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Editorial

This year the Andhra Pradesh Biodiversity Board will be three-year old and hence time to look into the achievements and future plan of activities.

The significant initiatives of the Board are the benefit sharing with the multinational companies receiving notices for the accession fees and royalty of the final product sold world over has turned hornet nest in the minds of the commercial biological resources utilizing agencies.

The awareness of Bio-piracy of the tarantulas and sting operations carried out revealed that the biological resources were sought after by the international markets and International Intellectuals as indexed Peacock Blue/Sapphire Blue tarantula of Gooty, Araku, Visakhapatnam and Anantapur districts of our state. The response to the National workshop on Bio-piracy and I.P.R has highlighted the cases. The Board has successfully initiated capacity building initiatives for the

Intellectual Property Rights awareness by taking sona masuri variety case study of getting trademark registration in Malaysia. Similarly, the Arogya pachha the world's pioneering initiative of benefit-sharing between Kani tribes of Kerala-Jeevani trademark registration in USA.

The Board has to focus on the biological prospecting to realize the often repeated quotation of the Chairman 'to realize the value of the golden mound on which we are sitting'. The various initiatives such as proposals for Biological resources accounting and assessment by Dr. Haripriya of IIT Powai, Biological prospecting of medicinal plant wealth of A.P. by Dr. M. Padmavati of IIT Kharagpur and Biological prospecting of non-

Common Myna *Acridotheres tristis*

Pic. C. Srinivasulu

traditional Fiber yielding trees in terms of epoxy resins and green composites initiative by South Indian Textile Research Association (SITRA) and Institute of Forest Genetics and Tree Breeding (IFGTB), Coimbatore are enabling steps to realize the vision 2020 dream of H.E. Dr. A.P.J. Abdul Kalam for 'developed India'.

R. Hampaiiah

Chairman,
Andhra Pradesh State Biodiversity Board

Briefly

Sighting of Pied Avocet at Hussainsagar, Hyderabad

The Pied Avocet (*Recurvirostra avosetta*) is very distinct white bird with black cap and hind neck and broad band on its wing and upper back.

The most distinctive feature however is its long beak that elegantly turns upwards. This is

a bird that is associated with seacoasts and such mud plains. Therefore, when Vijay Sirdesai, saw this bird on the seventh of February of 2009 it was a pleasant surprise.

This bird has been sighted and recorded inland around Hydera-

bad at Ibrahimpatnam tank in November 1987 by Rajiv Mathew. Subsequently it was also seen in December 2005 at Himayathsagar, just outside of Hyderabad by Aasheesh Pittie.

Rajeev Mathew
Bio WILD Foundation
Hyderabad

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Forest Department, Sunnipenta)

Article Editor

Dr. Bhargavi Srinivasulu
(Department of Zoology, Osmania University)
Email: braconsindia@gmail.com

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Special Feature

International Biodiversity Day - May 22, 2009

In the year 2009 the International Biodiversity Day is proposed to be organized in a two tier manner—one at the grass-roots level in which natural resource managers of agriculture, forests and aquatic ecosystem to prioritize the points to take action upon for control and prevent top 10 invasive alien species of respective ecosystems during the first fortnight of May.

The second level is for the policy makers, ex-officio and expert members and Biodiversity management committee members of the Andhra Pradesh Biodiversity Board. Workshop on forest ecosystems is proposed to be held at the Andhra Pradesh Forest Academy, Dhulapally on 15th May, 2009, for project managers of the Protected Areas.

The Indian Council for Forestry Research and Education (I.C.F.R.E) Dehradun has established a division of Biodiversity and Climate Change (B.C.C) and a special cell on Invasive Species in forest ecosystems. The Regional Forest Research Centre, Hyderabad and Andhra Pradesh Forest Academy are organizing the workshop for the project managers of the Protected Areas and Reserve Forests of Andhra Pradesh.

The top 10 invasive alien species of weeds, pests and diseases of forests ecosystems of Andhra Pradesh and preventive measures to be adopted and their control measures are advocated by the experts and feasibility action plan is proposed to be resolved in the workshop. The Best resource persons and the best managers will be felicitated on the Inter-

national Biodiversity Day celebrations on 22nd May 2009.

The Invasive Alien species of the agriculture ecosystem workshop for the Agriculture officers of the Agriculture department is proposed to be organized on 19th May 2009 at Extension Institute, Rajendranagar.

This workshop involves the various national and international institutions of Hyderabad and India such as ICRI-SAT, NPPTI, SAMETI, Swami Ramananda Teertha Institute and the Universities such as Osmania University, Central University, Sri Krishna Devaraya University are proposed to be involved in this programme.

The workshop proposes to empower the grassroot level staff of the Agricultural Department with the knowledge of the preventive and control measures of top ten weeds pests and diseases of Agricultural ecosystems of Andhra Pradesh.

It is also proposed to be compartmentalized into resource persons interaction in the forenoon session followed by the group sessions for evolving the action plans in the afternoon.

The final resolutions will be handed over to the principal secretary to Agriculture for the further follow up action, apart from this, the honorary biodiversity conservators, farmers who are doing pioneering work such as Mr. Ramesh of Visakhapatnam who has released a variety of chilly. It is proposed to felicitate him in

the presence of the august gathering.

The agriculture officers will also be requested to identify the wild relatives of cultivated crop plants in Andhra Pradesh forests and land races present with the farmers of Andhra Pradesh.

The aquatic ecosystem workshop in collaboration with irrigation department is proposed on 18th May. This workshop aims to create the awareness among the managers of waterbodies on the top ten problem species of weeds, microorganisms, pests and diseases that are of concern in Andhra Pradesh.

The proposed study material includes the introduction to Convention on Biodiversity rules and regulation; introduction to Andhra Pradesh Biodiversity Board and control and preventive measures of the invasive alien species of aquatic ecosystem of Andhra Pradesh.

The resolutions of the three workshops are to be made available to the respective heads of the Department on the eve of International Biodiversity Day celebration programme on 22nd May 2009 for further action. Apart from this the Honorary Biodiversity conservators would also be felicitated in the course of the programme.

**LET US CELEBRATE
THE INTERNATIONAL
BIODIVERSITY DAY 2009
IN A GRAND WAY.**

Dr. V.B. Ramanamurthy
Andhra Pradesh Biodiversity Board
Hyderabad

Briefly.....

The Convention on Biological Diversity (CBD) has set, in 2002, International Biodiversity Day in 2009 to be celebrated as Invasive Alien Species (IAS), impact on Biodiversity.

The A.P. Bio Board proposes to utilize the occasion to bring about awareness on the 'top ten' threats to biodiversity namely: invasive alien species, weeds, pests, microbes and diseases pertaining to agriculture, forests and aquatic ecosystems of Andhra Pradesh.

Forest ecosystem workshop is proposed at A.P.F.A. Dhulapally, on 15th May, for the project managers of the protected areas.

Aquatic ecosystem workshop in collaboration with irrigation department is proposed on 18th May

Invasive Alien Species in Agriculture ecosystem workshop for the agriculture officers is proposed to be organized on 19th May 2009 at Extension Education Institute, Rajendranagar.

Feature - Floral Diversity

Invasive Alien Species-Threat to Biodiversity of A.P.

Through aggressive growth certain alien species out-compete established natives. Invasive species are with the ability to invade growth conditions and to replace native biodiversity. Invasive species are one of the greatest threats to biodiversity, ecosystem function, human health and the economy and hence the C.B.D. has appropriately selected the theme for International biodiversity Day 2009.

Globalization has resulted in greater trade, transport, travel and tourism, all of which can facilitate the introduction and spread of species that are not native to an area. Protected Areas are often conserved from deforestation and the foremost threat facing the biodiversity conservation is that of Invasive Alien Species.



Establishment and co-habitation of *Lantana camara* in moist tracts of Eastern Ghats (Mothugudem RF, Khamam district).

Pic. Dr. C. Sudhakar Reddy

and set quarantine regulations to try to limit the entry of invasive species. Methods of controlling invasive species are 1) Mechanical control, physically removing the invasive species; 2) Chemical control using herbicides, pesticides and 3) Biological control by introducing a natural enemy - water hyacinth weevil *Neochetina* spp. for *Eich-*

infestations that threaten goals 3. Assess control techniques; develop weed management and monitoring plan 4. Implement management plan and conduct monitoring 5. Summarize, analyze, interpret, and communicate results 6. Review and adjust management and monitoring approach and goals as needed.

Similarly the Invasive alien species of Microbes termed as Biological terrorism has been identified as one of the potential threats to the globe.

Our contribution of the Common House Rat (*Rattus rattus*) is creating panic in all the countries which are agricultural producers. Similarly the presence of Common Myna and Common crows in our environment are introduced in our ecosystems.

Habitat Type	Invasive alien species
Wild	<i>Hyptis suaveolens</i> , <i>Lantana camara</i> , <i>Chromolaena odorata</i> , <i>Prosopis juliflora</i> , <i>Ageratum conyzoides</i> , <i>Cassia tora</i> , <i>Cassia uniflora</i> , <i>Lagascea mollis</i> , <i>Sida acuta</i> , <i>Waltheria indica</i>
Aquatic	<i>Eichhornia crassipes</i> , <i>Alternanthera philoxeroides</i> , <i>Ipomoea carnea</i> , <i>Typha angustata</i> , <i>Pistia stratiotes</i> , <i>Saccharum spontaneum</i> , <i>Monochoria vaginalis</i> , <i>Sesbania bispinosa</i>
Cultivation	<i>Acanthospermum hispidum</i> , <i>Alternanthera tenella</i> , <i>Blainvillea acmella</i> , <i>Celosia argentea</i> , <i>Chloris barbata</i> , <i>Cleome viscosa</i> , <i>Malachra capitata</i> , <i>Parthenium hysterophorus</i> , <i>Tribulus terrestris</i> , <i>Triumfetta rhomboidea</i> , <i>Malachra capitata</i> , <i>Cassia obtusifolia</i> , <i>Cassia tora</i> , <i>Cassia absus</i> , <i>Cassia uniflora</i> .

Invasive alien species are a global issue that requires collaboration among governments, economic sectors and non-

India has 173 invasive plant species, America 128 species, followed by tropical Africa (11%). In the State of Andhra Pradesh about 78 invasive alien plant species are imposing high costs to agriculture, forestry and aquatic ecosystems. Prevention is the most cost-efficient and effective method against invasive alien species.

Halting the establishment of potentially invasive species in the first place is the first line of defense. Governments conduct customs checks, inspect shipments, conduct risk assessments

hornia; *Lantanophaga pussilidactyla* insect for *Lantana camara*; *Zygogramma bicolorata* insect for *Parthenium*.

Monitoring of invasion can be done through qualitative approach like species inventory and quantitative approach using phytosociological methods and mapping using ground-based methods and remote-sensed images.

Weed management plan with the following sequential steps should be considered 1. Establish conservation goals; 2. Identify and prioritize those species/

governmental and international organizations. Individuals also have a large part to play, including policymakers, horticulturists, landowners and youth.

Hence on the eve of the International Biodiversity day let us resolve to reduce if not prevent the impact of invasive alien species in our surrounding areas by eradication.

Dr. C. Sudhakar Reddy
NRSA, Hyderabad

&
Dr. V.B. Ramanamurthy
AP Biodiversity Board, Hyderabad



Feature - Faunal Diversity

Canids of Andhra Pradesh

Perhaps no creatures have such an ambivalent relationship with humans as the dogs, wolves, jackals and foxes that make up the family Canidae. Domesticated at least 14,000 years ago, dogs were the first animals to enter a partnership with humans and have been used extensively for hunting, guarding, companionship. At the same time wild canids have been relentlessly persecuted, blamed for the loss of livestock.

The Canids are among the most widely distributed of the beasts of prey. In India, they have adapted themselves to contrasting conditions of heat and cold, of dryness and humidity. The jackal is seen throughout in all the habitats while the wolf and the fox are seen in open parts and the wild dog has restricted itself to the forests.

Most canids live in open grasslands, where they capture their prey. With their slender build, muscular and long sturdy legs. A pointed muzzle houses the scent organs that allow canids to track prey over long distances and long pointed ears help in acute hearing.

Smaller species live alone or in pairs while the larger species live in social groups called 'packs'. These animals care for the pack's young and defend their territory from rival packs. Canids are opportunistic and adaptable. There are four species of canids in Andhra Pradesh namely: The wolf, the jackal, the red fox, the Indian fox and the Dhole or wild dog.

Wolf (*Canis lupus*): Locally called the *Bheriya* or *Thodelu*,

the wolf is the largest of the canids and has a big head and dense grey coat that is interspersed with black hairs beginning from the forehead running through the middle to the tip of the tail. The undersides are sandy to fawn in color. They are common in dry open regions, deserts, dry scrub, thorn forests and barren uplands. They hunt in packs and feed on a variety of prey depending on the habitat from wild animals to domestic livestock. They give birth to 3-9 young. Their numbers have been declining in recent years due to habitat alteration, poaching, habitat loss and human-animal conflicts.

Jackal (*Canis aureus*): Locally known as the *Gidhar* or *Nakka*, the jackal is medium sized and has a scraggly buff-grey coat. The coat colour is variable with season and region being a mixture of black and white hairs interspersed with buff above the shoulders, ears and legs. On the underside the coat colour is a mix-



Wild Dog *Cuon alpinus*

ture of white and buff. Jackals live in varied environments from humid forests to sandy deserts, and are also found near human habitation. They generally hunt alone or in pairs rarely in packs and even scavenge. Their numbers are on the decline due to habitat loss and poaching.

Indian Fox (*Vulpes bengalensis*): Locally known as *Lomri* or *Gunta Nakka*, the Indian Fox is the common fox of the plains with grey coat, rufous limbs, black-tipped tail and is small and slender-limbed. The ears are brown with a black fringe and there are small patches of black hair on the muzzle in front of the eyes. Compared to the wolf and jackal, foxes are smaller, have shorter limbs, bushier tail and longer ears. They hunt alone or in pairs and feed on rodents, small game birds and fruits. They give birth to 6-7 young.

Wild Dog (*Cuon alpinus*): Locally known as *Dhole* or *Resu Kukka*, the Wild Dog is a reddish-brown forest dog with short legs, bushy tail, rounded off ears and thick muzzle. Coat colour varies from sandy brown to deep rust red. It differs from other canids in having six molars as against 7; and has 12-14 teats as against 10. Dholes inhabit open country and thick jungles and hunt in packs and devour their prey even before it is dead reducing it to its bones in a matter of a few hours. Their distinctive call is in the form of a whistle giving away their presence in the forest coupled with whining and yelping. They give birth to 4-6 young. Their number are declining due to habitat loss, deforestation, decline of prey species and human-animal conflict.

C. Srinivasulu and
Bhargavi Srinivasulu
Department of Zoology,
Osmania University,

Hyderabad 500 007, Andhra Pradesh

Gray wolves usually live in family units of 5-12 individuals. Presently in India their population is estimated to be 2000-3000 individuals that is steadily declining majorly due to human-animal conflict.

Wild Dogs though have a negative reputation of being ruthless killers are great at caring for their young. They live in large packs and females of the species take care of pups other than theirs alongside their own. The pack after returning from a hunt regurgitate the food for the pups.

The canids are vital for the ecosystem be it grassland, desert or the forest ecosystem. They help keep check on the herbivore population and help in retaining the best of the genes by eliminating the weak and the meek. Humans are encroaching on their domain and not vice-versa, by necessary steps human-animal conflicts and their losses can be avoided.

Endangered Plants of Andhra Pradesh

Thamba Jalari *Shorea tumbergaia*

Shorea tumbergaia locally known as Thamba Jalari is an important valuable endemic tree of the non-teak bearing forests of Eastern Ghats of Andhra Pradesh (Chittoor, Cuddapah and Nellore districts) and Tamil Nadu (Chengalpattu, North Arcot districts).

This species belongs to the family Dipterocarpaceae.

It is more prevalent in drier areas in mixed deciduous forest vegetation at altitudes 300 m above sea level and is considered a tree species of southern deciduous forests.

Shorea tumbergaia is globally endangered according to Red Listed Medicinal Plants as-

essed through Conservation Assessment and Management Plan Workshop, CAMP, 2001.



Shorea tumbergaia

This species reaches great heights and secretes resin. The bark of this tree is rough, brown thick and longitudinally fissured. This plant is used for a variety of purposes.

The stem is a source of resin and is used in marine yards as a substitute for pitch. The tree trunk is in use as flag poles for temples.

The medicinal properties of this plant include: The plant extracts are a cure for ear-aches and certain plant parts are reported to be used in indigenous medicine as an external stimulant. Leaf juice is used as ear drops for children. This species threatened due to unregulated harvesting for local consumption and commercial purposes and habitats loss.

This plant is maintained in an in-situ conservation initiative in the Tirupati Wildlife Management Division of Chittoor District.



Vernacular name:

Thamba Jhalari was accorded

Endangered status by the 2001

CAMP Workshop on Threatened

Plants of Andhra Pradesh.

Endangered Animals of Andhra Pradesh

The Vultures - *Gyps* species

Vultures are nature's scavengers and their effectiveness in disposing off dead cattle has been a critical public health safeguard in India. But with the sub-continent losing 99% of its vulture population in just 15 years, scientists and conservationists are trying to understand why, and propose remedies.

There are nine species of vultures in India of them the populations of three species, that is, White-backed vulture (*Gyps bengalensis*), Slender-billed vulture (*Gyps tenuirostris*) and Long-billed vulture (*Gyps indicus*) have declined drastically over the past decade. The decline has been estimated to be 99% by 2008.

Although due to rampant urbanization that is affecting

many a bird species is affecting the vultures the more sinister reason behind their drastic



White-backed Vulture

disappearance is the rampant usage of Diclofenac, a painkiller used both in veterinary medicine and also to treat humans. The cattle infused with this drug upon death is fed upon the vultures causes the birds to suffer from dehydration, when uric acid forms leading to gout in the viscera eventually to kid-

ney failure and death.

Setting up vulture feeding stations through provision of poison-free food, clean water and perches within an open-roofed wire-mesh enclosure for safety and freedom is the best conservation tool to be implemented. The Parsi community in India are now considering importing and breeding vultures to aid them in the cremation of their dead. Awareness among farmers of the ill-effects of the drug is needed.

"Human persecution is the main cause behind the high mortality of vultures in India" S. M. Satheesan. Vulture population has declined by 90% in India.

Three vulture species - Slender-billed, White-backed and the Long-billed vultures are listed under Critically Endangered Category of the IUCN Red List and Schedule I of the IOWA.

A recently concluded study in Andhra Pradesh by the team from Osmania University has found that the vultures populations have been totally annihilated in the state.

Vulture canteens are the need of the hour to bring them back from the brink of extinction. This has been a major success in Nepal and Karnataka is not far away from implementing the same.



There exists a general apathy towards animals that needs to be quelled by proper awareness about their importance in our lives and that their declines would eventually adversely affect our very survival on this planet.

Children are torch-bearers of our society, its our responsibility to create awareness in children about life other than humans that inhabit the earth and stress upon peaceful co-existence.

Environment Education

Wildlife Week Celebrations - October 2008

Wildlife Week Celebrations were conducted by Zoological Survey of India, Freshwater Biological Station, Hyderabad, in collaboration with Botanical Survey of India, Hyderabad, Biodiversity Research and Conservation Society (BRaConS), Hyderabad and Wildlife Education and Extension Wing of Andhra Pradesh Forest Department on October, 22, 2008. Students and teachers from five different schools participated in these celebrations.

Dr. C. Srinivasulu, started the day by speaking in detail about wildlife in general and the perils that the wildlife is facing in the present day world. He then proceeded to present a slide show about amphibians. After which the participants were distributed the education material from A.P. Forest Department and those procured from Zoo Outreach Organization

highlighting 'Amphibian Ark 2008 - India Campaign' The children were asked to pledge out loud that they would become aware and make others



Children participating in the drawing-painting competition.

Pic. Dr. Bhargavi Srinivasulu

aware that amphibians should be protected and wildlife in general should be appreciated and protected. After this exercise the kids there was an elocution competition on wildlife and its conservation.

A lunch break ensued wherein the students mingled with personnel from the representing organizations. This was followed by a drawing-painting competi-

tion on the same theme. After the drawing-painting completion the children assembled for a short film screening by the personnel from the Andhra Pradesh Forest Department. This was then followed by a quiz on wildlife, the questions for the quiz were prepared by the team from BRaConS for this the schools were divided in to teams and the quiz that ensued was more than just a normal quiz but it was more interactive, along with shouts, laughter, competing for answering first-everything put together.

The quiz marked the end of an exhilarating day filled with happy and excited students. Later, a prize distribution ceremony for winners of the elocution, painting and quiz competitions followed by a valedictory function was conducted. After which everyone dispersed.

Bhargavi Srinivasulu and

Harpreet Kaur

BRaConS, Hyderabad and
Department of Zoology, Osmania University,
Hyderabad-07

Pioneers in Conservation

Prof. K. R. Dronamraju & Prof. P. Narasimha Rao



Prof. K. R. Dronamraju

An illustrious personality, **Prof. K. R. Dronamraju** has done pioneering work in the field of Human Genetics and Biotechnology. He has about 100 research publications and 15 books of high acclaim to his credit in his field of research.

He has been an honorary professor of various Universities in UK, Switzerland, Paris, Andhra University, and has held the position of an advisor to former President of US Mr. Bill Clinton and was a member of his delegation to India in the year 2000 to support

Indo-US cooperation in Science and Technology. He has supported the cause of Intellectual Property Rights. He is a member of many national and International societies and has been recognized for his services and awarded suitably. He completed his doctoral work under the tutelage of Sir J. B. S. Haldane in the year 1966.

Prof. Paritala Narasimha Rao a person of eminence of the Department of Botany, Nagarjuna University has made invaluable contributions in

the field of plant taxonomy, anatomy and weed ecology.

He has a vast research and teaching experience and has received the Gold medal from the Academy of Plant Sciences, Haridwar, Best Teacher Award from the Government of Andhra Pradesh respectively. He has more than 70 research papers and 3 books to his credit and has guided 22 Ph.D. and M.Phil. Scholars. He is associated with many regional and National plant science institutes and universities.



Prof. P. Narasimha Rao

Turtles - ambassadors of the oceans

Turtles and tortoises, make up the order Chelonia, are recognized by a hard shell that encloses the internal organs of the body. They have been on Earth even before the dinosaurs. The difference between a turtle and tortoise is that the turtle stays in water while the tortoise stays on land. But both creatures live to a ripe old age, from 120 years to almost 200 years! They manage to live so long because they continue to grow very slowly as long as they live. Their body does not need much energy to survive. They face many risks to their life. After



Olive Ridley Turtle

birth, their shells take some months to harden, hence are vulnerable to predation. The other risk to their life is pollution of their living environment. They continue survive increasing pet and food trade, pollution and shrinking habitat. As human habitation spreads, turtle populations are being depleted, not only because they are easily caught but because their habitats are changing radically. Sea turtles have been used for local consumption as they provide food, as well as

other commodities. They are important indicators of the health of coastal and marine environments on both local and global scales. As a result, sea turtles are "flagship species"; by focusing on these animals and their habitats, vast areas of the planet have to be taken into consideration, and managed adequately. In a word: sea turtles are "ambassadors of the oceans", conserving these animals means protecting the seas and coastal areas, in turn means protecting a complex, interconnected world on which human societies depend.



What it takes to be a Conservation Educator...

Conservation educators have the ability to inspire people to learn more about the environment and take action to the world around them based on the decisions they make. In addition to this, leading by example can show an audience how to share this information with friends and family and how to take actions that care for wildlife and the environment.

Your educational approach should encourage environmentally responsible behavior by fostering:

- **Awareness** – a sensitivity to the environment associated problems
- **Knowledge** – an understanding of how the environment functions, how people interact with and depend on the environment, and how environmental problems can be solved
- **Attitudes** – a concern for the environment and the personal motivation and commitment to participate in environmental improvement and protection
- **Skills** – the ability to identify and investigate environmental problems and to contribute to their resolution
- **Participation** – active involvement in working towards the resolution of environmental problems

News

Charles Darwin's 200 Birth Anniversary - 12.02.2009

The year 2009 marks the 200th birthday of Charles Darwin, a mild-mannered Englishman who gave this world 'The Origin of Species' which incidentally marks the 150th year of its existence. Born on 12 February 1809, Charles Darwin was destined to become world-renowned scientist due to his great interest in nature. His

upbringing in English countryside provided him with ample opportunity to study nature. In 1831, 22-year old Charles Darwin boarded HMS Beagle as its official naturalist and spent the next five years travelling along both the coasts of South America and the rainforest of Amazon, Argentine pampas, Atacama desert and the Andes

mountains. On his return journey, a 6-month stay at Galapagos Islands provided him the much needed understanding that founded the very essence of his theory on the origin of species by means of natural selection that he published in 1859. His theory got accepted with passage of time and has become the backbone of evolution theory

Events

Fourth Quarter Meet of Biodiversity Board

The fourth quarter Biodiversity Board meeting was held at Aranya Bhavan and the Chairman, Biodiversity Board welcomed the participants. The member secretary of the board presented the action taken report for the last quarter and conveyed to the members of the action taken in form of National Agricultural Innovation Project. Agenda of the meeting was submission of project pro-

posals & finally accepted proposals were by A.P.T.D.C. & I.I.T. Kharagpur; by Institute of Birds Studies & Natural History, Rishi Valley; Sandal wood plantation in Singareni Collarries of Khammam District; by Ethnic India Canine society; by Wild Andhra Pradesh; Traditional Knowledge Digitisation of Mahanandi B.M.C. A.P Biodiversity Board has taken initiatives and issued notices to 570

companies those who have been utilizing seeds, and 600 companies have been utilizing medicinal plants and their products. The Board also organized a Workshop on Biopiracy and Intellectual Property Rights. Additionally, the Board is proud to inform of the legal action taken against one German biopirate who was involved in smuggling the spiders.

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). 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.

READERS ARE INVITED TO SEND IN PROPOSALS FOR *IN-SITU* AND *EX-SITU* CONSERVATION PROJECTS TO THE BIODIVERSITY BOARD

ANDHRA PRADESH
STATE BIODIVERSITY
BOARD

Regd. Off.:
302, Aranya Bhavan, Saifabad,
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*Your life depends on
Biodiversity....*



Views

'Bydagi chilli', a variety of chilly known for its red colour value that is the highest of all chillies is grown in nine districts of Karnataka including Shimoga, Dharwad, Belgaum and Haveri - where Bydagi town is located. It has a unique deep red colour and sweet flavor. The Spices Board has applied for Geographical Indication (GI) registration to protect the rights of the farmers who grow this variety of chilly.

The majority of the produce of this variety is used to extract a particular kind of oleoresin that is used as a dye in the textile industry. The Bydagi chilly is exported across Europe, North America, Indonesia and Bangladesh



Nature's Jewel come in many kinds -
Red Marsh Trotter, Dragonfly

- Editors

Pic. C. Srinivasulu

AN APPEAL

The Andhra Pradesh Biodiversity Board appeals to the schools in the State to take up 'School-based Biodiversity Projects' that envisages that school children between the ages of 7 and 14 will collect biodiversity data as part of their normal school science lessons which often feature nature hunts. This data will then be statistically analyzed by older (14-18 year old) students. This project could be useful in creating Biodiversity Databases at Village/Town levels and also encourage students to learn, love and respect nature in a better way.

- Editors

Signing Off

Telineelapuram - A pelican haven

Telineelapuram, located about 5 km east of Tekkali town in Tekkali Mandal of Srikakulam district is world-renowned pelicanry.

The Telineelapuram Gram Panchayat governs four villages: Telineelapuram (460 ha), Viswanadhapuram and Vemalavada (410 ha), and Srirangam (56.3 ha). Very large numbers of Spot-billed Pelican *Pelecanus philippensis* and Painted Stork *Mycteria leucocephala* breed in these villages, mainly on *Prosopis chilensis*. Some nests are also found on *Tamarindus indica* and *Enterolobium saman*.

The pelicanry is located in the village itself and birds could be seen from close distance standing on the rooftops. Common trees of human habitations, such as, *Azadirachta indica*,

Tamarindus indicus, *Enterolobium saman* and the introduced *Prosopis chilensis*, are widespread at the site.

The breeding colony of Spot-billed Pelican and Painted Stork is surviving mainly because of the protection provided by villagers, who consider them sacred and auspicious. If the birds fail to come for breeding (in drought years), villagers believe that harm will come to them.

About 200-300 spot-billed pelican and about 300-400 painted stork breed regularly at Telineelapuram. The pelicans mainly breed on four large *Ficus* trees, while the storks breed on *Acacia* trees. Their main foraging ground is at Kakarpally Creek,



Telineelapuram Pelicanry, Tekkali Mandal, Srikakulam District.

Pic. C. Srinivasulu

locally known as Kakarpally parras, located about 10 km from the Telineelapuram pelicanry. The creek spreads over 1000 ha and fills up with sea water during high tide. Pelicans fly even further in search of food.

Dr. C. Srinivasulu
Department of Zoology,
Osmania University, Hyderabad - 07