-term conservation for the benefit of nature and people. BirdLife is widely recognised as the world leader in bird conservation. Rigorous science, informed by practical feedback from projects on the ground, enables us to implement successful conservation programmes for birds and all nature.

## SUMMARY OF MAIN ACTIVITIES 2015

Perhaps the highest profile aspect of BirdLife's IUCN Red List work in 2015 was the uplisting of six of Africa's 11 vulture species to higher threat categories. Four of these species are now listed as Critically Endangered and three as Endangered. The main causes of the severe declines in African vulture populations are thought to be indiscriminate poisonings, where birds are drawn to poisoned baits, the use of vulture body parts in traditional medicine, and deliberate targeting by poachers.

The deteriorating conservation status of a suite of wading shorebirds also emerged as a theme from the 2015 Red List update, with eight species uplisted to higher threat categories. Many of these species use the East Asian-Australasian Flyway and are under intense pressure from the loss of intertidal stopover habitat in the Yellow Sea region of East Asia. Up to 65% of intertidal habitat in the Yellow Sea has been lost over the past 50 years, and the remaining habitat is currently disappearing at a rate of more than 1% annually, owing to reclamation for agriculture, aquaculture and other development.

2015 saw the culmination of a three-year project, funded by the European Commission, to produce the European Red List of Birds, led by BirdLife, and involving a consortium including the European Bird Census Council, Wetlands International, IUCN, BTO, Sovon, RSPB, and the Czech Society for Ornithology. The European Red List documents the regional threat status of the 533 wild bird species occurring naturally and regularly in Europe, according to the IUCN Regional Red List Guidelines. It identifies those species that are threatened with extinction at the European scale (13%) and in the European Union (18%). In 2015, through a novel collaboration not yet exploited for other taxa, the assessments were based largely on the official data reported by EU Member States to the European Commission under Article 12 of the Birds Directive (supplemented by similar data from BirdLife Partners and other collaborating experts in all other European countries).

The results of the European Red List were also used to review the global conservation status of relevant species, leading to a raft of category changes in 2015. Iconic species like Atlantic Puffin, European Turtle-dove, Common Eider, Northern Lapwing and Eurasian Oystercatcher were uplisted to globally Near Threatened or Vulnerable. Fewer species were downlisted, mainly owing to better information, but in a few cases to genuine improvements, such as Audouin's Gull.

## IMPACT ON CONSERVATION

The uplisting of so many African vulture species in October 2015 coincided with the launch of a major new campaign by BirdLife Partners, who made a commitment to "save nature's clean-up crew". An appeal was launched to raise funds and awareness for a decade-long science-based conservation programme for these birds, working with local communities, governments, institutions and other conservation organisations, to try to halt – and ultimately reverse – their declines. As a result of this campaign, all African vultures species have now been listed as priorities for action under the Memorandum of Understanding on the Conservation of Migratory Birds of Prey (Raptors MoU) – a subsidiary agreement of the Convention on Migratory Species (CMS). This has brought new opportunities to strengthen and link government and civil society commitments to national and regional initiatives such as the Pan-African Vulture Strategy, through the development of a CMS Multi-species Action Plan covering all Old World vultures (in Africa and Eurasia), which BirdLife is now coordinating.

The data collated for the European Red List of Birds were used to show that, by 2015, the EU had made some progress towards its 2020 target of increasing by 50% the proportion of bird species in a favourable or improving condition. Acknowledging that many threatened species need urgent action to achieve that goal by 2020, the European Commission funded a new three-year LIFE project (coordinated by BirdLife) to develop Species Action Plans for 16 of Europe's most threatened species, including a suite of lowland grassland breeding waders, as well as European Turtle-dove, several threatened seabird species and two vulture species, many of which have been uplisted on the Red List in recent years.

Several bird species were downlisted to lower threat categories on the 2015 Red List, some as a result of successful conservation action over many decades, often funded because of concerns about their high risk of extinction. In the 1960s, Seychelles Warbler was one of the rarest birds in the world, with just 26 individuals left on one small island. Following translocations and habitat management, it is now found on five islands and its population numbers 3,000 and growing.

Various versions of the Red List Index (RLI) developed by BirdLife, IUCN and others have now been adopted as key indicators of progress towards a variety of high-level policy targets, including the UN Sustainable Development Goals.

## FUTURE GOALS & ACTIVITIES

The 2016 IUCN Red List update will be a comprehensive 4-yearly update, involving proactively contacting experts on all 2,500 globally threatened and near-threatened bird species and asking them to help review and update the information held in SIS. It will also see the completion of a complete taxonomic review of all birds, linked with the publication of Volume 2 (Passerines) of the "HBW and BirdLife International Illustrated Checklist of the Birds of the World". In 2014, Volume 1 (Non-passerines) led to the addition of 300 newly recognised species to the Red List, including many threatened species. Volume 2 is expected to have an even greater impact, taking the total number of recognised bird species towards 11,000.

The 2016 update will also strive to incorporate the implications of several other important cross-cutting analyses and developments, including: a new method of calculating species' Extent of Occurrence (using Minimum Convex Polygons); a global assessment of the impact of tree loss on forest-dependent bird species; and newly re-calculated generation lengths.

## ACKNOWLEDGEMENTS

BirdLife's Red List Assessments are sponsored by Zeiss and supported by the Tasso Leventis Foundation, to whom we are very grateful. Thanks also to the A. G. Leventis Foundation, for supporting the taxonomic work that underpins the Red List, and to BirdLife's Founder Patrons, the Aage V. Jensen Charity Foundation, and all the Species Champions who support BirdLife's Preventing Extinctions Programme. We also thank everyone who has contributed information to the bird Red List assessments and via BirdLife's Globally Threatened Bird Forums ([www.birdlife.org/globally-threatened-bird-forums](http://www.birdlife.org/globally-threatened-bird-forums)).



More than 100 ornithologists and stakeholders from 40 countries met in Mikulov, Czech Republic, in 2012 to launch the European Red List of Birds, which was published in 2015 © BirdLife International

# IUCN SSC Brazil Plant Red List Authority



Gustavo Martinelli

NAME: CHAIR / CO-CHAIRS	
NAME: RED LIST AUTHORITY CO-ORDINATOR	Gustavo Martinelli
LOCATION / AFFILIATION	Rio de Janeiro Botanic Garden Research Institute, Rio de Janeiro, Brazil.
NUMBER OF MEMBERS	36

## MISSION STATEMENT

1) Organize and manage scientific information for the Brazilian flora conservation; 2) Assess the conservation status of species of the Brazilian flora; 3) Guarantee data quality and proper application of IUCN Red List Criteria and Categories to all Red List assessments of Brazilian plants; 4) Support the update of the Brazilian Official List of Threatened Species of Flora published by the Brazilian Government; 5) Develop and publish the conservation action plans for threatened species of the Brazilian flora; 6) Coordinate the ex situ conservation of threatened species of the Brazilian flora; 7) Prepare maps of the priority areas for the conservation of threatened species of the Brazilian flora and provide information on threatened species to support decision-making.

## SUMMARY OF MAIN ACTIVITIES 2015

In 2015, in regards to Target 2 of the Global Strategy for Plant Conservation (GSPC), the Brazil Plant Red List Authority (RLA) consolidated the list of endemic plant species of the Rio de Janeiro State and we assessed all 900 species considered endemic by a network of 110 plant specialists, including 182 assessment of trees done with the financial support of BGCI/Global Trees Campaign. From this total, 478 (53%) were categorized as Threatened. In the categories of non-threatened species, 9 species (1%) were assessed as Near Threatened and 4 species (less than 1%) as Least Concern. Surprisingly, for an apparently well-known state, a high amount of species were classified as Data deficient (DD), 411 species (46%). Due to this finding, we began a campaign named "Procura-se" ("Wanted") to search for these species in the field.

Also, in Rio de Janeiro State, the Brazil Plant RLA has analyzed the priority areas for endemic flora conservation. The areas were ranked in accordance with the level of priority for conservation actions in the whole state, it will give support to the decision makers and for the action plans for flora. From this, the group has organized two workshops for the elaboration of the action plans for endemic flora species of the Rio de Janeiro State, attended by stakeholders from research institutions, NGOs, universities and environmental agencies. The priority areas and the action plans are an important step to reach the Targets 7 and 8 of the GSPC.

Moreover, the Brazil Plant RLA published two actions plans for Cerrado biome in Minas Gerais State, "Plano de Ação Nacional da Serra do Espinhaço Meridional" and "Plano de Ação Nacional da região de Grão Mogol-Francisco Sá". For these, the territorial approach was used which maximizes the benefits of the actions for all the species with occurrences in the focus areas, as well as unknown, Threatened, non-threatened and Data deficient species. The "Field Guide: Critically Endangered flora species from Minas Gerais' Cerrado" was also published by the Brazil Plant RLA which aims to allow local stakeholders, such as students, protected areas staff, fire fighters and the community to help look for and monitor species in the guide.

In relation to Target 8 of GSPC, the Brazil Plant RLA has consolidated the National Strategy for Threatened Species for Ex-situ Conservation. The CNCFlora team has developed a computational tool to assess the risk of extinction of flora according to the criteria "B" of the IUCN Red List Categories and Criteria. This tool allows rapid assessment of the risk of extinction for supporting trained professionals to make decisions on the final categorization of species. The group has work in collaboration with the South African National Biodiversity Institute and Instituto Humboldt, Colombia, giving support for the development of the information system of these institutions for species conservation.



## IMPACT ON CONSERVATION

In 2015, in addition to the 900 evaluated endemic species of the Rio de Janeiro State, the Brazil Plant RLA has evaluated new species described by specialists. As a result, 16 new species were published with the assessment made by CNCFlora using the Red List evaluation process and 26 are in process for publication.

The action plans published in 2015, "Plano de Ação Nacional da Serra do Espinhaço Meridional" and "Plano de Ação Nacional da região de Grão Mogol-Francisco Sá", encompass 330 threatened species of which 58 are Critically Endangered, 194 Endangered, 78 Vulnerable and 32 Data Deficient. These action plans collectively have involved approximately 30 institutions.

Field expeditions have been undertaken in little-known areas, including three different biomes in Brazil, Pantanal, Cerrado e Mata Atlântica. This effort resulted in about 1,000 specimens being collected, 3 of which were rediscovered e.g., *Terminalia acuminata* Allemão which, since 1942, was considered to be classified as Extinct in the Wild in 2010.

The "Faveiro-de-wilson action plan" launched in 2014 has many actions ongoing in different stages of implementation. As a good example, the action for the study of population dynamics attracted financial support and has been implemented with some initial results.

## FUTURE GOALS & ACTIVITIES

- 1) In 2016, the Brazil Plant RLA will publish the Red Book for the Flora of the Rio de Janeiro State with the Red List assessments of the Rio de Janeiro threatened endemic species and the action plan and priority maps for the endemic species of Rio de Janeiro State.
- 2) Publication of the National Strategy for Threatened Species for Ex situ Conservation and the publication of the action plan for Alto Tocantins region in Cerrado with 82 threatened species.
- 3) Field work for the "Procura-se" ("Wanted") to find more hidden species in the Rio de Janeiro State.

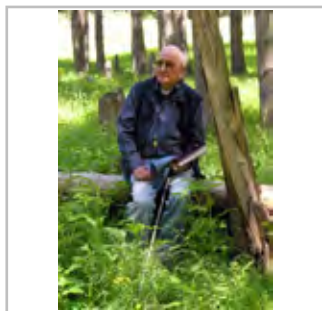
## ACKNOWLEDGEMENTS

The Brazil Plant RLA wishes to thank the Ministry of Environment for all their support, the Environmental State Secretary of the Rio de Janeiro State and the Rio de Janeiro's Botanic Garden Research Institute for providing the infrastructure for our work. Also thanks to IUCN SSC, the BGCI/Global Trees Campaign for financial support for the assessment of the tree endemic species of the Rio de Janeiro State, SANBI for the technical exchange and the CB-lab/UFG for the technical partnership.



Mountain Range of Espinhaço in Cerrado Biome, Minas Gerais State, Brazil © Rafael Santiago

# IUCN SSC Caucasus Plant Red List Authority



George Nakhutsrishvili

NAME: CHAIR / CO-CHAIRS	
NAME: RED LIST AUTHORITY CO-ORDINATOR	George Nakhutsrishvili
LOCATION / AFFILIATION	The Caucasus Ecoregion: Armenia, Azerbaijan, Georgia, Iran, Russia, Turkey
NUMBER OF MEMBERS	45

## MISSION STATEMENT

The mission of the IUCN SSC Caucasus Red List Authority (RLA) is to evaluate extinction risks of endemic and rare plant species, for the IUCN Red List of Threatened Species, as well as diverse ecosystems in the Caucasus ecoregion. Also to plan and conduct science-based actions for threatened species and ecosystem conservation, to study and protect indigenous knowledge on plant traditional use thus supporting long-term maintenance and sustainable use of local plant and vegetation diversity and useful plant resources.

## SUMMARY OF MAIN ACTIVITIES 2015

The major region-wide activities of 2015 corresponded to several targets of the Caucasus Plant RLA Initiative: A Regional Plant Conservation Strategy developed by the Caucasus Plant RLA in 2012:

1) CPI Target 1: An online Flora of all known plants of the Caucasus.

In the context of the Pan-Caucasian Plant Biodiversity Initiative - a collaborative network established by Berlin-Dahlem Botanical Garden and Botanical Museum with partners in Armenia, Azerbaijan and Georgia, with support from the Volkswagen Foundation, continued its research on Caucasus-wide taxonomic revisions of selected plant genera (e.g. *Acantholimon*, *Campanula*, *Dianthus*, *Papaver*, *Pyrus*, *Scorzonera*). This included data-basing collections in all major Caucasian herbaria. The development of an on-line portal to disseminate the results is envisaged in the following years.

2) CPI Target 8: At least 75 percent of threatened plant species in ex situ collections, preferably in the country of origin, and at least 20 per cent available for recovery and restoration programs.

The Millennium Seed Bank Partnership, Royal Botanic Gardens, Kew, continued bringing together seed banks and botanic gardens across the region to facilitate the ex situ conservation of the flora of the region. All seed collections, together with associated herbarium specimens and field data, are conserved at the partner organizations in the country of origin with duplicates conserved at the Royal Botanic Gardens Kew, UK. Training and technical support is provided by RBG Kew in all aspects of species targeting, seed collecting, seed processing and banking, germination testing, propagation and databasing.

3) CPI Target 13: Indigenous and local knowledge, innovations and practices associated with plant resources, maintained or increased, as appropriate, to support customary use, sustainable livelihoods, local food security and health care.

William L. Brown Center for Economic Botany, Missouri Botanical Garden, continued ethnobotanical research in Georgia and extended this research to Armenia and Azerbaijan; the region-wide initiative will result in a volume published by Springer in 2017 and will include "the best and latest research on a full range of descriptive, methodological, theoretical, and applied research on the most important plants for the Caucasus region" (<http://www.springer.com/us/book/9783319494111>).

## IMPACT ON CONSERVATION

Of the activities listed above, the development of seed-banks with support from the MSBP, RBG, Kew, has the most direct impact on plant conservation. The other activities, despite having no direct impact on conservation, serve to create a scientifically sound basis for future conservation activities related to the plants under study, as well as gather important indigenous knowledge necessary to include in any program related to plant sustainable use.

## FUTURE GOALS & ACTIVITIES

The future goals of the Caucasus Plant RLA are:

- 1) Continuation of the initiated activities described above;
- 2) Submission of the Caucasus plant assessments to the IUCN Red List of Threatened Species (updated as required);
- 3) Initiation of IUCN assessment of ecosystems.

## ACKNOWLEDGEMENTS

We would like to thank all our partners: Berlin-Dahlem Botanical Garden and Botanical Museum, Royal Botanic Gardens, Kew, William L. Brown Center for Economic Botany, Missouri Botanical Garden for their invaluable support in conduction of our mission in the Caucasus.

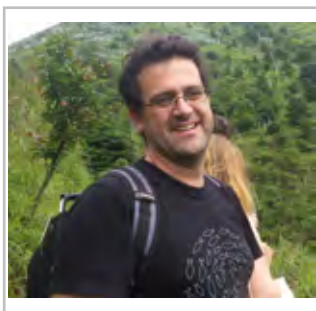


*Galanthus platyphyllus*, an endemic plant species of the Caucasus © Ketevan Batsatsashvili

# IUCN SSC Central African Plant Red List Authority



Jean Michel Onana



Tariq Stevart

NAME: CHAIR / CO-CHAIRS	
NAME: RED LIST AUTHORITY CO-ORDINATOR	1) Jean Michel Onana and 2) Tariq Stevart
LOCATION / AFFILIATION	1) Yaoundé/ National Herbarium of Cameroon and 2) Herbarium of the Université Libre de Bruxelles and Botanic Garden Meise
NUMBER OF MEMBERS	26

## MISSION STATEMENT

The aims of the Central African Plant Red List Authority (CARLA) are:

- 1) Assess the conservation status of plants of the subregion, through the completion of assessments in accordance with the IUCN Red List Categories and Criteria;
- 2) Develop a strategy, including clear priorities, for advancing IUCN Red List assessments in the subregion;
- 3) Identify possible funding sources and strategies for sustaining plant Red Listing in the subregion; and
- 4) Capacity building for IUCN Red Listing.

## SUMMARY OF MAIN ACTIVITIES 2015

A total of 7,850 plant species has been documented from Cameroon (Onana 2011), of which 814 were assessed as threatened in the national Red Data Book (Onana & Cheek, 2011). The process of adding these species to the IUCN Red List has started.

In September 2015, Jean Michel Onana attended the 3rd SSC Leaders' Meeting on the 15-18 September in Abu Dhabi, United Arab Emirates.

In their 2015 Annual Report to the Environment Agency - Abu Dhabi, Martin Cheek (Royal Botanic Gardens, Kew) and Jean Michel Onana reported on progress on adding threatened Cameroonian plant species to the IUCN Red List. The key achievements in 2015 were:

- 1) A new initiative was launched to assess key endemic plant species in Cameroon for their IUCN Red List status.
- 2) In 2015, a total of 122 new species assessments for Cameroonian plants were published on the IUCN Red List.

During 2015 there was steady progress at the Royal Botanic Gardens, Kew in uploading assessments into the IUCN Species Information Service (SIS) system, adjusting them and reviewing them for publishing on the IUCN Red List. Among the main families covered were the Balsaminaceae and Begoniaceae, both of which have many locally endemic species at risk, primarily as a result of forest clearance for small-holder agriculture, industrial plantation agriculture, and, in recent years, mining activities.

The June update of the IUCN Red List saw publication of 12 *Begonia* taxa which had been worked on by Lucia Lopez Poveda in late 2014. In a workshop at Kew, 6-17 July 2015, a further 110 taxa were processed by Craig Hilton-Taylor and Jean Michel Onana, which were published in the November release. A total of 122 taxa being published on the IUCN Red List in 2015.

## IMPACT ON CONSERVATION

Environmental impact studies in the region now benefit from more plant species being listed on the IUCN Red List. The conservation needs of these species must now be taken into account by development projects being conducted in Cameroon in order to obtain a Certificate of Environmental Compliance. This applies in particular to the construction of hydroelectric dams. For example, the construction of the Memve'ele dam on the Ntem river (South Region of Cameroon), where environmental monitoring for the conservation of the endemic and threatened plant species, in particular the Podostemaceae and specifically *Inversodicraea annithomae* (C.Cusset) Rutishauser & Thiv (= *Ledermaniella annithomae* C.Cusset), a narrow endemic to the site of the Memve'ele falls, was carried on to ensure the protection of some areas where this Endangered species occurs.

## FUTURE GOALS & ACTIVITIES

In 2016 the Rubiaceae will be targeted by the same team. Best known for coffee and quinine, this family has higher species diversity in tropical African forests than anywhere else in the world. Ranging from herbs to timber trees, species of this family especially dominate the shrub layer of forests. Numerous new species to science were discovered in field surveys in Cameroon prior to the writing of the Red Data Book and many of these are localized and threatened.

## ACKNOWLEDGEMENTS

Grateful thanks go to Simon Stuart for the financial support of the workshops, sponsored by the IUCN SSC and held at Kew. Thanks go also to Craig Hilton-Taylor for the time he spent in Kew on this very exciting exercise, and to Martin Cheek, Yvette Harvey and Lucia Povada for the time used to upload assessments into IUCN SIS system. The Environment Agency - Abu Dhabi (EAD) is also acknowledged for generously sponsored the participation of one the Coordinators of CARLA to the IUCN SSC Leaders' Meeting in Abu Dhabi, United Arab Emirates in September 2015.



Morphology and habitat of *Impatiens akomensis* and allied species: A, habitat and habit of *I. akomensis*; B, view on the inflorescence of *I. akomensis*; C, frontal view of *I. akomensis* flower; D, lateral view of flower of *I. akomensis*; E, lateral view of *I. pseudomacroptera* flower; F, lateral view of *I. macroptera* flower. A–D from Lachenaud et al. 679, E from Dessein et al. 2023, F from Merckx VM107.

# IUCN SSC Eastern African Plant Red List Authority



Quentin Luke

NAME: CHAIR / CO-CHAIRS	
NAME: RED LIST AUTHORITY CO-ORDINATOR	Quentin Luke
LOCATION / AFFILIATION	National Museums of Kenya (NMK), Nairobi, Kenya
NUMBER OF MEMBERS	18

## MISSION STATEMENT

The IUCN SSC Eastern African Plant Red List Authority (EAPRLA) has 15 members from Kenya, Tanzania, Uganda, Burundi, Rwanda, Ethiopia, Democratic Republic of Congo and South Sudan and 3 ex-regional members from the UK & USA. Membership includes expert botanists from the region's main herbaria and universities. The EAPRLA raises funds with which it gathers plant species data and then holds meetings in various member countries to assess and assign Red List threat categories. These assessments are forwarded to the IUCN Red List Unit for entry into SIS and publishing on the website. Whilst the EAPRLA has a primary focus on the IUCN Red Listing of the region's flora we recognize that we have an important role in promoting collaboration between regional institutions and contributing to professional training initiatives.

## SUMMARY OF MAIN ACTIVITIES 2015

EAPRLA held its tenth meeting in Dar es Salaam, Tanzania, with joint funding from the Mohamed bin Zayed Species Conservation Fund (MBZ) and the Tanzanian Commission for Science and Technology (COSTECH). The meeting was held on 4-9 October 2015 and completed 165 assessments, mostly belonging to the Rubiaceae family and from the East African Coastal Forests and the Eastern Arc Hotspots of Kenya and Tanzania.

The South Sudan project, funded by the Critical Ecosystems Partnership Fund (CEPF), was suspended due to the instability in the region. Reporting on the 2014 activities was completed and an extension period obtained to allow for the situation in South Sudan to stabilise. Email correspondence sent to the botanists in Juba went unanswered. The Kew publication (Darbyshire et al.) on the plants of Sudan and South Sudan was published and will assist greatly with selecting rare and threatened taxa for Red Listing. It will also facilitate selection of candidate Key Biodiversity Areas (KBAs). An initial field investigation was held in the Imatong Mountains and initial discussions held with national agencies and universities. As a result of the prolonged civil war the infrastructure for plant conservation has been effectively lost. We see supporting plant conservation in South Sudan as a priority for the EAPRLA.

The MacArthur Foundation funding for EAPRLA to assess the threat status the Lake Victoria Catchment Basin (LVCB) plant species endemics became available and the project steering committee was formed. The task of compiling a draft list of restricted-range species and regional endemics for LVCB began before the end of 2015. The first of three workshops to begin processing 400 IUCN Red List assessments was moved forward to 2016 and will be held in Kampala. Results from the MacArthur funded project indicate that the endemic flora of the Lake Victoria Basin is highly threatened. We have assessed a large number of species from Uganda, Rwanda and Burundi that are both point endemics and not collected for over 50 years.

The EAPRLA Co-ordinator attended the IUCN SSC Cycad Specialist Group meeting and red listing workshop in Medellin, Colombia in August, thanks to funding from the Montgomery Botanical Centre, Miami. He also attended the IUCN SSC Leaders meeting in Abu Dhabi in September, thanks to support from Environment Agency - Abu Dhabi. At this meeting the EAPRLA signed an MOU with the SSC Global Tree Specialist Group to collaborate on producing a regional Red List for Eastern African trees.

The EAPRLA is collaborating with the IUCN SSC Freshwater Plant Specialist Group to re-assess freshwater plant species in the Lake Victoria Basin.

## IMPACT ON CONSERVATION

The primary function of the EAPRLA is red listing the region's flora, this is a direct contribution both to the SSC's strategic priorities and to the targets of the Global Strategy for Plant Conservation (GSPC). Results from our activities have been incorporated in the conservation work of Botanic Gardens Conservation International (BGCI), Tanzania National Parks Authority (TANAPA) and National Museums of Kenya (NMK).

Our results have been used in land-use planning associated with mineral extraction projects. Results from our assessments have been used in conservation fund-raising initiatives by NMK. We were able to brief Fauna & Flora International, BirdLife International and the African Wildlife Foundation (AWF) on species and habitat conservation priorities for South Sudan.

The EAPRLA has been particularly successful in building an effective regional coalition of plant conservationists and supporting that network through partnerships with extra-regional institutions, most notably RBG Kew, Missouri BG and Florida International University.

It must be noted that the conservation impact of our work has been so far been reduced by the low number of taxa incorporated into the IUCN Red List. It is important for our members to see their work adopted and endorsed by IUCN. Our ability to use Red Listing as a conservation and legislative tool will be greatly aided by getting our assessments incorporated in a timely manner into the IUCN Red List, and we are therefore heartened by steps that will be taken to speed up the processing of our assessments and hope that they will be successful. We are anxious to link our plant assessments with KBA and Alliance for Zero Extinction (AZE) assessments. This is particularly important as eastern Africa enters a period of massive habitat transformation.

## FUTURE GOALS & ACTIVITIES

The EAPRLA has the following strategic priorities for the next few years:

- 1) Continue to support our extraordinary group of volunteer scientists and field botanists. Key to this is broadening our funding base to provide support for workshops and associated fieldwork.
- 2) We will continue to support young and mid-career plant conservationists in the region; we are investigating opportunities for training partnerships with regional universities.
- 3) We will complete the assessment of endemic species for the LVCB (MacArthur Foundation-funded); the results will feed directly into KBA/AZE assessments. We will work with the East African Wildlife Society to promote this work.
- 4) While fieldwork in South Sudan has been stopped due to political unrest we will continue to work with partners to support plant conservation in that country.

We will work closely with the IUCN SSC Global Tree Specialist Group to initiate a regional Red List for trees.

## ACKNOWLEDGEMENTS

The EAPRLA thanks MBZ, CEPF and the MacArthur Foundation for support and project funding during 2015 and both IUCN and SSC for their support and communication.



10th workshop of the East Africa Plant Stand-alone RLA held in Dar es Salaam

# IUCN SSC Marine Fishes Red List Authority



Kent Carpenter and Beth Polidoro

NAME: CHAIR / CO-CHAIRS	
NAME: RED LIST AUTHORITY CO-ORDINATOR	Kent E. Carpenter and Beth A. Polidoro
LOCATION / AFFILIATION	Old Dominion University (KEC) and Arizona State University (BAP)
NUMBER OF MEMBERS	Approximately 40

## MISSION STATEMENT

Our mission is to transform marine conservation capabilities by completing IUCN Red List assessments for 20,000 marine species, including all marine bony fishes.

## SUMMARY OF MAIN ACTIVITIES 2015

In 2014, we continued to make progress towards our goal of assessing the conservation status of 20,000 marine species using IUCN Red List methodology. We held four IUCN Red List workshops: two in Fiji, one in Mexico and one in Hong Kong. With the help over of 50 taxonomic and regional experts from ten countries, we assessed approximately 850 marine bony fish species globally and another 600 species at regional levels. In collaboration with international colleagues, we also published results on two regional projects: Brazilian croakers and drums in *Global Ecology and Conservation*; and Persian Gulf coral-dependent bony fishes in *Marine Pollution Bulletin*. In addition, we contributed to a global review of the status of protected areas relative to national and global conservation targets in *Conservation Letters*.

Approximately 4,000 global and regional marine fish assessments were added to the IUCN Red List website in 2015. In addition, we concluded the first step – assessments of marine bony fishes – for a number of our regional assessment initiatives, including those in Europe, the Persian Gulf, the Eastern Central Atlantic and the greater Caribbean. Scientific publications highlighting the results of for these important geographic regions are in progress, and are anticipated by the end of 2016.

Thanks to the diligent efforts of Kira Mileham in the SSC Chair's Office, we embarked on a strategic partnership with The Deep, one of the UK's largest aquariums. The Deep is hosting a Marine Red List Officer (Robert Bullock) as a full-time staff member beginning April 2016, who will play a key role in the future progress of the Global Marine Species Assessment (GMSA). He will also work closely with the IUCN SSC to develop a model towards engaging global aquariums with the IUCN SSC aquatic network, thus substantially increasing global marine conservation capabilities.



## IMPACT ON CONSERVATION

In November 2015, RLA Coordinator Dr Kent Carpenter was called to the International Court of Justice to provide testimony on the impacts of dredging of coral reefs in disputed areas of the South China Sea. Using data from the IUCN Red List and his personal observations in the region, he was able to identify species that may be negatively affected by these actions. For example, of the 500 coral species present around the Spratly Islands, 139 were listed as threatened and another 138 were listed as Near Threatened. Given the pristine nature of these reefs and the high biodiversity, the impacts are “close to catastrophic”. The testimony represents a unique application of IUCN Red List data in the marine realm and may pave the way for future inclusion of such effects in the dialogue of international environmental disputes.

In addition, in 2015, we completed many of our regional initiatives, including those in Europe, the Greater Caribbean, Persian Gulf and Eastern Central Atlantic (ECA). Our ECA initiative, supported by the MAVA Foundation, is poised to guide concrete marine conservation actions, especially in the countries covered by the Regional Marine and Coastal Conservation Programme for West Africa (PRCM). Our preliminary results were presented at the PRCM Forum in 2015 to an audience including institutional and non-governmental development and conservation stakeholders. As the PRCM countries have agreed to increase the network of West African marine protected areas, our results will help guide effective and efficient protected area placement to maximize conservation outcomes.

Over the past decade we have substantially increased the representation of marine fish species on the IUCN Red List, providing comprehensive species-specific baseline data, as well as spatial, temporal, and taxon-specific trends in threat. Our results have, and will continue to, guide national, regional and international marine conservation decisions, including petitions to include species listed on CITES and the US Endangered Species Act.

## FUTURE GOALS & ACTIVITIES

We look forward to continuing to improve our understanding of the status of marine biodiversity at global and regional scales. With almost 6,500 marine bony fish IUCN Red List assessments published globally and another 2,500 in progress, we are about halfway to our goal of completing assessments for all ~16,000 marine fishes. These assessments will provide a baseline by which future changes in the status of marine fishes can be measured. In addition, we continue to work towards comprehensive species assessments for specific biogeographic regions, including Oceania, the Patagonian Sea and the Western Indian Ocean.

## ACKNOWLEDGEMENTS

We recognise and thank the essential contributions of our specialists, who volunteer their time and expertise to further the goals of the RLA. To date, over 500 specialists from nearly 80 countries have attended at least one workshop. These specialists represent an investment by institutions throughout the world to further our understanding of marine biodiversity and conservation. We gratefully acknowledge the numerous organizations and agencies that have supported our work to date. Roger McManus continues to provide advice and support for fundraising.



The Near Threatened Orange-spotted Grouper (*Epinephelus coioides*) © Karan F-Krupp

# IUCN SSC New Caledonia Plant Red List Authority



Vincent Tanguy

NAME: CHAIR / CO-CHAIRS	
NAME: RED LIST AUTHORITY CO-ORDINATOR	Vincent Tanguy
LOCATION / AFFILIATION	New-Caledonia and affiliated to the NGO Endemia
NUMBER OF MEMBERS	43

## MISSION STATEMENT

Our goal is to assess the conservation status of the whole flora of New Caledonia by 2020. New Caledonia contains some 3,371 native species of vascular plants, of which 75% are considered endemic (Florical, 2012, 2016). This exceptional floristic diversity is threatened by accelerating development. The IC Red Listing activities will:

- 1) Provide a valuable tool for local institutions in charge of setting conservation priorities; and
- 2) Allow knowledge improvement by identifying Data Deficient species and promoting fieldwork on them.

## SUMMARY OF MAIN ACTIVITIES 2015

The newly formed SSC New Caledonia Plant Red List Authority started its IUCN Red Listing activities in 2015.

During the year, a total of 419 species were assessed (405 being endemic to New Caledonia and therefore submitted to the IUCN Red List Unit). The results show that 45% of the species are considered to be threatened, with 46 species being Critically Endangered, 71 Endangered and 71 Vulnerable. A total of 16% of the species have been listed as Data Deficient, essentially for taxonomic reasons.

These IUCN Red List assessments were carried out through 15 days of workshops involving a total of 47 experts. Endemia has significantly contributed with the implementation of a dedicated database.

## IMPACT ON CONSERVATION

A few species were listed as 'Critically Endangered possibly extinct' during the assessment workshops. The survey efforts stimulated by these assessments resulted in two of these species have been rediscovered subsequently.

Main threats impacting the New Caledonian flora are bush-fires (quoted for 58% of threatened species), on-going mining activities for nickel extraction (46%) and habitat degradation caused by invasive species such as Rusa Deer and feral pigs (31%). It appears moreover that an additional 10% of species may be threatened if mining activities are extended in the future.

Existing conservation actions have been inventoried in the assessments. Thus, of the 188 threatened species, some are already protected by local legislation, and recommendations have been sent to local authorities to update the list of protected species in the legislation. A total of 65% of threatened species do not have any sub-populations in protected areas. Work will be carried out in 2016-2017 to identify the priority areas for protection in order to enhance this percentage. A total of 85% of threatened plant species are not included in any ex situ conservation programmes.

## FUTURE GOALS & ACTIVITIES

A further 500 species will be assessed in 2016 and additional work will be done to make the utilization of our results and data easier by the local authorities in charge of conservation. This might lead to the Red List Authority evolving into a Specialist Group.

## ACKNOWLEDGEMENTS

Setting-up the RLA and implementing IUCN Red Listing was possible thanks to the financial support from the Province Nord and Province Sud of New Caledonia, French government, and mining actors (SLN Metals and Mining and Koniambo Nickel SAS).



*Araucaria humboldtensis* (Endangered) on the Humboldt mountain in south New-Caledonia © Vincent Tanguy

# IUCN SSC North American Plant Red List Authority



Bruce Young

NAME: CHAIR / CO-CHAIRS	
NAME: RED LIST AUTHORITY CO-ORDINATOR	Bruce E. Young
LOCATION / AFFILIATION	NatureServe, Arlington, Virginia, USA
NUMBER OF MEMBERS	5

## MISSION STATEMENT

The mission of the SSC North American Plant Red List Authority (NAPRLA) is to facilitate the increasing coverage of North American plants in the IUCN Red List. The NAPRLA also works to coordinate the use of NatureServe information on plant conservation status to inform IUCN Red List assessments.

## SUMMARY OF MAIN ACTIVITIES 2015

**Orchid Assessments** - In collaboration with Texas Tech University, the IUCN SSC Orchid Specialist Group (including the North American Region Orchid SG), and the IUCN Red List Unit, we contributed to the completion of IUCN Red List assessments of 28 rare and threatened orchid species. Fourteen of the taxa were assessed as threatened (CR, EN, or VU) by IUCN, whereas nine are listed as Threatened or Endangered under the United States Endangered Species Act and seven are endemic to a single U.S. state. The results of the study were disseminated as a poster at the Ecological Society of America meeting in August 2015.

**Global Cactus Assessment** - After providing data and helping to fund and facilitate IUCN Red List workshops on cacti in previous years, a member of the North American Plants RLA co-authored a publication that was released in 2015 in the journal *Nature Plants* describing the research findings of the assessment.

**Support for assessing Hawaiian Plants** - A member of the North American Plants RLA participated in a workshop held in August 2015 to assess threatened Hawaiian plants. The RLA contributed NatureServe's historical data on the status of many of these species, and contributed to facilitation of the IUCN Red List assessment process.

**Improvements to the IUCN Red List process for plants** - Through his participation on the IUCN Red List Committee, the Chair of the NAPRLA was able to support decisions that benefit plant assessments worldwide, such as the ability to publish IUCN Red List assessments in languages other than English.

## IMPACT ON CONSERVATION

Previously, we supported a workshop to assess cacti of the Caribbean (including Florida). The results formed part of the Global Cactus Assessment. Subsequently, the Critical Ecosystem Partnership Fund issued a call for proposals to revise their strategy for funding activities in the Caribbean. The request for proposals called for incorporation of the new IUCN data on cacti into consideration for prioritization of Key Biodiversity Areas for funding. This is a tangible example of how recently completed IUCN Red List assessments on plants are already influencing how and where conservation funding is allocated.

Also, the IUCN Red List assessments for North American orchids will form an important input to the U.S. Fish & Wildlife Service's regular five-year reviews of the seven orchid species that are currently listed under the U.S. Endangered Species Act. The Endangered Species Act requires consideration of threats to a species when determining whether a species merits listing (or de-listing). The Red List assessments are of particular interest in this exercise because of their detailed information about known threats.

## FUTURE GOALS & ACTIVITIES

During 2016, our major focus will be to work with the Center for Plant Conservation to develop a strategy for reassessing the conservation status of North American plants. The effort will include coordination of the major contributors to North American plant Red List assessments, including those in the NGO, botanic garden, governmental and academic communities. The goal is to hold a workshop in 2016 with members of these organizations to map out an approach, including identification of funding sources, determining the structure of how assessments would take place, and assigning roles and responsibilities. Subsequently, we plan to develop a funding concept and begin to seek seed money for a more in-depth planning workshop, the goal of which would be to develop a full-fledged funding proposal.

## ACKNOWLEDGEMENTS

We thank the National Fish and Wildlife Foundation, the US Bureau of Land Management, and NatureServe for funding.



*Peristylus holochila* (CR), an orchid assessed in a workshop organized by the Hawaiian Plant Specialist Group attended by the North American Plant RLA © Wendy Kishida

# IUCN SSC Sciaenidae Red List Authority



Labbish Ning Chao



Min Liu

NAME: CHAIR / CO-CHAIRS	
NAME: RED LIST AUTHORITY CO-ORDINATOR	1) Labbish Ning Chao and 2) Min Liu
LOCATION / AFFILIATION	1) National Museum of Marine Biology and Aquarium, Taiwan; 2) College of Ocean & Earth Sciences, Xiamen University, China.
NUMBER OF MEMBERS	50

## MISSION STATEMENT

The goals of the Sciaenidae Red List Authority (SRLA) are to: 1) complete the Global Sciaenidae IUCN Red List Assessment; 2) support field studies in order to understand the biology, ecology, fishery, trade and conservation status of sciaenid fishes; 3) encourage local fish biologists to be involved with IUCN Red List assessment processes, such as participating in national, regional and global Red List workshops; 4) support national Red List assessments in Southeast Asian countries; and 5) promote education on the value of Red Listing for marine resource conservation and sustainable use.

## SUMMARY OF MAIN ACTIVITIES 2015

The major achievement for 2015 was the publication of the results from the Brazilian Sciaenidae Red List assessment workshop in 2009.

Collaboration among SRLA members has produced significant publications. For example, Red List Coordinator Labbish Ning Chao helped with the Sciaenidae section of European Marine Fish Red List. Jointly with Malaysian SRLA members (Dr Y.G. Seah and others.) a new species of Sciaenidae with commercial value was discovered. The first comprehensive study of global Sciaenidae phylogeny and zoogeography was completed (Lo, et al.).

A conference on Red List public education, training and a West Pacific Sciaenidae Red List workshop have been planned for 2016 (it took place between 26 June and 1 July 2016 in southern Taiwan). We also found that a common commercial species of Sciaenidae from China (including mainland China, Taiwan and Hong Kong) is undescribed. Our Global Sciaenidae Conservation Network continues to build up a reference collection of global Sciaenidae specimens at the National Museum of Marine Biology. We have set up a website for Sciaenidae conservation to facilitate global communication ([http://croakers.biodiv.tw/chi/2016GSCN\\_program.php](http://croakers.biodiv.tw/chi/2016GSCN_program.php)).

## IMPACT ON CONSERVATION

We have provided baseline information to the US Fish & Wildlife Service, Ministry of Agriculture of China, Hong Kong local authority and various NGOs to curtail illegal capture and trade of the Totoaba (*Totoaba macdonaldi*), whose gas bladder is worth more than gold in Chinese markets. The Totoaba is a Critically Endangered species, endemic to Gulf of California in Mexico. Gill-net fishing of Totoaba also kills Vaquita (*Phocoena sinus*), a species of pygmy dolphin also endemic to the Gulf of California with only 70 individuals left.

## FUTURE GOALS & ACTIVITIES

Our mid-term goal is to incentivise regional (Asian) specialists to promote Red Listing in their countries. We aim to bring more Asian conservation biologists and marine fish specialists to participate in IUCN SSC species assessment workshops and international activities. We have plans to organize a regional workshop on Sciaenidae in Taiwan, mainland China and in Malaysia, where we have received local support and a strong interest. Colleagues at the University Malaysia Terengganu are actively promoting Red Listing of marine species in Malaysia.

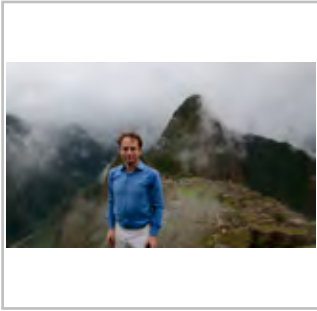
## ACKNOWLEDGEMENTS

We thank the National Museum of Marine Biology, Taiwan which provides the logistics and space to host the IUCN SSC Sciaenidae Red List Authority and Global Sciaenidae Conservation Network. Bio-Azonia Conservation International, a US based NGO, and Xiamen University (China) provided travel funds.



Collecting trip with Co-Chair Liu min and graduate students in Xiamen, China, October 19, 2015

# IUCN SSC Snake & Lizard Red List Authority



Philip Bowles

NAME: CHAIR / CO-CHAIRS	
NAME: RED LIST AUTHORITY CO-ORDINATOR	Philip Bowles
LOCATION / AFFILIATION	IUCN Biodiversity Assessment Unit, c/o Conservation International, Washington DC
NUMBER OF MEMBERS	33

## MISSION STATEMENT

The IUCN SSC Snake & Lizard Red List Authority's (SLRLA) main objective is to support workshop-based assessments contributing to the Global Reptile Assessment with post-workshop reviews and submissions of snake and lizard IUCN Red List assessments, and by acting as a taxonomic reference point. The RLA also organizes assessments of individual species and acts as a point of contact to support the IUC Red Listing work of reptile Specialist Groups. The SLRLA's remit encompasses all snakes and lizards which are not supported by their own Specialist Groups.

## SUMMARY OF MAIN ACTIVITIES 2015

Going into 2015, the SLRLA had identified the review of outstanding IUCN Red List assessments, particularly for South America, as priorities in addition to supporting workshops to be held in the coming year. Much of the RLA's progress this year was in the form of reviewed assessments.

By the first week of 2016, a total of 1,275 species from South America had been reviewed in preparation for submission to the IUCN Red List, identifying outstanding queries in need of resolution to ensure that the IUCN Red List assessments were of an appropriately high standard and that the proposed IUCN Red List assessment Categories could be justified. In addition, reviews were completed for the species assessed during the 2014 New Guinea assessment workshop.

In total, 283 species within the remit of the SLRLA were submitted and added to the IUCN Red List, representing the majority of species endemic to New Guinea (153 species), a small number of outstanding species from East Africa, and the first additions from Colombia, Peru and Amazonia. The first species from the RLA's ongoing remote assessment of the Mascarene Islands, the skink *Gongylomorphus bojeri*, was also included in the year's submissions.

There were few workshops in 2015, but the Coordinator of the SLRLA provided logistical support for workshops assessing the reptiles of the Caribbean and Chile, both led by NatureServe, and for a short review workshop - also led by NatureServe - to address queries and missing data issues identified for the snakes and lizards of Venezuela.

The RLA has a growing network of Regional Coordinators, several of whom have been leading on additional assessment projects. North America Regional Coordinator Geoff Hammerson started work late in 2015 on a taxonomic update of the snakes and lizards of North America, focusing initially on those in the United States. Cristiano Nogueira, Regional Coordinator for Brazil, is underway translating the accounts from the Brazilian national Red List assessment for incorporation into the global IUCN Red List assessments.



## IMPACT ON CONSERVATION

The SLRLA's input to conservation activities is restricted to the completion and publication of IUCN Red List assessments.

The RLA does not actively monitor conservation actions resulting from its assessments, and as the Global Reptile Assessment was ongoing for some years prior to the establishment of the SLRLA, it is difficult to highlight specific conservation outcomes at this stage (for example, a major effort to collect use and trade data during assessments for the snakes of Southeast Asia in 2010, which was subsequently used by CITES, was completed several months before the RLA came into existence, although CITES reviews resulting from this work have been completed since and with the assistance of the RLA).

Nevertheless, the assessments that the RLA provides allow reptiles to be incorporated into conservation decision-making in a way that would not be possible otherwise; as reptiles are both the most diverse terrestrial vertebrate group and the only one without a completed global assessment, this is of particular importance for such efforts as reserve planning and the identification of sites for Key Biodiversity Areas or the Alliance for Zero Extinction. The RLA regularly receives requests from CITES for data or to produce assessments for species of CITES interest not previously assessed, in order to inform that organization's reviews.

## FUTURE GOALS & ACTIVITIES

The submission of the outstanding South American and the Caribbean IUCN Red List assessments is the major focus of work already underway in 2016. Thanks to the work undertaken in 2015 to complete reviews, particularly for South America, twice as many species were added to the IUCN Red List in the first submission of 2016 as in the previous year, with as many again planned for submission by the end of the year. It remains a top priority for the RLA to support new workshops to cover outstanding regions, and reviews of the 2016 Central Asia workshop are another priority for completion by the end of 2016. Logistical challenges have delayed completion of the IUCN Red List assessments for Brazil and Cuba, and the RLA continues to provide support to NatureServe in order to complete these assessments.

## ACKNOWLEDGEMENTS

The SLRLA would like to thank the Environment Agency - Abu Dhabi for its ongoing, generous support for the Global Reptile Assessment, NatureServe for its ongoing support for the New World assessments and the North America Regional Coordinator, and the South African National Biodiversity Institute (SANBI) for its support of the South African Regional Reptile Specialist Group.



Broncochela jubata © Philip Bowles 2015

# IUCN SSC Terrestrial & Freshwater Invertebrate Red List Authority



Justin Gerlach

NAME: CHAIR / CO-CHAIRS	
NAME: RED LIST AUTHORITY CO-ORDINATOR	Justin Gerlach
LOCATION / AFFILIATION	Cambridge, UK
NUMBER OF MEMBERS	59

## MISSION STATEMENT

To facilitate the IUCN Red Listing of non-marine invertebrates not currently covered by any Specialist Groups (SGs); to encourage the formation of new invertebrate SGs; and to assist in the development of the IUCN Red List of Threatened Species.

## SUMMARY OF MAIN ACTIVITIES 2015

This year the Terrestrial & Freshwater Invertebrate Red List Authority (TIRLA) continued to support invertebrate IUCN Red List activities, reviewing global assessments of dung beetles and European saproxylic beetles, and supporting the establishment of the Cave Invertebrate Specialist Group. In addition a small number of isolated IUCN Red List assessments were reviewed. This resulted in a 16% increase in TIRLA species on the IUCN Red List. This is a significant increase but still far below the rates of increase needed to make the IUCN Red List a useful Barometer of Life and TIRLA has continued to take every opportunity to push for change in Red List systems to facilitate mass assessment.

#### IMPACT ON CONSERVATION

TIRLA's contribution to conservation has been modest due to the small number of IUCN Red List assessments submitted; achieving a meaningful impact requires either major funding or the creation of a more open 'citizen science' type assessment process.

#### FUTURE GOALS & ACTIVITIES

TIRLA will continue to encourage further invertebrate Red Listing, particularly any initiatives that lead to representative assessments.

#### ACKNOWLEDGEMENTS

# IUCN SSC Freshwater Conservation Sub-Committee



Topiltzin Contreras MacBeath

NAME: CHAIR / CO-CHAIRS	Topiltzin Contreras MacBeath
NAME: RED LIST AUTHORITY CO-ORDINATOR	Technical Officer - Ian Harrison
LOCATION / AFFILIATION	Cuernavaca, Morelos, Mexico/CIB-UAEM, Gobierno del Estado de Morelos
NUMBER OF MEMBERS	12 Global members, and our Mesoamerican Sub-Group has 15 members.

## MISSION STATEMENT

The Freshwater Conservation Sub-Committee (FCSC) seeks to raise the profile of freshwater biodiversity in the IUCN Species Survival Commission (SSC) and beyond. To raise the profile of freshwater biodiversity.

## SUMMARY OF MAIN ACTIVITIES 2015

Among our key objectives are the coordination of freshwater species conservation activities through SSC, and to be a link between the SCC and the Specialist Groups (SGs) working on aquatic species. Our members have been very active in working with the SGs on freshwater plants, invertebrates and fishes, creating synergies among these groups, in order to best achieve the freshwater goals in the SSC Strategic Plan. This has been done through meetings, webinars and during our annual meeting held in Abu Dhabi on the 12-13 September 2015. At this meeting we also established the 2017-2020 SSC Strategic Plan freshwater objectives.

Members of the FCSC have been involved with the Convention of the Conservation of Migratory Species, the Ramsar Convention on Wetlands, the Convention on Biological Diversity, Convention on International Trade in Endangered Species of Wild Fauna and Flora, the Intergovernmental Platform on Biodiversity and Ecosystem Services and freshwater aspects of the Sustainable Development Goals, but much more has to be done to raise the profile of freshwater species. We have started working on the FCSC's highest priority projects: (1) Blueprint for Freshwater Life (previously the Census of Freshwater Life). The project idea emerged from the Freshwater Fish SG (FFSG) and FCSC. The original plan for the project was modelled on the Census of Marine Life, highlighting new exploration and innovative technology, but developing this further, focusing strongly on the application of high-quality data for addressing pressing scientific and conservation issues for freshwater life. The Blueprint will combine research, exploration, education, conservation planning, and diverse communications media to raise awareness of freshwater ecosystems and their species. (2) Conservation evidence (documenting conservation success; what is the relationship between conservation success and protected areas; and links between biodiversity and ecosystem services/human health). (3) Develop at least five species conservation action plans, linked to the proposed list of 25 Threatened Freshwater Species, that is under preparation. (4) Develop a review of dams and freshwater biodiversity (possibly including proposing taxation, and use of international EIA standards). This will include a report on the evidence of the effects of large dams on biodiversity. (5) Develop projects on invasive freshwater species, in collaboration with the Invasive Species SG.

The FCSC endorsed WWF's Free Flowing Rivers project, aimed at creating a standardized approach for defining free-flowing rivers, and a global registry of free-flowing rivers. Several NGOs, as well as at least one representative from the hydropower sector, are involved.

The FCSC needs to review its membership in order to incorporate people from other freshwater sectors, and to develop and implement a communication strategy. The FCSC will develop and implement a fundraising strategy with the FFSG.

## IMPACT ON CONSERVATION

Even though our members have specific projects with outstanding impact on conservation, due to the nature of the FCSC it is difficult to clearly define the impact on conservation of the activities we carry out. And, even though some progress has been made since FCSC's creation in 2010, it is clear that much more has to be done to raise the profile of freshwater species as a whole.

## FUTURE GOALS & ACTIVITIES

1. Contribute to SSC's 2017-2020 Strategic Plan in order to ensure a strong freshwater focus.
2. Develop and implement a communication strategy.
3. Implement a fundraising strategy.
4. Widen the FCSC's membership.
5. Develop the projects described in previous sections, and identify new project opportunities.

## ACKNOWLEDGEMENTS

We wish to thank the Environmental Agency - Abu Dhabi for providing funding for our annual meeting. We also thank the Government of the State of Morelos, as well as the Universidad Autonoma del Estado de Morelos, for providing time for the Chair's commitment to the FCSC.



FCSC Meeting, Abu Dhabi, 2015

# IUCN SSC Invertebrate Conservation Sub-Committee



Axel Hochkirch

NAME: CHAIR / CO-CHAIRS	Axel Hochkirch
NAME: RED LIST AUTHORITY CO-ORDINATOR	
LOCATION / AFFILIATION	Trier University, Germany
NUMBER OF MEMBERS	

## MISSION STATEMENT

The mission of the Invertebrate Conservation Sub-Committee (ICSC) is to foster the conservation of terrestrial and freshwater invertebrates and their habitats around the world. We assess their conservation status, raise awareness and engage in practical conservation of this most species rich taxonomic groups on Earth.

## SUMMARY OF MAIN ACTIVITIES 2015

- 1) The new "Mid Atlantic Islands Invertebrate SG" was approved by the IUCN SSC Steering Committee on 3 July 2015. The new Specialist Group is chaired by Vicky Kindemba (Buglife, UK) and Paulo Borges (University of the Azores, Portugal). New contacts to experts on millipedes and hoverflies exist and the potential of creating new Specialist Groups for these invertebrate groups is being explored.
- 2) A total of 379 invertebrate species have been assessed or re-assessed in 2015, the majority of which (330) were insects, namely Coleoptera (92 species), Hymenoptera (132 species) and Lepidoptera (99 species). These species were assessed in the context of the European Red List, funded by the European Commission. The number of invertebrate species on the IUCN Red List has now reached 18,040 species, the majority being molluscs (7,251 species), crustaceans (3,004 species) and dragonflies (2,965 species).
- 3) The "Charismatic Mega-Invertebrate Project" was started in 2015, funded by the SSC. During this project the Red List status of millipedes from Madagascar, Australian stick insects, Birdwing butterflies, South-East Asian cave-dwelling whip spiders, assassin spiders, giant orb-weaving spiders, Theraposa tarantulas, Indian mantises, giant African landsnails, Giant clams and Southern African millipedes will be assessed. The project is coordinated by Elena Rudolf.
- 4) The conservation strategies for the Singapore Crab and the Crau Plain Grasshopper are now being implemented, a workshop for the Las Desertas Tarantula prepared for May 2016. The Buglife St. Helena invertebrate project "Bugs on the Brink" worked together with the IUCN Species Conservation Planning Sub-Committee and the Mid Atlantic Island Invertebrate Specialist Group to develop a five year strategy for the island. Also for the St. Helena Spiky Yellow Woodlouse a conservation plan was developed.
- 5) ICSC Chair Axel Hochkirch was involved in testing the new criteria for identifying Key Biodiversity Areas (KBAs) during a workshop in Cambridge.
- 6) The ICSC Facebook site has meanwhile about 1,800 followers (February 2016).
- 7) The IUCN SSC Invertebrate Conservation Sub-Committee met during the SSC Leader's Meeting in Abu-Dhabi from 12 to 13 September 2015. This meeting included some joint meetings with other Sub-Committees.
- 8) The potential for a mutually beneficial partnership between the ICSC and Berkshire's College of Agriculture has been explored and a Memorandum of Understanding has been drafted.

## IMPACT ON CONSERVATION

1) Red List assessments provide a fundamental basis for practical conservation. While most invertebrate conservation projects are still based in temperate regions, there is recently some development of practical conservation also for tropical invertebrates. In South Africa, a large national project 'Working for Water' is clearing river banks from invasive species and letting the biodiversity, especially invertebrates, recover.

2) The Specialist Groups dealing with invertebrates have been busy in developing new tools for invertebrate conservation. The Dragonfly Biotic Index (DBI) is meanwhile frequently used as an index to identify the status of freshwater ecosystems. Similarly, the Grasshopper Specialist Group has developed a "Grasshopper Conservation Index" (GCI), which aims to assess the value of terrestrial habitats for Grasshopper conservation (Matenaar et al. 2015, Biological Conservation). The Spider and Scorpion Specialist Group has developed an R package to automate the estimation of EOO and AOO values and a manuscript template in the Biodiversity Data Journal, which will allow the publication of Red List assessments as peer-reviewed papers, which can automatically be exported to SIS.

3) An increasing number of conservation strategies for invertebrates are currently produced and new workshops are expected to take place in 2016. The implementation of the existing strategies has already started and will directly help to preserve some Critically Endangered species.

## FUTURE GOALS & ACTIVITIES

Our major goal for the coming years is to broaden the taxonomic scope of the IUCN Red List by identifying suitable persons to lead new Red List initiatives or Specialist Groups. Paulo Borges will organize the Island Biology Congress on the Azores in July 2016, which will include IUCN Red List symposia and a workshop to assess some Mid-Atlantic Island endemic invertebrates. For the 2017-2020 strategic plan, we have identified many new priorities for the IUCN Red List. We also plan to produce some more publications helping to guide people engaged in invertebrate conservation.

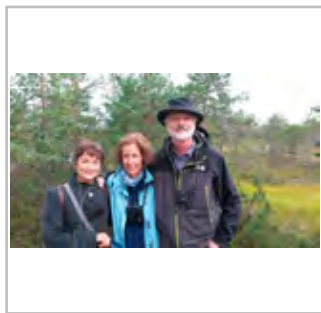
## ACKNOWLEDGEMENTS

We thank the Mohamed bin Zayed Species Conservation Fund for constant support of our Specialist Groups' projects.



*Phyllium monteithi* (female) is the only *Phyllium* species native to Australia and it is also unique to Australia © Jack Hasenpusch

# IUCN SSC Marine Conservation Sub-Committee



Yvonne Sadovy (Left) and Claudio Campagna (Right)

NAME: CHAIR / CO-CHAIRS	Yvonne Sadovy and Dr Claudio Campagna
NAME: RED LIST AUTHORITY CO-ORDINATOR	
LOCATION / AFFILIATION	We are based at the University of Hong Kong and the Wildlife Conservation Society, respectively.
NUMBER OF MEMBERS	

## MISSION STATEMENT

The Marine Conservation Sub-Committee (MCSC) aims to ensure that decisions taken by policy-makers and resource managers on the management of marine resources are based on sound and scientific knowledge. The MCSC brings together marine experts from the SSC, the World Commission on Protected Areas, the IUCN Global Marine Programme and other key partners such as TRAFFIC and the UN Food and Agriculture Organisation (FAO). It acts as a crucial focal point for marine issues, providing an advisory role to the SSC Steering Committee and for initiatives such as the Global Marine Species Assessment. It addresses specific marine issues not covered by other IUCN components.

## SUMMARY OF MAIN ACTIVITIES 2015

A core priority continues to be the important theme of 'bycatch', identified when the MCSC first formed as one of its five top priorities. An important shift in our understanding of this issue in recent years is that conservation threats to marine species extend far beyond the problem of uncontrolled and unintended catch of megafauna (marine mammals, sharks, turtles) which to date has dominated conservation concerns around the theme of 'bycatch'. While this issue continues to need attention, the problem clearly extends to many other marine species, particularly a wide range of species of fishes and invertebrates, especially from the use of large un-selective gear types such as bottom trawls and beach seines. Two global reviews on bycatch commissioned by the MCSC show how limited our understanding of this issue is currently, especially for invertebrates, due to poor or no documentation of bycatch species and volumes. Importantly, however, much of what were formerly considered to be bycatch fish and invertebrates, much of which was once discarded, is now retained or, increasingly, is being targeted as the need for fish-feed for mariculture and for seafood processing (such as fish sauce, fish balls, surimi, etc.) expands. These fisheries are intensive in some regions, virtually undocumented and are now attracting growing concerns over their apparent and suspected impacts on a wide range of species increasingly being taken in large volumes and often in juvenile form.

To learn more of these un-selective, undocumented and unregulated (UUU) fisheries the MCSC undertook a series of consultations: with relevant SSC Steering Committee members; and, subsequently, with experts from FAO and TRAFFIC, among others. A bycatch Red List Assessment workshop was also conducted in Hong Kong in 2015 as part of the Global Marine Species Assessment (GMSA) programme and further highlighted the paucity of information on species in UUU fisheries regarding their conservation status. A major proposal focusing on a major UUU fishery, that of bottom trawls in Asia, is pending funding as an important step to furthering understanding of the issue (UUU-trawl), its implications for affected species, and for regional fisheries productivity. A major objective is to draw serious attention to this massive and important issue by understanding its scale and extent, and drawing attention to the implications of ignoring it from both biodiversity and socio-economic perspectives.

In terms of outreach and communication, the MCSC produced an article on bycatch for the IUCN Marine News Newsletter. It also contributed towards the conservation of the Totoaba and Vaquita, both Critically Endangered by the international trade to China in highly valued Totoaba swim-bladder (the Vaquita is taken as bycatch). We participated in researching the swim-bladder bladder in Hong Kong and providing information used in communicating with the mainland China and Hong Kong governments on this issue.



## IMPACT ON CONSERVATION

On formation of the MCSC, we consulted broadly among the SSC marine Specialist Groups to identify a small number of issues clearly highlighted as priorities across taxa and have contributed, and continue to contribute to, several of them.

Through the work of the MCSC, we have sought to give marine species a much higher profile, both broadly within IUCN and as a contribution to growing global attention to marine species, well beyond the charismatic megafauna which previously attracted the most attention in relation to marine conservation issues.

In addition to our current focus on the theme of 'bycatch' which, in some regions has evolved from incidental catch to UUU fisheries impacting many fish and invertebrate species, we have contributed to the work of the GMSA, have recognized the vulnerabilities of large marine gatherings (as 'wildlife spectacles' that form at important life history phases), have highlighted the contributions of trade data for understanding commercial trends and species status, and have encouraged the inclusion of trade information in IUCN Red List species assessments.

We also recognise the need to increase awareness about threats to marine species, especially those that are commercially exploited. We published a popular book that tells stories of twelve challenges faced by twelve different 'spokespecies' in the marine environment (*Adrift: Tales of Ocean Fragility*) accompanied by a short film.

We sought to ensure a focus on marine taxa in need of attention and to fill information gaps by identifying new SSC Specialist Groups, several of which have now been formed and are active.

We have engaged with experts in both trade and fisheries, well beyond the earlier remit of IUCN's interest in marine species and focused more attention on the links between marine species, trade and sustainable use within the Union.

## FUTURE GOALS & ACTIVITIES

Future goals will focus on the UUU-trawl research and associated analyses and, specifically, the motion on this issue to be considered by the 2016 IUCN World Conservation Congress in Hawaii. We continue to seek ways to bring about improvements for threatened marine species and, in particular, for those in which species assessments will make a difference, highlighting those that are data deficient. We also have a focus on fish spawning aggregations and, in the case of commercially important species, the need to mainstream these into fishery management. The link between climate change and traditional marine conservation tools for biodiversity, such as Marine Protected Areas (MPAs), will be addressed more emphatically in the near future. The use of charismatic species to address conservation threats in the ocean, following the principles of the edited book "Adrift", will continue to be relevant for communication purposes.

## ACKNOWLEDGEMENTS

The David and Lucile Packard Foundation has funded our work on fish aggregations. The University of Hong supported Yvonne Sadovy and the Wildlife Conservation Society supported Claudio Campagna as Co-Chairs of the MCSC.



Members of the IUCN SSC Marine Conservation Sub-Committee

# IUCN SSC Plant Conservation Sub-Committee



Dr John Donaldson

NAME: CHAIR / CO-CHAIRS	Dr John Donaldson
NAME: RED LIST AUTHORITY CO-ORDINATOR	N/A
LOCATION / AFFILIATION	South African National Biodiversity Institute (SANBI)
NUMBER OF MEMBERS	14

## MISSION STATEMENT

The IUCN SSC Plant Conservation Sub-Committee (PCSC) leads IUCN's efforts in stemming the loss of global plant diversity through its wide-ranging network of plant conservationists. The PCSC is responsible for advising and assisting on the overall prioritisation and programme oversight within the SSC to deliver on its plant conservation responsibilities. The PCSC works to support and facilitate the activities of the SSC Chair, the IUCN Global Species Programme, and the expert volunteer network of Specialist Groups, Red List Authorities, Task Forces and others, providing overall strategic guidance and direction in accordance with the mandate of the SSC.

## SUMMARY OF MAIN ACTIVITIES 2015

The PCSC held its 18th meeting in Abu Dhabi in September 2015 preceding the SSC Leaders' meeting. The meeting was chaired by Domitilla Raimondo standing in for John Donaldson who was unable to attend. The main objective of the meeting was to start the process of setting the targets for plants for the 2017-2020 Species Strategic Plan. The PCSC agreed at this meeting that the main focal areas for the new Species Strategic Plan would be the following:

- a) Plant Red Listing
- b) Key Biodiversity Area (KBA) identification
- c) Sustainable use
- d) Conservation planning
- e) Invasive species management
- f) Reintroductions

The PCSC also worked with IUCN SSC plant Specialist Groups and stand-alone Red List Authorities to coordinate their input on progress towards achieving the targets of the 2013-2016 IUCN Species Strategic Plan. There has been significant activity in completing IUCN Red List assessments and there are currently 21867 plants assessed. It is worth noting that the shift away from focusing mainly on highly threatened groups provides an increasingly more realistic view of threat, from 80% threat in 2003 to 52% in 2016.

The plant representatives on the IUCN SSC Red List Committee drove forward the inclusion of plant assessments from external databases into the IUCN's SIS data system. Together with IUCN, the Royal Botanic Gardens Kew part-funded the development of a data uploader - SIS Connect. The Southern African Plant Specialist Group and Kew tested SIS Connect - it is working well and will result in many more plant assessments being available through IUCN's Red List for conservation planning processes and other uses.

The PCSC has also facilitated plant inputs into other priorities of the IUCN SSC Steering Committee, e.g. KBAs.

## IMPACT ON CONSERVATION

The PCSC is not directly involved in any 'on-the-ground' conservation projects. Nevertheless, the coordination of plant work and highlighting plant-related issues within the IUCN SSC does have important conservation benefits.

The PCSC, working with the IUCN SSC Red List Committee managed to unlock some of the barriers to plant IUCN Red List assessments that have been an impediment to the achievement of Target 2 of the Global Strategy for Plant Conservation. This target underpins many of the more conservation-oriented targets and is an important foundation for more effective conservation planning for plants and for measuring the effectiveness of conservation actions. The PCSC also promotes and facilitates plant Specialist Group contributions to other targets of the GSPC including those focused on sustainable use of plants, the conservation of important areas for plants, ex situ conservation, and ensuring that international trade does not lead to plant extinctions.

The PCSC has also focused on plants that are important for human well-being such as crop wild relatives, medicinal plants, trees and palms. The emphasis reflects the reality that plant conservation has important benefits for society.

## FUTURE GOALS & ACTIVITIES

The aim of the PCSC over the next few years is to strengthen activities beyond IUCN Red Listing. The past focus on IUCN Red Listing has yielded good results and similar gains now need to be made in other areas. This includes site-based prioritization for plants that links with KBAs, sustainable use, reintroductions, ex situ conservation and conservation planning. The expanded focus will provide stronger links with plant Specialist Groups, many of which have developed skills in some of these areas, and ensure greater contributions from the plant network to other SSC programmes dealing with these issues. The PCSC also needs to ensure that IUCN SSC plant work contributes to and is recognized in the achievement of the Global Strategy for Plant Conservation targets.

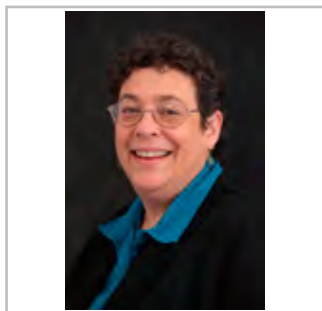
## ACKNOWLEDGEMENTS

The PCSC gratefully acknowledges the support of Environment Agency - Abu Dhabi, the South African National Biodiversity Institute, Royal Botanic Gardens, Kew, Centro Nacional de Conservação da Flora (Brazil), and the host institutions of PCSC members.



Chairs of the IUCN SSC Plant Specialist Groups, including P4P Chairs and IUCN Secretariat at the SSC Leaders' meeting, Abu Dhabi, September 2015

# IUCN SSC Policy Sub-Committee



Susan Lieberman



Philip McGowan

NAME: CHAIR / CO-CHAIRS	Susan Lieberman and Philip McGowan
NAME: RED LIST AUTHORITY CO-ORDINATOR	
LOCATION / AFFILIATION	Wildlife Conservation Society (USA) and Newcastle University (UK)
NUMBER OF MEMBERS	23

## MISSION STATEMENT

To improve coordination of species-focused interventions across the diverse range of relevant international policies in order to assist the work of the Species Survival Commission (SSC), increase the visibility of species issues in various policy fora, and promote the inclusion of SSC perspectives and priorities in these fora.

## SUMMARY OF MAIN ACTIVITIES 2015

The Policy Sub-Committee (PSC) had its first meeting at the end of 2014 and has spent the year consolidating. Within SSC we worked with other Sub-Committees to identify issues of policy concern and opportunities and we also held discussions with bodies of various conventions about enhancing input from across SSC into their work. SSC already works closely with species-focused conventions (e.g., the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) and the Convention on the Conservation of Migratory Species of Wild Animals (CMS)) with direct input from Specialist Groups (SGs). Our focus is to go beyond these issues, where the SGs already have contributed directly, so that we can help fill gaps, identify emerging needs and determine strategic issues where the SSC can make a significant contribution. To achieve this, there is a clear need to provide a mechanism whereby expertise from SSC members can be fed efficiently into the technical work of these conventions so as to best inform decisions that policy officials will take. Whilst that is taking shape, the following gives some flavour of our work in providing SSC expertise to key policy processes.

Science-policy capacity building: Supported the work of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) and developing relationships, especially during the 1st IPBES Capacity Building Forum.

Health: 1) Contributed to the IUCN Position Paper for the Convention on Biological Diversity's (CBD) 19th meeting of the Subsidiary Body on Scientific, Technical and Technological Advice and presented on implementation strategies for health and biodiversity synergies, highlighting the IUCN-OIE Guidelines to Wildlife Disease Risk Analysis; 2) Contributed to the World Health Organization-CBD publication "Connecting Global Priorities: Biodiversity and Human Health, a State of Knowledge Review" with key messages for policy makers, including the need for comprehensive and integrated health and environment risk assessment processes; 3) A science-based position statement on the risk to scavenger populations and wider ecosystem impacts from EU's licensing of the pharmaceutical drug Diclofenac for veterinary use; and 4) A position statement on oral rabies vaccination policy for the Endangered Ethiopian Wolf.

EU REFIT (Evaluation Study to support the Fitness Check of the Birds and Habitats Directives): We facilitated SSC engagement into the IUCN working group on EU REFIT. The IUCN submission to the review was supported by evidence (reports, scientific papers) and was followed by an IUCN position statement on the EU Nature Directives and the REFIT process.

## IMPACT ON CONSERVATION

Our key role is to strengthen the science base in policy decisions and processes that affect species. As such measuring the impact on the changing status of biodiversity, especially species, is not straightforward and may take a long time. Given, therefore, that the PSC is young and that policy engagement is a process, we are developing our pathways to impact on conservation. These have shown two significant developments:

- 1) As noted above, there has been considerable interest from global conventions in both having better access to information on species in general and in working with SSC experts in particular; and
- 2) The enthusiasm across SSC in policy is increasing sharply. There has been considerable interest in providing expertise and knowledge on species to global policy processes over the last year. Given the nature of SSC, only some of this has been harnessed, but as seen above, the increase in the quality of both evidence supporting policy decision-making and the publicly available guidance is significant. The big challenge for 2016 and 2017 is to put in place a system that will allow this to happen efficiently and effectively.

## FUTURE GOALS & ACTIVITIES

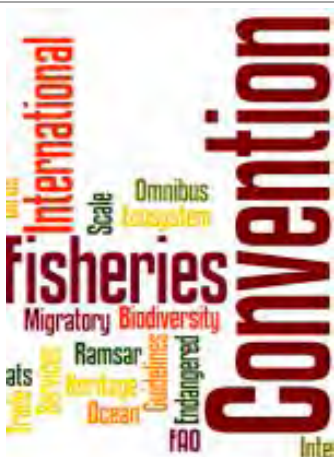
We will work to deepen our relationships and to build on current strong engagement where there is a strategic species interest, such as with IPBES, CBD, and the Sustainable Development Goals. The key task is to align policy need with SSC capability (expertise and availability of time).

Specific goals will be to support the development of IPBES's capacity building work and significantly increase guidance and engagement on CBD's Target 12 on preventing extinctions.

We will also work in the future to increase membership, in terms of numbers of individuals, taxon representation, and geographic diversity.

## ACKNOWLEDGEMENTS

We gladly acknowledge the support of the Environment Agency - Abu Dhabi for supporting our work, especially during the SSC Leaders' Meeting in September 2015.



# IUCN Red List Committee



Mike Hoffmann

NAME: CHAIR / CO-CHAIRS	Mike Hoffmann
NAME: RED LIST AUTHORITY CO-ORDINATOR	N/A
LOCATION / AFFILIATION	IUCN Species Survival Commission, Cambridge, United Kingdom
NUMBER OF MEMBERS	31

## MISSION STATEMENT

The IUCN Red List Committee is the key decision-making body that provides oversight and guidance for The IUCN Red List of Threatened Species™. The Red List Committee sets the standards of scientific quality for the Union's work on biodiversity assessments, develops guidelines on the application of these standards, develops a strategy for effectively expanding taxonomic and geographic coverage, advises and assists uptake of IUCN Red List data in decision-making, and builds collaboration with other organizations working on biodiversity assessments. The Red List Committee meets in-person once a year; intersessionally, much of the work is conducted via email, virtual meetings, or in separate meetings.

## SUMMARY OF MAIN ACTIVITIES 2015

**Meetings:** The IUCN Red List Committee had its 21st meeting from 21-23 April 2015 in Arlington, Virginia, USA, in the offices of Conservation International (and subsequently met virtually 02 December 2015). Meetings of the SPSC are covered under the SPSC report. There were no meetings of any working groups in 2015.

**Appointments:** Simon Hedges, formerly the Chair of Asian Elephant Specialist Group, has been appointed as the new Chair of the Red List Technical Working Group and is in the process of reconstituting the membership. The RLTWG will meet in the first quarter of 2016.

**Activities:** Reviewing current reposting and redistribution of Red List data. Undertook a full review of progress towards delivery of the Red List Strategic Plan 2013-2016 (as part of a full review of the Species Strategic Plan). Inputted into the IUCN SSC Guiding Principles on Creating Proxies of Extinct Species (led by Phil Seddon). Initiated the renewal of the Red List Partnership agreement. The RLTWG inputted into a paper clarifying misconceptions around the Red List (submitted to Biology Letters). Contributed to ongoing work to cost out the to-date and annual costs of the Red List and projected costs to achieve an agreed baseline.

**Decisions:** Allocated >US\$400,000 from licensed income and fund-raising to core support, reassessments, and assessments on a 2:1:1 basis. Agreed to prioritize the development of taxonomic guidelines for Red List Authorities, RLA Coordinators, assessors, and others, on conditions for making taxonomic changes. Agreed to develop and formalize a draft Conflict of Interest policy, procedure and disclosure form for implementation in 2016.

**Outputs:** Produced a document "Species Conservation Assessment as An Essential Element of Achieving Aichi Biodiversity Target 12", submitted as Inf Doc to SBSTTA 19, to help support countries to contribute to the achievement of Target 12. Published Joppa et al. (2015) in Conservation Biology investigating the impact of alternative metrics on estimates of extent of occurrence for extinction risk assessment. Facilitating inclusion of the cycad RLI in the UN Millennium Development Goal report for 2015.

## IMPACT ON CONSERVATION

Soft-launched the release of downloadable PDFs with associated DOIs at the 3rd SSC Leaders' meeting in Abu Dhabi. In the months to end 2015 there were a total of nearly 7,000 actual downloads of PDFs. The IUCN Red List has effectively become the biggest journal in the world. Meanwhile, in 2015, the main Red List website attracted >4 million unique visitors, and a total of 77 million individual GIS shapefiles were downloaded!

The use of the Red List Index as an indicator for tracking progress in international commitments continues to be recognized as the RLI is provisionally adopted for tracking Sustainable Development Goal 15.5.

The Red List Committee (presumably as representative of the Red List of Threatened Species, as the award recognizes "individuals, groups or institutions") was awarded a Distinguished Service Award by the Society for Conservation Biology, in recognition of its contribution towards advancing the science and practice of conserving the Earth's biological diversity.

A session in the WCC forum is planned to investigate the difference the Red List makes to conservation.

## FUTURE GOALS & ACTIVITIES

The Red List Committee will meet in Cambridge in May, 2016. Priority activities for 2016 include: providing oversight to the redevelopment of the IUCN Red List website; fast-tracking developments in SIS to allow assessments undertaken in Spanish, French and Portuguese to be included on the IUCN Red List website; further testing and implementation of SIS Connect (to allow import of information from external databases into SIS); revising the Red List Strategic Plan for 2016-2020; implementing the Conflict of Interest protocol; concluding the guidelines on harvesting of species threatened with extinction (sensu IUCN WCC Res 5.017); hosting a forum event and submitting a motion on Red List Indices to the World Conservation Congress in Hawaii; and renegotiation and signing of the Red List Partnership Agreement.

## ACKNOWLEDGEMENTS

The 21st meeting of the RLC was again made partly possible due to support from the SSC Commission Operating Fund. Thanks are due to Conservation International for hosting the 21st meeting. The SCB is thanked for the 2015 Distinguished Service Award.



The 21st meeting of the IUCN Red List Committee, 21-23 April 2015, Arlington, Virginia, USA, in the offices of Conservation International.

# IUCN SSC Species Conservation Planning Sub-Committee



Mark R. Stanley Price

NAME: CHAIR / CO-CHAIRS	Mark R. Stanley Price
NAME: RED LIST AUTHORITY CO-ORDINATOR	N/A
LOCATION / AFFILIATION	Wildlife Conservation Research Unit (WildCRU), University of Oxford
NUMBER OF MEMBERS	16

## MISSION STATEMENT

The Species Conservation Planning Sub-Committee (SCPSC) works to promote effective and efficient planning for species, focusing pro-actively on the SSC Sub-Committees and the Specialist Group family, providing capability in design, facilitation, tools and workshop participation as needed, and learning from this experience to improve the planning process

## SUMMARY OF MAIN ACTIVITIES 2015

SCPSC members participated in the following, not all-inclusive, SG exercises, in a variety of roles including advisory, facilitation, technical inputs, participation, etc.:

- 1) Freshwater Crustacean SG: a second workshop on the endemic Singapore Freshwater Crab was held in 2015, almost immediately after production of the species strategy (see Impacts).
- 2) Grouper and Wrasse SG: a second workshop was held in Jakarta on the Humphead Wrasse, a species of great commercial importance; the focus was on the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) and the level of illegal, unregulated and unreported take of the fish, and the conservation actions needed.
- 3) Freshwater Plant SG: delivered a global strategy for the Starfruit (*Damasonium alisma*), developed through a very different process.
- 4) Giraffe and Okapi SG: held a planning workshop for giraffe in Niger.
- 5) Mid-Atlantic Invertebrate SG: held a planning workshop concurrently in UK and St. Helena, largely by Skype, for the >400 species of endemic invertebrates on St. Helena.
- 6) Antelope SG: with the IUCN Centre for Mediterranean Cooperation, a transnational workshop for Morocco, Tunisia and Algeria was held using the Cuvier's Gazelle as an example; this was part of a wider Maghreb project to build capacity for species conservation planning.
- 7) Cat SG: ran separate workshops for national action plans for Cheetah and African Wild Dog in Chad, and the same for Algeria, and for Lions in Mozambique; revised after 8 years the regional strategy for Cheetah and African Wild Dog in southern Africa; released the 'Cat Compendium: a practical guideline for strategic and project planning in cat conservation' (see Impacts).
- 8) Crop Wild Relative SG: had activities in the following areas in 2015, most focusing on training, with further workshop or research through 2016: southern Africa (SADC states), Norway, Scandinavia (Iceland, Norway, Sweden, Finland, Denmark), Mexico, UK, North Africa (Morocco, Algeria, Libya, Tunisia, Egypt), West Asian Fertile Crescent (Palestine, Syria, Lebanon, Turkey, Iraq), Oman, Europe.
- 9) Heron SG: Synchronicity Earth organized the second range-wide planning workshop for the White-bellied Heron in Bhutan (see Impacts).
- 10) Iguana SG: updated its 2009 plan for Iguana delicatissima in the Lesser Antilles.
- 11) General: SCPSC benefited greatly from the SSC Leaders' meeting in Abu Dhabi, through its own meeting, a workshop, a market stall, and discussions on collaboration with other Freshwater, Marine, Plant and Invertebrate Sub-Committees.



## IMPACT ON CONSERVATION

- 1) The Cat Compendium is being widely and favourably received and is used as a course textbook at an American university.
- 2) Further funded research work on the Singapore Freshwater Crab is the basis for a potential link between the Universities of Newcastle and Singapore, and to acquire the knowledge that effective conservation needs.
- 3) Following planning for the Crau grasshopper in June 2014, the resulting strategy became formal policy in March 2015, and adult grasshoppers were taken into captivity in France in April 2015. Based on this the Mohamed bin Zayed Species Conservation Fund supported field research in 2015 for two Masters students, and the project was presented in posters at the European Association of Zoos and Aquariums Conservation Forum, in a film, and in a French government research grant received (Ph.D. research will start in 2016).
- 4) The conservation strategy for the St. Helena invertebrates was completed in the months following the planning workshop.
- 5) White-bellied Heron: priority actions from December 2015 were (1) to place satellite tags on fledging youngsters in Bhutan (two were in place by May 2016); and (2) to survey large tracts of Arunachal Pradesh for the heron (by April 2016 funding was being sought and recruitment about to start).
- 6) A workshop for the Iranian Department of the Environment on 11 ungulate species showed how handling this situation needed a different level of planning from the conventional SCPSC one; this led to exploration of the planning level appropriate to the situation and level of knowledge.
- 7) The workshop to review and revise the 8-year old regional strategy for Cheetah and African Wild Dog was able to assess performance against the 2007 objectives, and to highlight where further efforts are needed for the next period; the process demonstrated that the strategy is a living document, and serves to motivate afresh all those with assigned roles in it.

## FUTURE GOALS & ACTIVITIES

- 1) Deer SG, Reintroduction SG, Calgary Zoo: conservation planning for the fast-declining Boreal Caribou.
- 2) Peccary SG, Conservation Breeding SG: workshop for the Chacoan Peccary in Argentina, Paraguay, Bolivia,
- 3) Spider and Scorpion SG: workshop in Madeira on the Islas Desertas Wolf Spider.
- 4) Cat SG: revision of the regional conservation strategy for Leopard in the Caucasus.
- 5) African Elephant SG: national action plan for Liberia.
- 6) Development of Species Conservation Planning Guidance version 2, updating the model handbook of 2008.
- 7) Participating in the organizational design for species conservation planning in SSC and beyond to move it to a greater level of activity and impact.
- 8) Increasing activity with the SCPSC-Amphibian SG working group on conservation strategies.
- 9) Inputs from the Climate Change SG to Species Conservation Planning Guidance Version 2.

## ACKNOWLEDGEMENTS

Members of the SCPSC are supported by many organizations and employers, to which SSC is most grateful. The SCPSC Chair acknowledges the support of the Environment Agency - Abu Dhabi, and of Synchronicity Earth.



The Critically Endangered White-bellied Heron (*Ardea insignis*), Namdapha Tiger Reserve, Arunachal Pradesh, India © Gopinathan Maheswaran

# IUCN SSC Standards and Petitions Sub-Committee



H. Reşit Akçakaya

NAME: CHAIR / CO-CHAIRS	H. Reşit Akçakaya
NAME: RED LIST AUTHORITY CO-ORDINATOR	
LOCATION / AFFILIATION	Stony Brook University, New York, USA
NUMBER OF MEMBERS	7

## MISSION STATEMENT

The Standards and Petitions Sub-Committee is responsible for ensuring the quality and standards of the IUCN Red List of Threatened Species, developing guidelines for the application of the IUCN Red List Categories and Criteria, and ruling on petitions against the listings of species on the IUCN Red List of Threatened Species. The Standards and Petitions Sub-Committee meets in-person once every 2-3 years; much of the work is conducted via email.

## SUMMARY OF MAIN ACTIVITIES 2015

**Meetings:** The Standards and Petitions Sub-Committee (SPSC) met in Sydney, Australia in November 2015, at the University of New South Wales (UNSW). The meeting was attended by SPSC Chair: H. Resit Akçakaya, members: David A. Keith (Australia), Ulf Gärdenfors (Sweden), André E. Punt (USA), Helen M. Regan (USA), and Ben Collen (UK), as well as observers including Craig Hilton-Taylor (UK), Rod Hitchmough (New Zealand), and researchers from UNSW.

**Guidelines:** The SPSC released version 12 of the Red List Guidelines in February 2016. The main changes involved

- (1) Major restructuring of sections related to declines and criterion A in response to suggestions from the marine fisheries workshop in Vancouver in October 2014.
- (2) Major additions to and restructuring of sections related to climate change, with a new 4-step protocol guiding the Red List assessment of species impacted by global climate change.
- (3) A new section on when it is not appropriate to use the Data Deficient (DD) category.
- (4) Updated definition of a "targeted taxon-specific or habitat-specific conservation or management programme."
- (5) More detailed explanations of criterion A for reduction, and extent of occurrence (EOO).

**Misconceptions:** SPSC members contributed to a general paper on common misconceptions about the Red List criteria, categories, and process (Collen et al. 2016 Biol. Letters).

## IMPACT ON CONSERVATION

The impact of SPSC on conservation is indirect, through its efforts to maintain and increase the credibility and reliability of the IUCN Red List as the most authoritative source of the conservation status of species.

## FUTURE GOALS & ACTIVITIES

**Guidelines:** SPSC will continue improving the Red List Guidelines. Goals for the coming years include adding an explanation of the rationale behind the criteria thresholds in the Red List Guidelines, improving guidance on assessment of hybrids, and developing guidance on how sampling effort should be considered in the assessment process.

**Green List:** We plan to contribute to the development of criteria and guidelines for determining the Green List status of species, with the objective of standardizing setting conservation targets, recognizing conservation success, and encouraging ambitious conservation goals.

**Climate change:** SPSC is involved in ongoing work for quantifying the impact of climate change on species extinction risks, and is contributing to activities of the Climate Change Specialist Group (CCSG). In the future we hope to contribute to a consultation and advisory service for SSC Specialist Groups and Red List Authorities, in collaboration with the CCSG, with the goal of helping Red List Authorities implement the 4-step protocol we have recently added to the Guidelines.

## ACKNOWLEDGEMENTS

The November 2015 meeting of the SPSC was hosted by David Keith at the University of New South Wales, Sydney, Australia.



The November 2015 meeting of the SPSC, University of New South Wales, Sydney, Australia

# Aichi Targets and Knowledge Products

## STAFF MEMBERS

Natasha Ali, Programme Officer, Aichi Targets and Knowledge Products  
David Attenborough Building, Cambridge, UK

## CURRENT PROJECTS

- Development of guidance and resources for Parties to the Convention on Biological Diversity (CBD) to assist the implementation of the Aichi Biodiversity Targets, particularly Targets 11 and 12.
- Development of a tool to aid national decision making (“IBAT Country Profiles”).
- Building effective working relationships with partner organizations wishing to use Knowledge Products mobilized by IUCN for platforms to aid decision making.
- Support to the development of the Key Biodiversity Areas Partnership and promotion of the Global Standard for the Identification of Key Biodiversity Areas.
- Creating regional fact sheets about Key Biodiversity Areas.
- Mapping of IUCN’s work on Agriculture and Biodiversity.
- Tracking IUCN’s work on the Convention on Migratory Species.
- Working as a Member of the IUCN Secretariat Motions team, who facilitate the motions process for the IUCN World Conservation Congress.
- Organization of events and sessions for IUCN World Conservation Congress (Hawai’i 2016).

## SUMMARY OF MAIN ACTIVITIES 2015

- Prepared and disseminated an INF doc at the 19th meeting of the Subsidiary Body on Scientific, Technical and Technological Advice to the CBD (CBD SBSTTA19), describing the value of conservation assessments and species’ extinction data for national delivery of Aichi Target 12. Document was prepared with significant input from the SSC and IUCN Red List Committee. The document was also showcase at a side event at the meeting, which I co-organised with the Secretariat to the CBD and a member of the World Commission on Protected Areas.
- Support to Conservation and Planning Programme Officer in the development of the Global Standard for the Identification of Key Biodiversity Areas, which was adopted by IUCN Council in April 2016. I also supported the initial dialogue on development of a Key Biodiversity Areas Partnership
- Starting initial discussions with the EU Joint Research Council to develop an agreement or common understanding of the use of integrated data from knowledge products mobilized by IUCN. Discussions involve colleagues in Birdlife International and UNEP-WCMC.
- Assisted the development of an IUCN position paper for the REFIT of the EU Birds and Habitats Directives
- Co-development of three funding proposals to support: i) use of the Global Standard for the Identification of Key Biodiversity Areas by the finance and development sector; ii) development of a decision-making support tool, with the University of Newcastle and SSC Conservation Planning Sub-Committee; iii) a Darwin Grant application (led by the Plants for People Officer) to aid plant conservation and benefit sharing in Latin and Central America.
- Input in the Biodiversity Indicators Partnership – providing information about biodiversity indicators for which IUCN plays a lead role in its delivery and development.

## IMPACT ON CONSERVATION

- The document shared at CBD SBSTTA19 aims to help governments with the achievement of Aichi Target 12. It’s always difficult to measure the impacts of policy work on conservation action on the ground. Measurable indicators would include an increase in the number of national red lists, or increased numbers of species actions plans reported to the CBD via national reports, or a change in the Red List Index, indicating that the risk of extinction is decreasing for selected taxonomic groups. Each of those indicators would take a long time to manifest and to measure – and as such no attempt has been made to assess the

impacts of the paper since it was developed in 2015.

- Adoption of the Global Standard for the Identification Key Biodiversity Areas and its eventual uptake is critical for the safeguarding of sites that are of importance to biodiversity, and to help Parties to the CBD with the delivery of Aichi Target 11
- Agreement on a working relationship with entities that are developing decision-making platforms, using data maintained and managed by IUCN is important for ensuring, inter alia,: 1) that data is provided in a clear and coherent manner; 2) to avoid misinformation to target audiences; 3) to ensure that the data that underpin decision-making platforms is supported financially; and 4) to ensure that the data is understood by users. The data can then be used effectively, to make decisions about the management and conservation of biodiversity by user groups.
- Development of policy position papers on the EU Birds and Habitats Directives is important work to ensure that vital nature conservation legislation is upheld.
- Fundraising for the use of the Global Standard for Key Biodiversity Areas by the finance is helpful for ensuring that decisions about investments are made with sufficient data about impacts on areas that are significant for biodiversity. Likewise, investment into decision-support tools, as noted above, helps to ensure that decisions are informed appropriately about impacts on biodiversity
- Input into the Biodiversity Indicators Partnership is vital for ensuring the measurement of progress toward the Aichi Biodiversity Targets at a global level.

#### FUTURE GOALS & ACTIVITIES

- Development of guidance and resources for Parties to the Convention on Biological Diversity (CBD) to assist for implementation of the Aichi Biodiversity Targets, particularly Targets 11 and 12
- Development of a tool to aid national decision making (IBAT Country Profiles)
- Mapping of IUCN's work on Agriculture and Biodiversity

#### ACKNOWLEDGEMENTS

Thanks to members of the SSC, WCPA and IUCN Red List Committee for input to the paper on Achieving Target 12 for CBD SBSTTA19. Thanks also to members of the SSC Policy Sub-Committee for our current collaboration to develop guidance to Parties to the CBD for the implementation of Targets 11 and 12.



IUCN delegation at SBSTTA19 (Nov 2015)



Natasha Ali

# Biodiversity Assessment Unit

## STAFF MEMBERS

Neil Cox (Manager), Marcelo Tognelli (Programme Officer), Philip Bowles (Programme Officer)  
Arlington, VA, Unites States

## CURRENT PROJECTS

- 1) Global Reptile Assessment
- 2) Global Freshwater Biodiversity Assessment (Americas)
- 3) Crop Wild Relatives

## SUMMARY OF MAIN ACTIVITIES 2015

- 1) Global Reptile Assessment:
  - Reptile assessment workshops completed in 2015 for the Caribbean (excluding Cuba and the Netherlands Antilles) - **488 spp.**
  - Reptile assessments for Venezuela completed in March 2015 - **160 spp.**
  - Reptile assessments published for the reptiles of New Guinea, together with the first published South American assessments covering species occurring in Colombia, Peru and Amazonia, a total of **255** species.
  - Reviews completed for **1,275** reptiles of mainland South America (though resolving queries with specialists and addressing stragglers remained outstanding for far longer than anticipated the following year and into early 2017).
  - Funding successfully obtained to hold a workshop to assess the reptiles of Central Asia (**198 spp.**) in April 2016.
  - Completion of the global chameleon assessment in collaboration with the Chameleon Specialist Group, (**17 spp.**)
- 2) Global Freshwater Biodiversity Assessment (Americas)
  - Reviewed Red List assessments and prepared spatial data for the identification and delineation of freshwater KBA in the Tropical Andes region of South America. Approximately, 875 species of freshwater fishes and dragonflies and damselflies were included in the analysis.
  - Coordinated and facilitated the Tropical Andes KBA workshop that took place in Bogota the week of May 11-15.
  - Prepared spatial data for the identification and delineation of freshwater KBA in Canada. Approximately, 314 species of freshwater fishes, molluscs and plants were included in the analysis.
  - Coordinated and facilitated the Tropical Andes KBA workshop that took place in Bogota the week of July 20-24.
  - Helped the Alexander von Humboldt Institute of Colombia (IAvH) with the facilitation of a workshop (Aug 30 – Sep 4) where we assessed 60 species of reptiles and 50 of crabs.
- 3) Crop Wild Relatives (CWR)
  - Collaboration with IUCN SSC CWR Specialist Group (CWRSG) and Conservation International to establish global review of management areas for CWR. Including drafting of concept note.

## IMPACT ON CONSERVATION

- We expect that the identification of freshwater KBA in the Tropical Andes will help guide conservation efforts and inform future developments in the region, so that its biodiversity is conserved and sustainably managed.
- We anticipate that the identification of freshwater KBA in Canada will help guide conservation efforts and inform future developments in the country, so that its biodiversity is conserved and sustainably managed.
- The species assessed in coordination with the IAvH led to the publication of two national Red List books (reptiles and crabs).
- Expectation that data collected during the Global Reptile Assessment will contribute towards conservation prioritization work for regions currently reviewed.

## FUTURE GOALS & ACTIVITIES

- Analyze data from both the Tropical Andes and Canada freshwater projects to produce reports for dissemination.
- Continue progress with Global Reptile Assessment for regions where conservation status of fauna has not been evaluated.
- Continue work with IUCN SSC CWRSG to find funding donor for CWR management area planning.
- Establish work on pollinators, especially understanding conservation status of bee species other than honeybees and bumblebees.
- Contribute to strengthening link between Forest Landscape Restoration and IUCN biodiversity data.

## ACKNOWLEDGEMENTS

- To the John D. and Catherine T. MacArthur Foundation for support for the Tropical Andes project.
- To the Mitsubishi Corporation Foundation for the Americas for support for the Canada project
- NatureServe for continued strong support of the Global Reptile Assessment
- Conservation International, for continuing support of the BAU.



The Biodiversity Assessment Unit team (from top left, clockwise): Neil Cox, Philip Bowles, Marcelo Tognelli

# Climate Change Unit

## STAFF MEMBERS

Jamie Carr, Climate Change Programme Officer, Global Species Programme, David Attenborough Building, Cambridge, UK

## CURRENT PROJECTS

1. Assessing climate change vulnerability of freshwater species of the Lake Victoria Basin (as part of FBU-led project).
2. Assessing climate change vulnerability of freshwater species of the Tropical Andes (as part of BAU-led project).
3. Assessing climate change vulnerability of Lower Mekong Basin species (consultancy to Mekong River Commission).
4. Assessing climate change vulnerability of crop wild relatives of Meso America (as part of P4P-led project).
5. Identifying vulnerable and resilient species of Kutai National Park, Borneo.
6. Identifying potential threats to biodiversity from renewable energy expansion (Cambridge Conservation Initiative (CCI) Collaborative Fund project).
7. Conducting a review of actions taken to contribute to Aichi Target 10 (as part of a wider review led by IUCN Science and Knowledge team).
8. Assisting the IUCN World Heritage (WH) team to assess the role of natural WH sites in supporting climate change vulnerable species.
9. Conducting and reporting on a review of human responses to climate change to inform species vulnerability assessments (collaboration with WWF-US)
10. Reporting on climate change-related user needs survey of the SSC (as part of role with the IUCN SSC Climate Change Specialist Group (CCSG)).
11. Contributing to the CCSG's Climate Change Vulnerability Assessment Best Practice Guidelines.

## SUMMARY OF MAIN ACTIVITIES 2015

- Fundraising.
- Developing collaborative ideas with other areas of IUCN, especially in the area of climate change adaptation planning.
- Collecting (via two assessment workshops), processing and analyzing data to assess the climate change vulnerability of Tropical Andes freshwater species.
- Wrapping up PARCC West Africa project, including: preparation of species vulnerability data to be hosted on protectedplanet.net; development of species monitoring recommendations for five transboundary sites in West Africa; general reporting and presentation of project results to stakeholders in-region.
- Consulting experts to derive a species list for assessment for the Kutai NP, Borneo project. This will form the basis of the assessment workshop to be held in Borneo later in 2016.
- Training of Mekong River Commission staff to conduct species vulnerability assessments, facilitating their assessment workshop, and assisting with assessments as required.
- Co-ordination of CEPF Ecosystem Profile of the Guinean Forests of West Africa, including technical co-ordination of data gathering and analysis, stakeholder consultations (workshops and remote questionnaires), and co-ordination of production the final 13 chapter report.



- Developing and processing results from the SSC User Needs survey as part of work with the SSC CCSG.
- Contributing text to the CCSG's Climate Change Vulnerability Assessment Best Practice Guidelines.
- Numerous media interactions and public presentations, including TV interview for National Geographic.

#### IMPACT ON CONSERVATION

- Results of climate change vulnerability assessments should feed into wider conservation planning and monitoring exercises, although monitoring this is challenging. In West Africa there is some evidence of this.
- The CEPF Ecosystem Profile will guide the investment of several million dollars into the region.
- Work conducted with the CCSG will (a) allow the group to better hone their activities to match the needs of the wider SSC, and (b) inform the wider conservation community of how best to assess species vulnerability to climate change, thereby resulting in more robust conservation actions.

#### FUTURE GOALS & ACTIVITIES

- Continue with ongoing projects (Lake Victoria, Meso-America, Borneo species assessments; CCI renewable energy project; WWF human responses to CC project).
- Continue to develop collaborations with colleagues working in the field of climate change adaptation, and secure funding to take forward these ideas.
- Develop a more robust and accessible means to link species vulnerability data to the IUCN Red List, and to allow wider access to these data by the general public.
- Expand the coverage (taxonomic and geographic) of species vulnerability assessments (target groups include mammals, terrestrial vertebrates and marine species).
- Help to establish a means to better translate the outputs of climate change vulnerability assessments into effective, on-the-ground conservation actions.

#### ACKNOWLEDGEMENTS

Donors: MacArthur Foundation; GEF; Darwin Initiative; Indianapolis Zoo; CCI Collaborative Fund; CEPF; WWF-US



Jamie Carr

# Conservation Planning

## STAFF MEMBERS

Annabelle Cuttelod, Programme Officer, Conservation Planning.  
David Attenborough Building, Cambridge, UK

## CURRENT PROJECTS

- Finalization of the Key Biodiversity Area (KBA) Standard, in collaboration with the SSC-WCPA Joint Task Force on Biodiversity and Protected Areas, for its adoption by the IUCN Council.
- Setting up the basis of the governance system for the KBA knowledge product.
- Promotion of the knowledge products mobilized through IUCN with IUCN Secretariat, Members, Commissions and partners, as well as targeted end-users.

## SUMMARY OF MAIN ACTIVITIES 2015

The draft of the KBA Standard was revised and presented for a second round of online consultation (sent to all IUCN members, Commission members and IUCN Staff). More than 600 comments were received and addressed individually, through the KBA editorial team. Testing of the KBA criteria and thresholds was also conducted and a specific workshop on Criteria B was organized in Cambridge (see the report from the SSC-WCPA Joint Task Force on Biodiversity and Protected Areas for more details).

A KBA Partnership scoping meeting gathered 30 experts in Washington in April 2015 to discuss the possible governance structure of the KBA knowledge product and suggest preliminary Terms of Reference and structure of several governance bodies, such as the KBA Committee, the KBA Community (for data providers) and the KBA Consultative Forum (for end-users). Criteria to identify potential partners have been defined and potential partners have been identified and contacted. Ten organizations provided a Letter of Intent indicating their interest in joining a KBA partnership. A Governance structure option paper has been drafted and will be discussed in 2016.

Special efforts have been conducted to engage with IUCN Members and Commissions. In particular, the KBA consultation process was presented to the various SSC Sub-Committee meetings at the 3<sup>rd</sup> SSC Leaders' Meeting in Abu Dhabi. A meeting was also organized with the Swiss National Committee to address their specific concerns around KBAs. KBAs were presented during the Biodiversity Without Borders conference in the USA in April and during the International Congress for Conservation Biology (ICCB) in August in France.

A dialogue has started with several financial institutions to identify their needs and requirements in order to assess their impact on biodiversity and the role that KBAs can play in guiding their investments.

## IMPACT ON CONSERVATION

Data generated through application of the KBA Standard are expected to have multiple uses. KBAs can support the strategic expansion of protected-area networks by governments and civil society working toward achievement of the Aichi Biodiversity Targets (in particular Target 11 and 12), as established by the Convention on Biological Diversity (CBD); serve to inform the description or identification of sites under international conventions (such as Ecologically and Biologically Significant Areas described under CBD, wetlands of international importance designated under the Ramsar Convention, and natural World Heritage Sites); inform private sector safeguard policies, environmental standards, and certification schemes; support conservation planning and priority-setting at national and regional levels; and provide local and indigenous communities with opportunities for employment, recognition, economic investment, societal mobilization and civic pride.

## FUTURE GOALS & ACTIVITIES

- Publication and distribution of the KBA Standard;
- Development of a KBA Partnership to implement the KBA programme and signing of the KBA Partnership agreement;
- Pilot projects identified and implemented in various countries and realms (terrestrial, freshwater and marine);

## ACKNOWLEDGEMENTS

We would like to thank Penny Langhammer and Stephen Woodley, Co-Chairs of the SSC-WCPA Joint Task Force on Biodiversity and Protected Areas and all its, the KBA editorial team, the experts who volunteered their time to conduct testing of the KBA criteria and thresholds, and the hundreds of people who contributed to the development of the KBA Standard through participation in technical and regional workshops and through submission of comments during the online consultations. A special thank goes to Simon Stuart, Chair of the SSC, and Ernesto C. Enkerlin, outgoing chair, and Kathy MacKinnon, incoming Chair of the WCPA for their guidance and support.

We would also like to thank all the KBA proto-partners: Amphibian Survival Alliance, Bat Conservation International, BirdLife International, Critical Ecosystem Partnership Fund, Conservation International, Global Environment Facility, Global Wildlife Conservation, NatureServe, RSPB, Wildlife Conservation Society and WWF International.

These activities would not have been possible without the generous financial support of the French Agency for Development, the Cambridge Conservation Initiative Collaborative Fund for Conservation and the Environment Agency - Abu Dhabi.



Governance workshop, in Audubon offices, Washington, USA, 24 and 25 April 2015.



Annabelle Cuttelod

# European Biodiversity Unit

## STAFF MEMBERS

Ana Nieto (European Biodiversity Conservation Officer), Mariana Garcia (Junior Biodiversity Conservation Officer), Marta Calix (Biodiversity Conservation Intern)  
European Regional Office, Brussels, Belgium

## CURRENT PROJECTS IN 2015

- European Red List of Birds
- European Red List of Marine Fishes
- European Red List of Orthoptera
- Establishing a European Red List of Bryophytes, Pteridophytes, Saprobial Beetles, Terrestrial Molluscs and Vascular Plants
- European Red List of Habitat Types
- European Habitats Forum
- Invasive Alien Species - Prioritising prevention efforts through horizon scanning

## SUMMARY OF MAIN ACTIVITIES 2015

The IUCN European Red List provides a comprehensive overview of the extinction risk of European species, and is a powerful tool to inform policy decisions on biodiversity conservation. As of 2015, almost 10,000 species have been assessed in cooperation with the IUCN Species Survival Commission (SSC), of which more than 22% are threatened.

All marine fishes and birds were assessed in 2015, which contributed to determining the status of all vertebrates in Europe. Marine fishes are key to ensuring a healthy marine environment, providing food and other ecosystem services and a better understanding of their extinction risk is critical for the long-term viability of our fisheries. The assessment revealed that 7.5% of species are threatened in Europe. Furthermore, the assessment of all European birds (led by BirdLife), showed that 13% of birds are threatened.

In order to make the European Red List an accurate Barometer of Life, IUCN has focused on assessing underrepresented groups such as invertebrates and plants, which provide the foundation for healthy ecosystems we all depend on. The assessment of European wild bees showed that nearly one in ten wild bees are currently threatened, while the assessment of European medicinal plants indicated that 2.4% of medicinal plant species are threatened. Great progress has also been made on the assessment of crickets and grasshoppers in Europe.

The European Commission has contributed to securing the continuation of this vital Red Listing work, by awarding in 2015 IUCN with a LIFE project to assess more invertebrates and plants, including all European bryophytes, pteridophytes and trees, and a selection of shrubs, saprobial beetles and all remaining terrestrial molluscs.

For the first time in over two decades, a new piece of EU nature legislation was adopted in January 2015, when the EU Regulation on invasive alien species (IAS), focusing on the prevention, early detection, rapid eradication and management of IAS, entered into force. The core of this regulation is a list of species, known as the "Union's list". By providing scientific knowledge and advice, IUCN SSC Invasive Species Specialist Group (ISSG), provided scientific knowledge to ensure that the species with the most damaging impact were included. In addition IUCN and ISSG were involved in a project for the European Commission to support the prioritisation of IAS for future risk assessments through a horizon scanning methodology. The outcome was a list of 95 species, including all taxa (except microorganisms) within marine, terrestrial and freshwater environments, considered as very high or high priority for risk assessment.

Given that habitat degradation and habitat loss often precede and contribute to species decline, IUCN has developed a standard to assess the status of ecosystems (the IUCN Red List of Ecosystems). Ecosystem assessments could provide a valuable tool to identify potential problems for threatened species, and could play an important role in guiding conservation action and identifying priority sites for restoration. In 2015, IUCN continued its work on the first-ever assessment of all European Habitat Types, in partnership with Alterra, which will assess the status of all terrestrial, freshwater and marine habitats in Europe by end of 2016.

In 2015, as secretariat of the European Habitats Forum (EHF), IUCN facilitated the exchange of knowledge on EU biodiversity policy among EHF members (23 leading nature organisations), promoted a common view on key policy issues, and provided a coordinated means of communication between EHF members and EU institutions.

## IMPACT ON CONSERVATION

Identifying which species are at risk of extinction at the European level allows for informed decisions on nature conservation across Europe. As of 2015, almost 10,000 species have been assessed on the European Red List of species including all vertebrate species and a significant amount of invertebrates and plants providing policymakers a powerful tool for policymaking at the European level. Likewise the identification of all European habitats that are at risk of collapse will contribute to guiding conservation action and identifying priority areas for conservation.

Proving the scientific knowledge that underpins the EU legislation on IAS helps ensure that the threat caused by these species is prevented and managed.

## FUTURE GOALS & ACTIVITIES

In the future, IUCN will continue this vital Red Listing work, assessing more invertebrates and plants. However, it will be important to identify how many species need to be assessed on the ERL for it to be representative of the biodiversity present throughout Europe and for the ERL to become a Barometer of Life.

A comprehensive regional assessment of the mammals of Europe (260 species) was first completed in 2007 and for European amphibians (85 species) and reptiles (151 species) in 2008. As all assessments on the Red List become officially out of date after ten years, these assessments will become out of date in 2017/2018, making the re-assessment of these species a priority. Re-assessments are vital for using the IUCN Red List as an indicator of biodiversity trends over time (through the Red List Index). The Red List Index will be calculated for mammals, amphibians and reptiles. This will allow identifying those taxa that have genuinely improved status or have deteriorated over time, revealing how much progress has been made towards achieving the EU 2020 Biodiversity Targets.

IUCN will contribute to implementing the EU Regulation on Invasive Alien Species in a way that effectively tackles the threat that invasive species poses to Europe's biodiversity.

In the future IUCN will continue providing the secretariat function to the European Habitats Forum (EHF), facilitating discussion and joint activities with leading EU nature conservation organisations to influence EU biodiversity policy.

## ACKNOWLEDGEMENTS

The European Commission (DG Environment)



Anna Nieto



Mariana Garcia



Marta Calix

# Freshwater Biodiversity Unit

## STAFF MEMBERS

Will Darwall (Head of Unit), Laura Maiz-Tome (Junior Programme Officer), Catherine Sayer (Junior Professional), Kevin Smith (Programme Officer, 2015)  
David Attenborough Building, Cambridge, UK

## CURRENT PROJECTS

The FBU is running a number of projects at present. The larger of these projects include:

- 1) *Critical sites network for freshwater biodiversity in the Lake Victoria catchment.* In 2015 we initiated a project in eastern Africa focused on the **Lake Victoria catchment**. Through this really exciting project we will update the IUCN Red List assessments, originally published in 2004, allowing us to calculate the first regional Red List Index (RLI) for freshwater biodiversity. We will then use the Red List assessments to help identify and delineate freshwater KBAs and training will then be provided by our partners for KBA site champions in advocacy and action planning for these sites. We will also for the first time be holding a workshop dedicated to collating the information for the SIS livelihoods module.
- 2) *Mobilising freshwater biodiversity information for better representation within protected areas in Madagascar.* In 2015 we initiated a project for the Madagascar and Indian Ocean Islands biodiversity Hotspot. This work builds upon one of the first projects implemented by the FBU back in 2003 when we first assessed the Red List status for Madagascar's endemic freshwater fishes. In this new project we will reassess the freshwater fishes (also leading to a possible RLI for this group) and conduct first time Red List assessments for an additional 550 other freshwater species of odonates, molluscs, crustaceans and plants. We will then identify and delineate Freshwater KBAs as input to the protected areas network planning for Madagascar. Missouri Botanic Garden are our partner in this project.
- 3) *Conserving the Lake Tanganyika Basin in a changing climate.* We received a sub-contract from The Nature Conservancy (TNC) to work with them on their project in Lake Tanganyika – a key objective of which is to identify important biodiversity sites within the lake. Our role in the project is to help source the species data, building directly upon the baseline assessment we conducted back in 2004, as input to development of a lake biodiversity atlas and also for input to the identification and delineation of freshwater KBAs. Taking the freshwater KBA methodology forwards we held a joint workshop in Washington to develop an approach for identification of KBAs within large lakes – this methodology will subsequently be applied in both the Lake Victoria and Tanganyika projects.
- 4) *Mediterranean Freshwater KBAs.* Following finalization of the new Global Standard for Key Biodiversity Areas we now have a small project running to refine the existing freshwater KBAs of the Mediterranean Basin Hotspot (a product of our own project completed in 2015) to meet the new standard. We are hoping to complete this work in time to ensure these KBAs are included in the updated CEPF Mediterranean Hotspot profile which is now ongoing.
- 5) *Integrated Catchment Management Plan for the Malili Lakes, Sulawesi, Indonesia.* The project is due to start in June 2016. The project is very exciting in that it will be our first project to complete the cycle from Red List assessment through to action on the ground. In this case the focus is on the globally outstanding Malili lakes. We will first assess the freshwater species for the Red List, then identify freshwater KBAs, and conduct an integrated wetland assessment which will then feed into development of an integrated catchment management plan to be piloted by our partner at a small sub-catchment within the lake system.

## SUMMARY OF MAIN ACTIVITIES 2015

In 2015 FBU completed a number of projects including:

- 1) *Development of a freshwater tool for IBAT* that allows the user to obtain information on species in areas upstream and downstream from the site of their planned/existing developments.
- 2) *Mediterranean Freshwater KBAs.* This project to identify and delineate freshwater KBAs throughout the Mediterranean Basin Hotspot was completed and a report published in early 2016. This project was implemented in partnership with IUCN Malaga.
- 3) *CEPF Ecosystem Profile for the Guinean Forests of West Africa.* In collaboration with IUCN PACO and UNEP-WCMC GSP took on the role for a large component of the new ecosystem profile for this hotspot. FBU's role was mainly to complete the important section on Conservation Outcomes which focuses on species, site (KBAs) and

landscape priorities for conservation action. This was an extremely challenging but ultimately rewarding project for many reasons, not least being the outbreak of Ebola across the region. Our work on this project was completed in early 2016 and the profile has been officially released now on the CEPF website for this hotspot.

- 4) *African Odonata update*. We received a small sub-contract from Stellenbosch University to work with many members of the Dragonfly Specialist Group in helping to process a number of new and updated species assessments for the entire Africa continent. These assessments will hopefully be published on the Red List later in 2016.
- 5) *Freshwater biodiversity and ecosystem services in the Tropical Andes watersheds I/A with the BAU*. We contributed to this project run by the BAU in the identification of freshwater KBAs.
- 6) *Assessment of Canadian Freshwater Biodiversity I/A with BAU*. We contributed to this project run by the BAU in the identification of freshwater KBAs.

#### Publications

FBU had two significant publications towards the end of 2015. 1) A new text book “*Conservation of Freshwater Fishes*” was published at the end of 2015 and Will Darwall and Joerg Freyhof co-authored the first chapter providing an overview of the distributions and status for the world’s freshwater fishes. This provides a summary of much of the work conducted by the FBU over the last 14 years. Will is also a co-author on the second chapter on the reasons why freshwater fishes are so threatened. This is published by Cambridge University Press. 2) Will is a co-author on a paper published in Science highlighting the dangers of megadams in some of the world’s major river basins. The maps included in the paper are based directly upon those created through our RedList assessments in the Mekong and Congo river systems. It was extremely satisfying to see this hugely important issue profiled in such a top journal.

#### IMPACT ON CONSERVATION

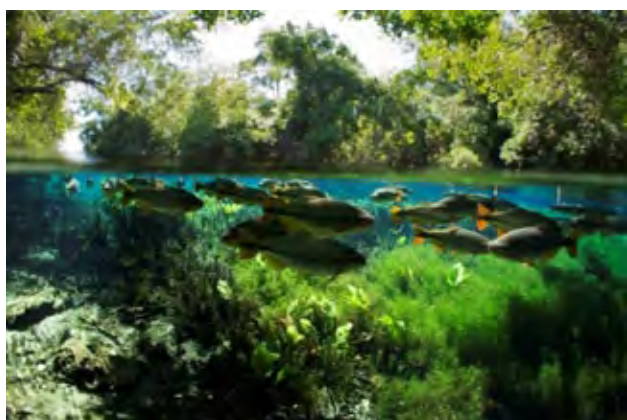
FBU has continued to increase coverage of freshwater species on the IUCN Red List so helping to ensure these species are considered within the numerous and varied applications of Red List information. FBU’s work on freshwater KBAs is an area where we hope to obtain the greatest impact by effectively putting freshwater species on the conservation map. Freshwater KBAs are already well recognized in the few regions where they have been identified to date and have helped to ensure donor funds are directed towards their needs and that development is guided through such tools as IBAT to respect these sites that are now globally recognized.

At a single species scale one significant impact has been for the Japanese kissing loach (*Parabotia curtus*) where a last minute assessment of the species as Critically Endangered played a significant role in the subsequent relocation of a planned park and football stadium which it is thought would otherwise have led to the destruction of the most important nursery grounds for this species which is endemic to the area.

#### ACKNOWLEDGEMENTS

We are most grateful for the generous support of the following donors to the projects outlined above: The Critical Ecosystem Partnership Fund, MAVA Foundation, and MacArthur Foundation.

Finally, at the end of 2015, after 11 years of dedicated service to the FBU Kevin moved on to become Head of the GSP Invasive Species Unit. Kevin provided an exceptional contribution to the FBU’s work over this period for which we are extremely grateful. We wish him luck in his new role (not that he has even moved desks of course!). Thank you Kevin!



Freshwater life within the Serra da Bodoquena, Mata Grosso do Sol, Brazil © Michel Roggo / Roggo.ch



Clockwise from top left: Will Darwall, Kevin Smith, Laura Maiz-Tome and Catherine Sayer

# Marine Biodiversity Unit

## STAFF MEMBERS

Kent Carpenter (Manager), Gina Ralph (Programme Officer), Mike Harvey (Research Associate), Christi Linardich (Research Associate), Jack Buchanan (Research Associate), Emilie Stump (Junior Professional Associate).

## CURRENT PROJECTS

The Marine Biodiversity Unit (MBU) is currently working to complete IUCN Red List assessments for bony fishes of Oceania, and have recently completed initiatives in the Greater Caribbean, Gulf of Mexico, Europe, Eastern Central Atlantic and Persian/Arabian Gulf. The new IUCN-Toyota partnership will expand our taxonomic initiatives to include all Clupeiformes and Pleuronectiformes. We also begin planning on a newly approved project supported by Total to complete bony fish assessments in the Indian Ocean.

## SUMMARY OF MAIN ACTIVITIES 2015

Prior to 2015, nearly 13,500 marine species had been assessed globally using Red List criteria primarily through the action of the MBU and its partners in the Species Survival Commission. In 2015, an additional 1,500 marine bony fishes were assessed at the regional or global level at four workshops held in Fiji (Oceania coral-associated bony fishes, two workshops), Mexico (Gulf of Mexico shorefishes), and Hong Kong (South China Sea bycatch). Over 50 participants from ten countries provided data and expertise at these workshops, including many scientists new to the Red List process.

Approximately 4,000 global and regional marine species assessments were added to the IUCN Red List website in 2015. In addition, we concluded the first step – assessments of marine bony fishes – for a number of our regional assessment initiatives, including those in Europe, the Persian Gulf, the Eastern Central Atlantic and the greater Caribbean.

Thanks to the diligent efforts of Kira Mileham, IUCN SSC, we embarked on a strategic partnership with The Deep, one of the UK's largest aquariums. The Deep is hosting a Marine Programme Officer (Robert Bullock) as a full time staff beginning April 2016, who will play a key role in the future progress of the GMSA. He will also work closely with the IUCN SSC to develop a model towards engaging global aquariums with the IUCN SSC aquatic network and substantially increasing global marine conservation capabilities.

## IMPACT ON CONSERVATION

In November 2015, MBU manager Dr. Kent Carpenter was called to the International Court of Justice to provide testimony on the impacts of dredging of coral reefs in disputed areas of the South China Sea. Using data from the IUCN Red List and his personal observations in the region, he was able to identify species that may be negatively affected by these actions. For example, of the 500 coral species present around the Spratly Islands, 139 were listed as threatened and another 138 were listed as Near Threatened. Given the pristine nature of these reefs and the high biodiversity, the impacts are “close to catastrophic.” The testimony represents a unique application of Red List data in the marine realm and may pave the way for future inclusion of such effects in the dialog of international environmental disputes.

In addition, in 2015, we completed many of our regional initiatives, including those in Europe, the Greater Caribbean, Persian Gulf and Eastern Central Atlantic (ECA). Our ECA initiative, supported by the MAVA Foundation, is poised to guide concrete marine conservation actions, especially in the countries covered by the Regional Marine and Coastal Conservation Programme for West Africa (PRCM). Our preliminary results were presented at the PRCM Forum in 2015 to an audience including institutional and non-governmental development and conservation stakeholders. As the PRCM countries have agreed to increase the network of West African marine protected areas, our results will help guide effective and efficient protected area placement to maximize conservation outcomes.

Over the past decade we have substantially increased the representation of marine species on the Red List, providing comprehensive species-specific baseline data, as well as spatial, temporal, and taxon-specific trends in threat. Our results have, and will continue to, guide national, regional and international marine conservation decisions, including petitions to include species on the Convention on International Trade in Endangered Species of Wild Fauna and Flora and the US Endangered Species Act.



## FUTURE GOALS & ACTIVITIES

The MBU is looking forward to continuing to improve its understanding of the status of marine biodiversity at global and regional scales. With more than 11,000 species assessments published globally and another 2,500 in progress, we are more than halfway to our goal of completing 20,000 global assessments. These assessments will provide a baseline by which future changes in marine biodiversity can be measured. In addition, we continue to work towards comprehensive species assessments for specific biogeographic regions, including Oceania, the Patagonian Sea and the Western Indian Ocean.

## ACKNOWLEDGEMENTS

We recognize and thank the essential contributions of our specialists, who volunteer their time and expertise to further the goals of the MBU. To date, over 500 specialists from nearly 80 countries have attended at least one workshop. These specialists represent an investment by institutions throughout the world to further our understanding of marine biodiversity and conservation. We gratefully acknowledge the numerous organizations and agencies that have supported our work to date, including our 2015 funders: U.S. State Department (through International Union for the Conservation of Nature), Agence Française de Développement, MAVA Fondation pour la Nature, National Fish and Wildlife Foundation, Qatar National Research Fund and Ocean Park Conservation Fund – Hong Kong. Roger McManus continues to provide advice and support for fundraising.



Staff of the Marine Biodiversity Unit

# Red List Unit

## STAFF MEMBERS

Craig Hilton-Taylor (Head), Caroline Pollock (Programme Officer – Red List), David Allen (Regional Biodiversity Assessment Officer), Barbara Goettsch (Programme Officer – Plants for People), Janet Scott (Junior Professional Officer), Catherine Sayer (Junior Professional Associate), Ackbar Joolia (Biodiversity Systems Manager), Adrian Hughes (GIS Programme Officer), Jemma Window (Junior Professional Officer) and Simon Byford (Web Application Developer).  
David Attenborough Building, Cambridge, UK

## CURRENT PROJECTS

Plants for People, European Red List Assessments (Life+), European Grasshoppers Red List, Madagascar Plants Red List Assessments, Mediterranean Biodiversity Assessment – Priority Plants, Red List Update, and Threat Mapping.

## SUMMARY OF MAIN ACTIVITIES 2015

### Red List Updates in 2015

- Over 4,900 global assessments were processed and published in three updates of *The IUCN Red List of Threatened Species*<sup>TM</sup>.
- Taxonomic coverage of plants and marine fishes on The IUCN Red List increased by over 1,000 species each; the Red List now includes 20,755 plants and 7,454 marine fishes. The plants included 460 species important for human livelihoods.
- Fungi assessments begin to flow into The IUCN Red List (increased from 5 to 34).
- The IUCN Red List of Threatened Species joined the growing list of open access online scientific publications with its own International Standard Serial Number (ISSN 2307-8235). Since October 2015, all current global assessments published on The IUCN Red List can be downloaded as stand-alone PDF documents, each with its own unique DOI reference, making them permanently retrievable and easier to cite.

### Regional Assessments

- Over 3,390 regional assessments (European, Mediterranean, Gulf of Mexico, and Persian Gulf) were processed and published.
- The first complete assessment of European marine fishes was published highlighting 7.5% of them being under threat of extinction
- A new European regional assessments for birds was published highlighting 13% of them being threatened due to habitat loss and the effects of climate change.
- The final results of the European Bee (9.2% threatened) and Medicinal Plants (2.4% threatened) assessments completed in late 2014 were publicized early in the year.

### IUCN Red List Website Traffic and Downloads

- In 2015, The IUCN Red List web site received over 4 million visitors and 22.5 million page views.
- Users also have the opportunity to export the results of any searches they carry out on the web site, and in 2015 there were 8,300 downloads of the search results (tabular downloads).
- Users also download the spatial data, either for individual species directly from the individual species maps or from the Spatial Data Download page where spatial data for multiple species can be downloaded (e.g., spatial data for all mammals). In 2015 there were 47,000 spatial data downloads (including data for individual species and bulk-data downloads) comprising over 77 million records.

### Red List Training

- Increase in number of people enrolled on the online IUCN Red List Training course (1,930 people enrolled to date).
- Major progress in developing French and Spanish versions of the online Red List exam.
- More than 35 certified Red List Trainers now actively providing training.
- Eight IUCN Red List Assessor Training events held in 2015, involving 195 participants.

### Species Information Service and Red List website

- Automated assessment submission system released in the Species Information Service (SIS).
- Work to develop and test a wiki approach to assessing species in collaboration with iNaturalist was undertaken.

- The system to produce and manage the PDF accounts of the Red List assessments, and for allocating and managing the doi's was built.
- Work was initiated to scope out the building of a new Red List website combining the four current sites on to a single new and modernised platform.
- Work was undertaken to improve the processes for handling GIS maps, for storing the freshwater species hydroshed maps and for storing point data.
- All maps were turned into image files for incorporation into the assessment PDFs and work was initiated to develop a system for displaying the point data on the Red List website.
- A data upload interface (now called SIS Connect) to enable Red List assessments held in external databases to be uploaded to a staging area for checking and once approved imported into SIS for processing and publication on the IUCN Red List was built and extensively tested.
- A new more secure and standards compliant version of the Red List API web service was developed and released.

## Publications

Red List Unit staff were co-authors on the following scientific papers published in 2015:

- Brooks, T.M. *et al.* 2015. Harnessing biodiversity and conservation knowledge products to track the Aichi Targets and Sustainable Development Goals. *Biodiversity* 16(2/3): DOI: [10.1080/14888386.2015.1075903](https://doi.org/10.1080/14888386.2015.1075903).
- Brummitt, N.A. *et al.* 2015. Green plants in the red: a baseline global assessment for the IUCN Sampled Red List Index for Plants. *PLoS ONE* 10(8):e0135152. DOI: [10.1371/journal.pone.0135152](https://doi.org/10.1371/journal.pone.0135152).
- Butchart, S.H.M. *et al.* 2015. Shortfalls and Solutions for Meeting National and Global Conservation Area Targets. *Conservation Letters* 8: 329–337. DOI: [10.1111/cons.12158](https://doi.org/10.1111/cons.12158).
- Goettsch, B. *et al.* 2015. High proportion of cactus species threatened with extinction. *Nature Plants* 1, Article number: 15142: DOI: [10.1038/nplants.2015.142](https://doi.org/10.1038/nplants.2015.142).
- Richman, N.I. *et al.* 2015. Multiple drivers of decline in the global status of freshwater crayfish (Decapoda: Astacidea). *Philosophical Transactions of the Royal Society B* 370(1662): DOI: [10.1098/rstb.2014.0060](https://doi.org/10.1098/rstb.2014.0060).

## Governance and Other Meetings

Red List Unit staff participated in:

- Two meetings of the Red List Committee.
- Meetings of the IUCN SSC Plant Conservation Sub-Committee and IUCN SSC Invertebrate Conservation Sub-Committee.
- A meeting of the Red List Standards and Petitions Sub-Committee.
- The 3<sup>rd</sup> IUCN SSC Leaders' Meeting in Abu Dhabi, UAE.

## IMPACT ON CONSERVATION

The IUCN Red List has a significant impact in informing and guiding conservation activities around the world and in general in raising and creating awareness of the various environmental issues. The number of web visitors, the number of data downloads and the number of media enquiries are an indication of how valued the Red List is. While we are involved in producing analyses of the data to help guide conservation action and policy, the Red List data is used or referred to by a large number of scientists in hundreds of publications. The Red List User community is not only large, it is also very diverse with people from a wide range of sectors and using the Red List data very different reasons – from forming the basis of story plots in novels, to stimulating art works, to developing species action plans, to companies developing plans to avoid, reduce or mitigate their impacts on the environment, to pure scientific research, to guiding national and international policy, etc. The Red List information has a significant multiplier effect and the impact is hard to measure.

## FUTURE GOALS & ACTIVITIES

- Review all the current non-bird species used to identify Alliance for Zero Extinct (AZE) sites to see if they are still valid and if there are any new trigger species and AZE sites as a result of changes in Red List status or taxonomy for species in the existing comprehensively assessed groups used so far. Identify new trigger species and document and map any new AZE sites for 15 additional taxonomic groups that have been comprehensively assessed.
- Compile and produce three updates of The IUCN Red List (June, September and December 2016).
- Start process to upgrade and modernize the IUCN Red List website (includes internal and external stakeholder consultations, hiring consultants to develop a new concept based on feedback from the stakeholder engagements, turn the concept into a design for presentation at the IUCN Congress and late in 2016 start the actual development).
- Get SIS Connect fully functional for uploading Red List assessments from external database systems for import into SIS and publication on the IUCN Red List, with a particular focus on species from Brazil and South Africa.

- Improved functionality and addition of various new fields and features to SIS to improve the assessment process, key amongst these is scoping out the needs for handling assessments in multiple languages (English, French, Spanish, Portuguese and Chinese).
- Complete or initiate translations of key Red List documents into Arabic, French and Spanish.
- Initiate the Toyota funded project to substantially increase the taxonomic coverage of the IUCN Red List.
- Continue the work with the IUCN SSC Madagascar Plant Specialist Group and Missouri Botanic Garden to assess Madagascar plants for the IUCN Red List.
- Working with BirdLife International and UNEP-WCMC to provide key biodiversity information via the Integrated Biodiversity Assessment Tool (IBAT) to countries for used in compiling their National Biodiversity and Species Action Plans for the CBD.
- Participate in and co-facilitate several Red List-related sessions during the Forum part of the IUCN World Conservation Congress in Hawai'i.

#### ACKNOWLEDGEMENTS

We thank the MAVA Foundation, Environment Agency of Abu Dhabi, Rufford Foundation, Agence Francaise de Développement, European Commission, Cambridge Conservation Initiative Collaborative Fund, and Synchronicity Earth for their significant support to The IUCN Red List and to many other organizations too numerous to list here for their contributions.



# SOS - Save Our Species (SOS) / Integrated Tiger Habitat Conservation Programme (ITHCP)

## STAFF MEMBERS

Jean-Christophe Vié (Deputy Director, Global Species Programme / Director, SOS), Alessandro Badalotti (Coordinator – SOS), Simon Bradley (Marketing & Communications Officer), Sugoto Roy (Programme Coordinator – Tiger Programme), Thomas Gelsi (Programme Assistant – Tiger Programme)  
IUCN, Gland, Switzerland

## CURRENT PROJECTS

SOS - Save Our Species (SOS) and Integrated Tiger Habitat Conservation Programme (ITHCP)

## SUMMARY OF MAIN ACTIVITIES 2015

Four years after the first threatened species grants were launched the SOS portfolio grew in new and exciting directions. The SOS portfolio is actively contributing to tackling the extinction crisis worldwide and to that end in 2015 we launched 12 new Threatened Species Grants, including 10 within the SOS Lemurs special initiative, and 10 Rapid Action Grants. The portfolio now comprises 109 projects for a total amount of €10 million and additional matching funds totalling €13 million.

Starting in June 2015, the Pangolin Conservation Initiative was launched thanks to the support of long-time donor Fondation Segré, and the Pangolin Specialist Group. It is targeting four species of pangolins: three in Cameroon (Giant, Black-bellied and White-bellied Pangolin) and one in Thailand (Sunda). The activities aim to reduce supply of pangolins and pangolin body parts through improved patrolling of protected areas and improved capacity among protected areas personnel to support law enforcement, while reducing demand in China through targeted social marketing campaigns. This was the second largest grant ever in the SOS portfolio and represents the single largest grant for pangolin conservation to date.

SOS also launched its 4<sup>th</sup> Rhino conservation project supporting anti-poaching efforts in Borana Conservancy Kenya. This project is quite special being funded thanks to a special bequest from the estate of Dr. Susan Mainka, IUCN Global Species Programme Director 2002-2005. It was selected in consultation with the African Rhino Specialist Group,

In the second half of the year SOS in coordination with the IUCN Primate Specialist Group selected 11 lemur projects for funding following a Call for Proposals for projects aligned to the Lemur Conservation Strategy 2013-2016. Currently SOS Lemurs supports conservation activities targeting 34 species of lemurs in 11 sites including 7 protected areas. All projects are now up and running.

The fourth major development for the SOS portfolio was the funding of 10 Rapid Action Grants, most in consultation with the relevant Specialist Groups. Species targeted here included the Titicaca Water Frog, the Mauritius Fruit Bat, Philippine Seahorses, the Irrawaddy Dolphin in the Mekong river, the Addax, the *Margaritifera marocana* Mussel and various mammals including Western Chimpanzees and Pigmy hippos in the proposed Grebo-Krahn National Park, Liberia.

In terms of developing the initiative, fundraising activities evolved over the course of the year with considerable focus placed on public sector funding and foundations. For example as a repeat donor Fondation Segré supported 5 lemur projects in addition to the Pangolin Conservation Initiative while new partner, Fondation Iris, joined the initiative supporting 4 other lemur projects. The Mohammed bin Zayed Species Conservation Fund also joined forces with SOS to support 2 additional projects.

On a commercial basis, SOS joined forces with ethical children's wear designer and retailer Coq En Pate to better reach the general public with a compelling conservation message. The relationship will run for 5 years and includes both clothing and interactive video-gaming projects. Other proposals were developed for submission in 2016.

Meanwhile SOS remains committed to communicating about its grantees and their conservation successes. In addition to publishing 62 original pieces of news and dozens of social media posts, the Secretariat produced a suite of videos

including grantee testimonials to better relate the value of the initiative. Further, 2015 also marked the first Threatened Species category in the Terre Sauvage Magazine Nature Image Awards photographic competition, the winning entry being a photo essay about an SOS project species focusing on the Mount Mulanje Cedar.

At the end of the year the SOS Secretariat reduced in size from five to three personnel with the end of two employment contracts. While a streamlined team continue to manage the initiative, the situation may change once again in the medium-term as the portfolio is expected to grow once more in 2017.

Good progress has also been made on IUCN's Tiger conservation initiative. The Integrated Tiger Habitat Conservation Programme (ITHCP), funded by the German Government through its development bank KfW, is working towards the goal set by the international community to double the number of Tigers in the wild by 2022.

After finalizing all the programme procedures, the first five projects were launched in 2015 and €6.24 million have been committed for key Tiger Conservation Landscapes and their surroundings in India (Manas National Park), Bhutan (Royal Manas National Park), Myanmar (Htamanti Wildlife Sanctuary region in the North, Tanintharyi and Lenya National Parks in the South) and Indonesia (Rimbang Baling landscape in Central Sumatra) to tackle poaching, improve the management of habitats and support local communities through the development of alternative livelihoods thus reducing pressure on forest resources.

Projects are led by NGOs such as World Wide Fund for Nature (WWF), Fauna & Flora International (FFI), Wildlife Conservation Society (WCS) and Aaranyak, as well as the Department of Forests and Park Services of the Bhutanese Government. All projects funded under this scheme are designed, implemented and monitored in consultation with local communities through IUCN's Environmental and Social Management System (ESMS).

After the first Call for Proposals for tiger projects in 2014, a second Call was issued in June 2015. Overall IUCN has received a total of 94 applications. The selection of the projects has been guided by a rigorous scoring and ranking process, with 10 members of the Programme Advisory Committee, in addition to 40 external experts scoring each project according to several criteria. These experts, for the most part members of the SSC or other IUCN Commissions, were hand-picked for their experience in key aspects of the programme work, such as a track record for alternative livelihoods development, outstanding expertise in tiger conservation, management of protected areas and law enforcement.

Operationally, concept notes submitted after Calls for Proposals are selected and shortlisted applicants are then invited to develop full proposals utilizing Project Preparation Grants. Through a process of collaboration and open discussion with the secretariat, and members of the Programme Advisory Committee, projects are refined to ensure strong collaboration and to make sure that safeguards, in particular with regard to social issues, are addressed from the beginning and monitored throughout implementation.

IUCN is closely involved in major developments in the tiger conservation world, and in May we participated in a Washington DC meeting on the future of the Global Tiger Initiative (GTI, initiative bringing together all tiger range states). The GTI is now based in New Delhi and is executed through the Global Tiger Forum (GTF). IUCN is well positioned to engage in high level strategic discussions to facilitate the longer term goals and objectives of the GTI. In November we contributed to the First Global CA/Ts (Conservation Assured / Tiger Standards) Consultation Meeting in Bangkok. The CA/Ts standards developed by a number of NGOs and spearheaded by WWF aim to standardize best practice in the management of habitats, in particular protected areas, to promote tiger populations. Chitwan National Park (Nepal), and Sikhote Alin Biosphere Reserve (Russia), have currently achieved full certification under this scheme.

In November, the programme team also conducted early missions to India, together with representatives from the donor institution KfW to ensure projects are being carried out according to the best standards from an early stage.

## IMPACT ON CONSERVATION

SOS recorded numerous conservation success stories from its grantees, both past and present, over the course of 2015. As we look ahead to publishing a five year report in mid-2016, a summary of some highlights indicates the wealth of results achieved in 2015.

Across Africa, different grantees reported on the arrests and prosecutions of various wildlife criminals trafficking ivory, animal skins, living parrots and cycads. In July, an *Encephalartos* cycad poacher was sentenced to ten years of direct imprisonment by the Jansenville regional court. Meanwhile, in Liberia, a single camera trap photo of an Endangered Pygmy Hippopotamus (*Choeropsis liberiensis*) sparked the successful creation of the Wonegizi Protected Area, and in Ghana, the Evangelical Presbyterian Church donated 60 hectares of upland semi-deciduous forest for the conservation of the Critically Endangered Togo Slippery Frog (*Conraua derooi*).

Other highlights include the discovery of new populations of Critically Endangered Yuanbaoshan Firs (*Abies yuanbaoshanensis*) in China. The find more than doubled the known global population of the species from 280 to over 700 individuals. In Uganda 6,400 seedlings of the Critically Endangered endemic cycad *Encephalartos whitelockii* were propagated from community nurseries and planted in Mpanga Gorge – home to the last remaining population of this plant.

In September, the captive-breeding programme for Critically Endangered Slender-snouted Crocodiles (*Mecistops cataphractus*) recorded a 50% increase in eggs under incubation bringing the total for 2015 to 110 eggs in Abidjan National Zoo. In September patrols in the Oban Division of the Cross River National Park (CRNP) Nigeria, visually confirmed the presence of Critically Endangered Preuss's Red Colobus (*Procolobus preussi*) living in the Oban.

In December 2015, projects working with communities in West Africa to protect local Sea Turtles reported increased awareness and engagement in the value of their work.

While the first five tiger projects of ITHCP just started in 2015, IUCN has estimated that they will contribute to not only securing the targeted tiger populations but also to reaching a 50% increase in tiger numbers on these sites. For some regions, in particular Myanmar where tiger populations are still unknown, the projects run by FFI and WCS will help acquire baseline data and hopefully increase tiger numbers too.

Considering these five projects only, we estimate the future number of beneficiaries (community members) to be potentially as high as 160'000 persons. We also anticipate the projects to contribute to the preservation of 22'500 sq-km of crucial tiger habitats, in and out of protected areas.

For now, the Project Preparation Grants disbursed to proponents allowed activities such as the redesign of the boundaries of proposed protected areas in South Myanmar by excluding areas that were found already occupied by indigenous populations; reaching an agreement with the communities on how to move forward with community ecotourism development in Royal Manas National Park, Bhutan; or the acquisition of pre-project baseline data on communities of Sumatra to allow measuring the social impacts of the project after completion.

ITHCP ensures that all projects are working towards agreed targets and will monitor impact of programme-level indicators such as an improvement of management effectiveness in key sites, the adoption of law enforcement monitoring tools such as SMART, an improvement of livelihoods and a broader support for conservation from local communities, a reduction of human wildlife conflicts and of course, an increase in wild tiger populations. Together with the broader tiger conservation community, we work towards doubling tiger populations by 2022.

It is worth noting the indirect impacts of the tiger projects on a wide range of other species, including the Indian Rhinoceros (*Rhinoceros unicornis*); the Asian Elephant (*Elephas maximus*); the Clouded Leopard (*Neofelis nebulosa*); the Red Panda (*Ailurus fulgens*) or the Sumatran Orangutan (*Pongo abelii*), to name only a few.

## FUTURE GOALS & ACTIVITIES

Ultimately, for both SOS and ITHCP, the aim is to continue growing the portfolio, developing longer-term planning into the initiative and for the focus to refine still further. We shall look at ways to improve and expand the SOS model based on lessons learned during a fruitful first phase which allowed IUCN to put in place a robust mechanism to empower civil society to tackle the extinction crisis with the support of SSC expertise.

Looking beyond the IUCN World Conservation Congress, the SOS model will continue to evolve as IUCN's species focused grant making mechanism. This could involve new Special Initiatives akin to SOS Lemurs and the Tiger Programme as well as the further development of SOS Lemurs itself. We look forward to reporting on major forthcoming announcements via the appropriate channels managed by and on behalf of the IUCN Global Species Programme.

ITHCP's aims for next year is to establish a complete portfolio of 12 large, landscape scale projects, securing some of the most important habitats for tiger survival. In order to achieve that and to ensure the best return on investment, we will rely once again on the expertise of the SSC, for improving the design of projects, and forging collaborations and partnerships between relevant stakeholders, disseminating best practices. We are deeply grateful for this voluntary support, provided by SSC.

Future projects are expected to take place in India and Nepal, amongst others. With the experience gathered from the tiger portfolio, we will extract key lessons learned that will benefit the conservation community in future endeavours. We will also be looking at ways to continue this important work and to secure funding to set up a second phase of this programme. ITHCP will also start deploying targeted communications in 2016, via a regular newsletter and other IUCN tools.

## ACKNOWLEDGEMENTS

SOS would like to acknowledge all its supporters, grantees, sub-grantees and donors alike as well as all members of the IUCN Species Survival Commission and other technical experts who have helped SOS identify, evaluate and select projects.

In respect of current donors we are especially grateful to the founding partners of SOS - the Global Environment Facility and the World Bank who joined forces with IUCN in 2010 to establish SOS as a species conservation grant-making facility. ITHCP, are extremely grateful to the German Government and KfW for their support in developing this special funding mechanism to save the Tiger in the wild and help people to coexist in harmony with this emblematic species.

Further we wish to acknowledge Fondation Segré a long-time SOS partner in conservation, Fondation Crédit Agricole Suisse who supported SOS during 2014-2015 and Fondation Iris which joined the SOS initiative in 2015.

We would also like to acknowledge Coq En Pâte, a commercial partner which joined the SOS initiative in 2015 and Terre Sauvage Magazine for their support in engaging the broader general public in the SOS cause through licensed products and compelling stories about species conservation.



The Tiger Programme Team



Above: The SOS team on mission in Madagascar, January 2017, for the lemurs inception workshop and field visit.



SOS project to help to enhance rhino protection and monitoring at Borana Conservancy © Stratton Hatfield



# SSC Network Support

## STAFF MEMBERS

Dena Cator, Rachel Hoffmann, Olivier Hasinger (SSC Network Support Coordinators), Claire Santer (SSC Membership, Communications and Administration Assistant).  
IUCN HQ, Gland, Switzerland (Rachel Hoffmann, Cambridge, UK)

## CURRENT PROJECTS

1. Overall support to the Species Survival Commission (SSC) network, including all Specialist Groups, Task Forces, Stand-alone RLAs and Sub-Committee. This includes: establishing new Specialist Groups or Task Forces and assisting with succession and the appointments of new Chairs/Co-Chairs ; mobilizing the network to feed their expertise into specific conservation issues / IUCN Red Listing / international treaty and policy work such as CITES, CBD, CMS, technical guidelines, position papers and statements etc; communications; production of the SSC e-bulletin: membership advice, support and management; dissemination of information to the network; networking.
2. Support IUCN Red List activities and other specific IUCN / SSC projects: Plants for People; Inva'Ziles project; Madagascar Plants assessments project; Amazing Species; reporting (e.g. resolutions, Biodiversity Conservation Group, annual reports, funding, etc.).
3. Undertake key Species Programme work: representation at IUCN meetings to create new opportunities for the Species Programme and to help to improve linkages with other Programmes and Regions; support development of new IUCN Programme (2017-2020); support the development of the new (2017-2020) Species Strategic Plan.
4. Lead on SSC's involvement in high-level interventions with governments and/or companies on urgent conservation issues, including engaging with Specialist Groups, IUCN Regional offices, SSC members and IUCN programmes where necessary.

## SUMMARY OF MAIN ACTIVITIES 2015

### Undertake key Species Programme and SSC Chair's office work:

- The organisation and running of a very successful 3<sup>rd</sup> SSC Leaders' Meeting in Abu Dhabi in September 2015, including the support of Sub-Committee meetings (and assisting with setting targets for the Strategic Plan) and plenary sessions, as well as meeting with groups individually to help with any queries or concerns.
- An analysis of the IUCN SSC SGs' activities (research, monitoring, conservation, assessments, fundraising, policy work and fieldwork) based on their 2014 annual reports.
- Assisting with and contributing to the 2014 Annual Species Report.
- Managing the US voluntary contribution: the SSC Network Support team is highly involved in the management of these funds and provided significant input to the annual report from GSP and SSC regarding the US voluntary contribution.
- The contribution to the development of the IUCN standard for the Project Guidelines and Standards, certified to review IUCN projects according to the ESMS. ESMS training and expert team: input into the Natural Habitat Standard.
- IUCN Knowledge Product developments: attendance to the IUCN KPs meeting (provided technical input to the discussion, note taking (rapporteur), helped with the reports requested by the IUCN Council on KPs).
- Joint IUCN and SSC strategic planning: attendance of the IUCN programme writing week and the subsequent meeting (retreat in Rolle and other meetings) and contribution to the development of the new (2017-2020) IUCN programme and the Species Strategic Plan (a subset of the latter).
- A temporary Species officer position (Sarah Burgy) financed by the Swiss Government was secured for six months to support the SSC network coordinators and to help with IUCN SSC Leaders' meeting in Abu Dhabi.
- Union Portal maintenance and support of group webspaces for 124 Specialist Groups, 13 Stand Alone RLAs, 4 Task Forces, and 9 Committees. SSC membership: 10,500 members in total comprising 2197 members in 36 mammal SGs, 1267 members in 26 plant SGs, 1814 members in 12 amphibian & reptile SGs, 1991 members in 16 bird SGs, 510 members in 9 fish SGs, 70 members in 5 fungi SGs, 487 members in 12 invertebrates SGs, and 1335 members in 8 disciplinary SGs.

### Species Programme representation at environmental conventions and engagement in policy work:

- Global Species Programme preparation and attendance / participation in the CITES Animals and Plants Committee meetings, participation in the EU preparatory meeting for the CITES Standing Committee meeting, participation in various meetings to brief EU Parliamentarians on CITES work (working with the IUCN Brussels

office in this regard).

### Expansion of the SSC Network

- Assisted with the establishment of the following groups: Mid-Atlantic Islands Invertebrate Specialist Group, New-Caledonian Plant Stand-alone RLA, Central African Plant RLA, providing assistance and help to the proposal for the Human Wildlife Task Force, advice and guidance to the evolution of the Anguillid Eel sub-group (under the Freshwater Fish SG) into an independent SG. Helped to oversee the succession process for the Co-Chairs of the Marine Turtle and Asian Elephant and Chair of the South American Camelid SG.

### Specific Projects:

- Plants for People (P4P) is a major new initiative to assess the threat status (using the IUCN Red List Categories and Criteria) of at least 1,500 highest priority species in each of the following groups: crop wild relatives; medicinal plants; timber trees; and palms (6,000 in total). This is a joint project of the Global Species Programme (GSP) and the Species Survival Commission (SSC), involving the four relevant SSC Specialist Groups (Crop Wild Relatives, Medicinal Plants, Global Trees and Palms). In 2015, the SSC network Support team provided significant support in terms of fundraising, managing the relationship with our donors, reporting and support on Red List assessments to the P4P initiative led by the IUCN Red List Unit.
- As part the IUCN-France Framework Agreement a four-year project called "Integration of IUCN Knowledge Products to support land-use planning and policy in Madagascar" is implemented by the Global Species GSP Invasives Species initiative – In 2015 the SSC Network Support team has played a major in role resurrecting the GSP Invasives Species Initiative with the recruitment of Kevin Smith into the position of Invasive Species Programme Officer. This role will continue and develop the good work undertaken by Geoffrey Howard who (together with the SSC Invasive Species SG) championed and spearheaded IUCN's work on invasive species over many years. Kevin will be aiming to develop IUCN's work on invasive species to support the achievement of Aichi Target 9 (Invasive alien species and pathways are identified and prioritized, priority species are controlled or eradicated, and measures are in place to manage pathways to prevent their introduction and establishment) through the provision of knowledge, influencing and implementing policy, and facilitating action. Also in 2015, the SSC network support team has led the coordination of the Inva'Ziles Project, an EU funded project called "Preparation and testing of a comprehensive model for preventing and managing the spread of invasive species on island ecosystems". With the support of the SSC network coordinators, the IUCN Global Species Programme jointly with the IUCN Eastern and Southern Africa Regional Office has recruited Alan Tye into the position of Project Officer for the Inva'Ziles Project. Alan is now the Technical Advisor to the project and manages it on a day-to-day basis. He is responsible for technical reporting, planning project activities (including local, regional and global meetings) and ensuring that work plans are implemented on time. He provides also technical support on a range of islands and invasive issues and training (capacity building) - as well as manage the production of donor reports. His role involves working closely with Olivier Hasinger (SSC Network Coordinator), and the IUCN SSC Invasive Species Specialist Group, as well as with IUCN Members and the IUCN Eastern and Southern Africa Regional Office.

## IMPACT ON CONSERVATION

## FUTURE GOALS & ACTIVITIES

- Reconstitution of the Commission membership after Members Assembly at WCC, Hawai'i
- **SSC Network Coordination:** Continued support to the SSC network – specifically to all SG, Task Forces, Stand-alone RLAs and Sub-Committees in particular to review and plan future activities in line with the vision of the new SSC Chair and the Species Strategic Plan 2017-2020.
- **6<sup>th</sup> IUCN World Conservation Congress 2016** – providing support by organizing and running the Species Pavilion, relaying all necessary information to the SSC members, acting as facilitators to the Motions process (species related).
- **Policy work:** Represent Species Programme at environmental conventions and engage in policy work with CITES, CBD, CMS and others when needed (e.g. IUCN contribution toward the implementation of the Aichi Targets 9 and 12, WCC resolutions, etc.) CITES CoP17 takes place 24 September to 5 October – IUCN will have a major delegation at the meeting.
- **Project management (IUCN Red List and other Knowledge Products):** continue to support the implementation and coordination of the Plant for People initiative, the project funded by AFD through the UCN-France Framework Agreement in Madagascar and the Inva'Ziles project.

## ACKNOWLEDGEMENTS

We wish to thank all of the network for their continued hard work and dedication to the SSC, for responding to all the requests and the demands we ask of you, and for being a pleasure to work with on a daily basis despite the often severe constraints of time, capacity and funding.



Delegates of the 3<sup>rd</sup> SSC Leaders' Meeting, Abu Dhabi, 2015



Network Coordination Team (clockwise from top left):  
Rachel Hoffmann, Olivier Hasinger, Claire Santer,  
Dena Cator.

# Sustainable Use and Trade

## STAFF MEMBERS

Dan Challender, Programme Officer, Sustainable Use and Trade  
David Attenborough Building, Cambridge, UK

## CURRENT PROJECTS

Current projects include the following:

- Supporting the work of IUCN on wildlife trade and use (2014 – Ongoing)
- Analyses of the Proposals to amend the CITES Appendices at CoP17 (2016)

## SUMMARY OF MAIN ACTIVITIES 2015

### Supporting the work of IUCN on wildlife trade and use

This project comprises delivering high-quality CITES related work, collaborating with the IUCN CEESP/SSC Sustainable Use and Livelihoods (SULi) Specialist Group on sustainable use and livelihood geared projects, and collaborating with TRAFFIC on projects analyzing legal and illegal trade.

In 2015, key activities included liaising with the SSC and other parts of IUCN, to coordinate and deliver IUCN's technical and scientific contributions to the 28<sup>th</sup> meeting of the CITES Animals Committee (Tel Aviv, Aug-Sep 2015) and 22<sup>nd</sup> meeting of the CITES Plants Committee (Georgia, Oct 2015). It also included coordinating IUCN input into various intersessional working groups within CITES.

Collaborative work with SULi, as well as TRAFFIC and other partners, included assisting in the organisation, coordination and delivery of an international symposium entitled 'Beyond Enforcement: communities, governance, incentives and sustainable use in combatting wildlife crime', held in Muldersdrift, South Africa in February 2015. The objective of the symposium was to examine whether and under what circumstances community-based interventions are likely to achieve success in combatting illegal use and trade of wildlife. This event, and a subsequent writing workshop, resulted in a number of policy briefs and publications on the role of local communities as solutions to wildlife crime, and the development of a theory of change through which it is theorized illegal wildlife trade can be reduced through community-based interventions.

This project has also involved dissemination of messaging on sustainable use and trade to different decision-makers, but in particular those in the EU and members of the European Parliament. This has entailed meeting MEPs to discuss topical issues (e.g., trophy hunting) and attending and delivering presentations at European Parliament briefing sessions on the role and importance of sustainable use of wildlife and local livelihoods in biodiversity conservation.

Additional activities undertaken as part of this project include the following:

- Attending and delivering technical presentations on the conservation status of, and threats to pangolins at the First Pangolin Range States meeting in Da Nang, Vietnam (June 2015).
- Attending and delivering a keynote presentation and a presentation on global pangolin trade dynamics at the 1<sup>st</sup> international conference on pangolin conservation, trade and rehabilitation in South Africa (Oct 2015).
- Conducting research on species threatened by international trade using different data sets (e.g., the IUCN Red List and the CITES Appendices)
- Serving as a Steering Committee member on the GEF Global Wildlife Program (Global Partnership on Wildlife Conservation and Crime Prevention for Sustainable Development) designed to scale up efforts to combat illegal wildlife trade.
- Leading specific IUCN initiatives within the United for Wildlife collaboration, including coordination with the Royal Foundation on the development and delivery of a social media game focused on wildlife trafficking to raise awareness of the issue among young people.
- Contributing to IUCN input in to the Collaborative Partnership on Sustainable Wildlife Management (CPW).

### The Foundation Segré Pangolin Initiative

This project includes components of tackling direct threats to pangolins in Cameroon and Thailand and initiating research into reducing demand for pangolin products in China. Main activities on this project to date include working with the implementing partner of this project, the Zoological Society of London, to design methodologies to collect data on pangolin consumption to inform demand reduction activities.

#### IMPACT ON CONSERVATION

Impacts on conservation from work on sustainable use and trade in 2015 include the following:

- Ensuring the latest available scientific information was conveyed to decision-makers within CITES (e.g., Parties and the Animals and Plants Committees);
- A contribution to the evidence base on the role of local communities in responses to wildlife crime through a series of publications and policy briefs on this issue.

#### FUTURE GOALS & ACTIVITIES

These include expanding the range and scope of projects implemented by the unit and a concomitant increase in capacity and the size of the unit.

#### ACKNOWLEDGEMENTS

Thanks to the following for their support of projects implemented through the sustainable use and trade unit: International Fur Federation, Foundation Segré, the European Union, Austria, Canada, Finland, France, Germany, Monaco, Netherlands, New Zealand, Spain, Sweden, Switzerland and the United States of America.

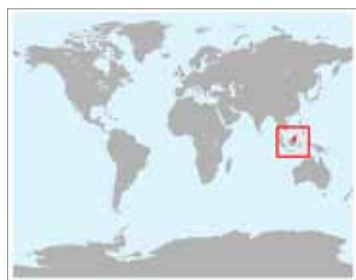


Dan Challender



© Ch'fien Lee

NOT EVALUATED	DATA DEFICIENT	<b>LEAST CONCERN</b>	NEAR THREATENED	VULNERABLE	ENDANGERED	CRITICALLY ENDANGERED	EXTINCT IN THE WILD	EXTINCT
NE	DD	LC	NT	VU	EN	CR	EW	EX



Geographical range

## Amazing Species: Mountain Treeshrew

The **Mountain Treeshrew**, *Tupaia montana*, has been assessed as Least Concern on The IUCN Red List of Threatened Species™. It is common in Borneo, distributed across several isolated montane forest regions in Sarawak and western Sabah, and may also be found in northern Kalimantan (Indonesia).

Mountain Treeshrews have an intriguing mutualistic relationship with three species of giant *Nepenthes* pitcher plants. Essentially these plants act as a treeshrew toilet by luring in the small animals using nectar secreted from the pitcher's lid. As the animal licks the nectar, its droppings are collected in the plants' traps. The Mountain Treeshrew obtains a valuable food source, while in return the plants receive fertilizer from nitrogen in the faeces.

In general, species living in montane Borneo are threatened by habitat loss due to deforestation for agriculture, for example, the conversion of upland forests to vegetable farms. This species receives protection through the control of international trade under its listing on Appendix II of the Convention on International Trade of Endangered Species (CITES). Its occurrence in several nature reserves and national parks may also help to safeguard its long-term survival.

**Knowledge**  
**Experts**  
**Get Involved**



The production of the IUCN Red List of Threatened Species™ is made possible through the IUCN Red List Partnership.

