



## Editorial

The Andhra Pradesh Biodiversity Board Chairman Dr. R. Hampaiah in his 1st Quarterly meeting of the Board, has declared that 2009-10 is the "War against Bio-Piracy" as focus. He further reiterated that the Indians are sitting on a 'golden mound' and are seeking aims with 'golden bowl' and hence, the mandate of the Board is to ensure right price and value for the biological resources.

As a follow up action for the clarison call, the Biodiversity Board has initiated two pronged strategy. The "Prevention of Bio-Piracy Concept" has taken record of producing the first digital document from the video recording of the oral traditional knowledge present with illiterate and Bare-footed Experienced senior citizens of Mahanandi Biodiversity Management Committee of Kur-nool district. The collaboration with IIIT Hyderabad audio/video recording to Telugu and further uplinking with "Floral" database of Andhra Pradesh Forest Department has been materialized. The translation of Telugu text into English language is in progress.

Similarly, the IPR Cell of Osmania University is assigned with the task of making the Oral Traditional Knowledge

database to be uplinked to WIPO (World Intellectual Property Organization) website. This will enable the WIPO search for prior art as a digitalized oral tradition knowledge.

The Second strategy of curative measures of Bio-piracy. The reported cases of Jonnansi and Pandikora dog breed by Mrs. Deena Talbot of U.S.A on the intimation by Ethnic Canine Society and the theft of traditional knowledge related to Tephrosia purpurea (vempali) from Kammarapally of Nizamabad district have attained attention. The biodiversity management committees and NGO's have brought the issues to the knowledge of the concerned and further action as per the Biological Diversity Act 2002 is initiated in the state.

All the readers are requested to cause awareness of Bio-piracy occurring in nook and corner of our country and prevention and curing of Bio-piracy is the task ahead. The awareness and



Coppersmith Barbet *Megalaima haemacephala*

Pic. C. Srinivasulu

capacity building initiatives proposed to be undertaken welcomed by the Board and the necessary technical and financial support will be offered in deserving cases.

Apart from the preventive and curative measures of Bio-piracy, the proactive role of biological prospecting, i.e., biological resource utilization with value addition is one of the growth engines for transforming our country into a "developed" India.

V.B. Ramanamurthy  
Member-Secretary  
AP State Biodiversity Board

## Briefly

### New species of lizard discovered in Andhra Pradesh

Surveys carried out by herpetologists has led to discovery of a new species of lizard collected from Golconda Fort, Hyderabad, Andhra Pradesh.

The new species is scientifically named as *Hemidactylus teutleri* by its discoverer and it belongs to

the group of the commonly found House Gecko that are variably patterned and coloured, owing to which it had been wrongly identified as *Hemidactylus brooki*.

Scientific studies carried out at Osmania University has re-

vealed that the newly discovered and described species is more common in distribution and has been recorded from Vikarabad, Rangareddy district to Jaggayapet, Krishna district.

C. Srinivasulu & R. Sreekar  
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## Special Feature

# Biological Heritage Sites of Andhra Pradesh

Biological Heritage Sites (BHSs) is the name given to the most important non-statutory wildlife sites. They contain valuable habitats such as ancient woodland, species rich grasslands and bogs. Many provide a refuge for rare and threatened plants and animals. BHSs form an irreplaceable part of our environment and are a major part of the strategy to conserve the biological richness of the world.

Local authorities are required to identify and provide for the protection and enhancement of the natural heritage within their areas. As part of their planning function they have a responsibility to take account of sites of significant nature conservation



Grey-headed Lapwing *Hoplopterus cinereus* - a rare species found wintering in Naupada Swamps.

*Pic. C. Srinivasulu*

value.

Andhra Pradesh Biodiversity Board has recognized 17 Biological Heritage Sites in Andhra Pradesh Basing on the mandatory criteria as per Section 37 of the Biodiversity Act (2002).

These are as follows:

**Veerapuram** (Anantapur Dist.): Veerapuram is famous for its painted storks which breed here. This BHS has got the distinction of entering into High Court of Judicature, Hyderabad due to imbalances of local Biological Management Committee.

**Kondakarla Ava** (Visakhapatnam Dist.): It is the second

largest freshwater lake of our state. It is visited by diverse species of avifauna including the masked finfoot that is a globally endangered bird species. This area needs protection from the real estate boom around the lake.

**Telukunchi** (Srikakulam Dist.): It is a major stopover for migratory birds of the eastern corridor. Openbill storks are among the resident avifauna of this lake that breed here. The avifaunal diversity of the Chilka Lake spills on to this lake.

**Naupada Swamps** (Srikakulam Dist.): These swamps cater to the migratory birds using the eastern migratory route. These swamps are the last and only marine wetlands of India that has a conservational value.

**Tatipudi reservoir** (Vizianagram Dist.): It is located on the Gosthani river that originates from the Borra caves. At this reservoir one can observe the masked finfoot and the sociable lapwing.

**Katakshapur** (Warangal Dist.): These swamps attract migratory waterfowl by the hundreds and thousands. The palm trees along the bunds provide nesting sites for the Black Ibis.

**Telineelapuram** (Srikakulam dist.): This is home to one of the largest heronries that house a large number of painted storks and spotted-billed pelicans.

**Kolleru** (West Godavari Dist.): This is one of the largest freshwater lakes of the country. A great diversity of migratory waterfowl visit this wetland. Important among them are the spotted-billed pelicans and the spoon-billed sandpiper.

**Uppalapadu** (Guntur Dist.): It is a small water body and is home to the spotted-billed pelicans, painted storks, cormorants

and ibises.

**Pulicat** (Nellore Dist.): This is a large waterbody where one can find both the species of flamingos and many other species of migratory waterfowl. The rare white-bellied sea eagle can also be seen here.

**Pocharam Lake** (Medak Dist.): A fairly good variety of migratory waterfowl species use this wetland, prominent among them are the greylag geese, bar-headed geese, flamingo and painted storks.

**Pargi Lake Complex** (Ranga Reddy Dist.): This seems to be a stopover point to the migratory waterfowl enroute to their favoured migratory areas. Here great numbers of waterfowl have been recorded including the bar-headed geese and the tufted pochard.

**Gundla Brashmeswaram** (majorly in Prakasam Dist.): It is richly forested area and is home to good congregations of herbivores and some rare varieties of birds.

**Thimamarrimanu** (Anantapur Dist.): This houses the largest banyan tree in the world spread over 5 acres. It has been included in the Guinness Book of World Records in 1989 as a tree with largest canopy.

**Hussainsagar** (Hyderabad Dist.): Historically a haven for fish, presently we can see good number of migratory waterfowl and some resident birds and the grey-headed lapwing and avocet has been recorded here.

**Vakalapudi** (East Godavari Dist.): A wetland spread over 72.14 acres, is home to minimum 47 species of migratory and resident waterfowl.

**Punyashetram** (East Godavari Dist.): Is a historically important heronry housing the spotted-billed pelicans and the painted storks.

*Dr. V.B.Ramanamurthy  
Andhra Pradesh State Biodiversity  
Board*

### Briefly.....

Additionally, Ramappa temple environs, Machirajupally, Malyala, Devara Uppala and Narsampet have also been recognized as BHSs.

*Without prejudice to any other law for the time being in force, the State Government may from time to time in consultation with the local bodies, notify in the Official Gazette, areas of biodiversity importance as biodiversity heritage sites under this Act.*

*The State Government, in consultation with the Central Government, may frame rules for the management and conservation of all the heritage sites.*

*The State Government shall frame schemes for compensating or rehabilitating any person or section of people economically affected by such notification.*

*(As per Section-37 of the Biological Diversity Act, 2002)*

## Feature - Floral Diversity

### Invasive Forest Tree Species

Biological invasions are anthropogenic as humans intentionally and unintentionally introduce species into new areas or alter ecosystems in ways that promote invasions.

Invasions are enhanced by the national importance of agriculture, forest and tourism sectors. Globalization has led to more and faster trade, new travel and trading routes, and increased trade in livestock, pets, nursery stock, agricultural produce and forest products; all of which can facilitate the introduction and spread of invasive species. While many alien species are highly regarded because of the benefits they can provide, these same species have in some cases become serious threats to forests and the forest sector. Such conflict species are a considerable problem from a management perspective requiring a clear and unbiased analysis of the costs and benefits of their use.

*Eucalyptus* species, *Acacia* species and *Prosopis juliflora* are the most important introduced species used in commercial forestry enterprises worldwide and most particularly in the tropics and subtropics. Several of these alien forest trees have spread beyond the areas in which they were planted with



*Spathodea campanulata* - an introduced avenue and ornamental tree species.

Pic. C. Srinivasulu

devastating impacts. The main impacts are considered to be caused by shifts in life-form dominance, reduced structural diversity, increased biomass, disruption of existing vegetation dynamics and altered nutrient cycling.

The invasive forest tree species radically alter habitats for wildlife resulting in major changes in the distribution of species, particularly birds, and nutrient cycling regimes in nutrient poor ecosystems due to their ability to fix atmospheric nitrogen. They also lead to decrease in water supplies for nearby communities and increase fire hazards.

*Leucaena leucocephala* has been widely introduced as a source of timber, fuelwood, fodder and shade and is also used to restore degraded lands, improve soils and stabilize sand. *Leucaena* is a fast-growing, nitrogen-fixing tree that is tolerant of arid conditions and saline soils and as such is highly regarded in arid regions in Asia and Africa. In areas where it has been introduced however, this species tends to form dense impenetrable thickets and

readily invades forest margins, roadsides, wastelands, riparian areas and agricultural lands. Also, the toxicity of its seeds and foliage decrease its value as a source of fodder.

*Prosopis juliflora*, introduced in India about seven to eight decades ago, has invaded vast areas in India. It has very dense green vegetation which is very useful in controlling soil erosion, reducing the aridity of the area, and providing a source of fuelwood as well as fodder and shelter for both wild and domesticated animals. Such benefits however are being overshadowed by the negative impacts of this species. It displaces native flora resulting in reduced biodiversity and reduced diversity of products available to rural communities. Its dense impenetrable thickets also render invaded lands useless for agricultural purposes.

FAO lists as many as 100+ species of trees that have been introduced in to India and many of these have been enlisted as invasive. Some important such plants other than the above mentioned include - *Acacia auriculiformis*, *A. farnesiana*, *A. mangium* (Fabaceae); *Ailanthus excelsa* (Simarubaceae); *Anthocephalus chinensis* (Rubiaceae); *Casuarina equisetifolia* (Casuarinaceae); *Eucalyptus camaldulensis*, *E. citriodora*, *E. globulus*, *E. grandis*, *E. tereticornis* (Myrtaceae); *Melia azedarach* (Meliaceae); *Parkinsonia aculeata* (Fabaceae); *Peltophorum pterocarpum* (Fabaceae); *Pithecellobium dulce* (Fabaceae); *Prosopis cineraria*, *P. juliflora* (Fabaceae); *Sesbania grandiflora* (Fabaceae) and *Ziziphus mauritiana* (Rhamnaceae).

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Global factors, both primary and secondary, that support the introduction and spread of invasive species include -

- land use changes including forest sector activities;
- economics and trade;
- climate change and changes in atmospheric composition;
- tourism;
- conflict and reconstruction;
- regulatory regimes;
- biological control programmes;
- public health and environmental concerns; and
- economics and trade



Pic. Dr. C. Srinivasulu

## Feature - Faunal Diversity

### Macrobenthic Fauna of Nizampatnam Bay

Nizampatnam Bay lies 24 km away from Bapatla of Guntur district, Andhra Pradesh and extends from False divi point to Ongole. Macrobenthic survey was carried out seasonally for two years (2006 to 2008) by dredge sampling at 15 stations (15°28'N-15°48'N & 80°17'E-

80°47'E) in the subtidal area of the Nizampatnam Bay covering a distance of 171 km. This Bay supports a rich diversity of benthic fauna that includes 11 diverse taxa of macrobenthos represented by decapoda (49.4%), gastropoda (11.1%), bivalvia (10.2%), echinoidea

(8.8%), anthozoa (6.8%), ophuroidea (3.3%) and others (10.1%) which includes polychaeta, holothuroidea, asterioidea, echiuroidea and pisces.

A total of 221 epibenthic species belonging to polychaeta (10), decapoda (35 spp.), mollusca (gastropoda-68 spp. and bivalvia-57 spp.), pisces (33 spp.) and echinodermata (18 spp.) were identified from dredge samples. The 35 species of decapoda belonging to a single subclass and order, 8 families and 20 genera were dominated by *Portunus hastotoides*, *P. gladiator*, *Charybdis hoplites*, *C. affinis* and *Dorippe* sp.

The 68 species of gastropoda belonging to 3 sub-classes, 6 orders, 23 families, and 40 genera were dominated by *Philine aperta*, *Babylonia spirata*, *Murex trapa* and *Cantharus tranquibaricus*. Like-wise *Modiolus tulipa*, *Scapharca deyrolli*, *Glycymeris taylori* and *Neosolen aquadulcoris* dominated the 57 species of bivalvia belonging to 4 sub-classes, 8 orders, 23 families, and 38 genera.

Among the 18 species of echinodermata belonging to 3 classes, 8 orders, 13 families, 17 genera, the dominant are *Temnopleurus toreumaticus*, *Clypeaster rarispinus*, *Brissopsis luzonica*, *Ophiocnemis marmorata*, *Ophiorthrix* sp.

33 species of pisces belonging to single class, 6 orders, 13 families and 22 genera were dominated by *Cynoglossus ariel*, *Cynoglossus semifaciatus*, *C. puncticeps*, *Suggrundus rodricensis* and *Pseudorhombus javanicus*.

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*Portunus hastotoides*



*Charybdis affinis*



*Dorippe* sp.



*Babylonia spirata*



*Murex trapa*



*Cantharus tranquibaricus*



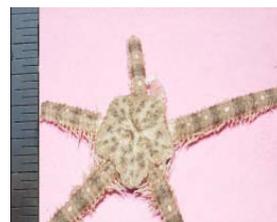
*Temnopleurus toreumaticus*



*Clypeaster rarispinus*



*Brissopsis luzonica*



*Ophiocnemis marmorata*



*Astroscopus zephyreus*



*Cynoglossus ariel*



*Heteromycteris oculus*

## Endangered Plants of Andhra Pradesh

### Adivineredu *Syzygium alternifolium*

Adivineredu or *Syzygium alternifolium* is an important endemic tree species occurring in the forests of Eastern Ghats of Chittoor, Cuddapah, Kurnool and Nellore districts of Andhra Pradesh.

This species belongs to the family Myrtaceae.

These are small trees with large alternate leaves and yellowish-white flowers. The flowering occurs in April and May and fruits can be seen between June and July.

*Syzygium alternifolium* is globally endangered according to Red Listed Medicinal Plants assessed through Conservation Assessment and Management Plan Workshop, CAMP, 2001.



*Syzygium alternifolium* in flowering.

Source: svimstpt.ap.nic.in

preparation of rafters, scantlings, beams, poles, furniture and agricultural implements.

The fruits are edible and nutritious. They are used in the preparation of jams, jellies and squashes. The leaves of this species yield economically important chemical com-

pounds namely sitosterol, pinctol, sideroxylin and sizal-terin.

The medicinal properties of this plant are immense. The fruit pulp and extract of seeds possess anti-diabetic properties. Juice from the leaves and pulp of shoots are used to treat bacillary dysentery. Extracts of the bark possess anti-septic properties. Juice of fruits is used for stomach ache and treatment of ulcers. External application of fruit pulp helps reduce rheumatic pains. Leaves fried in cow ghee is used to treat dry cough. The aqueous extract of the seeds exhibits hypoglycemic properties.

A protocol is being developed for the micro propagation of *Syzygium alternifolium*.



Vernacular name:

Adivineredu was accorded

Endangered status by the 2001  
CAMP Workshop on Threatened  
Plants of Andhra Pradesh.

## Endangered Animals of Andhra Pradesh

### The Grey Slender Loris - *Loris lydekkerianus*

The Grey Slender Loris or *Devanga Pilli* in the local lingo is a small lanky animal with large eyes, very slender limbs and a small and short body. Its fur is short, soft and woolly. It has nails on all its digits except the second toe of its foot that bears a toilet claw with which it cleans itself. Eyes are large and the iris is orange in colour with the pupil contracting to a vertical slit in the presence of bright light. The grey slender loris is an extremely shy and secretive animal and spends most of its time during the day resting in the deep recesses of trees. It is seen only in the nights and lives in trees in dry deciduous forests and scrub jungles of Andhra Pradesh, Karnataka and Tamil Nadu. In Andhra Pradesh it can

be seen in Sri Venkateshwara National Park and in Nelapattu Bird Sanctuary.



Grey Slender Loris

The Slender Loris is a solitary animal pairing only during the breeding season which occurs twice a year. It is an insectivore feeding on insects, lizards, small birds, bird eggs, shoots, leaves and some fruits. It moves by

means of deliberate and slow movements.

The population of this animal is on the decline majorly due to habitat loss and fragmentation, hunting, and taboos and myths attached to it. This animal is primarily threatened as it is traded locally and commercially for the whole animal or for its eyes that are used in traditional medicine, they are involved in pet trade or sold off to zoos or kept by the locals for small road shows.

There are only about 430 individuals left in the wild. Urgent and stringent conservation measures such as conservation education of the locals and curbing habitat loss need to be taken up.

The Grey Slender Loris is included under Schedule I of the IWL(P) A, 1972, and in Appendix II of CITES. It has been accorded Near Threatened status by the 2002 CAMP Workshop for South Asian Non-Human Primates.

Less than 430 individuals of this species exist in the wild, this remaining population of the Slender Loris needs to be protected and monitored. Not much is known about this animal in the wild hence research and monitoring of this species needs to be taken up.

Curbing further habitat loss by habitat management and awareness campaigns among locals should be advocated.



## Environment Education

### World Wetland Day - February 2009

The Ramsar Convention in 1971 recognized 'Wetlands as the resources of great economic, cultural, scientific and recreational value whose loss will be irreparable'. Wetlands are of great importance as nurseries of biota and habitat for a wide variety of migratory and resident water fowl. Wetlands are the bane of existence for many kinds of organisms and hence the need for their conservation.

World Wetland Day was celebrated on 2<sup>nd</sup> Feb'2009 by the WEE, APFD in Nehru Zoological Park Hyderabad. Nearly 156 children from Geethanjali Vidyalaya, Lotus Laps Play school, Globe the school, Ragunatha Model School participated in the same.

After a brief introduction, the children were divided into groups and taken for bird watching. They were led by Mr. B. Varaprasad, ACF, Surveillance cell, Mr. K. Shekar Reddy, ACF, NZP, Mr. K. Varaprasad, Retd. DCF (WL), P. Venkateswarlu, SRF, A.P. Biodiversity Board and a group of volunteers. During the course of the day the children came to know about the nuances of bird watching and identification.

The nature walk was followed by a quiz that included visuals, scrambled letters, true or false, identify the unknown and so

on. Four students from each group were selected for the same. A separate quiz for the audience was also conducted. Prize distribution ceremony was



A group of students on a nature walk.

Prize distribution ceremony was followed by release of newsletter of Wildlife Education Extension Wing-Palapitta volume 14, by the chief guest Shri. Sunil kumar, I.F.S; Addnl. PCCF (WL).

Shri. Sunil kumar, expressed his pleasure interacting with the youngsters. He gave an inspiring talk on the necessity of conserving wetlands and how each one of us could make a difference. Shri. Bhoopal Reddy, Director, NZP expressed his happiness to see an interesting bunch of students and offered full sup-

port for further such activities in the zoo. Shri. Yousuf Sharif, CCF (WL) enlightened the children about the importance of water birds and wetlands in maintaining a balance in nature. Smt. N. Kshitija, Curator National Parks, Hyderabad, asked the students to keep up the interest they had in wildlife, she also enlightened them on the importance of water in our day to day life.

This was followed by lunch and distribution of education material that included posters and stickers pertaining to wildlife and a brochure outlining information on wetlands and a copy of the newsletter 'Palapitta' to each student.

The students dispersed after lunch with a conviction to do their best in conserving this amazing wildlife in our country.

*Anuradha Vinod*  
Wildlife Education and Extension  
Wing, Andhra Pradesh Forest  
Department, Hyderabad

## Pioneers in Conservation

### Women of Pastapur, Medak District, A.P.



Lakshamma shooting a documentary on Traditional Medicine  
Courtesy - Alfonso Gumucio

Dalit women belonging to villages under Zaheerabad, Medak district have taken to the motto of autonomy and self reliance for their communities as their goal in their lives. They have been helped in this direction by Dr. P.V. Sateesh, Director, Deccan Development Society (DDS) that works with rural women who are a part of the DDS *sanghams*, or community groups, most of these women are *Dalits*. They operate the *Sangham* Radio, one of the first community radio stations authorized in India under a November 2006 Indian law, an initiative of the DDS. These women have faced great dis-

crimination, but by learning to use communication tools they have gained respect in their communities and have contributed to development and cultural identity. The community radio centre opened in 1996 with a 100-watt transmitter that can reach a 30-km radius and covers up to 100 villages. UNESCO has supported the station as part of its "Women Speak to Women" project. Although not yet broadcast, the station has produced 400 hours of programmes on gender, education, agriculture, health, music, local culture, weeding and cropping. Prominent among these women are Narsamma,

one of the two community radio operators, speaks volumes of the respect they have in the community due to their knowledge and empowerment and Lakshamma, the ace filmmaker who makes short films on traditional medicine, natural resources and other issues. The women of *Sangham* Radio, filmmakers and radio operators, continue to document activities of villagers as part of an ongoing effort to bring the voices of the community to a larger audience. In this way they are not only helping achieve autonomy and self-reliance for their communities but also gaining respect from those around them.

## Nature for Kids

### Harriers - Apex carnivores of open lands

Harriers are diurnal birds of prey that play a vital role in the ecosystem, both as prey and predator. They are ground nesting carnivorous birds that are found in grassland habitats and near wetlands. Of the 16 species of harriers found world over 6 species exist in India. They are winter migrants that migrate to the wintering grounds and congregate in their favoured habitats in large numbers. The largest congregations has been observed at Velavadar in Gujarat (about 3000 individuals) and closer home, large roosts of these birds have been



Marsh Harrier

Pic. C. Srinivasulu

observed in the Rollapadu grasslands in Kurnool district (300-1000 birds), ICRISAT campus and Bolaram grasslands in Hyderabad.

One to two hours before sunset the harriers congregate at the communal roosting sites for the night. These birds prefer medium to tall grass and can also be seen roosting on *Eichhornia* patches in the wetland habitats. Just before sunrise the harriers leave their roosting sites in search of food namely small rodents, small sized birds, liz-

ards and grasshoppers etc., that are pests of the agricultural ecosystem. Harriers have been observed to roost in grasslands, fallow lands, scrublands, in the vicinity of wetlands and rivers and along the coast. Their natural predators include the jungle cat, jackal, fox, hyaena, Bonelli's hawk eagle, greater spotted eagle and dusky horned owl. Harriers are facing threat due to habitat loss and conversion of grasslands into agriculture lands and monoculture plantation, unchecked expansion of *Prosopis juliflora*, conversion and loss of wetland habitats and increased levels of pesticide usage leading to biomagnification.



#### Climate change and global warming!

Global warming and climate change go hand in glove with each other. The unrestricted burning of fossil fuels, rampant deforestation, rapid industrialization, drastic habitat alterations to cater to ever growing population have resulted in this situation. Can we do something about this. Yes we can! These are a few examples you can think of many ways with which you can contribute.

- **Water is precious and needs to be saved**
- **Promote community car pooling, also use public transport when possible.**
- **Use CFLs and switch off electrical appliances when leaving the room.**
- **Use your own shopping bags while shopping.**
- **Buy appliances that are energy efficient and vehicles that give good mileage and that do not emit green house gases.**
- **Reduce household garbage and save 1200 pounds of carbon dioxide.**
- **Choose reusable products instead of disposable ones.**
- **Plant trees in your locality.**
- **Reduce, Reuse, Recycle - let these three be the motto of your life.**

## News

### Kyoto Protocol - Ready for Second Phase

The Kyoto Protocol is an international treaty where in countries agree to reduce the amount of greenhouse gases emitted, if their neighbours do likewise. It is a very complex agreement that allows trading pollution credits.

Why Kyoto Protocol? Greenhouse gases after millions of years of

remaining constant started to increase sharply post industrial revolution and have become the highest in the present times than they were in 20 million years. However, carbon dioxide emissions can be reduced by means of setting up personal, societal and industrial targets. In 1996, the Kyoto Protocol was signed to deal with global

warming and climate change that did not include India and China. India signed and ratified the Kyoto Protocol in 2002. After the United Nations Conference on climate change in 2007 and later in Copenhagen in 2009, countries worldwide are gearing up for the second phase of the Kyoto Protocol on greenhouse gases after 2012.

## Events

### Biodiversity Board ushers Telugu New Year - 09

The Biodiversity Board organized 'Ugadi Sammelanam' to mark the auspicious occasion of the Telugu New Year - Ugadi at Indira Priyadarshini Auditorium, Public Gardens, Hyderabad on 27 March 2009. The office-bearers including the Chairman and Member-Secretary, Biodiversity Board welcomed the participants consisting of various stakeholders including members of the Biodi-

versity Management Committees in Andhra Pradesh. Various speakers shared their views on biodiversity, its importance and conservation. The Board shared its concern on the subject and briefed the audience about the progress and actions taken up by the Board and also summarized the future action plan. A chilly farmer, who developed a novel hybrid shared his view about boards role in pro-

tecting his creation. The highlight of the programme was a presentation by the Biodiversity Management Committee members from Veerapuram village, Anantapur district. The Veerapuram heronry is being protected by the villagers. A few stakeholders were felicitated and the recent issue of the newsletter was released. The 'Ugadi Sammelanam' ended with a sumptuous traditional lunch.

# Biodiversity News of Andhra Pradesh

A Newsletter of Andhra Pradesh State Biodiversity Board

*You too can contribute to this Newsletter*

If you have any views, findings or opinion on Biodiversity of Andhra Pradesh and its Conservation, to share, or any article for the 'Features' and 'Environment Education' sections, please send in your contribution in MS Word format to Article Editor ([braconsindia@gmail.com](mailto:braconsindia@gmail.com)). Articles will be modified to suit the format of the Newsletter.

You can get in touch with the Article Editor with your name, address, email and telephone details for inclusion in our mailing list.

#### UPCOMING EVENTS

'EXPERT GROUP MEETING ON TRADITIONAL KNOWLEDGE'  
AT DR.MCR HUMAN RESOURCE INSTITUTE, HYDERABAD, AP  
16 T 19 JUNE 2009

## ANDHRA PRADESH STATE BIODIVERSITY BOARD

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*Your life depends on  
Biodiversity....*



## Views

### Mammals in Peril

Under the auspice of the Global Mammal Assessment Project of International Union for Conservation of Nature and Conservation International, as many as 1700 mammal experts worked for around five years to collate and share information on diversity of land and marine mammals, their status, distribution and threats. The study resulted in upgradation of RedList status (access at [www.iucnredlist.org](http://www.iucnredlist.org)) of the World Mammals and also a Research Article in the prestigious Science journal (access at <http://www.sciencemag.org/cgi/content/full/322/5899/225>) authored by mammalogists and conservation biologists (including the present author, who is also a member of the Biodiversity Board).

The study reveals that knowledge of mammalian diversity is still surprisingly disparate, both regionally and taxonomically. As many as 5487 species (including marine mammals) have been assessed and the global macroecological patterns are very different for land and marine species but suggest common mechanisms driving diversity and endemism across systems. One-quarter of the land species and one-third of the marine mammals are under threat - major being habitat loss on land and pollution and accidents in water. The study also reveals that the populations of the every second species of mammal (including both land and marine forms) are declining rapidly.

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Wild populations on decline in Andhra Pradesh - Barking Deer *Muntiacus muntjak*  
Pic. C. Srinivasulu

## Signing Off

### Vanishing Vultures

Vultures are nature's scavengers, helping in maintaining the health of the ecosystem. Alarming declines of populations of vultures worldwide have been a cause of concern. Just two decades ago there existed 85 million of these birds that has dropped to mere 2000-3000 individuals. This was especially so of the three resident species of vultures of the Indian subcontinent. As the scientists were speculating the causes for the sudden decline in the populations, the culprit Diclofenac, an all-purpose pain killer and anti-inflammatory drug used widely in veterinary medicine, came to light. By mid-2006 the license to manufacture this drug was withdrawn. The team of researchers from

Osmania University have been surveying various parts of Andhra Pradesh since 1990. In the period of 7 years, 1990-1997, the survey yielded in the sighting of 8615 vultures from 39 cities in 15 districts of Andhra Pradesh. Surveys conducted from 2006-2008 failed to locate vultures from hitherto known sites indicating total annihilation of the population. There have been sporadic sightings of long-billed vulture from Kurnool district along the south bank of river Krishna in the Nagarjuansagar-Srisailem Tiger Reserve, Andhra Pradesh. Recently a pair of Oriental white-backed vultures and 8-12 Long-billed vultures were detected at Adoni by the researchers from Osmania University, Hydera-



White-backed Vulture

bad. This population needs to be monitored and *in situ* conservation programmes like setting up vulture cafeteria, creating awareness among local stakeholders need be taken up for successful survival of this population.

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