

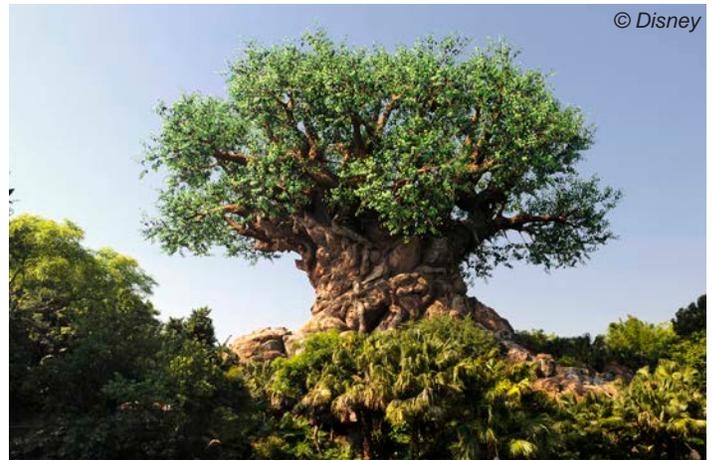
CBSG Annual Meeting

10-13 October 2013 ♦ Orlando, Florida, USA

We are pleased to share with you the proceedings of the 2013 CBSG Annual Meeting. It is -7 degrees F here in Minneapolis but we are still basking in the warmth of the hospitality of our hosts at Disney's Animal Kingdom and SeaWorld, the energy generated by the work conducted on key conservation issues, and the glow from the enthusiastic response to the launch of the "Zoos & Aquariums for 350" climate change movement.

We have dedicated a significant amount of time this past year to focusing the energy of the CBSG community on solutions to the growing threat of climate change. Everything CBSG does is directed towards planning a future for wildlife (CBSG's new tagline!) and there is arguably no greater threat to the future of all species on this planet than climate change. Our response to this threat is three-pronged. We are integrating climate data into species risk assessments, conducting systems level planning for species vulnerable to climate change, and influencing policy by creating a climate change movement.

In keeping with our commitment to climate action, the theme of this year's Annual Meeting was *Facilitating a Climate Change Movement*. Highlights of the meeting included the keynote presentation by Phil Aroneanu, co-founder of 350.org; Bob Lacy's report of his recent trip to Norway to begin a project to evaluate the impacts of climate change on the ecological community of



Arctic fauna (click [here](#) to view the slides from both of these presentations); and the immensely successful and empowering launch of Zoos & Aquariums for 350. The 100 people from 23 countries with us in Orlando pledged their support for the movement and made a personal commitment to climate change mitigation. We urge all our members and donors to learn about and join the movement at <http://www.cbsg.org/zoos-aquariums-350>.

In addition to plenary presentations and working group discussions related to climate change, there were also groups focused on various applications of the One Plan approach, a horizon scanning exercise, an engaging session on changing behavior through social



marketing, and the introduction of our newest regional network, CBSG North America.

It was a special treat to have Ulie Seal's daughter, Rebecca, and two of his grandchildren with us to present the Ulysses S. Seal Award for Innovation in Conservation to one of Ulie's dearest friends, Dr. Lee Simmons. My speech can be found on page 22.

Our sincere thanks go to Jackie Ogden, Chelle Plassé, Stephanie Arnett, Brad Andrews, and their staff for hosting this year's meeting and helping to make it a great success. An impressive 95% of post-Annual Meeting survey respondents reported that the CBSG meeting was productive and informative, 90% left the meeting feeling energized about CBSG and the way it relates to their own work, and 90% said that it provided a platform for surfacing and synthesizing new thinking and driving innovation.

While it may be hard to top the success of the 2013 Annual Meeting, I hope you'll join us in trying! We're thrilled that next year's meeting will be hosted by Central Zoo Authority in Delhi, India, from 30 October-2 November 2014. The warmth, energy, and enthusiasm we experienced in Orlando will keep us motivated and moving forward until then. We look forward to seeing you there.

Dr. Onnie Byers
CBSG Chair



Zoos & Aquariums for 350



CBSG introduced our “Zoos & Aquariums for 350” climate change initiative at the 2013 Annual Meeting. Participants gave a resounding “YES” to taking action on climate change by joining the movement.

Zoos & Aquariums for 350 calls on zoos, aquariums, and other conservation organizations to pursue divestment of their institutions’ investments from fossil fuel companies, as well as reduce carbon footprints, offset remaining carbon emissions, and engage in climate change education initiatives that incorporate the number “350.”



Zoos & Aquariums for 350 joins the climate change movement started by 350.org, an organization that aims to solve the climate crisis by addressing systemic barriers to climate solutions.

Throughout the three-day meeting, participants discussed climate change and shared ideas about actions that the CBSG community can take. Phil Aroneanu of 350.org delivered a compelling keynote talk about the importance of creating a powerful movement to address this issue. Working groups met to discuss divestment, carbon reduction and offsetting, and using social science to change behaviors.



At the end of the meeting, CBSG Chair Onnie Byers asked that each participant stand and state how they were going to join the movement. One after another, participants pledged to take action on climate change in their home institutions and through personal efforts.

We look forward to continuing work with our community on implementing the actions discussed in the Zoos & Aquariums for 350 Handbook, which is available for download here:

<http://www.cbsg.org/climate-change-handbook>.

“Zoos and aquariums are critical places for the fossil fuel divestment movement to take hold. As institutions dedicated to conservation and biodiversity, they have an incredible opportunity to educate the world on the climate crisis. We’re elated to be working with CBSG and Zoos & Aquariums for 350 in fighting for a safe planet for all species.”

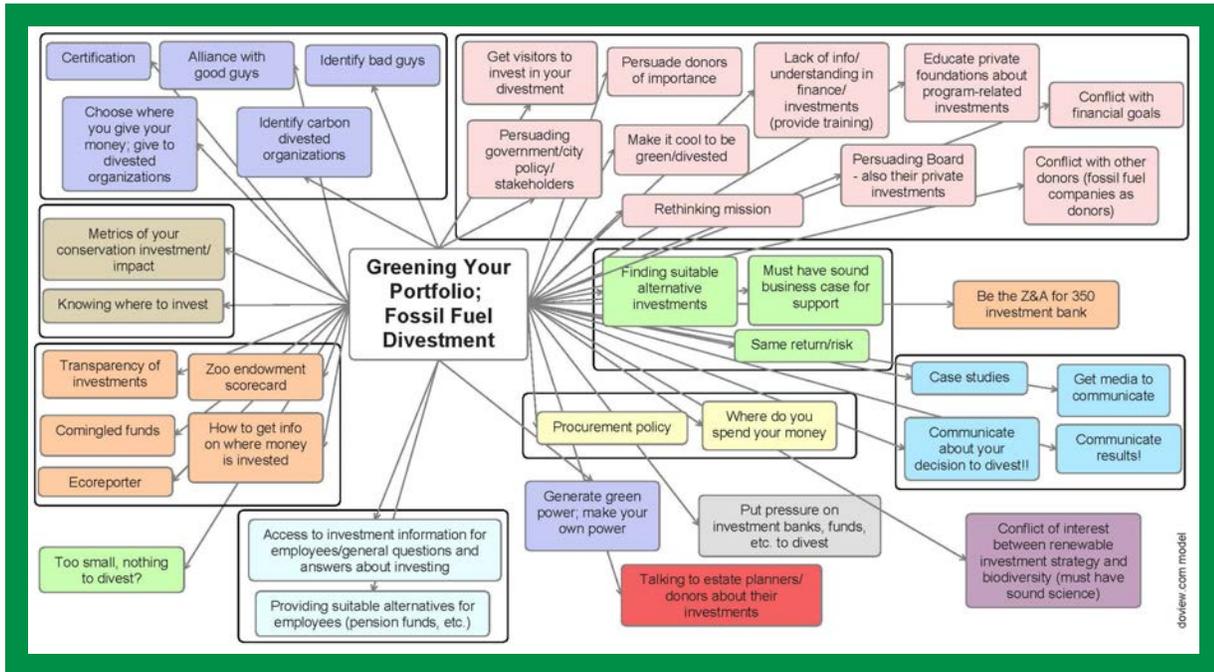
-Phil Aroneanu, 350.org



Mind Mapping our Climate Change Creativity

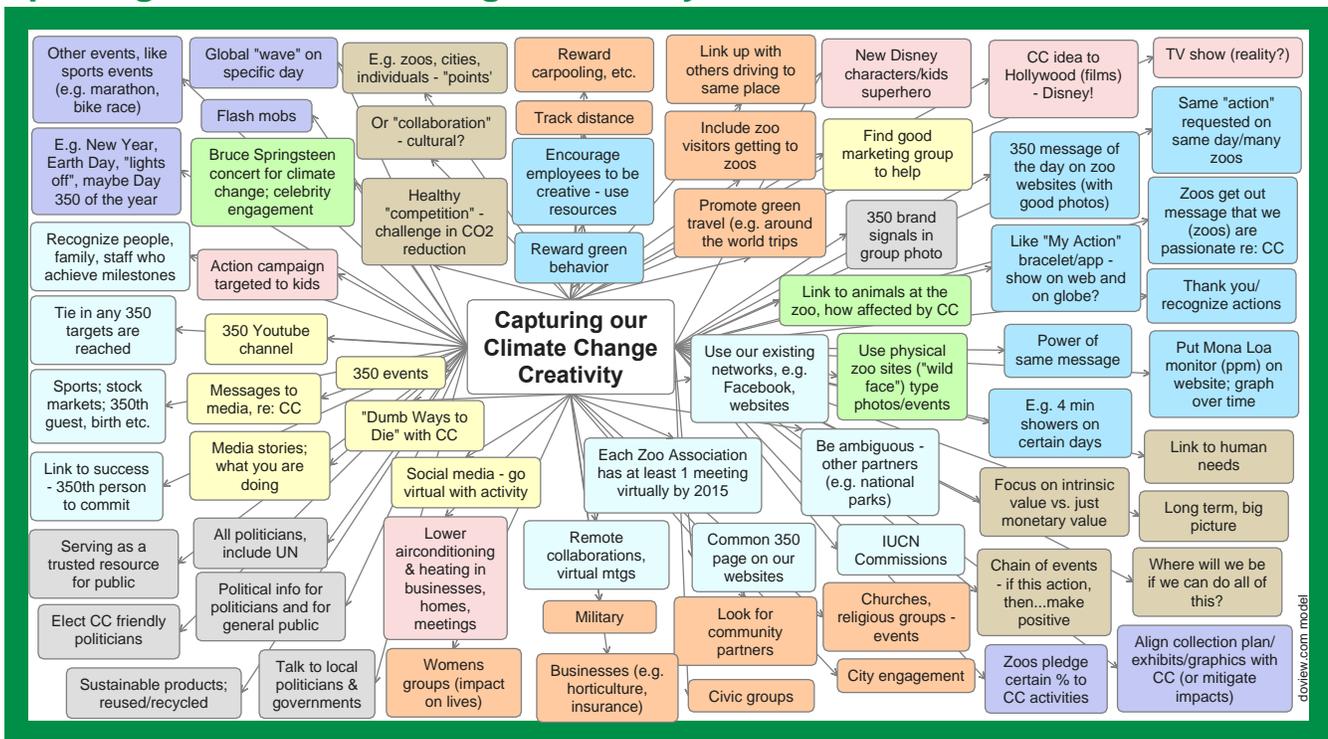
To kick off working group discussions, participants joined in a mind mapping activity focused around four climate-related topics. Participants were asked, "What are the biggest challenges or biggest questions surrounding this issue?" The resulting mind maps reflect the discussion that followed. Corresponding working groups helped answer those questions (link provided where applicable).

Greening Your Portfolio: Fossil Fuel Divestment

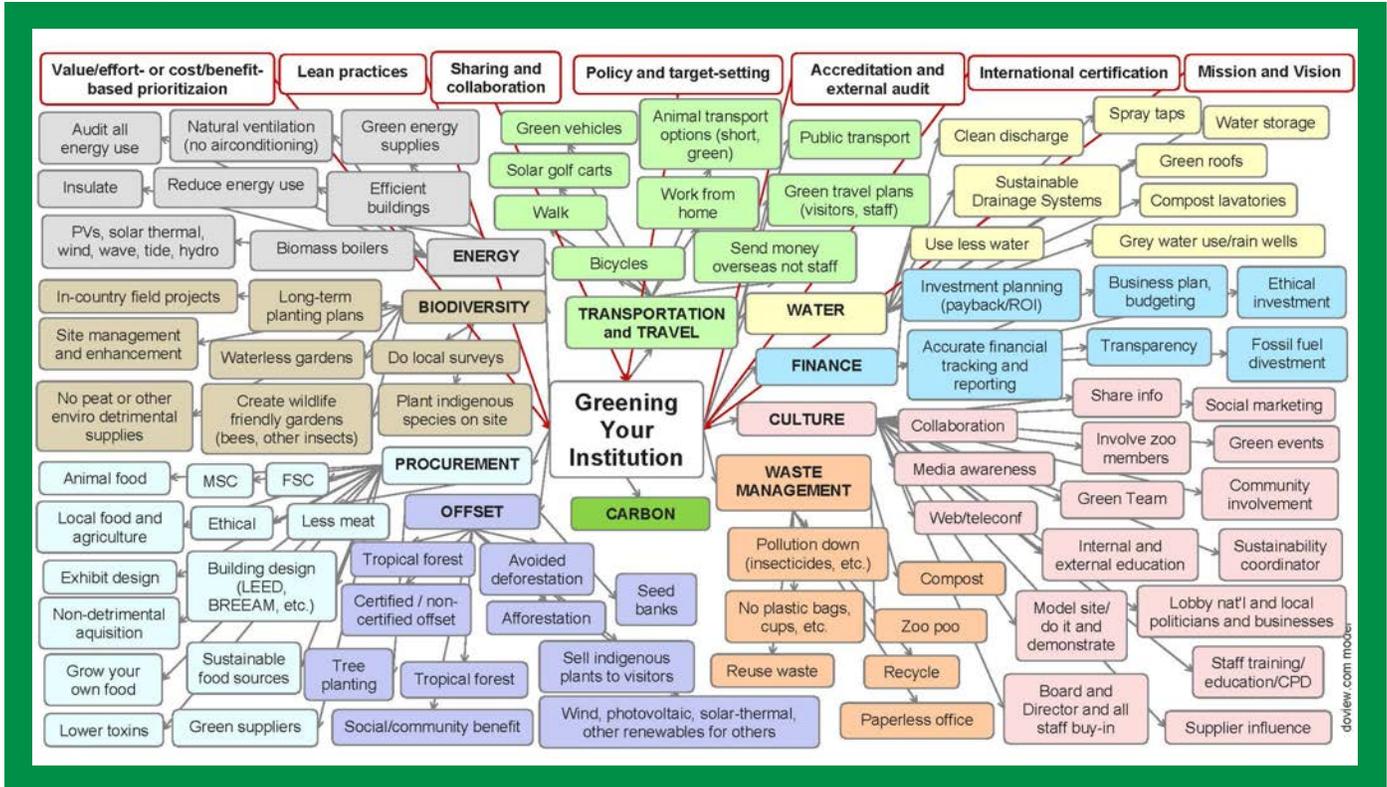


Click [here](#) to read the report from the working group that directly responded to this mind map.

Capturing Our Climate Change Creativity

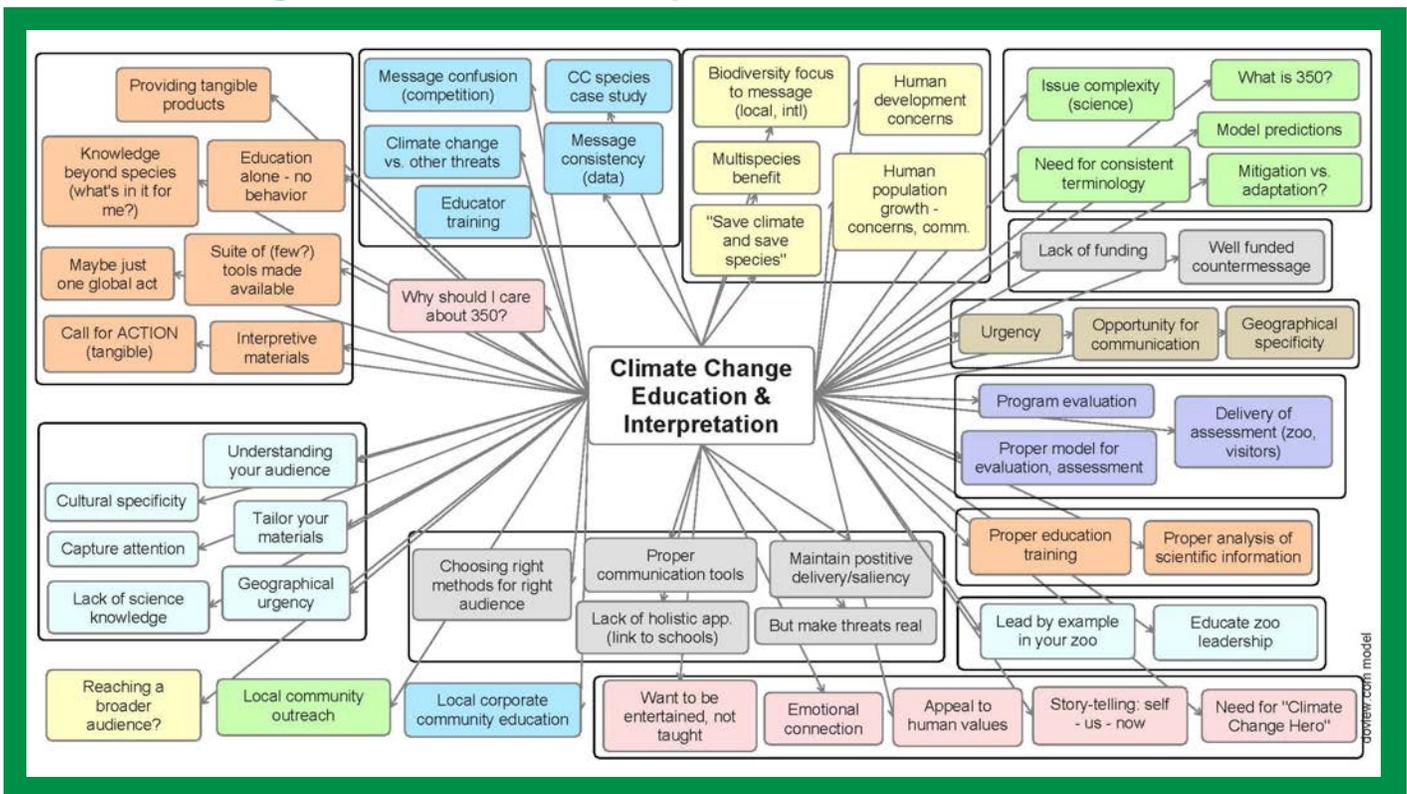


Greening Your Institution



Click [here](#) to read the report from the working group that directly responded to this mind map.

Climate Change Education and Interpretation



Working Group Summaries

Horizon Scanning For Zoos and Aquariums

Participants

Yara Barros, Evan Blumer, Paul Boyle, James Breheny, Onnie Byers, Luis Carrillo, Bryan Carroll, Scott Carter, Peter Clark, Dalia Conde, Mark Craig, Gerald Dick, Lesley Dickie, Dennis Dinwiddie, John Fa (convenor), Andrea Fidgett, Karen Fifield, Nate Flesness, Ron Gagliardo, Lewis Greene, Markus Gusset (convenor), Chris Hibbard, Heribert Hofer, Bengt Holst, Deborah Jensen, Chun Kao, Lawrence Killmar, Urarikha Kongprom, Lynn Kramer, Sarah Long, Rachel Lowry, Dan Maloney, Esther Manansang, Jansen Manansang, Yolanda Matamoros, Patricia McGill, Clifford Nxomani, Frank Oberwemmer, Subbiah Paulraj, Paul Pearce-Kelly, Mark Pilgrim, Kirsten Pullen, Alex Rubel, Lee Simmons, Boripat Siritaroonrat, Miranda Stevenson, William Street, Hassan Syed, Ampika Thongphakdee, Kristin Vehrs, Sally Walker, John Werth, Hans Winata

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Summary

Policy makers and practitioners in most fields, including the zoo and aquarium industry, often make decisions based on insufficient evidence. One reason for this is that issues appear unexpectedly, when with hindsight, many of them were foreseeable. A solution to the problem of being insufficiently prepared is routine horizon scanning, described as the systematic search for potential threats and opportunities that are currently poorly recognized. However, no horizon scan has ever been conducted for zoos and aquariums. The purpose of this working group was to conduct the first-ever horizon scan for zoos and aquariums. The aim was to identify emerging issues in biodiversity conservation of particular relevance to the world zoo and aquarium community. Working group participants identified issues with the potential to impact upon biodiversity conservation by 2020 that might increase in importance for zoos and aquariums and thereby warrant further consideration. To this end, we brought together experts to suggest future possible issues based on their own expertise in an interactive way. The set of suggestions was reduced by an iterative process of discussion and voting to produce a final list of priority issues for zoos and aquariums.

Actions

The novel output of this working group consists of a list of emerging issues in biodiversity conservation of particular relevance to the world zoo and aquarium community. When ready, this list will be actively disseminated to the world zoo and aquarium community. This list will afford zoos and aquariums the opportunity to prepare in time for forthcoming potential threats and opportunities in biodiversity conservation.



Working Group Summaries

Education Is Not Enough

Participants

Brad Andrews, Anne Baker, Yara Barros, Bishan Singh Bonal, Luis Carrillo, Mark Craig, Lesley Dickie (convenor), Dennis Dinwiddie, Lisa Faust, Andrea Fidgett, Karen Fifield, Chris Hibbard, Heribert Hofer, Bengt Holst, Deborah Jensen, Jim Kao, Sonja Luz, Yolanda Matamoros, Patty McGill, Clifford Nxomani, Phil Nyhus, Paul Pearce-Kelly, Miranda Stevenson, Bill Street, Elizabeth Townsend, Jonathan Wilcken

Summary

This group was introduced to two social science developments that could have significant relevance to the zoo and aquarium community – specifically, moving beyond information intensive campaigns that raise awareness and in some cases change attitudes, but do not systematically employ tools to actually change behaviors. The Common Cause group (made up of a number of environment NGOs in the UK) has produced a website and handbook to look at how intrinsic and extrinsic human values impact how conservation messages are received and acted upon. The group discussed the recommendations and how this relates to their own experience. This discussion covered what happens when we mix our value messages, and also whether there are lessons to be learned from different professions such as marketers.

The main body of the workshop was a step-wise movement through the Community-Based Social Marketing methodology. CBSM is a methodology that comes out of the social sciences and social marketing, but rather than focusing on selling products (social marketing) it focuses on fostering sustainable behavior change. It was developed by Dr. Doug McKenzie-Mohr, and more detailed information can be found at www.cbsm.com.

Actions

Group participants will consider running pilot projects in their own institutions that use CBSM methodologies and report back to the CBSG and wider zoo and aquarium community on results. Agreement was made to publish reports where possible.

Next steps

Lesley Dickie will send the CBSM primer to group participants and the put them in contact with Dr. McKenzie-Mohr.

Recommendations

All participants to sign-up on the CBSM website, get the book 'Fostering Sustainable Behavior,' consider having a full workshop for individual or small groups of zoos and aquariums led by Dr. Doug McKenzie-Mohr, and send education staff to International Zoo Educators Association (IZE) conference, where Dr. McKenzie-Mohr will be the keynote speaker (Hong Kong Ocean Park, 2-6 September 2014).



Working Group Summaries

Greening Your Portfolio

Participants

Phil Aroneanu (convenor), Onnie Byers (convenor), Karen Dixon, Heribert Hofer, Mark Pilgrim, Lee Simmons, Elizabeth Townsend, Hirofumi Watabe, Emily Wick

Background

The main action resulting from the 2012 CBSG Annual Meeting “Climate Change Action Planning” working group was a call to create a social movement to combat climate change and bring about policy changes. The group 350.org is building a grassroots movement to solve the climate crisis, and this movement includes a campaign to promote divestment from 200 of the most polluting fossil fuel companies. Zoos & Aquariums for 350, an initiative launched at the 2013 CBSG Annual Meeting, is mobilizing the zoo and aquarium community to do their part in divesting from fossil fuel investments.

Aim

The aim of the divestment movement is to create a public relations backlash against high polluting fossil fuel companies. While many zoos and aquariums have green initiatives at their institutions, they may (perhaps unwittingly) be profiting from fossil fuels through their investments and endowments. How can zoos and aquariums fulfill their conservation mission if their investments are harming the planet? Divestment empowers zoos to send a message to governments demanding policy change. Divestment should be part of a comprehensive strategy to address climate change.

A great precedent for this movement is the campaign of the 1980s to divest from certain South African companies to protest apartheid. That movement helped make the moral case for the US and other countries to legislate against South Africa, and there are a lot of analogues with this fossil fuel divestment movement.

Key Messages and Actions

1. This is a complex issue with lots of ideas bouncing around. Zoos & Aquariums for 350 and 350.org are leading the way with information and present a huge opportunity for zoos and aquariums to participate and lead.
2. The moral argument for divestment is more powerful than financial one, as part of an overall climate action plan.
3. The carbon bubble is the top financial argument for divestment. Past performance is not an indicator of future returns.
4. Create demand for fossil fuel-free investments by starting the conversation and joining the movement.
5. One zoo divesting won't necessarily make a huge difference – the key is communicating and creating momentum and drawing attention to the issue.

Invest in our divestment!

[Click for full working group report.](#)



Working Group Summaries

Greening Your Institution

Participants

Bryan Carroll, Peter Clark, Jo Gipps (convenor), Jörg Junhold, Nian-Hong Jang-Liaw, Alex Rübel

Summary

- Reviewed the mind map on “Greening Your Institution” (page 5), which dealt with all the elements of environmental sustainability (energy and carbon, water, waste management, transport and travel, procurement and biodiversity)
- Considered the place for carbon offsetting as the final step in an Environmental Sustainability Strategy
- Considered an example of a zoo that has gone through the process – Zürich (there are others)
- Discussed the relevant criteria that need to be addressed and satisfied to enable a possible WAZA/CBSG-led carbon offset purchase consortium

Questions to answer:

1. Individual or communal offset procurement?
2. Commercial or not-for-profit provider?
3. Certificated or non-certificated offset?
4. What sort of offset?
5. Which certification scheme?

Actions

1. Answer the questions 1 – 5 above. This will require further discussion among members of a wider virtual working group (with more expertise and experience).

Responsible Party: Jo Gipps (JG) to initiate

2. Circulate a description of a possible structure and function of a consortium of zoos (set up to purchase carbon offsets communally) to a wide selection of possible members to gauge interest (or lack of it).

Responsible Party: JG, CBSG office

3. Draft a Request for Proposal document (also known as a Tender Document), to be sent to a selected group of offset providers, chosen in light of the answers to questions 1 to 5 above.

Responsible Party: JG to draft, circulate for comment

4. Depending on the result of the survey described in #2 above, select a group of providers and solicit proposals from them to act for the consortium.

Responsible Party: JG, CBSG office

[Click for full working group report.](#)



Working Group Summaries

CBSG North America

Participants

Brad Andrews, Anne Baker (convenor), Scott Carter, Karen Dixon, Lisa Faust, Gina Ferrie, Ron Gagliardo, Bob Lacy, Dan Maloney, Patty McGill, Eric Miller, Phil Miller, Philip Nyhus (convenor), Jackie Ogden, Chelle Plassé, Rebecca Seal-Soileau, Elizabeth Townsend, Kathy Traylor-Holzer, Eric Tsao, Emily Wick, Sara Zeigler

Summary

The newly-formed CBSG North America (which includes the United States and Canada) took advantage of the location of the meeting to solicit input from CBSG members in North America. The group explored what factors make conservation projects successful, what factors cause them to fail to live up to expectations, challenges that organizations face when becoming involved in conservation efforts, and ways in which CBSG North America might assist. The group also discussed how to increase the visibility of CBSG North America and identified several next steps to pursue over the coming months.

Actions

1. CBSG North America and AZA agreed to explore collaboration on assessing, adapting, and integrating the Conservation Measures Partnership's Open Standards guidelines, the SSC Conservation Planning guidelines, and the CBSG planning process and One Plan approach to create a suite of tools for conservation planning.
2. CBSG North America will work with CBSG HQ to consider the potential for developing training in conservation project planning.
3. CBSG North America will meet with the Conservation Catalyst Network to explore the potential for collaboration.
4. CBSG North America will develop a proposal to submit to USFWS to improve the species recovery planning process.

[Click for full working group report.](#)



Working Group Summaries

A Data Management Application of the One Plan Approach: Linking *In Situ* and *Ex Situ* Data Management for Conservation

Participants

Randall Arguedas, Bishan Singh Bonal, Irus Braverman, Dalia Conde, Gina Ferrie, Nate Flesness, Markus Gusset, Hidemasa Hori, N.H. Jang-Liaw, Mike Jordan, Urarikha Kongprom, Bob Lacy, Kristin Leus, Sarah Long, Sonja Luz, Lynn McDuffie, Ivan Rehak, Karin Schwartz (convenor), Christoph Schwitzer, Boripat Siriaronrat, Ampika Thongphakdee, Kanako Tomisawa, Kathy Traylor-Holzer, Eric Tsao, Hirofumi Watabe, Madelon Willemsen

Summary

The overall objective is to develop scientific-based recommendations for establishing a global database system that will provide a direct link between information collected on animals under human care and on the wild population for conservation programs that contain both *ex situ* and *in situ* components. *Ex situ* data management processes are well documented and standardized using ISIS Zoological Information Management System (ZIMS). For this workshop, the objective was to identify *in situ* data management processes and data needed for monitoring and assessment of populations of threatened species that have been returned to the wild. The working group explored current practices for data management of *in situ* species conservation programs and identified how critical components can be integrated with *ex situ* processes for holistic species conservation. Platforms that were discussed included ZIMS as well as data management tools used for monitoring animals in the wild, with the possibility of linking systems.

Actions

1. Assignment for Data Management WG:
Explore ZIMS at your institution.
Look at Working Group report, anything to add?
Who: Data Management WG members
Time Frame: end of November 2013
2. ISIS welcomes ideas on how to go forward. Work with ISIS to make integration of *ex situ* and *in situ* data management processes a reality.
Who: everyone!
3. Take results to IUCN SSC Reintroduction Specialist Group, associated zoological institutions, and NGOs, and request input. Develop a Task Force to formulate data management guidelines to add to the IUCN Guidelines for Reintroductions and Other Conservation Translocations as well as the IUCN Guidelines on the Use of *Ex Situ* Management for Species Conservation.
Who: Karin Schwartz and CBSG
Time Frame: Summer 2014
4. Align with the One Plan Approach Working Group. Compile written guidelines for zoos and aquariums on how data management processes should work within an OPA implemented for endangered species. Distribute to both *in situ* and *ex situ* communities.
Who: Karin Schwartz and Christoph Schwitzer
Time Frame: By 2014 CBSG Annual Meeting

[Click for full working group report.](#)



Working Group Summaries

An Institutional Application of the One Plan Approach To Conservation Planning

Participants

Jeff Andrews, Bryan Carroll (convenor), Lisa Faust, Gina Ferrie, Larry Kilmar, Urarikha Kongprom, Kristin Leus, Lena Lindén, Karin Schwartz, Christoph Schwitzer (convenor), Ampika Thongphakdee, Eric Tsao, Stephen van der Spuy

Summary

The “One Plan approach” (OPA) proposed by the Conservation Breeding Specialist Group promotes integrated species conservation planning, which considers all populations of the species, inside and outside their natural range, under all conditions of management, engaging all responsible parties and all available resources. This working group investigated how zoos and aquariums have developed frameworks for use of OPA and brainstormed the obstacles to a One Plan approach, with an ultimate goal of compiling written guidelines to zoos and aquariums on how an OPA can be implemented for endangered species represented within their institutions.

Obstacles included funding issues, barriers at the level of regional zoo associations, and communication issues between IUCN SSC Specialist Groups and Taxon Advisory Groups. The working group identified solutions and developed action steps to move forward towards a collaboration between regional zoo associations’ Taxon Advisory Groups and IUCN Specialist Groups for conservation action planning processes involving meta-population management.

Actions

1. Develop a One Plan Approach Working Group to develop informational materials that can be disseminated to both *in situ* and *ex situ* conservation communities.
 - o Who: CBSG
 - o When: ASAP
2. Compile written guidelines to zoos and aquariums on how an OPA can be implemented for endangered species.
 - o Who: One Plan Approach Working Group
 - o When: By next CBSG annual meeting
3. Compile case studies of programs that use the One Plan approach and distribute online (CBSG website, Reintroduction Specialist Group website, zoo association websites)
 - o Who: CBSG
 - o When: As and when such programs are set up

[Click for full working group report.](#)



Working Group Summaries

Prioritizing for Conservation: Zoos Saving AZE Species

Participants

Randall Arguedas, Evan Blumer, Irus Braverman, Onnie Byers (convenor), Luis Carrillo, Bryan Carroll, Scott Carter, Peter Clark, John E. Fa (convenor), Gina Ferrie, Nate Flesness, Ron Gagliardo, Lewis Greene, Markus Gusset, Bengt Holst, Urarikha Kongprom, Lynn Kramer, Nian-Hong Jang-Liaw, Bob Lacy, Kristin Leus, Sarah Long, Rachel Lowry, Yolanda Matamoros, Eric Miller, Mark Pilgrim, Kirsten Pullen, Ivan Rehak, Jorge Rodríguez, Karin Schwartz, Boripat Siriaronrat, Hassan Syed, Ampika Thongphakdee, Kathy Traylor-Holzer, Eric Tsao, Steven van der Spuy, Hirofumi Watabe, Madelon Willemsen

Summary

The Alliance for Zero Extinction (AZE) is a consortium of biodiversity conservation organizations, focusing on species that face extinction either because their last remaining habitat is being degraded at a local level, or because their tiny global ranges make them especially vulnerable to imminent extinction if no appropriate conservation action is taken. The working group started with a presentation by John E. Fa on the potential for conservation of species on the AZE list. The data presented assessed conservation costs and opportunities for the 920 species of vertebrates in the list. A conservation opportunity index was developed to classify all species according to their potential for success in *ex situ* as well as *in situ* conservation. This was followed by a general discussion on the data presented and implications of these. The group members were then divided into four smaller groups, who were given an hour to 'imagineer' a working model for engaging zoos and conservation organizations in support of the conservation of AZE species. Groups were asked to think of operational strategies within four main areas:

1. Membership and collaborations
2. Communications
3. Funding
4. Outreach

Actions

1. Finalize analyses of AZE list including information on reptile data and overlap in EDGE birds.
2. Prepare a paper for the journal *BioScience* on these analyses and their conservation implications.
3. Continue discussions with AZE Executive Committee to advance the possibility of generating guidelines for the conservation of AZE species.

[Click for full working group report.](#)



Working Group Summaries

Collaborating to Improve Species Recovery Planning

Participants

Randall Arguedas, Anne Baker, Irus Braverman, Luis Carrillo, Karen Dixon, Nian-Hong Jang-Liaw, Mike Jordan, Bob Lacy, Philip Miller (convenor), Philip Nyhus, Jorge Rodríguez, Elizabeth Townsend, Kathy Traylor-Holzer, Emily Wick, Jonathan Wilcken, Madelon Willemsen (convenor), Sara Zeigler

Summary

This working group focused on how CBSG can become involved in or offer guidance to the recovery planning process for government institutions. The group plans to (1) evaluate the existing recovery planning processes for at least 10 countries worldwide (proposed countries included the United States, South Africa, the United Kingdom, Indonesia, India, Canada, Brazil, Australia, New Zealand, Mexico, and Denmark); (2) develop a generic package (including an executive summary) that explains our recommendations for how the CBSG process could be implemented by governments to guide the recovery planning process; and (3) tailor and present our proposed package to the United States Fish and Wildlife Service for further pilot testing.

Actions

1. Develop a template for national planning guidance, including both the steps and mechanisms that describe the process as a whole.
 - Sara Zeigler, by 31 October 2013
2. Identify appropriate countries for evaluation.
 - Proposed countries: United States, South Africa, United Kingdom, Indonesia, India, Canada, Brazil, Australia, New Zealand, Mexico, and Denmark
3. Assign evaluators and conduct evaluations based on template (1).
4. Begin assembling contacts in the United States (especially from the Fish and Wildlife Service).
 - Phil Miller, Sara Zeigler, Anne Baker
5. Assemble package for presentation to US Fish and Wildlife Service.
 - By 31 December 2013

[Click for full working group report.](#)



Working Group Summaries

One Plan – Aquariums: Rising Tide

Participants

Brad Andrews (convenor), Kazutoshi Arai, Gerald Dick, Chris Hibbard, Hidemasa Hori, Mike Jordan, Dan Maloney, Esther Manansang, Jansen Manansang, Phil Miller, Jackie Ogden, Christoph Schwitzer, Lee Simmons, Maggie Soileau, Rebecca Seal-Soileau, Kanako Tomisawa, Eric Tsao, John Werth, Hans Winata

Summary

Aquariums are known as educational, conservation, and entertainment centers. They combine both *ex situ* and *in situ* conservation research and education. They link communities to oceans; however, in certain situations the resources are not necessarily sustainable.

1. Sustainability

- What type of *in situ* sustainability programs are in place or are needed?
- What programs are “linking” these programs to scientists, researchers, and the public?

2. Users

- *Ex situ* entities include the aquarium communities, fisheries (aquaculture), and commercial (hobbyists) interests.
- In some cases there might be alignment in the One Plan approach. Management strategies may align to reduce harvest, reduce extractions, and improve husbandry.

3. IUCN Specialist Groups

- Is the aquarium community utilizing the work of the SGs in regards to:
 - Conservation Action Plans
 - Scoping Processes
- Engagement of a wider range of stakeholders is needed.
- Acknowledge broader range of entities involved, from fishermen and hobbyists to aquariums.

4. Develop Targeted Approach

- Understanding basic behavior: use analogies from terrestrial species.
- Sustainability at the system level via species level.
- The role of aquariums is important, especially based on the major threats.
- Commerciality may have an important role: working on direction.
- *In situ* involvement is important.
- Current data need to be investigated.

[Click for full working group report.](#)



CBSG Regional Network News

CBSG Australasia

Convenors: Richard Jakob-Hoff and Caroline Lees

CBSG Australasia was launched at the Adelaide CBSG Annual Meeting in 2008. In addition to localizing delivery of CBSG workshops, the network has the following priorities:

- the development of disease risk assessment and management tools;
- the uptake of virtual tools for mass collaboration; and
- the new generation of population management tools evaluation.



CBSG Australasia's recent initiatives include:

- IUCN Guidelines for Wildlife Disease Risk Analysis and Manual of Procedures for Wildlife Disease Risk Analysis
- Virtual collaboration tools
- Training workshops
- Contributions to species conservation planning, including:
 - Eastern barred bandicoots
 - Christmas Island lizards
 - Rotoroa Island restoration

[Click for more details on CBSG Australasia activities.](#)

CBSG Brasil

Convenor: Arnaud Desbiez



CBSG Brasil was founded in 2004. CBSG Brasil is not based in any institution and is run voluntarily by its three core members with the support of the Royal Zoological Society of Scotland. Members are a wildlife biologist, a veterinarian, and a GIS expert each working for a different institution. The convenor, Arnaud Desbiez, is the Regional Coordinator for Latin America at the Royal Zoological Society of Scotland (RZSS) based in Campo Grande, Mato Grosso do Sul State, Brazil; Fabiana Lopes Rocha has a post-doctoral position at FioCruz, Rio de Janeiro City, Rio de Janeiro State; and Katia Ferraz is a professor at ESALQ, Piracicaba, São Paulo.

CBSG Brasil has strong ties with the Species Survival Commission of the IUCN. Between them, Arnaud, Fabiana, and Katia belong to four different Specialist Groups (Deer, Iguana, Peccary, and Wildlife Health). Arnaud Desbiez is also a member of the Species Conservation Planning Sub-Committee.

Since the 2012 CBSG Annual Meeting, we have successfully run several species conservation workshops and attended various meetings. We continue to try to be innovative in our approaches to integrating new tools and methods into the work we do. We are working alongside the IUCN SSC Species Conservation Planning Sub-Committee to further benefit from new experiences and approaches. In addition, thanks to Katia, we are adding habitat suitability modeling as a planning tool in some of our workshops.

Recent activities include:

- Spix's Macaw and Grey-Breasted Parakeet PVA
- Brown Howler Monkey Conservation Workshop
- Annual meeting for the update and implementation of the Southern Paraiba River Basin Action Plan

[Click for more details on CBSG Brasil activities.](#)

CBSG Regional Network News

CBSG Europe

Convenor: Bengt Holst



During the past year CBSG Europe has worked closely together with CBSG HQ and EAZA on several activities within and outside Europe, including:

- CBSG Regional Networks Meeting
- Adjusting the Regional Collection Planning process for the EAZA Callitrichidae Taxon Advisory Group
- IUCN SSC Guidelines on the Use of *Ex Situ* Management for Species Conservation
- Conserving Djibouti's Priority Land Animals
- Training: Facilitation Skills for Conservation Managers
- PASA Reintroduction Workshop

[Click for more details on CBSG Europe activities.](#)

CBSG Mesoamerica

Convenor: Yolanda Matamoros



CBSG Mesoamerica acts as a linking organization among different stakeholders, including regional zoos, academia, field research, *ex situ* management, government, and the community. CBSG Mesoamerica helps set species conservation priorities and actions through workshops, facilitation experience, and computer tools, fulfilling a need for science-based conservation planning. Our aim is to maintain and create new contacts in our region to continue supporting conservation efforts for Mesoamerican wildlife using CBSG's conservation planning tools and methodologies. CBSG Mesoamerica has contributed to over 60 conservation workshops, collaborating with more than 100 organizations working on *in situ* and *ex situ* conservation in the region.

CBSG Mesoamerica's recent activities include:

- *Ex situ* management course and Regional Conservation Strategy for Mesoamerican Amphibians.
- Symposium: Conservation in the Zoos, San Salvador, El Salvador
- Lake Junin frog (*Telmatobius macrostomus*) Conservation Strategy Workshop

[Click for more details on these CBSG Mesoamerica activities.](#)

CBSG Regional Network News

CBSG South Asia

Convenors: Sally Walker and Sanjay Molur

CBSG South Asia is active in Afghanistan, Bangladesh, Bhutan, India, Nepal, Pakistan, and Sri Lanka. We work closely with IUCN SSC CBSG, other IUCN specialist groups, our own taxon and thematic networks, and host organizations (ZOO, WILD, and SAZARC). CBSG India, started by Sally Walker in 1990, was the first CBSG regional network. It was absorbed into CBSG South Asia in 2000.

CBSG South Asia's recent initiatives include:

- Getting along with Elephants HECx: HECx workshops for Tamil Nadu and Kerala
- Involving Community, Stakeholders, and Journalists for the Conservation of Freshwater Biodiversity and Reptiles of Western Ghats through Education, Training and Follow-up of the Assessment projects (CEPF grant)
- Western Ghats Freshwater Biodiversity Conservation Teaching workshop
- Invertebrate Pollinator Conservation and Education Training workshop

[Click for more details on CBSG South Asia activities.](#)



CBSG North America

Convenors: Anne Baker and Philip Nyhus



CBSG North America came into being in early March 2013. It is hosted by the Saint Louis Zoo and co-convened by Anne Baker, Ph.D., retired Director of the Toledo Zoo and currently an Adjunct Research Associate at the Saint Louis Zoo; and Philip Nyhus, Ph.D., Assistant Professor of Environmental Studies, Colby College. Geographically, CBSG North America includes Canada and the United States of America.

Much of the initial work of CBSG North America has focused on getting the network up and running. One of the co-convenors participated in the CBSG Regional Network meeting held in Minneapolis in March and as an observer in a USFWS Recovery Planning Workshop for Sonoran pronghorn antelope in June. CBSG North America moderated a symposium at the AZA Annual Meeting in September entitled "New and Evolving Tools for Conservation Planning and Assessment of Intensively Managed Populations" that focused on the PHVA and metamodeling processes. The Saint Louis Zoo, CBSG, and CBSG North America will be hosting a Facilitation and Communication Training Course in early 2014.

[Click here for more information about CBSG North America.](#)



CBSG Japan

We have been working to reset the framework of CBSG Japan:

- Re-examination of CBSG Japan bylaws
- Implementation of the survey that is held every four years for CBSG Japan members. Based on the results, the current membership is 47.
- Preparation for the election of officers
- Investigation of the possibilities of PHVA for Okinawa rail (*Gallirallus okinawae*) or Amami rabbit (*Pentalagus furnessi*)

CBSG Regional Network News

CBSG Mexico

Convenor: Luis Carrillo

CBSG Mexico was founded in 1995 in response to the needs of endangered species conservation in Mexico. It is based at Zoofari, a safari park located in Morelos, Mexico. CBSG Mexico's convenor is Luis Carrillo, who works at Zoofari as General Curator. CBSG Mexico's mission is to catalyze conservation actions in Mexico, assisting in the development of holistic conservation programs for threatened species and ecosystems.

CBSG Mexico's recent activities include:

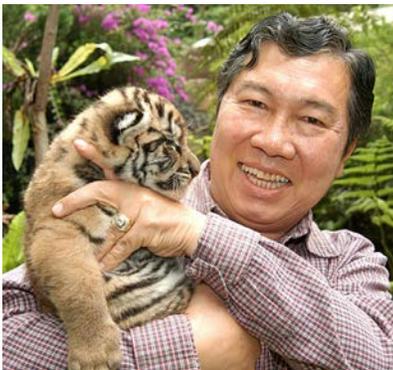
- Amphibian Veterinary Course – AARK
- Amphibian Conservation Training for Latin America – AARK
- Sonoran Pronghorn PHVA



[Click for more details on CBSG Mexico activities.](#)

CBSG Indonesia

Convenor: Jansen Manansang



Highlighted activities:

- Bali Mynah Community Development Program
- Standardization for Dolphin Husbandry
- Restoring function of Tesso Nilo National Park (TNNP) as the Sumatran Wildlife conservation area

[Click for more details on CBSG Indonesia activities.](#)

CBSG Southern Africa

Convenor: Mike Jordan

CBSG Southern Africa is based in the Pretoria offices of the National Zoological Gardens of South Africa. This network works hard to bring together the incredibly diverse range of conservation stakeholders in a region where the economic utilization of wildlife and natural resources is the cornerstone of wildlife management. A central component of CBSG Southern Africa's work is the successful linking of the skills, efforts, and resources of the zoo and aquarium community and related intensive population management expertise to the priorities of the government and field conservation agencies.



2013 CBSG Annual Meeting Participants

350.org

Phil Aroneanu

Al Ain Zoo

Ghanim Al Hajeri
Mark Craig

African Association of Zoos and Aquariums (PAAZAB)

Stephen van der Spuy
John Werth

Amphibian Ark

Ron Gagliardo

Association of Zoos and Aquariums (AZA)

Paul Boyle
Kristin Vehrs

Auckland Zoo

Jonathan Wilcken

Bir Ventures International

Hassan Syed

Bristol Zoo Gardens

Bryan Carroll
Christoph Schwitzer

British and Irish Association of Zoos and Aquariums (BIAZA)

Kirsten Pullen

Busch Gardens

Jeff Andrews

CBSG

Onnie Byers
Jo Gipps
Philip Miller
Rebecca Seal-Soileau
Elizabeth Townsend
Kathy Traylor-Holzer
Emily Wick

CBSG Mesoamerica

Yolanda Matamoros
Jorge Rodríguez

CBSG Mexico

Luis Carrillo

Central Zoo Authority India

Bishan Singh Bonal

Chennai Snake Park Trust

Subbiah Paulraj

Chester Zoo

Andrea Fidgett
Mark Pilgrim

Chicago Zoological Society

Robert Lacy

Colby College

Philip Nyhus

Columbus Zoo and Aquarium

Lewis Greene

Copenhagen Zoo/CBSG Europe

Bengt Holst
Kristin Leus

Dallas Zoo

Lynn Kramer
Patricia McGill

Detroit Zoological Society

Scott Carter

Disney's Animal Kingdom

Jackie Ogden
Rochelle Plassé

Durrell Wildlife Conservation Trust

John Fa

European Association of Zoos and Aquaria (EAZA)

Lesley Dickie

FUNDAZOO

Randall Arguedas

International Species Information System

Nate Flesness

Jacksonville Zoo and Gardens

Dan Maloney

Japanese Association of Zoos and Aquariums (JAZA)

Kazutoshi Arai
Kanakano Tomisawa

Leibnitz Institute for Zoo and Wildlife Research

Heribert Hofer

Lincoln Park Zoo

Lisa Faust
Sarah Long

Max Planck Institute/University of Southern Denmark

Dalia Conde

National Zoological Gardens of South Africa

Mike Jordan
Clifford Nxomani

Nordens Ark

Lena Lindén

Omaha Zoo Foundation

Lee Simmons

OsoMono, LTD

Evan Blumer

Parque Das Aves

Yara Barros

Saint Louis Zoo

Anne Baker
Eric Miller

SeaWorld Parks and Entertainment

Brad Andrews
William Street

SOS Rhino

Karen Dixon
Nan Schaffer

Taipei Zoo

Nian-Hong Jang-Liaw
Chun Kao
Eric Tsao

Tama Zoological Park

Hirofumi Watabe

Taman Safari Indonesia

Esther Manansang
Jansen Manansang
Hans Thomas Winata

Tampa's Lowry Park Zoo

Lawrence Killmar
Craig Pugh

Tokyo Zoo

Hidemasa Hori

Topeka Zoo

Dennis Dinwiddie

University of Technology, Sydney

Madelon Willemsen

Virginia Tech Department of Biological Sciences

Sara Zeigler

World Association of Zoos and Aquariums (WAZA)

Gerald Dick
Markus Gusset
Jörg Junhold

Wellington Zoo

Karen Fifield

White Oak

Stephen Shurter

Wildlife Conservation Society

James Breheny

Wildlife Reserves Singapore

Sonja Luz

Woodland Park Zoo

Deborah Jensen

Zoo and Aquarium Association Australasia (ZAA)

Chris Hibbard

Zoo Leipzig

Frank Oberwemmer

Zoo Outreach Organisation/ CBSG South Asia

Sally Walker

Zoo Praha

Ivan Rehak

Zoo Zürich

Alex Rübel

Zoological Park Organization

Urarikha Kongprom
Boripat Siriaronrat
Ampika Thongphakdee

Zoological Society of London

Paul Pearce-Kelly

Zoologico de Cali

Camilo Londoño

Zoos South Australia

Peter Clark

Zoos Victoria

Rachel Lowry

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(JAZA)

Laurie Bingaman Lackey
Linda Malek
Milwaukee County Zoo
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Los Angeles Zoo
Odense Zoo
Palm Beach Zoo at Dreher Park
Prudence P. Perry
Philadelphia Zoo
Rotterdam Zoo

Royal Zoological Society of Scotland —
Edinburgh Zoo
San Antonio Zoo
Seoul Zoo
Taipei Zoo
Thrigby Hall Wildlife Gardens
Woodland Park Zoo
Zoo & Aquarium Association
Zoological Society of Wales — Welsh
Mountain Zoo
Zoos South Australia

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Apenheul Primate Park
Ed Asper
Banham Zoo
Mark Barone
Bramble Park Zoo
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Katey & Mike Pelican
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Riverbanks Zoo & Garden
Tom Stalf
Topeka Zoo
Wellington Zoo
Wildlife World Zoo & Aquarium
Zoo de la Palmyre

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Arizona-Sonora Desert Museum
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Chris Byers & Kathy Vila
David Traylor Zoo of Emporia

International Centre for Birds of
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Lion Country Safari
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Tokyo Zoological Park Society
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*Denotes CBSG Chair sponsor

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Africa
Saint Louis Zoo
Taman Safari Indonesia
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WILD
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2013 Ulysses S. Seal Award Recipient: Lee Simmons

Award Presentation by CBSG Chair Onnie Byers

The Ulysses S. Seal Award for Innovation in Conservation is given each year by the Conservation Breeding Specialist Group. It is regarded very highly not only by CBSG, but also by the entire zoo and aquarium community and the IUCN Species Survival Commission.

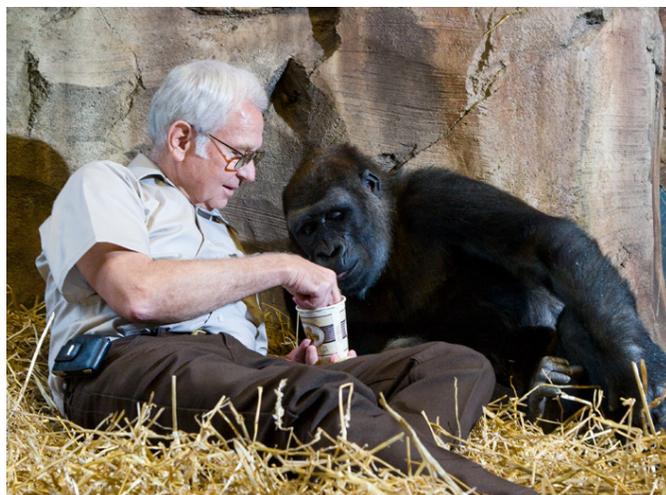
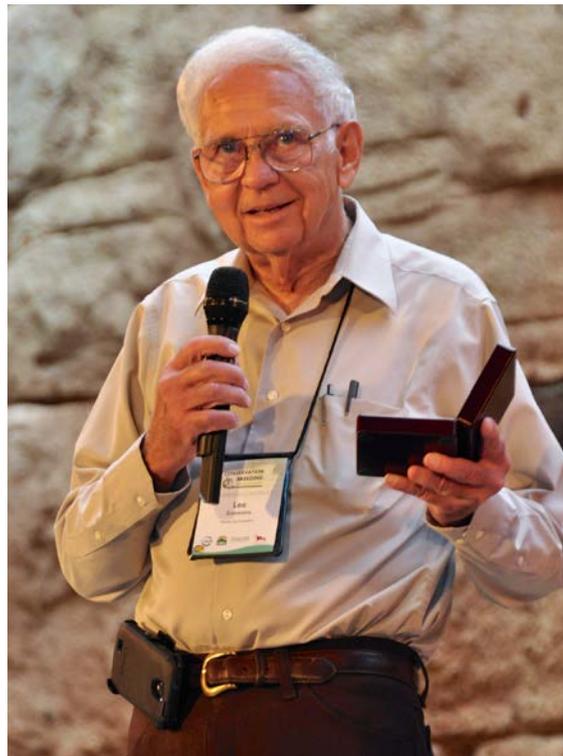
Dr. Ulysses S. Seal was the first Chair of CBSG, serving from 1979 to 2003. Ulie Seal's great passion and talent was his creative thinking about how new science could be most effectively applied to solving the problems of wildlife conservation. His contributions were amplified many times over by his further ability to recognize, encourage, and put to work others who were making, or had the potential to make, such innovative contributions. CBSG honors Ulie's legacy through the awarding of the Ulysses S. Seal Award for Innovation in Conservation to an individual who embodies similar qualities.

What a great pleasure it is to honor one of Ulie Seal's dearest friends, a man who remains steadfastly dedicated to CBSG in spite of his claims that we brainwashed his staff with our crazy talk of collaboration and consensus-based decision making! The 2013 Ulysses S. Seal Award goes to **Dr. Lee Simmons**.

When I called Lee to let him know that he would be this year's award recipient, he was uncharacteristically speechless. The only thing he said—and he said it over and over—was “holy smokes.”

Lee and Ulie go back a long way (1968, I believe) and they did a tremendous amount of valuable work together. But this is not the “Friends of Ulie Seal Award.” This award is given for innovation in conservation. Innovation can be defined as the creation of new solutions that meet existing needs. And the creation of something new takes a leader with courage, a comfort with risk taking, and a passion that Lee refers to as “fire in the belly.” Lee Simmons has all this and more. No one will ever mistake Lee for being “all hat and no cattle.”

Lee joined the Omaha's Henry Doorly Zoo in 1966 as Staff Veterinarian and by 1970 had worked his way up to Director, a position he retained for almost 40 years until his retirement in 2009 when he became Chairman of the Omaha Zoo Foundation.



Lee has influenced the development and progress of conservation through his innovations, his recognition of promising new ideas, and his support for the people behind those ideas.

Lee's drive for safer and more reliable ways to anesthetize animals, both in captivity and *in situ*, led to his creation of a number of different drug delivery systems that are still in use today.

His early recognition of the value of research for conservation and his willingness to allow hands-on biomedical research with Omaha's Henry Doorly Zoo's collection led to advances the fields of reproductive science and molecular genetics.

The accomplishments of the zoo's comprehensive program in Madagascar includes the discovery of 21 new lemur species. Under Lee's leadership, ferns that were extinct in the wild were propagated and returned to their natural range in Bermuda, and thousands of Malagasy orchids have been reintroduced to their natural habitats.

Most recently, in response to the IUCN's urgent call for the international zoo community's assistance in the face of the amphibian extinction crisis, Lee led the Henry Doorly Zoo's design and construction of cutting-edge facilities for captive assurance populations.



These are just a few examples of the contributions made and catalyzed by Lee Simmons. His influence will continue through the countless professional colleagues, researchers, and zoo visitors he has inspired around the world.

It is now my honor to ask Ulie's daughter, Rebecca Seal-Solieau, and Ulie's grandchildren, Maggie and Andy, to present the 2013 Ulysses S. Seal Award to Dr. Lee Simmons.

CBSG Annual Meeting 2013

CBSG Annual Meeting is published by the Conservation Breeding Specialist Group of the International Union for Conservation of Nature (IUCN) Species Survival Commission. The opinions and recommendations expressed in this report reflect the issues discussed and ideas expressed by the participants in the workshop and do not necessarily reflect the formal policies of the IUCN, its Commissions, its Secretariat or its members. This publication exists to inform CBSG members and others concerned with the conservation of plants and animals about the proceeds of our Annual Meeting.

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