



Annual Report 2016



Dear Friends and Colleagues,

The most significant event for Asian elephants this year was arguably the resurrection of the Asian Elephant Specialist Group of the IUCN. The AsESG as it is known, is a member of the Species Survival Commission. Specialist groups are perhaps best known for their role in designating species' status under the Red List, which include the all-too-familiar threat categories "vulnerable," "endangered," and "critically endangered," alongside lesser classes such as "least concern" and worst cases such as "extinct" and "extinct in the wild". Having only joined this group in 2015, I was one of its youngest and newest members. As such, I was able to attend the World Conservation Congress in Hawaii, where I learned more about what a diverse body the IUCN actually is, comprising not only academics and NGOs, but also governments, indigenous peoples groups, private philanthropic foundations and many individuals such as myself. Coming from a largely academic background myself, I found this diversity very refreshing—it felt like the right mix of people to make conservation happen.

I was then privileged to attend the AsESG meeting in Assam, India. It was the first in fourteen years. Under new leadership, I am hopeful that we will together have a stronger voice for the international conservation of Asian elephants, one that is urgently needed.





Facilitating evidence-based conservation of Asian elephants and their habitats.

Shermin de Silva - President & Founder

Shermin obtained her Ph.D from the University of Pennsylvania in 2010, studying the Asian elephants of Uda Walawe National Park. She was an NSF Postdoctoral Research Fellow at Colorado State University, in the Department of Fish Wildlife and Conservation Biology, a Fellow at The Institute For Advanced Study in Berlin and is currently a Fellow at the Smithsonian Conservation Biology Institute. She is also a trustee of EFECT, Sri Lanka.

Sergey Kryazhimskiy - Treasurer



Sergey received his Ph.D from Princeton University in 2008 and is currently an assistant professor in Ecology, Behavior and Evolution at the University of California at San Diego. Dr. Kryazhimskiy is interested in making science open and relevant to the public.

Esther A. Clarke - Clerk



Esther completed her Ph.D in 2010 at the University of St. Andrews (UK). Dr. Clarke studied the vocalizations and behavior of wild white-handed gibbons in one of Thailand's National Parks. She became interested in elephants after a run in with a rather large one in the forests of Thailand. Currently a postdoctoral researcher affiliated with Durham University, UK, Dr. Clarke has a broad interest in biodiversity conservation and education.

Catherine Craig - Advisor



Cay is the president and founder of CPAL International. She is a member of the research staff of the Museum of Comparative Zoology, Harvard University. Previously she served as an Associate Professor on the biology faculty at Yale University. She is a fellow of the Alfred P. Sloan Foundation, the John Simon Guggenheim Foundation, the American Association of University Women and a Science Scholar at the Mary Ingraham Bunting Institute. Dr. Craig has been the recipient of grants from both public agencies and private foundations including the National Science Foundation, the Whitehall Foundation, and the National Geographic Society. She is the author of the book *"Spider webs and silk: tracing evolution from molecules to genes to phenotypes"* (Oxford , 2003).

Stefano Vaglio - Advisor



Stefano gained his Ph.D. in 2009 from Florence University (Italy). He is interested in primate behavioural ecology, welfare assessment and management of captive animals, and *in-situ* conservation initiatives. He works as a Lecturer in Animal Behaviour at the University of Wolverhampton (UK) and collaborates with Durham University (UK) as an Honorary Research Fellow in

Anthropology. For several years he has been working on applied projects about primate conservation and the sustainability of local communities, as a result of this experience, he co-founded a specialized consultancy firm (CarbonSinkGroup) launched in 2011 as a Florence University spin-off of which he is currently Partner. He is also a Research Associate at Garda Zoological Park, a Member of the Steering Committee of the EU LIFE Northern Bald Ibis project, and a Member of the Board of Directors of the École Nature Recherche.

Welcome Christin Minge



Chris' project will focus on the behavior of male elephants, in trying to understand whether male relationships are competitive, cooperative, or perhaps both.



We are especially interested in why males sometimes hang around each other—are they helping each other? Or is it a sly means of sizing up potential competitors and getting access to females?

Male elephants are also most often responsible for crop raiding. Do males form special relationships with fellow crop raiders? And do these relationships persist when they are not in such a high-risk situation?

These are a few of the many questions we hope to answer. Interesting times ahead.



Follow Chris' Progress on Facebook:

www.facebook.com/MaleElephantResearch/

The Walawe Dwarf appears again

It's now the fourth year in a row that our mighty little dwarf has appeared in Uda Walawe. Having grown accustomed to his annual appearances, he now attracts quite a following!



SCoRe! Making New Connections

By Deepani Jayantha & Shermin de Silva



Shermin with members of the SCoRe Lab (left to right): Laksith Ekanayake, Tharindu Ranathunga, Asanka Sayakkara, Charitha Madusankha, Dr. Chamath Kepptiyagama (one of the founders) & Chathura Suduwella.

When we got an email from Tharindu Ranathunga, an undergraduate at the University of Colombo requesting advice for his project to localize elephants using their communication, we were naturally curious. There have been several efforts at this, but none very successful or widely applied. When we learned that he was in fact part of a group called the Sustainable Computing Research lab (SCoRe) we were even more intrigued. Founded by

Drs. Chamath Kepptiyagama and Kasun de Zoysa, the lab is an incubator for high-tech but low cost technologies intended to solve real and practical problems. Current projects included smart electric fences that could alert someone when breached, the acoustics work, and even some tinkered drones. We look forward to working with them to find innovative ways to allow farmers & elephants to coexist.



Left: Chathura with a prototype circuit for an innovative new electric fence and Charitha with modified quadcopters.

Below: Deepani and some of the SCoRe team visit to Hambegamuwa to try out the new fencing with some willing farmers who are already using traditional electric fences.



Steps Towards Evidence-Based Management and Conservation



Front row: Speakers/organizers Deepani Jayantha, Varun Goswami, Ananda Kumar, Oswin Perera, Tony Lynam, Shermin de Silva, and Nilanga Jayasingha. **Middle & back rows:** 13 Officers of the Department of Wildlife Conservation who participated in the workshop.

Our mission is to facilitate evidence-based conservation of elephants and their habitats, through science and education. Wildlife officers are at the forefront of management decisions, so to accomplish this mission, it's important to work with them.

In June we held a 2-day workshop for officers of the Department of Wildlife Conservation in Sri Lanka,

on the theme of "Evidence-based management and conservation". Beyond this, the aim of this workshop was to provide viewpoints and expertise, especially from outside Sri Lanka, that the officers might not otherwise encounter. Thanks to additional support from the US Fish & Wildlife Asian Elephant Conservation funds, and to the generous time and travel costs donated by our

speakers, we were able to have a very engaging two days—despite a regional power failure the first day, and other changes to the program!

Topics covered ranged from wildlife disease detection, to survey techniques, new patrolling technologies, and how to manage wildlife populations when they are scattered among different areas—known as meta-populations. Speakers represented the Smithsonian, WCS (India), WWF, the Nature Conservation Foundation (India) and University of Peradeniya. It ended with a spectacular field trip to Minneriya accompanied by the Park's deputy warden.

The workshop received much positive feedback, and spun off ideas for more ways to work



Above: Visioning and team building exercises. **Below:** A free-form discussion on how human-elephant conflicts are handled in different places.

together. We hope this is just the first step.







The More Egalitarian Elephant

By Shermin de Silva



A young adult female named Right-hole places her trunk over a female numbered [346] in a gesture indicative of dominance.

Female elephants are commonly thought to live in matriarchal societies and rely on the firm leadership and wisdom of elders, with strong age-based dominance hierarchies. This view is based on research on African savannah elephants. As it turns out, female Asian elephants behave a bit differently.

The study by myself, George Wittemyer (Colorado State University & Save The Elephants) and Volker Schmid (University of Regensburg, Germany), compared dominance behavior exhibited by adult female Asian elephants in Sri Lanka and a similarly-aged cohort of female African savannah elephants in Kenya. We found that Asian

elephants showed much less aggression towards each other than African elephants, and could not easily be organized into linear dominance hierarchies unlike their African cousins.

What might explain these differences? Female African savannah elephants form cohesive families with very clear age-based dominance hierarchies. Such societies may be favored in environments where rainfall is unpredictable and resources are widely dispersed. They must also contend with large predators and

competition for access to the best and safest areas. Knowledge of resources, potential competitors and predators may be built up over many years, with the presence of older individuals benefiting younger ones. But what if the environment is wetter and more predictable, with fewer predators to worry about? Asian elephants live in more productive and predictable environments where food and water were historically not difficult to come by. We think that this frees up individuals to make their own movement decisions, without needing to rely on the knowledge



E. maximus



L. africana

Dominance networks of female Asian elephants (left) are far more sparse, with a proportionally greater number of younger individuals ‘winning’ over older ones (red arrows), as compared to the African savannah elephant network (right). Here each circle is an individual, where larger nodes are older individuals and colors correspond to different social units.



Can you tell who's dominant? This was a friendly joust, and physical conflicts are rare among Asian elephants, but when they do happen it's because unfamiliar groups intersect.

of others—or tolerate being dominated by them. We call this phenomenon “ecological release”. It's left to be seen whether other species follow similar patterns.

Dominance signals may be used by Asian elephants to exclude individuals who do not belong to one's social group. Much of the time, they may just avoid each other entirely. This also underscores why it's so important for Asian elephants in the wild as well

as in captivity to have enough space to roam—not only for food and water, but to avoid stress from social conflicts.

de Silva S., V. Schmid, and G. Wittemyer (2016). “Fission–fusion processes weaken dominance networks of female Asian elephants in a productive habitat.” *Behavioral Ecology*. doi:[10.1093/beheco/arw153](https://doi.org/10.1093/beheco/arw153)

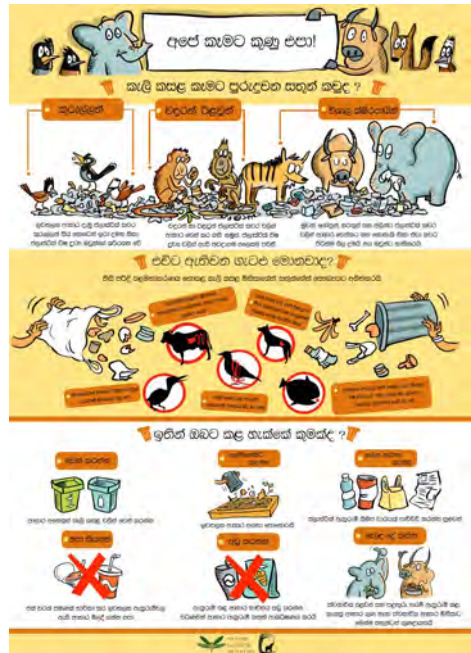
Watch a video at:

[Youtube.com/trunksnleaves](https://www.youtube.com/trunksnleaves)

Raising Awareness on Garbage



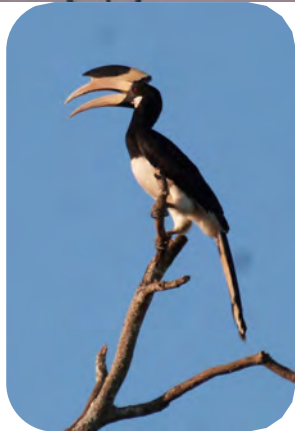
Above: Last year we wrote about the threats to wildlife posed by unrestricted garbage dumps. **Right:** This year we launched an education campaign targeting students by distributing an informative poster to schools. Many thanks to the Nature Science Initiative for sharing their graphics, and allowing us to translate it into Sinhalese. 210 posters were distributed from July—December 2016, with 5 going as far as Dubai!



Read more on the blog:
asianelephant.wordpress.com

Uda Walawe Is For The Birds...

Photos by Sameera Weerathunga



Above: Peacock (*Pavo cristatus*). **Left, clockwise:** Malabar Pied Hornbill (*Anthracoceros coronatus*), crested hawk-eagle (*Nisaetus cirrhatus*), and rose-ringed parakeet (*Psittacula krameri*).





Above: White-bellied sea eagles (*Haliaeetus leucogaster*). **Left:** Grey heron (*Ardea cinerea*). **Below, clockwise:** The early sandpiper (*Actitis hypoleucos*) catches the worm; A pair of Stilts (*Himantopus himantopus*) forage in sync; a quartet of colorful painted storks (*Mycteria leucocephala*).



Spreading The Word & Building Partnerships

Colby College, Maine—Dr. de Silva spoke about elephant behavior and conservation



at Colby College in Maine by invitation of Sahan Disanayake, an environmental economist. We were pleased that the auditorium was packed to capacity, with some participants arriving by train from other locations! We hope to work further with Dr. Disanayake and students at Colby to study solutions to human-elephant conflict.



Singapore—Sameera & Kumara attended the International Elephant and Rhino Conservation and Research Symposium in November. They learned about conservation efforts throughout the range countries.



Hannover, Germany—T&L provided photos to the Hannover Zoo for their Asian elephants exhibit, which discusses the current threats to the species.



Building Partnerships

Udawalawe, Sri Lanka—Vivek Menon (center left) met with Sameera Weerathunga & T.V. Kumara on his first formal visit to Sri Lanka as chair of the Asian Elephant Specialist Group. He was accompanied by Azzedine Downes, President and CEO of the International Fund for Animal Welfare (IFAW). He learned about the unique work of the Uda Walawe Elephant Research Project.



Honolulu, Hawaii—Shermin had a chance to meet John Scanlon, the secretary general of CITES at the IUCN World Conservation Congress. He was impressed by Sri Lanka's conservation efforts, and found Udawalawe memorable.

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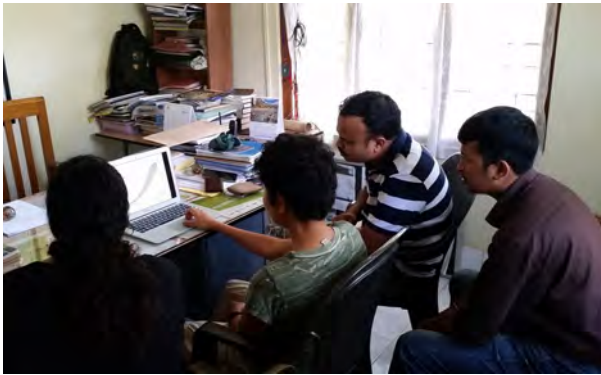
& Twitter: @Asianele



Guwahati, India—Deepani Jayantha & Shermin de Silva attended the first meeting of the Asian Elephant Specialist Group in fourteen years. The group was re-invigorated under the leadership of Vivek Menon, and we hope this will mean a more active body for Asian elephant conservation. We look forward to the next meeting, to be held in January 2018 in Sri Lanka!

Building Partnerships

WWF India —Hiten Baishya was Dr. de Silva's host at WWF India. His group is interested in using individual-identification to monitor crop raiding and movement of elephant herds in highly fragmented landscapes bordering the Nameri Forest Reserve. The elephants here



are frequently casualties of conflict or simply accidents due to human activity. We hope to collaborate to find ways not only to help these elephants survive, but also to reconnect their landscapes.

WCS India — Next was a visit with Varun Goswami's team, from the Wildlife Conservation Society, India program. They work in the landscapes around Kaziranga National Park. It was recharging to see many young enthusiastic faces. We hope research collaborations will take off with this group as well.



Visit the online support page for ways you can help!

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- ▶ Ask for the **Tiger Stamp** at your local post office, or order online to help US Fish & Wildlife raise funds to support programs like UWERP.
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