Zoo Outreach Organization Trust
Wildlife Information Liaison Development Society

2016 Activity Report

Augmenting stakeholder awareness on Asian elephant conservation in Human Elephant Conflict areas of Tamil Nadu, India

Goal and objectives: The goal is to ensure long-term survival of elephant populations by minimizing Human Elephant Conflict for the peaceful survival of both elephant and human being. The objective of the project is to conduct two capacity building training for forest frontline staff such as anti-poaching watchers, anti-depredation squad, watchers, guards and foresters. In addition, to conduct two sensitization programmes for journalists so as to reach out to the public through various media that will bring attitudinal change and positivity among the people. The attitudinal change, in the long run will help local community to harmoniously with elephants.

Activities: The first capacity building for forest staff was conducted at Hosur from 28-29 September 2016 at Forest Training Centre, Mathigiri. A total number of 40 staff including anti-poaching watchers, guards, foresters, forest range officers and persons from non-governmental organisations participated. The training was inaugurated by Ashish Kumar, Srivastava, IFS, Conservator of Forests, Dharmapuri Circle in the presence of E. Rajendran, District Forest Officer, Hosur.

The second capacity building training was held at Forest Training Centre, Attakatty, Anamalai Tiger Reserve from 20 & 21 October 2016, 35 forest staff in the capacity of anti-poaching watchers, guards, foresters and range officer attended the training. The training was inaugurated by V. Ganesan, IFS, Chief Conservator of Forests & Field Director, Anamalai Tiger Reserve, Coimbatore in the presence of V. Subbiah, District Forest Officer & Deputy Director, ATR and A. Periasamy, IFS, District Forest Officer, Tirupur. Followed by the training, sensitization programme for 30 journalists was arranged on 22 October 2016 at the same venue that was inaugurated by both Chief Conservator of forests and District Forest Officer, ATR, Coimbatore. The second senisitizatoin programme for journalists was held on 21 February 2017 at Mathigiri Forest Training Centre, Hosur. About 20 journalists were participated.

Donor: US Fish and Wildlife Service, USA

Getting along with Elephants workshop at Nepal

A three-day educator skills training workshop on Human Elephant Coexistence HECx was facilitated by B.A. Daniel, Zoo Outreach Organization along with resource persons Heidi Riddle, USA and Naresh Subedi, NTNC, from 3-6 November 2016 in Bardiya National Park, Nepal.

The workshop was coordinated and organized by the National Trust for Nature Conservation NTNC in collaboration with Taru Women Upliftment Centre TWUC, Gulariya, Bardiya and Bardiya National Park with the financial support of Asian Elephant Support AES. TWUC in consultation with NTNC, selected the the participants and the group had a mix of the Nepalese participants such as village heads, village council members, teachers, Nepal Armed Forces that deal with inter border wildlife issues, members from NGO, teachers, volunteers and forest personnel. The Park Director Mr. Ramesh Thapa provided full support through out planning and implementing stages of the program. TWUC will be doing a follow up of the training and similar programs for other regions has been suggested and it is under planning stage.

The training module has assessment tools to know the impact of training on individual participants, and it is measured through content survey that tells the knowledge that the participant gained after the workshop. As per this assessment method the difference before and after the workshop ranged from 9 to 90%. The group average score about the subject before the workshop was 38.98% and after the workshop was 82.35%. Thanks to Asian Elephant Fund for their timely financial assistance. Complete report can be read from http://www.zoosprint.org/ZooPrintMagazine/2016/December/4-6.pdf

Donor: Asian Elephant Support, USA

Fostering Human Elephant Coexistence (*HECx*)awareness in Erode, Tamil Nadu, India

Objective: To reach out school teachers and school children who lives in or nearby Northern Western Ghats (both Sathyamangalam and Erode forest divisions) in Erode District human elephant conflict villages and teach them about safety education on human elephant coexistence through teachers training and school awareness programmes for school children in order to save their lives and live harmoniously with elephants.

Activities: Organizing a 2-days teacher training workshop and twenty-five (25) school awareness programmes.

Progress: It is recently funded project and a pre visit was made to Erode to meet the District Eco Club coordinator who is the local coordinator of the project. Discussed at length the planning of the programmes.

Donor: International Elephant Foundation, USA

Capacity building for frontline forest personnel for the mitigation of Human animal conflict in Tamil Nadu, India

This is a US Fish and Wildlife Service funded project in progress planned in collaboration with the Tamil Nadu Forest Department, Society for Wildlife Interface and Forestry Training (SWIFT), Tamil Nadu Forest Academy TNFA, and Tamil Nadu Forestry Training College TNFTC. The ongoing project is to provide field oriented capacity building training programmes for the frontline forest staff from four tiger and four elephant reserves in Tamil Nadu, where human animal conflict is high.

The project aims to address Human animal conflict issues, to improve protection of tiger and elephant and its habitats, to form a network of frontline staff who will observe and collect data accurately, monitor and report about the various conservation issues occur in the reserves and to create tailor made training program for Tamil Nadu state forest frontline staff. As part of the project it has been planned to conduct three training programs for about 130 frontline staff who are involved in monitoring and collecting data. B.A. Daniel, PI, in consultation with TNFTC and a team of resource persons for the training program designed the syllabus and a manual for the training. All required preparations for the training and the materials has been arranged and training is scheduled to organise during July 2017.

Donor: US Fish and Wildlife Service, USA

Project Kazhiru (Elephant): Targeting to achieve zero mortality in HEC areas in partnership with Tamil Nadu Forest department.

Objective : To educate stakeholders to modify livelihood / lifestyle methods that are incompatible in HEC areas and to educate local bodies in developing safety protocols in conflict areas; To plan and organize mass awareness programmes for the community in HECx in conflict prone areas of Coimbatore forest range.

Activities: A one-day training programme will be conducted for the district administration officers, village panchayat heads and ward members in two forest ranges of Coimbatore Forest Division namely Boluvampatti and Periyanaicken Palayam forest range. In order to sensitizing the community, school teachers and students about human elephant conflict and promote human elephant coexistence, several short awareness programmes will be conducted.

Progress: Meeting with district level forest personnel were held several times. The programme will take off soon.

Donor: US Fish and Wildlife Service, USA

Sea cucumbers - healthy exotic delicacies or vital ocean cleaners?

India has over 200 species of these fascinating == creatures and many of them have high commercial value in the East- and Southeast Asian food market. This project collects evidence to find the right balance between trade and conservation of these unconventional beauties.

This project intends to tie the policymakers and communities together to inform policy on livelihood dependence, commercial pressure, illegal trade and most importantly to provide evidence to decision makers to support the listing or delisting of these highly threatened and commercially valuable species in the Indian Wildlife Protection Act, 1972.

The anticipated outcomes from the one-year project are to provide unbiased information on dependence, need, alternatives, a baseline for thorough studies, and to develop viable conservation and use strategies for highly threatened and commercially important marine species in India.

Activities undertaken:
Literature studies, communication/meetings with experts and three field trips including community interactions (Rameswaram, Sindhudurg, Cochin) were undertaken to understand existing practices of communities, their need (if any) for commercial exploitation of sea cucumbers. Out of the three locations, communities residing in one location (Rameswaram) are the only ones known to illegally exploit sea cucumbers and sea horses purely for export purposes. These animals are dried and exported to south east asian markets as food, traditional medicines and aphrodisiacs.

In addition, the communities from Rameswaram are highly emotional and strongly against the ban on sea cucumber trade. This makes it slightly challenging to conduct community interactions regarding the trade of sea cucumbers. The local fisherfolk of Sindhudurg and Cochin do not have any commercial or traditional use for sea cucumbers and encounter them mostly during monsoon as bycatch.

The field trip also supported understanding the distribution of target species, threats and trends in the wild. Sea cucumber populations were recorded from two of the locations during the field trips. Species *Holothuria atra* and *Holothuria leucospilota* were found in Rameswaram and Sindhudurg respectively. A few individuals of the highly commercial target species of *Holothuria scabra* were also spotted in Rameswaram. This target species is over exploited and more field trips maybe conducted to understand the true influence of illegal harvest on the species.

Interaction with subject experts and locals from the island territory of Lakshdweep provided us with photographic records of different species of sea cucumbers and additional information regarding trade of sea cucumbers undertaken in the islands in the past. The locals and subject experts also informed that they illegally trade in sea cucumbers occasionally but the small economic profit from the trade is not sufficient motivation for it to grow. It tends to be more opportunistic.

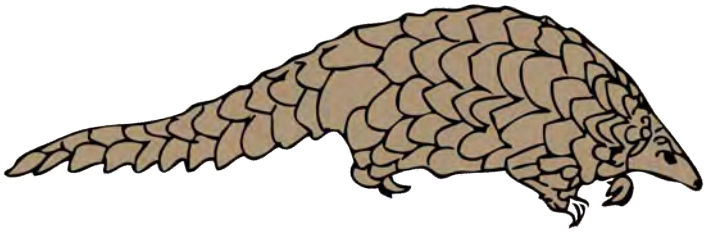
Literature review on understanding more about trade information, livelihood dependence and commercial value of the target species has been done but actual community surveys regarding the same is still to be undertaken in other locations.

Donor: Mohamed Bin Zayed Species Conservation Fund, UAE

Survey on species threats and Conservation Outreach Programmes for Indian Pangolin (*Manis crassicaudata*) in Western Ghats of Tamil Nadu, India.

Objectives: The project is proposed to collect basic information on Indian Pangolin *Manis crassicaudata* distribution locations, existing trade and ethnic use and creating awareness on species conservation among stakeholders in selected areas of nine (9) Western Ghats districts of Tamil Nadu.

Activities:
1. Couple of pre-visits were made to meet the local coordinators covering all the districts to initiate the survey.
2. The surveys were conducted in all the districts.
3. Educational materials were developed.
4. Survey analysis is going on.



Donor: Mohamed Bin Zayed Species Conservation Fund, UAE

Safe guarding the Greater One-horned Rhino meta-population in North Bengal and Uttar Pradesh, India with community support through conservation education and awareness

The USFWS sponsored project awarded to B.A. Daniel, PI was initiated in October 2016. The Greater One-horned Rhino (*Rhinoceros unicornis*) is classified as Vulnerable as per IUCN Red List Criteria. Though its population is reported to have an overall increase, some populations in Nepal and Northeastern India are declining. The goal of the project is to bring about attitudinal and behaviour change among people living Protected Areas holding Rhino small populations in India and to coexist with the animal. The objective is to identify conservation educators in rhino range areas holding meta-populations in India (other than Assam State), provide lively training and effective education materials on the Greater One-horned Rhino conservation to selected conservation educators in Dudhwa National Park, Uttar Pradesh; Gorumara National Park and Jaldapara National Park, West Bengal, India ultimately reaching to wider communities who live in and around the Protected Areas (PAs). The PI has identified partners in North Bengal and UP who will be assisting to conduct this program. A teacher's manual on Rhino conservation is now in progress which will be used during the training in both the states.

Donor: US Fish and Wildlife Service, USA

Integrating Human Elephant Coexistence in Hosur Forest Division of Tamil Nadu, India

Objective: This proposed project is to teach community who live in or nearby Hosur Forest Division, Krishnagiri District of human elephant conflict areas and teach them about safety education on human elephant coexistence through street play (*Veedhi Natakam* - is a folk theatre one of the oldest and most powerful art form in Tamil Nadu) for the communities in order to save their lives and live harmoniously with elephants.

Street play performance: The street play performance was held from 14-24 March 2017 in Hosur, Royakottai, Denkanikottai, Anchetty, Urigam and Jawalagiri forest ranges. Forest department selected the HEC villages. A total of 20 street plays were performed in 20 villages at the six forest ranges. The street plays got very good response from the villagers.

Donor: International Elephant Foundation, USA

Human Elephant Conflict Impact Assessment and Awareness on Human Elephant Coexistence in Coimbatore, India.

Objective:
In this project, in order to identify the core cause for HEC, a survey to understand the socio economic issues such as crop and property damage, human and elephant deaths and people's tolerance towards the problem elephants in ten selected human elephant conflict areas of Coimbatore division will be conducted and followed by Human Elephant Coexistence awareness programmes will be conducted.

Activities:
1. The surveys were conducted in all the 10 villages.
3. The survey data compiled and analyses were performed.
4. Education materials developed. The printing will be done in upcoming months.
5. The awareness programmes will be conducted next year

Donor: The Rufford Small Grants, UK

Conserving Livelihood and the Himalayan Grey Langur in the Chamba Valley of Western Himalaya

The Chamba Sacred Langur (*Semnopithecus ajax*) is one of the little known and highly threatened primates of the Indian subcontinent. The species was described in 1928 by the famed British naturalist, Reginald Innes Pocock, in his article to the Journal of Bombay Natural History Society titled 'The Langurs, or Leaf monkeys, of British India'. Little was known of the species, its ecology and conservation status, warranting immediate research and conservation action (Molur et al. 2003). Human-primate conflict is burning issue in Chamba with 76 of the 244 surveyed sites reporting conflict with langurs due to their crop raiding practice. No crop-protection system in place in any of these sites. In certain sites, farmers report extreme helplessness in controlling langur crop raid. The helpless attitude spurs antagonism and has adverse conservation implications.

The project was initiated in 2014 to mitigate human-langur conflict due to crop raiding in Chamba by methodological study of conflict situation, implementation and evaluation of site-specific crop raid deterrents to control and/or reduce crop loss due to crop raiding—through concerted stakeholder run HWCx Programme. In conducting the first phase of studies the CLP team had to spend a lot of time building a rapport with the communities and eventually conduct questionnaire surveys through frequent visits. The results indicated that langur raids were inconsistent and not the primary threat to crop loss in most cases. The results of the study show an increase in trend to crop damage and negative tolerance towards langurs. Four farmers agreed to participate in mitigation strategies, but due to lack of basic biological data on raiding behaviours, native food plant preferences and migrations, adequate strategies could not be developed for mitigatory actions. This was a major drawback which resulted in two of the four objectives not being met. However, womens' participation in the surveys were ensured. In addition informal outreach programmes were carried out.

Objectives:

1. Analyze cause of crop raiding, community's perception of raiding, defination of loss, community's attitude towards crop raiding langurs and their solution to the issue. Understand raider behavior and quantify damage due to crop raiding langurs. (Achieved)
2. Plan, implement and evaluate site-specific crop raiding deterrents through a stakeholder run HWCx programme. (To be done)
3. Gender inclusive approach to conflict mitigation: Involve all members of the community in the system to promote gender equality and an unbiased evaluation of intervention. (Achieved)
4. Establish, monitor and contribute to HWCx programme to promote and strive for sustainable living and therefore benefit conservation of *Semnopithecus ajax*. (To be done)

Future Plans

1. Document food habit and food species preference in the wild.
2. Vegetation sampling from forest patches in and around Kalatop- Khajjiar Wildlife sanctuary to analyze the distribution and abundance of food for Langurs.
3. Organizing education programs in schools that would aim to foster and engender a conservation sensitive behavior and ecological awareness in schools.
4. Meeting with villagers to design raid deterrents, implement and evaluate.
5. Establish the HWCx Programme. Identify leaders from the community to carry the program through and engage in knowledge sharing with other affected communities.

WILD – School Outreach Program for Yellow Train

Why Biodiversity?

Biodiversity, environment and ecology are rapidly becoming catch phrases globally today. Unfortunately, all that most urban children get to see of them is theoretic or on television. Consequently, many children are unable to conceptualise and fathom the vast amounts of information that they are now privy to, often creating a disconnect between children and their natural surroundings – even on the lovely campus of Yellow Train.

Term One

A. Study sites

1. The children were given a brief introduction to the importance of research and how to maintain observation books by Payal Molur: concepts of time, weather conditions and habitat influencing animals was also discussed.
2. Creation of the bio-map of the study site, division into teams and illustrating the study areas on paper.
3. A weekly observation sheet maintained by the teams for their study sites to record and document the animals seen and the behavior displayed by the animal.
4. Armed with the knowledge the children now set out to make a giant map depicting the same information in a colourful display that after 6 months will showcase what animals inhabit which parts of the school and a preliminary analysis as to the reasons why there could be a higher intensity of species in one area over another.

B. Fact Files and Knowledge gained

1. The children were given a brief introduction about classification of animals into vertebrates and invertebrates by Dr. B A Daniel.
2. A brief introduction to spiders and Aquatic invertebrates.
3. The magic of evolution and how it governs and who survives.
4. Games and activities were done to illustrate adaptation – opposable thumb, echolocation, walk like an animal, do I live here.
5. The children also learnt to differentiate between the cats based on the patterns
6. The children learnt about the only ape found in India the Hoolock Gibbon and how they call and Brachiate.
7. The students are maintaining their own fact file cards or species cards for each of the animals they see in their study sites.

Term Two

A. Wetlands and Birds

1. Understanding the importance of wetlands and freshwater systems were the main topics for term two.
2. Priyanka Iyer gave talks on wetland birds highlighting the ones that are found in Coimbatore. How to identify birds, how to use binoculars and some basic biology of birds.
3. Dr. Sanjay Molur gave talks on wetlands of Coimbatore, importance of River Noyyal and the basics of wetland ecology
4. The kids were then taken on a field trip to a wetland near the school. Along with the Perur Coimbatore Nature Society the children spent three hours at the site and recorded 24 species of birds. They were also very lucky to spot Bar headed Geese in Coimbatore for the first time.

B. Graffiti

1. Spreading the message of conservation is one of the keys to conservation. What is learnt must be disseminated to family and friends. To aid in that the children decided to create graffiti boards to highlight the different species and inspire to protect.
2. 5 groups were formed each representing a set of animals with a conservation message. This activity was conducted by Payal Molur.

Pond

The final term was the most exciting with the building of the pond. The entire effort was done by the kids with guidance from the Dr. Sanjay Molur and the rest of the WILD team. Here they understood dynamics of physics, biology, math and ecosystem management while making the pond.

Exhibition for the Parents

As a culmination of the entire years project the children put up an exhibition to showcase their learning. Each group presented a theme and had the parents play some of the games or activities they had done during the class.

Alliance for Zero Extinction Projects

1. Chamba Sacred Langur -- The project on studying and understanding human-langur conflict efforts were carried out on this Endangered Himalayan langur which is endemic to the Chamba Valley in Himachal Pradesh. Extensive community surveys were conducted of agricultural practices and the impact, if any, of the langurs on the crops. This led to the identification of probable threats and conflicts for the species. The reduced number of individuals and restricted area of distribution coupled with degrading habitats, loss of fruiting trees and native vegetation has resulted in the langurs seeking alternative sources of food.

2. Humpback Mahseer -- From the efforts of collaborators following up on the assessments ZOO had conducted on freshwater biodiversity, it is now understood that the Humpback Mahseer in the river Kaveri is restricted most probably to a small stretch of the Moyar River in Satyamangalam Tiger Reserve. Based on the initial findings, we initiated a preliminary survey and also attended a Mahseer meeting in Lonavla with Tata Hydropower to encourage them to stop introducing hybrid Mahseers into Kaveri that threatened the native endemic Humpbacks.

3. During the course of our work on chytrid assessments on amphibians in the past years, we realised that some amphibian populations were new species restricted to either a single location or small restricted areas. Based on this a few new species of amphibians were described, the most significant ones (although not all AZE species, but close) include Indirana sarojamma, I. tysoni, I. yadera, I. duboisi, and a new genus Sallywalkerana. Further research may indicate some of these species to be highly restricted.

MOSI Project (Mosquito Onset Surveillance Initiative)

Mosquito Onset Surveillance Initiative (MOSI) project is a permanent international mosquito monitoring program initiated in 2010 by the World Association of Zoos and Aquariums (WAZA) and the Institute for Zoo and Wildlife Research (ISW), in concert with the Zoological Society of London (ZSL) and Imperial College. B.A. Daniel, PI, is one of the invertebrate specialists helping to develop this initiative, which includes setting up a monitoring initiate in India. Coimbatore, at the foothills of the Western Ghats, a suitable place to do this as it is located on a critical ecological location. A pilot project was conducted before initiation of this project and two strategic locations within Coimbatore city have been identified. As part of it monitoring mosquito species distribution, population abundance, activity periods, and other behavior etc., is an important human and wildlife health management requirement, especially in such potentially mosquito favourable locations as Coimbatore. In the natural ecosystem, equilibrium is maintained between human, wildlife and disease vector communities. However, human induced environmental changes, including climate change are increasing the possibility of disease vector mosquito species and their associated diseases being introduced to new areas or extending their range. Monitoring is essential if such chances are to be detected. As part of it PI visited Vector Control Research Centre, Pondicherry to confirm species identified. Daily observation is in progress. **Donor:** Zoological Society of London, UK

University students Internship training program on invertebrate studies

This year seven students from the Department of Zoology, Bharathiar University took part in three week internship training at ZOO under the guidance of B.A. Daniel during the month of methodology and reporting process. This June 2016. The contributed their time in Mosquito surveillance project and learned research is a part of the student's requirement for the fulfilment of the Master program.

Elephant conservation welfare training for temple mahouts and cawadi

The Hindu Religious and Charitable Endowments HR&CE Department in Tamil Nadu, India maintains captive elephants in different institutions including temples. A study in 2008 on the status of captive elephants in Tamil Nadu state recommended that those elephant handlers require proper training so as to improve the welfare of the temple and private elephants and this recommendation remains unfulfilled. PI, B.A. Daniel visited the Chairman of HR&CE and planned the project time line. Also worked towards developing a mobile application that will be tried with mahouts during future training program. Donor: International Elephant Foundation, USA

Conservation Education and Capacity Building for Tiger Conservation in the Protected Areas of Arunachal Pradesh

Objectives: The project is intended to provide Conservation education training to groups of teachers, non-governmental organisations, volunteers and capacity building training for forest front-line staff in Arunachal Pradesh.

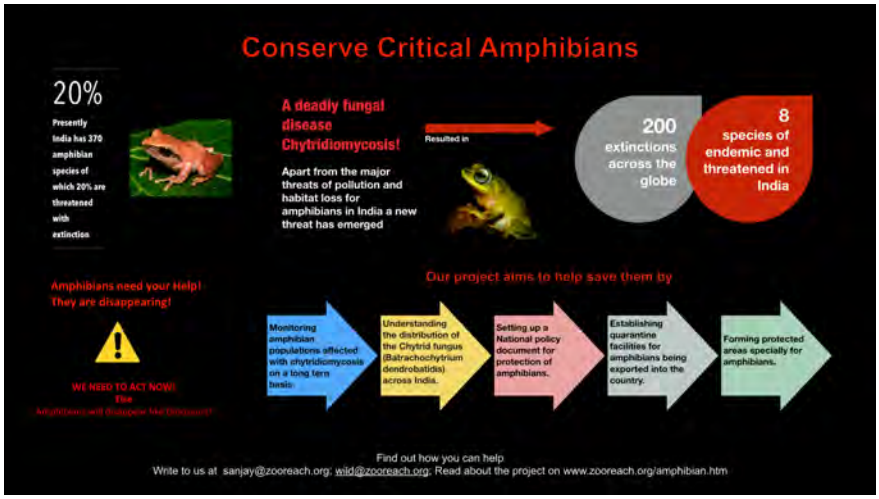
Activities: The proposed project is more based on these actions 1. Educate the people in order to engage them in tiger conservation and 2. Provide capacity building training programme for forest front-line staff for better management of tiger habitats. The objective of the project is to teach about 40 significant people and capacity training for 40 persons in the range of Tiger in Arunachal Pradesh, the importance of conserving this species and also how to teach others the importance of conservation in the same manner. Forest front-line staff of Namdapha Tiger Reserve and Pakke Tiger Reserve will be invited for Capacity Building training.

Progress: A pre visit will be made soon to the project area to meet the forest department officials to chalk out the working plan to carry out the project in August and September 2017.

Donor: US Fish and Wildlife Service, USA

Evaluation of the Amphibian Chytrid Fungus (*Batrachochytrium dendrobatidis*) on the amphibians of the Western Ghats.

What is Chytridiomycosis?
It is a fungal disease caused by the Amphibian Chytrid Fungus (*Batrachochytrium dendrobatidis*). This fungus grows on the skin of amphibians, and blocks the inner mechanisms helping in water regulation of the amphibian body. As an end result it leads to internal bleeding and a heart attack. It was first reported in 1997 from Panama on the Golden frog (*Atelopus zeteki*) and is now estimated to threaten more than 200 species of amphibians out of the 6000 known species, with extinction.



We at WILD are conducting surveys across the Western Ghats to collect information on the occurrence of the disease using a non–invasive swabbing technique.

Our main objectives are:

1. To standardize a non–invasive field sampling protocol with quarantine procedures.
2. To standardize laboratory processing protocols to check for the presence or absence of the fungus.
3. Establish long term monitoring protocols.
4. Formulate a policy document for the Government of India on import of exotic trade within the country.
5. Generate maps on the incidence of the disease.

Donor: Mohamed Bin Zayed Species Conservation Fund, UAE

ZOO's Publications

ZOO's Print Magazine
April 2016 – March 2017 (12 issues) (New format since Jan 2017)
http://www.zoosprint.org

Journal of Threatened Taxa
April 2016 – March 2017 (14 issues which includes 2-monographs | 1,380pp)
http://www.threatenedtaxa.org

Network Member Directories
http://zooreach.org/Networks/Chiroptera/CCINSA_directory.pdf
http://zooreach.org/Networks/Primate/Primate_directory.pdf
http://zooreach.org/Networks/Rodent/RISCINSA_directory.pdf
http://zooreach.org/Networks/Education/ZEN_directory.pdf
http://zooreach.org/Networks/Primate/Hoolock_directory_2006.pdf
http://zooreach.org/Networks/Invertebrate/IPNSA_directory.pdf
http://zooreach.org/Networks/RSG/RSG_Directory.pdf
http://zooreach.org/Networks/CBSG/CBSG_SA_Directory.pdf

Newsletters

Bugs R All
Newsletter of the Invertebrate Conservation & Information Network of South Asia (ICINSA)
http://www.zoosprint.org/ZoosPrintNewsLetter/BugsRall_No_22_May_16.pdf

Reptile Rap
Newsletter of the South Asian Reptile Network (SARN)
http://www.zoosprint.org/ZoosPrintNewsLetter/ReptileRap_No18_Nov16.pdf

Education materials developed by ZOO

Packet:
Getting along with Elephants (Ele-kit pkt in Nepali version)
(Donor: Asian Elephant Support)

Posters
Human Elephant conflict Poster (24x36)
Dos and Don't poster (11x17)

Teaching Guide
HECx Getting along with Elephants - Teaching guide Tamil version (Sep 2016)

ZOO's Animal Welfare Fortnightly 2016 programme at Coimbatore, TN

World Environment Day at Corporation HSS (Boys) Ramanathapuram, Coimbatore

Thanks to our 2016 Donors!

Asian Elephant Support, USA

Chester Zoo, UK

Conservation Planning Specialist Group, USA

Critical Ecosystem Partnership Fund, USA

International Elephant Foundation, USA

Mohammed Bin Zayed Species Conservation Fund, UAE

US Fish and Wildlife Service, USA

Zoological Society of London, UK

Zoo Outreach Organisation, USA

Zurich Zoo, Switzerland