

Report on Pollinators Education Materials Sponsored by Columbus Zoo and Aquarium, USA

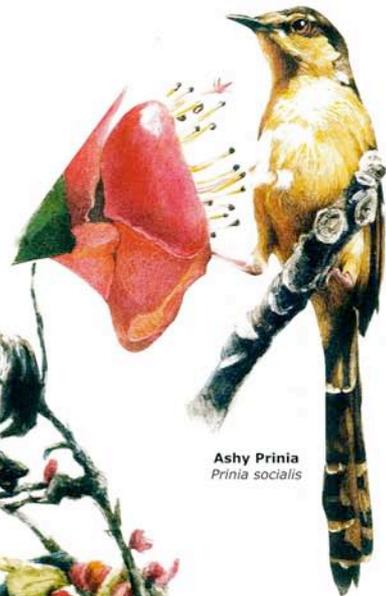
Pollinators! not just bees!

Pollinators come in all species, sizes, shapes and shades



Fulvous Fruit Bat
Rousettus leschenaultii

Hanuman Langur
Semnopithecus entellus



Ashy Prinia
Prinia socialis

Common Rose
Pachliopta aristolochiae



Blister Beetle
Mylabris sp.



Sand Wasp
Crabronidae



Garden Lizard
Calotes versicolor



Indian Palm Squirrel
Funambulus palmarum



Invertebrate Pollinator Network of South Asia (IPNSA)
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ZOO Poster # 41, Sep2012

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Zoo Outreach Organization *hosts* a network called the Invertebrate Conservation and Information Network of South Asia (*ICNSA*), founded by Dr. B.A. Daniel. After some years Dr. Daniel set up the sub-network, Invertebrate *Pollinator* Network of South Asia (*IPNSA*). The Invertebrate Network caught the attention of Dr. Michael Samways, Chair of the IUCN SSC Invertebrate Specialist Group a few years ago and ultimately Dr. Samways requested Daniel to form and Chair a separate Invertebrate Network of South Asia.

As part of the network's educational activities, Daniel and colleagues developed pollinator education packets entitled "Pollinators! not just bees " and a colour poster sponsored by Columbus Zoo and Aquarium. The packet items include an information booklet on pollinators, headband, placard and medallion with pollinator's information. The poster contains different colour images of invertebrate and vertebrate pollinators. Two thousand packets and posters were printed for distribution.

The objective of the education kit is to make people aware that there are both invertebrate and vertebrate pollinators. Moths, bees, beetles, flies, wasps and butterflies are invertebrate pollinators and bats, rodents, shrews, primates birds, reptiles are vertebrate pollinators.

ZOO invited the most active educators to conduct programmes with groups of 30-35 students or other participants to utilize the packets in teaching them about various pollinators, problems and conservation measures. They then conduct real programmes using all the materials in the packet to make it more interesting. They also provide a report when they are done.

This year for Wildlife Week, we had 35 organizers who ran programmes. Illustrated reports on the Wildlife Week Pollination education programme were generated by the organisers for publication in ZOOS' PRINT, and are included below.

Of the **2000** packets and posters, **1735** were distributed to organizers and participants for Wildlife Week distributed in the international and national meetings and workshops by our staff. The remaining packets were kept for the upcoming pollinator training workshop.



Pollinator Packet and Poster Distribution- Wildlife Week 2012

S.No	Name and address of the person	Packets ordered
1	Vinod Kumar Damodar , Joint Secretary Conservation of Nature Society, Calicut, Kerala	40
2	Jessie Jeyakaran Plot No. 42, K.P. Nagar, Ramapuram, Chennai, TN	50
3	S. Sivakumar , Programme Officer Sundaravan, Ahmedabad, Gujarat	50
4	Mangal Kachhap , Range Forest Officer Dalma Wildlife Sanctuary, Jamshedpur, Jharkhand	50
5	Seema Rani , Biologist Cum Education Officer Tata Steel Zoological Park, Jamshedpur, Jharkhand	50
6	A.K. Jha , Director P.N. Himalayan Zoological Park, Darjeeling, West Bengal	50
7	C.M. Seth , Chairperson WWF- India, Jammu & Kashmir	50
8	T.J. Ravikumar , Deputy Conservator of Forests Shimoga, Karnataka	50
9	The Head Master Lalitha Primary School, Kallidaikurichi, TN	50
10	R. Aiswariya , Trustee & Prog. Coordinantor TREE Trust, Kallidaikurichi, TN	50
11	Payal Narain , Senior Manager WWF India, New Delhi	50
12	A. Kumaraguru Biodiversity Cons. Foundation, Trichy, TN	50
13	Sangita Saxena , State Director WWF-I, M.P. & CG State Office, Bhopal, Madhya Pradesh	50
14	Bijaya Kumar Kabi , Director APOWA, Kendrapara, Odisha	50
15	Bablu Dey , Executive Director Green Hearth Nature Club, Kokrajhar, Assam	50
16	H.J. Bhandary , Director Pilikula Biological Park, Mangalore, Karnataka	50
17	K.L.N. Murthy , Education Officer Indira Gandhi Zoological Park, Visakhapatnam, AP	50
18	Ajith Kumar Bhowmik , Director Sepahijala Zoological Park, Tripura	50
19	D.N.F. Carvalho , DCF WL & Eco - Tourism (North), Panaji, Goa	50
20	Anil M. Anjankar , Director V J Bhosale Udayan & Zoo, Mumbai, Maharashtra	50
21	Satyanarayan Mishra , Curator Indira Gandhi Park Zoo, Rourkela, Odisha	50

22	Ojas Mali , Secretary NEST, Nashik, Maharashtra	10
23	Goutam Sharma , Student J.N.V. University, Jodhpur, Rajasthan	50
24	A.K. Sivakumar , Senior Education Officer WWF-India, Thiruvananthapuram, Kerala	50
25	Amitabh Agnihotri , Director National Zoological Park, New Delhi	50
26	Sitaram Taigor , Secretary General Chambal Conservation Initiative, Gwalior, MP	50
27	Puja Vijay Sukhija , Executive Director OASIS, Mumbai, Maharashtra	50
28	P. Ramesh , Founder Nethaji Snake Trust, Usilampatti, Madurai, TN	50
29	Amita Kanaujia , Associate Professor University of Lucknow, Uttar Pradesh	50
30	Bhim Singh Rawat , Project officer PEACE Institute Charitable Trust, New Delhi	50
31	Mahakram Vishnoi , DCF Wildlife Jodhpur Zoo, Rajasthan	50
32	W. Joel Revingston , Headmaster Samaria St. Johns H.S. School, Thisayanvilai, TN	50
33	Anil Kumar Chhangani , Associate Professor Maharaja Ganga Singh University, Bikaner, Rajasthan	50
34	S. Marimuthu , Student Shengottai, Tirunelveli, TN	50
35	Payal Bhojwani Molur Go Wild Workshops, Coimbatore, TN	60
36	Sanjay Molur , Exe. Director Zoo Outreach Organization, Coimbatore, TN	10
37	Mr. G. Rangaswamy , Secretary NBNP, Coimbatore, TN	15

Short reports of some organisations utilizing the Pollinator education materials sponsored by Columbus Zoo & Aquarium

Indira Gandhi Zoological Park, Visakhapatnam, Andhra Pradesh

Wildlife Week was observed at Indira Gandhi Zoological Park, Visakhapatnam from 1-7 October 2012. The weeklong celebrations included various education and awareness programmes conducted by the zoo management in collaboration with Zoo Outreach Organization, Coimbatore. More than 300 students ranging from II – X standards participated in various programmes



throughout the week. Two separate education programmes on different themes namely "Pollinators" and "Wildlife Welfare" were conducted on October 2 and October 3 respectively. The programmes kicked off with a briefing session to the students on issues pertaining to the ecological role of pollinators in nature, why to save wildlife, endangered species conservation, Do's and Don'ts in a zoo etc. The students took a rally at the zoo by using the educational materials (wrist bands, masks etc) sponsored by Z.O.O, Coimbatore. **Submitted by: Mr. K.L.N. Murthy, Biologist. Email: klnmurthy25@gmail.com**

National Zoological Park, New Delhi

The wildlife week program was celebrated from 1-7th Oct 2012. Different schools participated in on the spot painting, clay modeling, essay & debate, wildlife quiz competitions and awareness programme. On 06 October a special awareness programme on "Pollinators not just bees" was conducted for Little Star Public School, New Chauhan Pur, Delhi. They were told about the different



kinds of pollinators through a talk and followed by tying rakhi and taking oath. Kits provided by Zoo Outreach Organization provided to the school children. On 7 October, Mr. Mohammad Saffi, IIPC gave a special talk on conserving the pollinators and in order to create awareness among local visitors, a movie on pollinators was also shown. Media such as Hindustan Times, Tamil Today, National Dunia etc. covered the event. We would like to thank Zoo Outreach Organization, Columbus Zoo & Aquarium and South Asian Invertebrate Specialist Group for providing such informative packages that are highly applauded by the masses and are proving to be a boon for the wildlife conservation. **Submitted by: Mr. Riaz Ahmad Khan, Curator (Edn) & Mr. Saurabh Vashisth, Edn. Assistant. Email: vashisth88@gmail.com**

Tata Steel Zoological Park, Jhamshepur, Jharkhand

Tata Steel Zoological Park celebrated 58 National Wildlife Week by organizing various educational awareness programmes. On the spot painting competition was organized in collaboration with Acharjyo Nandalal Bose Art Gallery, The Bengal Club and Zoo Outreach Organization. Students were divided into 4 categories, Junior (K.G to Std.1), Primary (Standard-II to V) Middle (Std.VI to VIII) and



Senior (Std. IX to X), the themes were an animal, an animal in the zoo, pollinators and wild animal habitat respectively. A record of 1200 students participated in the competition. To create awareness and generate a better understanding of their respective themes, we distributed the pollinator materials that came from the Zoo Outreach Organization. **Submitted by: Ms. Seema Rani, Biologist cum Education Officer. Email: cmarani00@rediffmail.com.**

Dr. Shivaram Karanth Pilikula Biological Park, Mangalore, Karnataka

During wildlife week drawing and quiz competitions for school children were conducted and more than 400 children participated Public function was conducted, more than 1,000 zoo visitors and students attended. H.J. Bhandary, Director spoke on importance of the Wildlife week celebration. Chief Guest Sri. Ajith Kumar Hegde, Executive Director, Pilikula Nisarga Dhama distributed the prizes to the winners. Education kits supplied by the Zoo Outreach Organization, Coimbatore on Bats, **Pollinator** and Wild flora and fauna were distributed to the participants and also a informative session on these were conducted by Dr. Vibha, Veterinary Officer and Vikram Lobo, Scientific Officer, Pilikula Biological Park. Mr. H.J. Bhandary, Director, Pilikula Biological Park thanked the Zoo Outreach Organization for providing necessary educative materials kits for the participants. **Submitted by: Mr. H.J. Bhandary, Director. Email: pilikulazoo@gmail.com.**

Padmaja Naidu Himalayan Zoological Park, Darjeeling, West Bengal

Wildlife week 2012 was celebrated at Padmaja Naidu Himalayan Zoological Park, Darjeeling. The focus of this year's programme was on changing



attitudes of children towards wildlife. About 400 students and 40 teachers from West Point School, Kumudini Homes Higher Secondary School, Divya Jyoti School, St. Robert's Higher Secondary School, Gyanoday Niketan, Living

Stones Academy, Bright Academy, Kanchanjunga Primary School, Municipal Boys' Primary School and Hill Social Welfare Society participated.

Educational materials received from Zoo Outreach Organization include "**Pollinator! Not just Bees**", "End of the year of the Bat Threats remain", "Daily Life Wildlife", posters, postcards, and different masks of animals were used. Different schools were invited and explained about the educational kits and the aim of the programme

They were explained about the Pollination- definition, its importance, types of pollination & pollinators, role of pollinators and finally our role to keep their environment clean and healthy by using the kits. The students were asked to tie rakhi as a symbol of their commitment to conservation. Posters were given to the teachers and asked them to hang on their school notice board. The animal masks were distributed to the primary level students. Educational materials including Zoo's publication were distributed to the students and teachers including refreshments. **Submitted by: Mr. Alankar.K. Jha, Director. Email: alankarkjha@gmail.com.**

Sepahijala Zoological Park & Wildlife Sanctuary, Tripura

Like every year for celebration of 58 Wildlife Week-2012 in a befitting manner, we convened a preparatory meeting including all representatives of this surrounding area and the Presidents of EDCs, school authority, ICAT, Sports, Fire service and Clubs etc.. The district level competition was held at Sepahijala on 16 October. In this programme we explained about the **Pollinator** education materials received from Z.O.O among students of Schools & Colleges. The students and the teachers were very much enthusiastic and pleased to have the materials. After all, the materials received from Z.O.O were very much useful for generating awareness programme among youths. Submitted by **Mr. A.K. Bhowmik, Director. Email: dszoo141@gmail.com.**

Indira Gandhi Park Zoo, Rourkela, Odisha

Horticulture Department, SAIL, Rourkela Steel Plant has been celebrating wildlife week since 2007 to create and spread awareness among the school students. To mark the occasion, IG Park Zoo, SAIL, RSP, Rourkela has organized to celebrate 58th Wildlife Week for three days. The education materials provided by Zoo Outreach Organization (ZOO), Coimbatore, TN helped to organize different interactive sessions among the students.

On 5 October, a programme was arranged for Thirty-four students and two teachers of Delhi Public School, Sector-14. Mr. T.B. Toppo, Assistant Manager, emphasized the importance of the wildlife conservation in present scenario unless it will be too late to see the animals in the pictures only. Mr. V.K. Garg, forward the session highlighting the forest conservation in our State. The session went on with the interactive session by Mr. S. Mishra, and he interacted with the students with special reference to the pollinators. The students were well understood about the **pollination** process and how important are the



pollinators in the propagation of the plants. The education materials provided by the Zoo Outreach Organization (Z.O.O.), Coimbatore, TN were distributed to the students. The students were explained regarding the contribution of different group of animals towards the pollination processes, which is directly related to plant propagation. The students also put forth their understanding, as fruits that we eat are also the result of the pollination. **Submitted by: Mr. Satyanarayan Mishra, Curator. Email: satyanarayanster@gmail.com.**

Veermata Jijabai Bhosale Udyan-Zoo, Mumbai, Maharashtra

The Wildlife Week festivities were flagged off on 1 October 2012 with pledgetaking. On 2 October 2012, a drawing camp for the students of Gurukul School



of Art, Lalbaug, Mumbai was organized. In all 107 school students participated in three categories. A presentation of the Educational materials received from the Zoo Outreach Organization, Coimbatore was made and the same was distributed among the participating children. The Educational packets on the topics, **pollinators**, animal welfare, vultures and bats were received from the Zoo Outreach Organization, Coimbatore. A demonstration on how to use the materials for creating empathy and awareness about these non charismatic animals such as pollinators, bats, vultures in particular and wildlife in general was given to the teachers participated in zoo awareness programmes on 1 and 4 October and the school students participated in the drawing competition held on 2 October 2012. The educational packets were given to students and teachers after the programme. The teachers expressed that the material is highly useful for conducting awareness programmes in their schools. **Submitted by: Mr. Anil M. Anjankar, Director. Email: vjbudyanzoo@yahoo.co.in**

Nethaji Snake Trust, Madurai, Tamil Nadu

NEST conducted education programmes during wildlife week. On 4 October the programme was held at P.M. Thevar College, Usilampatti, Madurai. About 800



students participated. Mr. Balakrishnan, Supt. of Police, Madurai was the chief guest and he talked to the students about the need to conserving wildlife. Dr. V. Muruganandan, Principal of the college talked about the global warming. Mr. Balasubramaniam, Secretary of the College shared some rare information about the fruit eating bats. Mr. Ravichandran, Forest Ranger described about the Indian Wildlife Protection Act. Mr. Ramesh, Founder of Nethaji Snake Trust gave detailed information of wildlife and particular about **pollinators**. Students planted saplings and set up herbal garden at the campus. They all wore the

masks and took an oath to save wildlife. Mr. Masanam, President of the college gave vote of thanks. **Submitted by: P. Ramesh. Email: ramesh_nsrc@yahoo.com**

Lucknow University, Uttar Pradesh

Department of Zoology celebrated Wildlife Week sponsored by Zoo Outreach Organization's Educator Network (ZEN), and Regional Science City, Lucknow. It was conducted at Regional Science City involving more than 700 students of class 4-8, High School, Intermediate, as well as Graduate, Post-graduate,



N.S.S. (National Service Scheme), N.C.C. (National Cadet Corps), Rover & Rangers (Bharat Scouts & Guides) from about 35 schools, colleges and Universities of Lucknow. It began with a "Wildlife Awareness Car", flagged off by Mrs. Meena Misra, wife of the Vice Chancellor Prof. M.K. Misra. The car was then taken around the Lucknow City by Mr. Nafees Aalam and Mrs. Sheel Tiwari to make aware the public through the distribution of various flyers (turtles, eagles, vulture, sparrows, **pollinators**, amphibians etc.)

On 5 Oct, students from HAL School presented on the spot skits on vulture, **pollinators** and bats conservation with the help of awareness materials received from Zoo Outreach Organization's Educator Network (ZEN). On 6 Oct. more than 70 students from different schools and colleges participated in Rangoli competition. The school students interacted and learnt a lot from the material in display from Zoo Outreach Organization, Tamil Nadu as well as Dept. of Zoology, University of Lucknow, Regional Science City and U.P.State Biodiversity Board. **Submitted by: Dr. Amita Kanaujia. Email: kanaujia.amita@gmail.com**

Sundarvan, Ahmedabad, Gujarat

Sundarvan designed and conducted activities for different walk of people during wildlife week. A one day filed outing to Hingolgadh and Lothal was



arranged for general public on 7 October. Apart from regular activities, importance of **pollinators** was explained to the participants using the education materials supplied by ZOO. **Submitted by: S. Sivakumar, Email: wildlifessiva2050@gmail.com**

Maharaja Ganga Singh University, Bikaner, Rajasthan

The wildlife week-2012 organized by Dept. Env. Science was inoculated by Prof. A.K. Gehlot, Vice Chancellor of Rajasthan Veterinary University, Bikaner on the 1 October, 2012. Day six and seven, the trained participants were sent in small teams to various schools and colleges of Bikaner city and also the places where children who do not go to school. They organized wildlife awareness programs on **pollinators**, bats, vultures through



play, talk in local language and distributed the various education and awareness material provided by the Zoo Outreach Organization. All the participants were awarded with the certificate and winners of the various competitions awarded with the prizes. **Submitted by: Dr. Anil Kumar Chhangani.**
Email: chhanganiak@yahoo.com.

Biodiversity Conservation Foundation, Trichy, Tamil Nadu

Biodiversity Conservation Foundation (BCF), a NGO based at Trichy, celebrated this week and achieved the goal of this week through four different programs based at Sathyamangalam, Nagapattinam and Trichy. TNFD, Trichy which has



extended their support to conduct the wildlife week celebration exclusively for four days (October 10 - 13, 2012) at Poomalai Commercial complex, Trichy. Along with our photo exhibition we displayed the importance of **pollinators** (supported by ZOO) and global warming. Mrs. Jayashree Muralidharan, Collector of Trichy, inaugurated the wildlife photo exhibition and the documentary session on wildlife was inaugurated by Mr. Balamurugan, Regional Passport Officer, Trichy.

The theme of pollinators was focused to create awareness among students and people of the importance of pollinators in an ecosystem. However, tigers, lion and other charismatic species attract much attention from the government as well as field biologists during the Wildlife Week. But there are other species that are indispensable for the fragile ecosystems. And there are other species on the verge of extinction or endangered and also as important as tigers for the balance of ecosystems. Other animals, which are significant in an ecosystem, are pollinators, which include several fauna such as bats,

butterflies, garden lizard, birds, monkeys, beetles and squirrels. The exhibition has been visited by more than 350 people mainly families along with their kids. Interactive sessions with them helped us to disseminate the importance of wildlife and to educate them that the key global wildlife conservation in the 21st century will be to craft solutions that meet the integrated ecosystem approach. BCF also thanks Zoo Outreach Organization, SASISG, and Columbus Zoo and Aquarium for the education materials. **Submitted by: Dr. Kumaraguru.**
Email: bioconserve2010@gmail.com.

Ebbas Girls, Hr. Sec. School Chennai, Tamil Nadu

Three conservation education awareness programmes were conducted during wildlife week on the theme daily life wildlife, pollinators and bats with the materials received from Zoo Outreach Organization.

Pollinators: The programme was held at Ebbas GR. HSS Chennai for about forty students of class 8 and their teachers on Pollinators on 9 Oct. 2012. Mrs. Jasmine Daniel, Head Mistress gave the welcome address. After the introductory talk on wildlife week, the booklets were distributed. Brightened were the students' faces, while they looked at the pictures on a bright white paper. With an uncontrolled voice they showed the bats, monkey and gecko pictures to one another. Mrs. Jessie Jeyakaran briefed about ZOO and Columbus ZOO and Aquarium USA and South Asian invertebrate specialist group. On having the tag on pollinators-Save all Our Lives!!! They came to know the best pollinator is BEES. Their postures changed when they hold the placard with primates are also pollinators.





They tied up the head band-pollinators came in all species, sizes, shapes and shades to each other happily. The details about the pollinator, their importance, kinds, and their decline in number were explained. The percentage of pollinators in the world has kindled their minds. The students collected their experience during bees and wasp bites and concluded that their sufferings at that particular time are nullified when compared to the benefits of this little creature. No Pollinators-No Plants-No Food-No Survival-this has turned into the thought for the day. There was a role-play with tag, bees-flower-honey besides a drawing competition. The winners were awarded with pictures. The students were divided into four groups to identify the pollinators in the campus. A follow up of data collection on pollinators in the campus during different months in different areas was given. All the participants and teachers filled with new experience departed to decentralize the days experience to others. **Submitted by: Mrs. Jessie Jeyakaran. Email: jessiejey@rediffmail.com**

Education Packet Materials



Pollinators! not just bees! Pollinators come in all species, sizes, shapes and shades



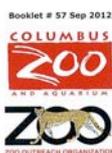
Invertebrate Pollinator Network of South Asia (IPNSA)

Invertebrate Conservation Centre, Zoological Society of London is helping to run a pollinator conservation activity for South Asia named Invertebrate pollinator Conservation and Information Network of South Asia. This is a project of Zoo Outreach Organisation in collaboration with Specialist Groups of Species Survival Commission of IUCN. The Pollinator Network confidently states that "no pollinators = no plants = no food = no survival. We are working towards pollinator protection. For more details email us.



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Primates
are also
Pollinators!

