

Zoo Outreach Organization (ZOO) promotes Conservation Education in South Asia

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Zoo Outreach Organization

A non-governmental organization,
Registered Society with strong links to
government organisations.

Founded in 1985 by **Ms. Sally Walker** with
funds from the then Department of
Environment, Government of India.

Focus on biodiversity conservation, wildlife
welfare, research and education.



ZOO's Objectives are to:

...Provide technical and educational support for zoos.

...Enhance the public image of zoos.

... Liaise between local, national, international interests for the benefit of Indian zoos



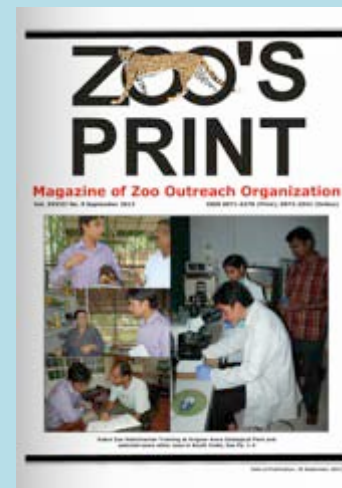
... Lobby for organizations and legislation affecting zoos and animal welfare in zoos.

ZOO's Major Activities

IUCN Networks: Hosting IUCN Specialist Groups in South Asia: Conservation Breeding S.G., Reintroduction SG, Primate SG, Chiropter SG, Insect SG, FFSG.

Z.O.O. Networks: Education, Amphibian, Reptile, Rodentia & Insectivora, Climate Change and South Asian Zoo Association for Regional Cooperation *SAZARC*.

Publications:
ZOO's PRINT Magazine
Journal of Threatened Taxa
& various Network Newsletters.



ZOO's Education activities

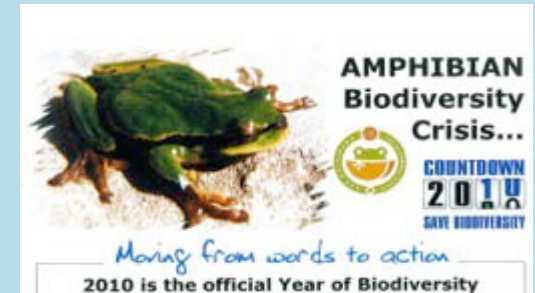
One of ZOO's primary projects and networks is *zoo and wildlife conservation education* since its inception.

ZOO's Educator Network (ZEN)



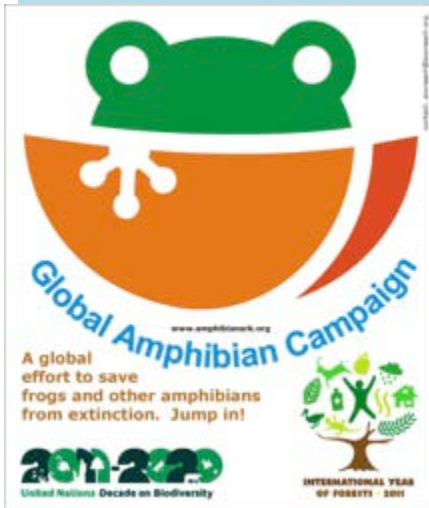
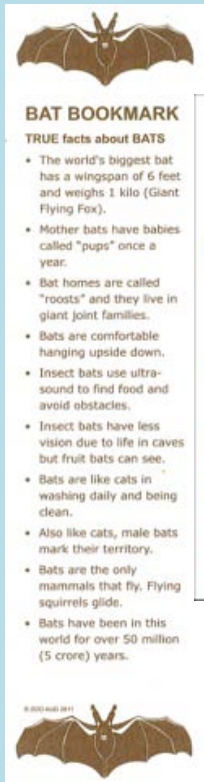
ZOO's Education activities

- Raising funds for education
- Producing Theme based Educational Materials
- Strong emphasis on Non-charismatic Megavertebrates, "mini-vertebrates", Invertebrates and selected plants.
- Such as bats, rodents, amphibians, reptiles, vultures, butterflies, etc.



Education Materials

Z.O.O. develops and supplies educational materials free of cost to teachers, NGO's, GO's, anyone who requests them for kids of all ages attending programs. They are also used for Teacher Training workshops in South and South East Asia.



ZOO promotes International animal events in South Asian Region.

Some previous events promoted:

- Amphibian Ark-Global Leapfrog event on the eve of 2008
- Leaping Ahead of Extinction: A celebration of good news for amphibians in 2012
- Five For Frogs
- Year of the Bat 2011-2012: On theme "Save Bats to Save the Planet"
- UNEP-World Environment Day
- UN Decade on biodiversity 2011-2020



Some amphibian materials



AMPHIBIAN Biodiversity Crisis...

COUNTDOWN 2010
SAVE BIODIVERSITY

Moving from words to action

2010 is the official Year of Biodiversity

January	February	March	April
SWMTWTFS	SWMTWTFS	SWMTWTFS	SWMTWTFS
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
May	June	July	August
SWMTWTFS	SWMTWTFS	SWMTWTFS	SWMTWTFS
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September	October	November	December
SWMTWTFS	SWMTWTFS	SWMTWTFS	SWMTWTFS
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Learn about Amphibians

Amphibians mean frogs and toads.

Amphibians also mean salamanders, newts and caecilians.

In total, thousands of the world's amphibians need disappear every year.

There are 4000 known amphibian species. We could lose 3000!

Amphibians are important to Earth, Sun, Moon, Environment, - earth, air, water and plants.

WDD are important to amphibians. You can learn what things make amphibians disappear.

You can learn how to get in good if the anything that makes amphibians disappear.

You can also learn your health, friends, before making and ensure to act to stop that help amphibians survive.

Causes of amphibian loss:

Water loss
Climate change
Pollution and pesticides
Diseases and fungal infections
Habitat, a natural habitat amphibian depend

Types of Amphibians

Frog

Caecilian

Salamander and newt

Amphibian Ark, IMA, ZOO WLD




Appreciate All Amphibians

amphibian ark

2010 - SAVE BIODIVERSITY - FROG

Some bat materials

Advancing Bat Conservation

... by knowing pros and cons, assets and threats to bats
... nature's great helper

There are very good reasons to ABC... Atlanta Bat Conservation. It is not just for the good of bats? It is for the well being and overall survival of human beings as well.

Bats are not very well liked animals. There are many wrong ideas people have about bats. They think they carry diseases. That they suck blood. That they do more harm than good. These ideas are wrong. There are few diseases due to bats that do harm to people. Only one bat carries blood, and that is only of cows, not humans.

All bats do much more good than harm. Fruit bats spread pollen to many local and degraded forests. They excrete waste through their digestive system which has been proven to have a much better rate of germination than seeds that fall to the ground in fruit. Insect bats kill and eat hundreds of thousands of insects which destroy crops, carry disease and crush a business. Bats do it safely, with no pesticides.

Despite this, people still try to kill or remove bats. There are many threats to bats which are mentioned in the illustrations on this little handbook. All bats face insurmountable threats today although they play a key ecological and economic role that keeps the ecosystems in balance and are needed for agricultural and horticultural activities. They are persecuted.



Threats to Insect bats

- Cave entrances blocked or cave modified for human use
- Habitats threatened by mining and quarrying
- Buildings, temples, caves are homes for insect bats. People use smoke to run them out.

Threats to Fruit bats

- Hunted for food and medicine, persecuted as pests
- Root trees cut for building roads
- Habitat destroyed due to human activities
- Degraded habitats support very few bats



Other Threats

- Smoking bats out of their caves
- Smoking bats out of temples

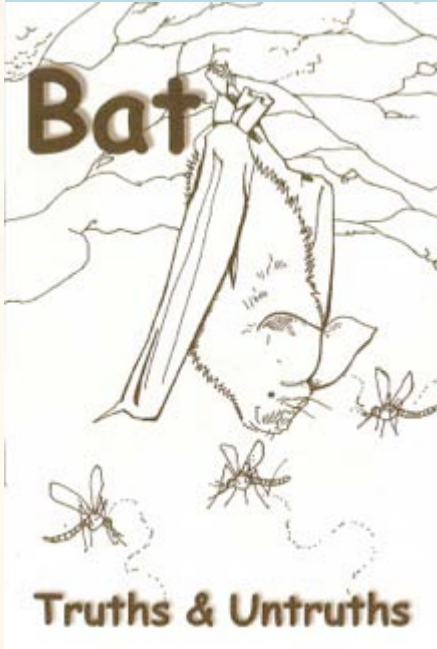
Xtraordinary Young Zoologists

... understand the great value of bats and help them by learning how to conserve them.

Helping Bats ... understand the great value of bats and help them by learning how to conserve them.

Studying Bats ... also have something about how much bats help us today only because there are people who devote their time to studying bats. Let this tiny handbook lead you to learning more about these important animals. The world would be a far poorer place without bats.

- What we can do to protect bats?**
- Learn about bats.
 - Don't harm bats.
 - Tell others about the importance of bats.
 - Do not disturb trees, ponds, burrows that have bats.
 - Do not cut down trees that have roosts.
 - Identify bat roosts in your school and observe without disturbing them.
 - Wear bat clothes to your school.
 - Avoid using chemicals for your garden. Some insecticides may harm bats that get out of your house.

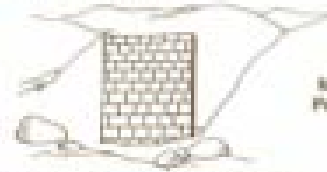


END OF YEAR OF THE BAT Threats remain ...

THREATS TO INSECT BATS



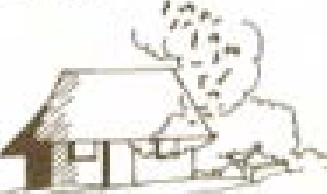
Insectivorous bats



Cave entrances blocked or caves modified for human use



Habitats threatened by mining and quarrying



Buildings, temples, caves are homes for insect bats. People use smoke to run them out

THREATS TO FRUIT BATS



Fruit bats



Hunted for food and medicine. Persecuted as pests



Root trees cut for building roads



Habitat destroyed due to human activities



Degraded habitats support very few bats



Year of Bats 2011-2012



MORE bat materials



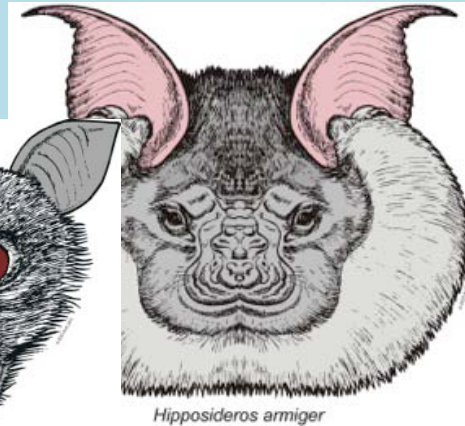
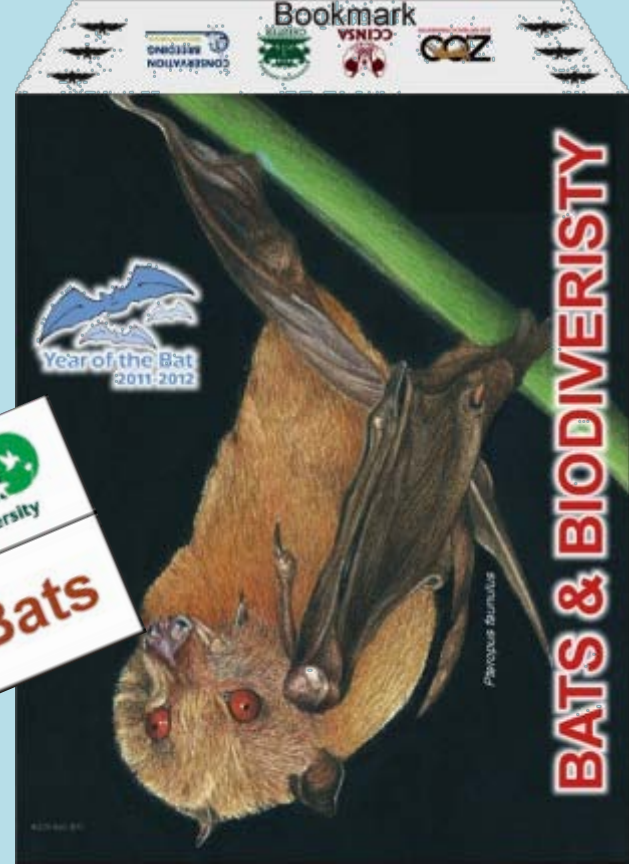
BAT BOOKMARK

TRUE facts about BATS

- Bats are found throughout the world, except in the Arctic and Antarctic.
- Some bats live up to 30 years!
- Of over 1116 kinds of bats globally, 13% live in the United States.
- Bats are not a bad omen. They are considered LUCKY in some countries.
- Bats increase our food supply by pollinating plants and scattering seeds.
- Bats are NOT a bad omen. They are considered LUCKY in some countries.
- Bats web sites: www.pteropus.org www.beccon.org etc.

2011-2020
United Nations Decade on Biodiversity

Protect Bats



Vulture Education

India has nine species of Vultures:

Oriental White-backed Vulture (*Gyps bengalensis*), Slender billed Vulture (*Gyps tenuirostris*), Long billed Vulture (*Gyps indicus*), Egyptian Vulture (*Neophron percnopterus*), Red Headed Vulture (*Sarcogyps calvus*), Indian Griffon Vulture (*Gyps fulvus*), Himalayan Griffon (*Gyps himalayensis*), Cinereous Vulture (*Aegypius monachus*) and Bearded Vulture or Lammergeier (*Gypaetus barbatus*).

White-backed, Slender billed and Long billed Vulture declined drastically over the past decade. The decline of *Gyps* genus in India has been put at 97% by 2005.

Status: Critically Endangered by IUCN.
Wildlife (Protection Act) 1972-Schedule I species.

Source: Action Plan for Vulture Conservation in India, 2006 by MoEF.



Ecological Significance of Vultures

Carrion remover and scavenging on animals-helps environment clean

Main reason for decline:

Diclofenac (veterinary usage)

Others are Poisoning

Electrocution by power lines

Drowning in farm water reservoirs

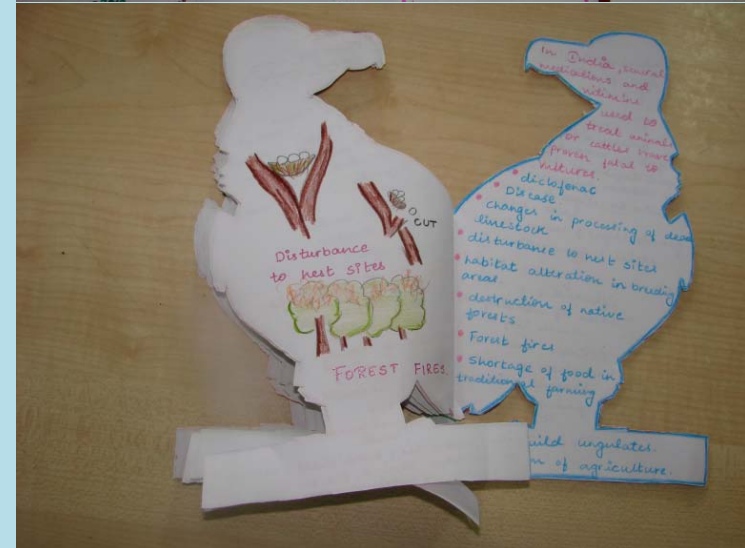
Habitat loss

Variable food supply

Deliberate persecution (eg. shooting)

Kite-flying

Starvation of young ones



Z.O.O. has been promoting vultures since 1991 up to **International Vulture Awareness Day**

Vulture Awareness Activities

ZOO conducted a Vulture Survey in Indian Zoos in 1991 funded by Jacksonville and followed by vulture conservation education programmes in India long before the current vulture crisis, and again for South Asia in 2004 & 2008.

International Vulture Awareness Day was celebrated around the world on 1 September ***to highlight vulture conservation and awareness.*** The Birds of Prey Programme in South Africa and Hawk Conservancy Trust in England organized it starting in 2010.

For IVAD, ZOO created a South Asia-appropriate education packet for institutions holding these beleaguered birds to use in conducting programmes for visitors and students for IVAD 2012.



Will this be the vultures' "last dance"?



Vanishing vultures . . .

How to keep the Earth clean when they are gone?



AN INDIAN VULTURE
CULTURE
Colouring Book of Verse



ZOO  WILDLIFE

VULTURE shock!

*O vultures !
What will we do ... without you?*





Z.O.O. designed and printed **2000** copies of vulture education kits sponsored by Conservation Breeding Specialist Group, USA.

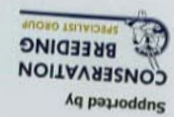
Twenty-five invited institutions in the region took advantage of the offer of free packets.

Packets were the usual model of ZOO with informational booklet, flash cards, placard, stickers, etc.



International **Vulture** Awareness Day

Sept. 1, 2012



CULTURE SHOCK
+
VULTURE CULTURE
=
VULTURE SHOCK

Nature's Scavenger

Keeps Environment Clean



Protect Vultures



Earth's Sweepers



Zoo's celebrating vultures in S. Asia

Art by students at the Nat'l Zoo, New Delhi



Central Zoo, Nepal



**INDIRA GANDHI ZOOLOGICAL PARK
VISAKHAPATNAM**



VOC Park Mini Zoo, Coimbatore

Museum of Natural History celebrates vultures



Regional Museum of Natural History,
Bhopal. Madhya Pradesh

Educational Institutions celebrate Vultures!



Nashik



Chennai,
Tamil Nadu



Tirunelveli, Tamil Nadu



Assam



Kathmandu,
Nepal

Non-governmental Organisations also teaching about Vultures





Thanks...



Asian Zoo Educators' Conference 2013

