

# BIODIV News

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Stripped Tiger (*Danaus genutia*)

## Editorial

### *Esteemed Readers,*

This issue discusses some butterfly species found in Uttar Pradesh. Butterflies are delicate creatures that enthrall everyone with their colorful beauty and graceful flight. They are an important part of our world. They pollinate plants more than any other insect except bees. Because butterflies are pollinators, they are an important component of plant ecosystems. The greatest threat they face is loss of habitat. Knowing more about them is an important way to protect these amazing creatures. Hopefully more people will become involved in putting a stop to the unbridled destruction of butterfly habitat, indiscriminate use of insecticides.

Other than their aesthetic value, butterflies have important roles in the functioning of forest eco-systems. Because of their, wide range of distribution, diversity, specificity to vegetation type, rapid response to perturbation, taxonomic tractability, statistically significant abundance and ease of sampling, they are very useful organisms to monitor environmental changes.

The butterfly's attractiveness derives not only from colors and symmetry: deeper motives contribute to it. I wonder sometimes if we would think them to be just as beautiful if they did not fly, or if they flew straight and briskly like bees, or if they stung, or above all if they did not undergo the mystery of metamorphosis?

Butterflies teach us important lessons of life too! Beautiful and graceful, varied and enchanting, small but approachable, butterflies lead you to the sunny side of life. After all, if nothing ever changed- there would be no butterflies!

– Editor

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# 1-Butterflies : Flying Jewels

By

Somesh Gupta and Neeraj Mishra

## Introduction:

The diversity of life is the most striking aspect of our planet and insect are the most diverse group of animals. Butterflies are excellent bio-indicators, being highly sensitive to climate change. India is believed to host 1800 species and sub species of butterflies. About 15-20% of these are endemic to the Indian region.

Butterflies are the most fascinating and eye-catching flying insects. They are found all over the world, except Antarctica. They are day-flying insects of the order Lepidoptera, which includes butterflies and moths. The life cycle consists of four parts: egg, larva, pupa and adult. The purpose of this article is to draw attention to the varieties of butterflies found in Uttar Pradesh.

Butterflies differ from moths in a number of ways, the main ones being:-

- (a) Butterflies mostly fly in the day time.
- (b) Butterflies have knobbed or hooked antennae, which are straight and held in front of the head.
- (c) Most butterflies rest with their wings erect.
- (d) The upper and lower wing on one side of the body is never joined at the base.

## Families of Butterflies:

1. Swallowtails and Bird wings	family Papilionidae
2. Whites and Yellows	family Pieridae
3. Blues and Coppers or Gossamer winged butterflies	family Lycaenidae
4. Metalmark butterflies	family Riodinidae
5. Brush, footed butterflies	family Nymphalidae
6. Skippers	family Hesperidae

## Facts on butterflies:

- Most butterflies have an average life span ranging from 20 to 40 days. A few may live up to 9 months.
- Butterflies can only see the colors red, green and yellow.
- Most butterflies are dark colored because they need to absorb heat from the surrounding environment.
- Caterpillars spend most of their time eating leaves using strong mandibles (jaws).
- Butterflies do not have any chewing mouth parts. They have a straw like tubular proboscis which enables them to sip nectar.
- They are picky in choosing leaves for egg laying and eating.
- Butterflies are the only insects that have scales. Butterfly scales contain pigment, which in combination with light refraction gives butterflies their colors.
- Butterflies are cold blooded insects. They rely on heat absorbed from the sun with wings outstretched. That is why they often bask in the sun with wings outstretched. They can fly only if their body temperature is above 86° Fahrenheit (30° C)

## 1- Papilionidae-Swallow tails

Swallow tails butterflies are large, colourful and attractive. The largest butterflies, the Birdwings belongs to this family.

**Common lime:** The Common lime (*Papilio demoleus*) is a common and widespread Swallow tail butterfly. It gets its common names from its host plants, which are usually citrus species such as the cultivated lime. Unlike most swallowtail butterflies, it does not have a prominent tail. The butterfly has also been referred to as the Butterfly of Death.

**Common jay:** The Common jay (*Graphium doson*) is a black, tropical papilionid butterfly with pale blue semi-transparent central wing bands that are formed by large spots. There is a marginal series of smaller spots. The underside of wings is brown with markings similar to upper side but whitish in color. The sexes look alike.

**Common windmill:** The Common Windmill (*Atrophaneura polyeuctes*) is the most common member in India of the Windmills group of *Atrophaneura*, comprising tailed black swallowtail butterflies with white spots and red sub marginal crescents.

**Common mormon:** The Common Mormon (*Papilio polytes*) is a common species of swallowtail butterfly widely distributed across Asia. This butterfly is known for the mimicry displayed by the numerous forms of its females which mimic inedible Red-bodied Swallowtails, such as the Common Rose and the Crimson Rose.

## 2- Family: Pieridae

Most pierid butterflies are white, yellow or orange in coloration, often with black spots. The larvae of this species feed on brassicas and are notorious agricultural pests.

**Common jezebel:** The Common Jezebel (*Delias eucharis*) is a medium sized butterfly found in many areas of South and Southeast Asia, especially in the non-arid regions of India, Sri Lanka, Myanmar and Thailand. The Common Jezebel is one of the most common species in the genus *Delias*.

**Bath white:** The Bath White (*Pontia daplidice*) is a small butterfly of the family Pieridae, the Yellows and Whites. It is common in central and southern Europe, migrating northwards every summer, often reaching southern Scandinavia and sometimes southern England.

**White orange tip:** The White orange tip (*Ixias marianne*) commonly known as the white orange tip, is a small butterfly of the family Pieridae, (the yellows and whites) found in India and Sri Lanka.

**Yellow orange tip:** Yellow orange tip (*Ixias pyrene*) is a small butterfly of the Family Pieridae, that is, the Yellows and Whites, which is found in India.

**Pioneer:** The Pioneer White or African Caper White (*Belenois aurota*) is a small to medium-sized butterfly of the Family Pieridae that is, the Yellows and Whites, which is found in South Asia and Africa. In Africa, it is also known as the



Common lime



Common jay



Common Windmill



Common Mormon



Common jezebel



Bath White



White orange tip



Brown-veined White, and is well known during summer and autumn when large numbers migrate north-east over the interior.

**Small salmon arab:** The Small Salmon Arab (*Colotis amata*) is a small butterfly of the family *Pieridae*, that is, the Yellows and Whites, which is found in Asia.

**Common grass yellow:** The Large Grass Yellow or Common Grass Yellow (*Eurema hecabe*) is a small butterfly species found in Asia or Africa. They are found flying close to the ground and are found in open grass and scrub habitats. It is simply known as "the grass yellow" in parts of its range; the general term otherwise refers to the entire genus *Eurema*.

**One spot grass yellow:** One-spot grass yellow (*Eurema andersonii*) is a small butterfly of the Family *Pieridae* that is, the Yellows and Whites, which is found in India and other parts of Asia.

**Three spot grass yellow:** Three spot grass yellow (*Eurema blanda*) is a small butterfly of the Family *Pieridae* that is, the Yellows and Whites, which is found in India.

**Mottled Emigrant:** The Mottled Emigrant (*Catopsilia pyranthe*) is a medium sized butterfly of the Family *Pieridae* found in South Asia, Southeast Asia and parts of Australia

**Common albatross:** The Common Albatross (*Appias albina*) is a small butterfly of the family *Pieridae* (Yellows and Whites), that is found in India and Australia

**Large cabbage white:** The Large White (*Pieris brassicae*) also called Cabbage Butterfly, Cabbage White, or in India the Large Cabbage White, White cabbage butterfly is a butterfly in the family *Pieridae*.



Yellow orange tip



Pioneer



Small Salmon Arab



Common Grass Yellow



One-spot grass yellow



Three spot grass yellow



Mottled Emigrant

### 3- Lycaenidae-Blues

Lycaenidae are the second largest families of butterflies. Adults are usually small, under 5 cm; brightly coloured with metallic gloss. The male's forelegs are reduced in size and lack claws.

**Common silverline:** The Common Silverline (*Cigaritis vulcanus*) is a species of lycaenid or blue butterfly found in Asia.

**Rounded pierrot:** The Rounded Pierrot (*Tarucus extricatus*) is a small butterfly found in India that belongs to the Lycaenids or Blues family

**Sorrel sapphire:** The Sorrel Sapphire (*Heliophorus sena*) is a small butterfly found in India that belongs to the Lycaenids or Blues family.

**Common meadow blue:** Common meadow blue (*Polyommatus icarus*) as the name suggests, the most common blue butterfly. Both male and female share the same very colourful underwing patterns.

### 4- Nymphalidae-Brush-footed

This is the largest family of butterflies. These are usually medium sized to



large butterflies. Most species have a reduced pair of forelegs and many hold their colourful wings flat when resting. They are called “brush footed” or “fore footed” butterflies. Many species are brightly coloured. However the underwings are in contrast often dull and in some species look remarkably like dead leaves, or are much paler, producing cryptic effect, that helps the butterfly disappear into its surroundings.

**Stripped tiger:** The Common Tiger (*Danaus genutia*) is one of the common butterflies of India. It belongs to the "Crows and Tigers", that is, the *danainae* group of the Brush-footed butterflies family. The butterfly is also called Striped Tiger in India to differentiate it from the equally common Plain Tiger *Danaus chrysippus*.

**Blue pansy:** Blue pansy (*Junonia orithya*) is a nymphalid butterfly with many subspecies occurring from Africa, through southern and south-eastern Asia, and in Australia. In India its common English name is the Blue Pansy, but in southern Africa it is known as the Eyed Pansy. In Australia this butterfly is known as the Blue Argus

**Peacock pansy:** The Peacock Pansy (*Junonia almana*) is a species of nymphalid butterfly found in South Asia. It exists in two distinct adult forms, which differ chiefly in the patterns on the underside of the wings; the dry-season form has few markings, while the wet-season form has additional eyespots and lines.

**Yellow pansy:** The Yellow Pansy (*Junonia hierta*) is a species of nymphalid butterfly found in the tropics. It is usually seen in open scrub and grassland habitats.

**Chocolate pansy:** The Chocolate Pansy or Chocolate Soldier (*Junonia iphita*) is a butterfly found in Asia. It is about 5-6 cm (2.0-2.4 in) in wingspan and the female can be told apart from the male by white markings on the oblique line on the underside of the hind wing. The wavy lines on the underside of the wings vary from wet to dry season forms.

**Lemon pansy:** The Lemon Pansy (*Junonia lemonias*) is a common nymphalid butterfly found in South Asia. It is found in gardens, fallow land, and open wooded areas

**Painted lady:** The Cynthia group of colorful butterflies, commonly called painted ladies, comprises a subgenus of the genus *Vanessa* in the Family Nymphalidae. They are well known throughout most of the world.

**Angled castor:** The Angled castor (*Ariadne ariadne*) also known as the Angled Castor, is a species of nymphalid butterfly found in Asia

**Double branded crow:** The Double-branded Crow (*Euploea sylvestris*), also known as the Two-brand Crow in Australia, is a butterfly found in South Asia, Southeast Asia and parts of Australia that belongs to the Crows and Tigers, that is, the Danaid group of the Brush-footed butterflies family.

**Danaid eggfly:** The Danaid Eggfly, Mimic, or Diadem (*Hypolimnais misippus*) is a widespread species of nymphalid butterfly. It is well known for



Common Albatross



Large White



Common Silverline



Rounded Pierrot



Sorrel Sapphire



Common meadow blue



Common Tiger



*Blue pansy*



*Peacock Pansy*



*Yellow Pansy*



*Chocolate Pansy*



*Lemon Pansy*



*Cynthia*



*Angled castor*



*Double-branded Crow*



*Danaid Eggfly, Mimic, or Diadem*

polymorphism and mimicry. They are found across Africa, Asia, and Australia.

### **Threats:**

Unprecedented habitat destruction is causing losses to butterfly colonies. From egg to adult, butterflies undergo a metamorphosis that is complex and often beset with problems like weather, predators, lack of food and human encroachment on habitat.

Illegal trade in these insects is also a threat to them. Some argue what difference do the absence of a couple of bugs make to a forest? The population of frugivorous and insect-eating birds and bats dwindle when large insects began to disappear, along with small carnivores and rodents that depend on larvae for food!

### **What we can do?**

We can begin by planting flowering plants in our backyards and help native butterflies survive. We can spread awareness about butterflies. Awareness at all levels will definitely help these winged jewels survive and to exist in a world dominated by human - beings.

An effort is made here being to the reader information about butterflies found and photographed in Uttar Pradesh. All pictures are courtesy Neeraj Mishra, based in Kanpur.

**"We delight in the beauty of the butterfly,  
but rarely admit the changes it has gone  
through to achieve that beauty".**



## 2- Preparation of Field Guide on the Implementation of Biological Diversity Act, 2002

Meeting on 5<sup>th</sup> July 2012



*Dr. Bhagwan Singh, Shri D P Singh, Shri Pawan Kumar, Dr. Ram Jee Srivastava, Shri R K Dubey, Shri Gurmeet Singh and Shri S K Saxena*

By Notification S.O. 2708 (E) dated 17 Nov. 2008 Government of India has empowered forest officers of the state forest departments not below the rank of Forest Range Officers to file complaints against offences done under Biological Diversity Act 2002. U.P. State Biodiversity Board has constituted a committee to make a guide book for the field forest officers to take actions on offences relating to Biological Diversity Act 2002. A meeting was organized on 5 July 2012 in PICUP Bhawan to discuss on this issue in which experts from Law, Ayurveda and Forest Department participated. The meeting was presided over by Secretary, U.P. State Biodiversity Board



*Common Castor*

Source : India Nature Watch



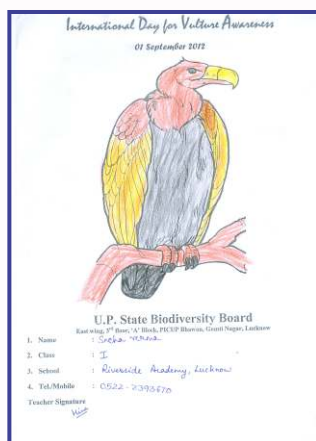
# 3- Vulture Awareness Day

## 1st September 2012

On the occasion of International Vulture Awareness Day i.e. 1st September 2012, a picture colouring competition was organized by U P State Biodiversity Board through the website. Total 198 entries were received from different schools/colleges of category (class 1st - 5th). The prize winners of the competition are as follows:

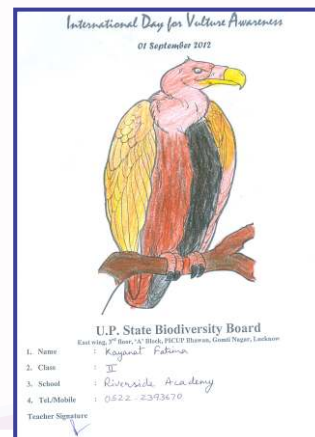
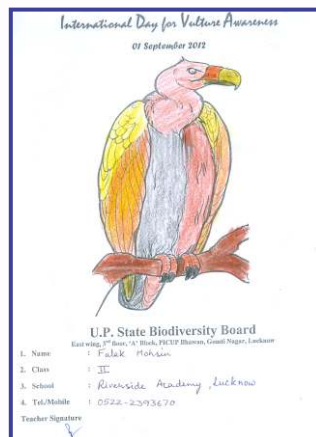
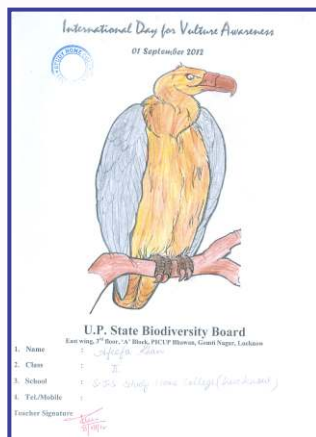
### Class- Ist

Sl No.	Name of Student	Name of School	Rank
1	Sneha Verma	Riverside Academy, Viram Khand-I, Gomti Nagar, Lucknow	Ist
2	Satakshi Tiwari	City Montessori Inter College, Vishal Khand-II, Gomti Nagar, Lucknow	IIInd
3	Vaibhav Srivastava	S.J.S. Study Home College, Sector-12, Indira Nagar, Lucknow	Consolation



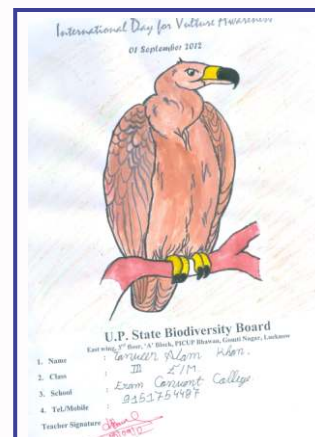
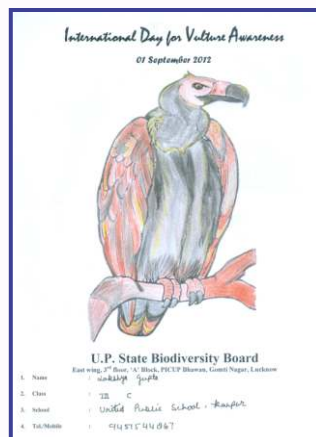
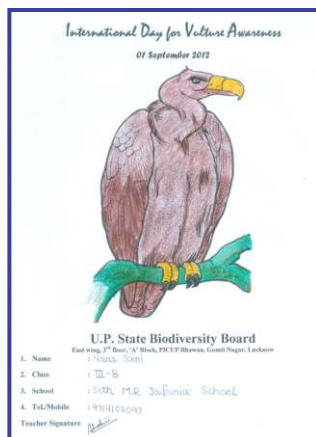
### Class- IIInd

Sl No.	Name of Student	Name of School	Rank
1	Afeefa Khan	S.J.S. Study Home College, Sector-12, Indira Nagar, Lucknow	Ist
2	Falak Mohsin	Riverside Academy, Viram Khand-I, Gomti Nagar, Lucknow	IIInd
3	Kayanat Fatima	Riverside Academy, Viram Khand-I, Gomti Nagar, Lucknow	Consolation



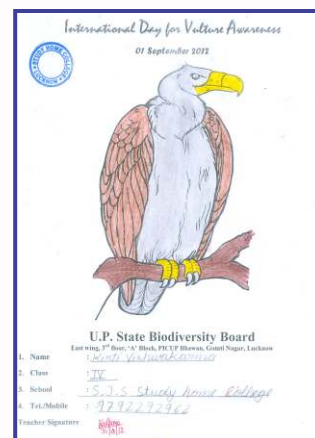
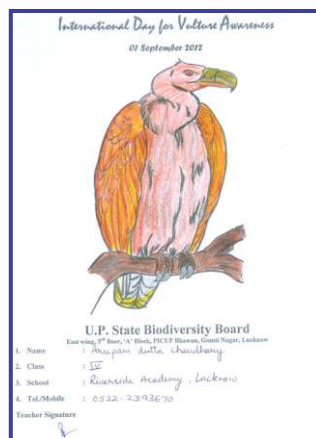
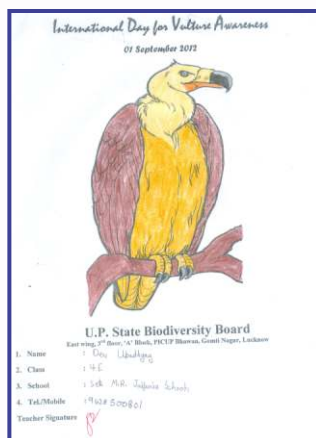
## Class- IIIrd

Sl No.	Name of Student	Name of School	Rank
1	Naina Saini	Seth M.R. Jaipuria School, Gomti Nagar, Lucknow	Ist
2	Lakshya Gupta	United Public School, Kanpur	IIInd
3	Tanveer Alam Khan	Eram Intermediate College, C-Block, Indira Nagar, Lucknow	Consolation



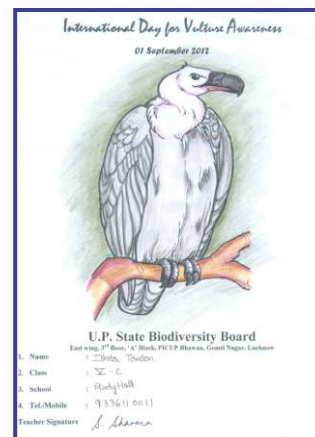
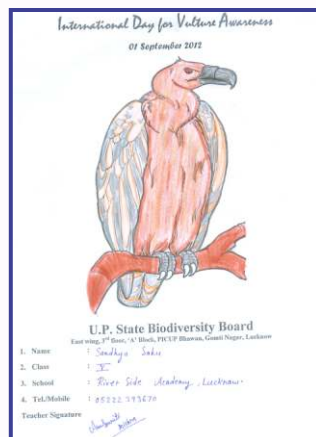
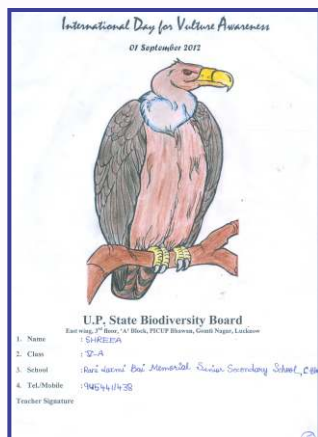
## Class- IVth

Sl No.	Name of Student	Name of School	Rank
1	Dev Upadhyay	Seth M.R. Jaipuria School, Gomti Nagar, Lucknow	Ist
2	Anupam Dutta Chaudhary	Riverside Academy, Viram Khand-I, Gomti Nagar, Lucknow	IIInd
3	Kirti Vishwakarma	S.J.S. Study Home College, Sector-12, Indira Nagar, Lucknow	Consolation



## Class- Vth

Sl No.	Name of Student	Name of School	Rank
1	Shreea	Rani Laxmi Bai Memorial Senior Scondary School, C-Block, Indira Nagar, Lucknow	1st
2	Sandhya Sahu	Riverside Academy, Viram Khand-I, Gomti Nagar, Lucknow	IIInd
3	Ishita Tandon	Study Hall, Vipul Khand-II, Gomti Nagar, Lucknow	Consolation



## 4- Visits/Trainings/Conferences

1. Dr. Ram Jee Srivastava, Senior Scientist and Shri R.K. Dubey, ACF participated in the National Workshop on "Experience Sharing and Capacity Building of Biodiversity Management Committees" organized by M.P. State Biodiversity Board during August 7-8, 2012.
2. Dr. Ram Jee Srivastava, Senior Scientist attended the Regional Science Congress on the theme "Science for Shaping the Future of India" jointly organized by The Maharaja Sayajirao University of Baroda, Vadodara and Indian Science Congress at during September 15-16, 2012. He also presented an invited paper on "Biodiversity Conservation and Sustainable Use of Source Medicinal Plants in the Technical Section of Botany Department, University of Baroda, Vadodara.





# 5- Newspaper Clippings

## (i) International News

ALLAHABAD  
THE HINDU • MONDAY, JULY 2, 2012

### Australia ahoy!

Down under unleashes a campaign to garner a larger share of Indian tourists

Sujay Mehdadia

2011. One of the world's fastest growing outbound travel markets, India could rise in annual value to up to (Australian) \$2.3 billion by 2020 and deliver 300,000 annual visitors.

According to Tourism Australia Managing Director Andrew McEvoy, the India 2020 Strategic Plan follows the successful roll out last year of a China 2020 strategy, but takes a different approach.

Mr. McEvoy said the campaign would harness new research, increased resources including a doubling of marketing spend by Tourism Australia in India in 2012-13 and adopt a targeted approach. "we acknowledge this is a unique and complex market that is becoming increasingly competitive and which needs a clear, strategic approach to build a platform for any substantive future success by our industry. With today over 70 national tourism organisations active in India, the time is right for Tourism Australia to invest more to both maintain our presence and enable our industry to better leverage a future competitive advantage," he remarked.

The four thrust areas being addressed includes choosing the right target customer; a clear geographic strategy to focus resources, which will initially target households in Delhi and Mumbai apart from the affluent middle class, building a sustainable, competitive aviation market between Australia and India and developing quality experiences that competitively differentiate Australia.

Mr. McEvoy said long haul holiday travel taken by Indians out of their country remains at relative small levels, but is developing fast as global travel is now appearing on many Indian's life resume. "By investing now Australia can strengthen its position to be better placed for the future when long-haul travel, in particular leisure, becomes more common..." he added.

Mr. McEvoy said one of the keys to unlocking India's long term tourism potential is improved air access and capacity, acknowledging that the market is currently underserved by direct non-stop flights between India and Australia. "Preliminary analysis suggests we'll need an additional 345,000 seats from our existing position to meet the expected demand for Australia from India out to 2020," Mr. McEvoy said.

Mr. McEvoy said Australian tourism must be ready to fully maximise the India opportunity, which means the campaign must invest in new products and experiences, as well as adapting aspects of service culture. Indian arrivals to Australia have grown at a compound annual growth rate of 12.3 per cent over the last decade.

by Tourism Australia, identifies the main opportunities and sets out the approach required to build Australia's appeal and to win future market share.

India is currently Australia's 10th most valuable inbound tourism market, with 148,000 visitors spending (Australian) \$ 867 million in


PICTURE PERFECT: Kangaroos beckon.



02 July 2012 : Australia has formulated a new strategy "India 2020 Strategic Plan" with an aim to tapping into future tourism potential of India. It identifies the opportunities to appeal and win future market share as India is currently Australia's 10th most valuable inbound tourism market.

ALLAHABAD  
THE HINDU • THURSDAY, JULY 12, 2012

### Corals on ocean-side of reefs hit by warming



AP

A paper in *Nature Climate Change* has linked the decline in growth of Caribbean corals – due to recent warming – to long-term trends in seawater temperature felt by these corals on the ocean-side of the reef.

12 July 2012 : According to a research published in *Nature Climate Change*, the growth of Corals on ocean-side of reef is declining due to recent warming to long term/trends in sea water temperature.



# Newspaper Clippings

ALLAHABAD

THE HINDU • THURSDAY, JULY 26, 2012

## Massive Greenland surface ice cover melt picked up by satellites

Greenland's surface ice cover melted this month over a larger area than ever detected in more than 30 years of satellite observations, NASA said recently.

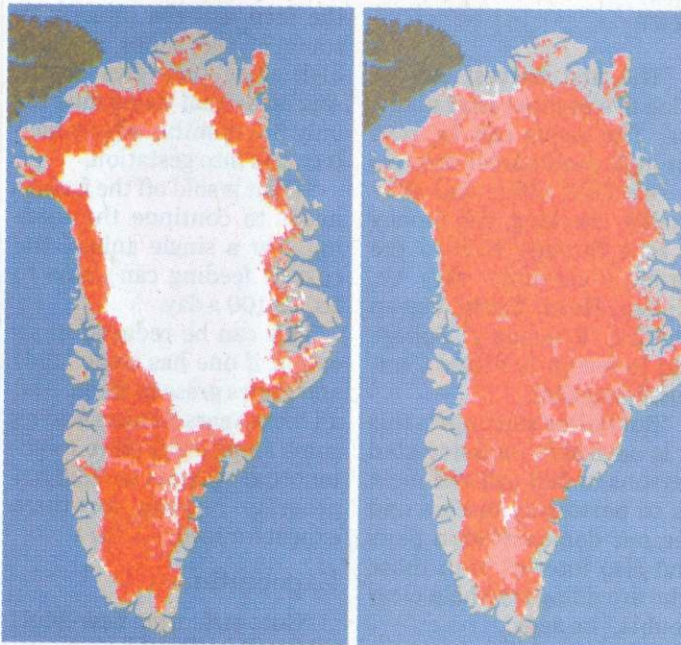
According to measurements from three separate satellites analyzed by NASA and university scientists, an estimated 97 per cent of the ice sheet surface thawed at some point in mid July, the agency said in a statement.

"This was so extraordinary that at first I questioned the result: was this real or was it due to data error?" said NASA's Son Nghiem.

The expert recalled noticing that most of Greenland appeared to have undergone surface melting on July 12 while analyzing data from the Indian Space Research Organisation's Oceansat-2 satellite.

Results from other satellites confirmed the findings. Melt maps drawn up showed that on July 8 about 40 per cent of the ice sheet's surface had melted, rising to 97 per cent four days later.

The news comes just days after NASA satellite imagery showed that a massive iceberg twice the size of Manhat-



**GRIM PICTURE:** The extent of surface melt over Greenland's ice sheet on July 8 (L) and July 12 is seen in these NASA handout images. The areas classified as 'probable melt' (light pink) correspond to those sites where at least one satellite detected surface melting. The areas classified as 'melt' (dark pink) correspond to sites where two or three satellites detected surface melting. — PHOTO: REUTERS

tan had broken off a glacier in Greenland.

"This event, combined with other natural but uncommon

phenomena, such as the large calving event last week on Petermann Glacier, are part of a complex story," said Tom

Wagner, NASA's cryosphere program manager.

In the summer, on average about half of the surface of Greenland's ice sheet melts naturally, NASA said. Normally, most of that melt water quickly refreezes at high elevations, while in coastal regions some of it is retained by the ice sheet while the rest flows into the ocean.

"But this year the extent of the ice melting at or near the surface jumped dramatically," NASA added. Researchers have yet to determine whether the melt, which coincided with an unusually strong ridge of warm air over Greenland, will contribute to a rise in sea level. NASA said that even the area near the highest point of the ice sheet, located 2 miles above sea level, showed signs of melting.

According to glaciologist Lora Koenig, who was part of the team analysing the data, melting incidents of this type occur every 150 years on average. "With the last one happening in 1889, this event is right on time," Koenig said. "But if we continue to observe melting events like this in upcoming years, it will be worrisome." — AFP

**26 July 2012 :** NASA satellite imagery analyzed an estimated 97 percent of the surface ice sheet surface has been found to be thawed at same point in mid July.



# Newspaper Clippings

ALLAHABAD

THE HINDU • THURSDAY, JULY 26, 2012

## Tummy bug outbreak due to climate change

Man-made climate change is increasing tummy bug outbreaks in Europe, resulting in illnesses ranging from cholera to gastroenteritis, scientists reported recently.

Vibrio bacteria, which is normally found growing in warm and tropical waters, now thrives in the Baltic Sea bacteria strains and scientists believe it will multiply as seas warm.

Climate change is driving the growth of a group of water-borne bacteria in northern Europe that can cause illnesses from cholera to gastroenteritis, the *Daily Mail* reported.

An international team examined sea surface temperature records and satellite data, as well as statistics on


Vibrio cases in the Baltic Sea.

Vibrios bacteria can cause various infections in humans, from eating raw or undercooked shellfish or from exposure to seawater.

The researchers found the number and distribution of cases in the Baltic Sea area was strongly linked to peaks in sea surface temperatures.

Each year the temperature rose one degree, the number of vibrio cases rose almost 200 per cent.

"The big apparent increases that we've seen in cases during heat wave years... tend to indicate that climate change is indeed driving infections," study author Craig Baker-Austin from the UK-based Centre for Environment, Fisheries and Aquaculture Science, said. — PTI

 **26 July 2012** : Vibrio bacteria (Tummy bugs) are multiplying fast in Europe due to man made climate change resulting infections in human from eating raw or undercooked shellfish.



# Newspaper Clippings

## (ii) National News

ALLAHABAD

THE HINDU • SUNDAY, JULY 1, 2012



*Two of the tiger cubs spotted along with their mother in Ranthambhore National Park of Rajasthan.*  
PHOTO: ROHIT JAIN PARAS

## New cubs sighted in tiger country

Mohammed Iqbal

**JAIPUR:** There is elation among wildlife enthusiasts in Rajasthan following the sighting of three new tiger cubs at Rajbagh pond in Ranthambhore National Park. Tigress Sundari, also identified as T-17, was spotted with her three cubs in the sanctuary over the weekend.

Sundari had been fitted with a radio collar in 2008 but it became non-functional two years ago. State Forests & Environment Minister Bina Kak

had asked the officials to remove it some time ago. The tigress conceived this time, even though it had been mating for the past few years.

With the arrival of the cubs who appear to be about one-and-a-half-months old, the total number of cubs in Ranthambhore has gone up to 25. The number of adult tigers in the park is 27, including 15 tigresses.

There had been speculation for some time that Sundari had delivered litter, but they were not sighted. The cubs were seen

with the tigress on Friday morning. The tigress' movement is usually observed in the terrain around Padam Talab, Rajbagh Talab, Malik Talab and Kachita Valley.

Ms. Kak said though it was celebration time with the "cub boom", it was equally imperative to provide for security and safety of the tiger cubs as well as the adult tigers. She said it was now necessary to utilise the adjoining Kailadevi National Park for the tigers and their cubs.

The Minister visited Kaila-

devi on Saturday to see how best a corridor could be created from Ranthambhore to ensure movement of the big cats. This will give more space to tigers and facilitate increase in their number. The area of Kailadevi National Park, which falls under the Ranthambhore Tiger Reserve, is at present devoid of tiger population.

Ms. Kak visited three gorges – Kudka Khoh, Nibhera Khoh and Mahal Khoh – and observed that these ravines were suitable habitats for tigers and other wild animals.

**01 July 2012 :** Three new tiger cubs of T-17 (Sundari) have been sighted at Rajbagh pond in Ranthambhore National Park. With the arrival of these cubs the total member of cubs in Ranthambhore has gone up to 25. The number of adult tigers in Ranthambhore is 27, this includes 15 tigresses.



# Newspaper Clippings

ALLAHABAD

THE HINDU • SUNDAY, JULY 1, 2012

## Whale rescued from marshy waters

P.V.Srividya

**NAGAPATTINAM:** A four-tonne blue whale washed up in Mannavaram backwaters here was hauled back into the open waters in a 10-hour long operation on Saturday.

The 25-foot-long male whale was first spotted by fishermen stranded in the marshy backwaters six km off Siruthalaikadu and about 13 km to the southwest of Kodiakadu, here in Vedaranyam.

A team led by District Forest Officer Soundarapandian, with the help of around 40 fishermen had to make a prolonged effort to haul back the whale that was stuck in the marshy waters.

It was hauled back manually enabling the mammal to float through the marsh up to the channel, Chellakanni, that branches off from the lagoon. Great care was taken to ensure that it suffered no injuries.

According to information

from local fishermen, the whale is reported to have floated back towards the swamp again late evening.

If the whale does not move back into the open waters during the high tide of the night, a renewed rescue effort is slated to be taken up on Sunday.

Presumed to be two years old, it is not clear how it got stranded, says Mr.Soundarapandian.

"It needs to be observed for another 24 hours along the coast here to see if it gets stranded again."

According to P.V.R.Vivek, a wildlife photographer, who also alerted the Forest department, and shared with *The Hindu* the first pictures of the mammal, it is a Bryde's Whale.

A similar whale was washed up in the swamp in 2002. It was rescued and put back in the sea in an operation that lasted more than a day, he says.



*The four-tonne blue whale in Mannavaram backwaters on Saturday.*

**01 July 2012 :** A four-tonne, 25 foot long blue male whale washed up in Mannavaram backwaters in Tamil Nadu, was hauled back into the open waters in 10 hour long rescue operation headed DFO Mr. Soundarapandian.



ALLAHABAD  
THE HINDU • THURSDAY, JULY 5, 2012

## FARMER'S NOTEBOOK

# Woman farmer extracts record oilpalm yield from a hectare

A record yield of 53.20 tonnes in three years has been achieved

M.J. PRABU

Whatever the crop, it is the price that matters to farmers. "Getting a good price is essential for a farmer and especially for those growing crops like oilpalm, the price to a large extent depends on the international market over which we may not have much control.

Nevertheless we are trying our best to guide oilpalm farmers in India to get a good yield," says Dr. S. Arulraj, Director, Directorate of Oil Palm Research, Pedavegi, Andhra Pradesh.

### New start

Research on oil palm under irrigated conditions means practically a new start and the Indian Council of Agricultural Research established the National Research Centre for Oil Palm at Pedavegi in West Godavari district of Andhra Pradesh in 1995.

It was upgraded as Directorate of Oil Palm Research (DOPR) to cater to the location specific programmes across the country.

The institute serves as a centre for conducting and co-ordinating research on all aspects of oil palm conservation, improvement, production, protection, post-harvest technology and transfer of technology. It also has a research centre at Palode near Thiruvananthapuram, Kerala.

"While it is true that in some areas of Andhra Pradesh and adjoining States farmers cut down their oil palm plantations in frustration of not being able to get a good price, there are also farmers like Mrs. Suma Ku-



**GUIDING FORCE:** Suma Kumar from Mysore taluk, Karnataka.

— PHOTO: SPECIAL ARRANGEMENT

mar who has been able to get a record yield of 53.20 tonnes and also a good price from a hectare in three years," says Dr. Arul Raj.

The Directorate of Oil Palm Research honoured her with the best farmer award during the recent Kisan Mela celebrations.

"This is the highest yield recorded so far in India," says Dr. Arul Raj and adds the main reason being the innovative practices adopted by the farmer.

### Intercropping

Suma Kumar planted the trees on 0.56 hectare 15 years ago.

She also cultivated banana as intercrop during the first and second year of planting to generate income.

Trenches were cut across the slope in the garden for draining excess water during monsoon. Mulching the palm basins using the cut fronds was also done to conserve

moisture. Fertilizers were applied to the oilpalm crop in six split doses, thus, maximizing the fertilizer use efficiency.

In addition, she applied poultry manure mixed with neem cake available locally at low cost.

The poultry manure was kept for 2-3 months for decomposition in the trenches along with trash and cut leaves, and well decomposed material was applied in palm basins.

Care was taken to apply the manures and fertilizers within an area of three metre radius in the basin. In addition, tank silt was applied, once in five years, to the garden to improve the soil physical conditions.

### Harvested tonnage

The farmer harvested 58.24 tonnes in 2009-10, followed by 46.71 tonnes in 2010-11 and 54.68 tonnes per hectare on January, 2012.

Thus, during the last three years, she could achieve an average yield of 53.20 tonnes per hectare over a period of three years.

"We are ready and eager to address any issue or grievance from oilpalm farmers in the country.

"They can contact me on my mobile or office phone and our institute will try its best to solve any problem an oil palm farmer is facing," assures Dr. Arul Raj.

### Ready to guide

Oilpalm farmers can contact Dr. S. Arulraj, Director, Directorate of Oil Palm Research, Pedavegi - 534 450, Andhra Pradesh, email: dopr2009@gmail.com, Phone: 08812-259532 and 259409, mobile: 09491198244 and Mrs. M.S. Suma Kumar, Marse Village, Mandakahalli (P.O.), Varuna (Hobli), Mysore taluk and district, Karnataka, Mobile : 09986962289.

**05 July 2012 :** A woman farmer, Suma Kumar of Andhra Pradesh has extracted record oil palm yield of 53.20 tonnes per hectare over a period of three years and was honoured with the best farmer award by the Directorate of Oil Palm Research, West Godavari district of Andhra Pradesh.



# Newspaper Clippings

SUNDAY TIMES OF INDIA, LUCKNOW  
JULY 15, 2012

## Now save the purple frog

Jayashree Nandi | TNN

**E**arlier this month when the United Nations declared the Western Ghats a World Heritage site, it stirred huge excitement among naturalists and conservationists. But critically endangered creatures like the *nasikabatrachus* — the purple frog that looks rather unglamorous when compared to India's flagship species, the tiger — are fighting their own battle for survival in the Ghats.

The significance of the Western Ghats is very different from any other tourism site in India where crowds flock in packed jeep safaris. It is a region with a potential to discover unknown species and is home to many lesser known, fast-disappearing species like *nasikabatrachus*, which is believed to have lived with the dinosaurs 300 million years ago. But does the heritage tag ensure adequate cover for the region? Naturalists and activists working in the Ghats fear that the tag may just remain a fancy inscription on signboards with no power to fight the powerful mining, power and industry lobbies. They say it's completely up to the Indian government to save the Ghats for posterity.

Western Ghats is the first global 'cluster' of natural sites to be declared world heritage. Environmentalists believe the government should use this opportunity to set an example for other important biodiversity clusters. "The first thing that the government of India needs to ensure is connectivity in the Ghats that has been disturbed by mini hydel projects and road projects. Its conservation has to be comparable to other famous sites like the Grand Canyon," says Jagdish Krishnaswamy of the Ashoka Trust for Research in Ecology and Environment.

Many feel the government campaigned persistently to get the heritage tag for Western Ghats but did hardly anything on the ground to stop habitat fragmentation. Hundreds of mini hydel projects in various hill streams were cleared despite the evidence of its negative impact on water flow. A recent report by the Western Ghats Ecology Expert Panel exposed how deforestation for timber in catchments areas, river valley projects and plantations had drastically reduced the capacity of hill streams. Mini hydel projects have also led to continuous stretches of rivers drying up irreparably.

Most mining leases in Goa are located

*The Western Ghats is a world heritage site now. But real preservation efforts still need to kick in. Can the recognition protect endangered species found only in this patch of green?*

Siddappa Setty



Vivek Ramachandran



Environmentalists fear the heritage tag may remain just an inscription and not do much to protect rare species like the lion-tailed macaque (left)

ommended to the committee to defer declaring the Western Ghats a heritage site.

It suggested instead that the Indian government should follow the recommendations made recently by the Western Ghats Ecology Expert Panel (WGEEP) in its report. The report, however, has not been accepted by many state governments because it recommends restriction of infrastructure projects, including mining, in eco-sensitive areas.

S D Biju, noted amphibian biologist who discovered the purple frog in Kerala, says the Ghats deserves a special conservation plan. "The Indian subcontinent's prolonged isolation in its geological history is thought to be responsible for the uniqueness seen in the Western Ghats' biotic assemblages. During the isolation period of this landmass the fauna and flora were believed to have undergone diversification forming life forms unique to the region. The Western Ghats contains a lot of relict species," he says, adding that many species in the Ghats may be going extinct even before being discovered.

in and around Wildlife Sanctuaries (WLS) and forest areas. For example, 31 leases are within 2 km of WLS, of which 7 are working mines; 13 leases are within one km of WLS. Over half of the 300-odd mining leases in Goa are located close to water bodies. India's proposal to include 39 sites in the Western Ghats as world heritage was rejected by the World Heritage Committee in its 35th meeting last year. When the proposal for it was submitted again this year, the Indian team managed to convince the committee. But the International Union of Conservation of Nature (IUCN), based on its field evaluation, rec-

**15 July 2012 :** A woman farmer, Suma Kumar of Andhra Pradesh has extracted record oil palm yield of 53.20 tonnes per hectare over a period of three years and was honoured with the best farmer award by the Directorate of Oil Palm Research, West Godavari district of Andhra Pradesh.



# Newspaper Clippings

SUNDAY TIMES OF INDIA, LUCKNOW  
JULY 15, 2012

## Let's farm along with nature, not against it

### IN PRINCIPLE

V S VIJAYAN



There are many reasons to feel proud to be an Indian; the Western Ghats should definitely be one of those reasons, especially for those who love nature. Along the west coast of India lies one of the world's great tropical forests and biodiversity hotspots. Kalidasa had likened these ranges to a comely young maiden, her head near Kanyakumari and feet near river Tapi.

However, the Western Ghats, the main water resource and backbone of economy for more than 25 crore people in Gujarat, Goa, Maharashtra, Karnataka, Tamil Nadu and Kerala, is now threatened with over-exploitation of its resources by unsustainable development projects.

The recently released Western Ghats Ecology Expert Panel (WGEEP) report, a comprehensive, well-balanced, informative document, suggests various measures for ensuring sustainable livelihood in and ecological security of the Ghats. Its message is clear: develop sustainably and conserve thoughtfully. The report highlights the need for development — conservation practices to be in the local context and the need to involve local communities, down to the gram sabha levels.

Since 75% of the Ghats is unprotected and largely used for agriculture, the farming practices in the region have a huge bearing on the sustenance of its rich biodiversity. Thus the recommendation by WGEEP to promote ecologically sustainable farming there has great significance. The two most-significant recommendations of the panel in terms of biodiversity conservation and food security are: replacing the use of agrochemicals with organic/ecological farming and banning genetically modified (GM) crops across the Western Ghats.

Agricultural biodiversity is the foundation for all food production and our food security. GM crops which have come up in the recent past are the greatest singular threat for biodiversity in general and centers of diversity in particular. It throws up a new challenge to biodiversity conservation — genetic contamination which is irreversible and irretrievable. A broad genetic base is vital for healthy agriculture and overcoming new epidemics of pests and diseases and for adapting to climate change. Such a base is immensely reduced in the case of GM crops as they encourage monoculture.

While there are irreversible risks from commercialized varieties of GM crops, like Bt cotton in India and several other crops the world over, we need to be equally wary of field trials that involve experimental GM crops which go through little or no risk assessment.

Today, 72 crops in India are at different stages of GM research and, the regulatory authority, the Genetic Engineering Approval Committee (GEAC), has approved open-air field trials for 14 crops for rabi 2011-12 and kharif



**VANISHING GREEN** The Western Ghats, 75% of which is unprotected, is threatened with over-exploitation of its resources by unsustainable development projects

2012, to be conducted across 16 states, totalling over a 100 trials across the country. Fortunately, states do have an option of not allowing these field trials. So far, none of the states in the Western Ghats have given an NOC (no-objection certificate), apart from Gujarat which has given NOC for GM corn and GM cotton. However, in order to completely protect the already threatened biodiversity of the Western Ghats, the states must go a step further and declare themselves GM-free as done by Kerala.

Scientist M S Swaminathan in his report "the MS Swaminathan Task Force Report on agricultural biotechnology" highlights that areas of biodiversity like the Western Ghats should be protected from GM crops. Unfortunately, the government has turned a blind eye to these recommendations and decided to introduce GM crops in India forcefully, by pushing through the Biotechnology Regulatory Authority of India (BRAI) Bill, which proposes a single window clearance system manned mainly by biotechnologists to approve of GM crops.

The WGEEP report is spot-on in its recommendations for adopting a precautionary approach and strongly advising against the release of GM crops in the entire Western Ghats. The governments need to accept the recommendations of the WGEEP report and re-think their decision on introducing the BRAI Bill which is disastrous for our health, biodiversity, farming and environment. Most importantly, it is high time that our policy makers accept the bare fact that if food security, safety and farming have to sustain in our country, we have to farm along with nature and not against it.

*The writer is a member of the Western Ghats Ecology Expert Panel*

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**15 July 2012 :** Recently the Western Ghats Ecology Expert Panel (WGEEP) report was released. The two most significant recommendations of the panel in terms of biodiversity conservation and food security are:

- (1) Replacing the use of agro chemicals with organic/ ecological farming.
- (2) Banning genetically modified (GM) crops across the Western Ghats. If food security, safety and farming have to sustain our country men we need to farm along with nature, not against it.



# Newspaper Clippings

ALLAHABAD  
THE HINDU • FRIDAY, JULY 20, 2012



**HIDES THAT HIDE:** A black spotted deer, a leopard with distinctive stripes and a black panther at the Parambikulam forests in Palakkad district of Kerala. — PHOTOS: SPECIAL ARRANGEMENT

## Colour camouflage in Parambikulam forests

Melanism can be seen more in the evergreen habitat of the Western Ghats where the interiors of the forests are dark

K.S. Sudhi

**KOCHI:** Melanism found in some animals at the Parambikulam forests in Palakkad district of Kerala has caught the imagination of wildlife enthusiasts.

Recently, managers of the Parambikulam Tiger Reserve obtained photographic evidence of a pseudo-melanistic leopard. Earlier, a melanistic spotted deer was photographed. Though no photographic evidence has been obtained, black panthers too are said to have been spotted.

While the leopard was caught on cameras installed for monitoring the tiger, the deer was photographed by a forest official. The black spots on the leopard were found closely packed to give it a designer coat. In the case of the deer, the white spots on its reddish fawn coat were overshadowed by the black pigmentation, giving the animal a blackish appearance.

Sanjayankumar, former Wildlife Warden of the sanc-

tuary who photographed the deer, says the primary DNA analysis of excreta (pellet) proved that it was a male spotted deer. Detailed genetic analysis could not be held as fresh pellet samples were unavailable and the animal was lost in the wild, he says.

The tiger reserve is in the southern part of the Western Ghats, down the Palakkad Gap. It is located between the Anamalai hills and the Nelliampathy hills and the natural vegetation of the area includes tropical evergreen, semi-evergreen, moist mixed deciduous and dry mixed deciduous forests and moist bamboo brakes and reed brakes.

A.J.T. Johnsingh, former Dean of the Wildlife Institute of India, Dehradun, says melanism can be seen more in the evergreen habitat of the Western Ghats where the interiors of the forests are dark.

In such habitats, melanism should be considered an adaptation technique of the animals as they can stay unnoticed in the dark interior

forests. Melanism is caused by a recessive gene and the ecology of the habitat does not have any influence on it. They should be considered genetic freaks.

Melanistic leopards are fairly common in many parts of the Western Ghats, but chital of that type is rare, Dr. Johnsingh says.

Ajith Kumar, course director of the postgraduate programme in wildlife biology and conservation at the National Centre for Biological Sciences, Bangalore, says there exists an increased possibility of melanism in dense and closed forest systems. Animals use it to merge themselves into the dark forest environments. Melanism has been reported from evergreen, moist and deciduous forests, he adds.

P.A. Easa, wildlife expert, sees these as genetic freaks unless proved otherwise. Presence of melanistic tigers has been reported from the Simlipal National Park, Odisha.

Genetic studies should be conducted to ascertain how

these animals are different from the normal ones, Dr. Easa says.

P.O. Nameer, Head of the Centre for Wildlife Studies, College of Forestry, Kerala Agricultural University, observes that melanism will work to the advantage of preys and predators alike in a closed forest system. While it will help deer camouflage itself from predators, leopards can stay unnoticed from its possible prey. Genetic and ecological studies should be held in the Parambikulam landscape to know more about the animals, Dr. Nameer suggests.

The Parambikulam Tiger Reserve authorities are planning to install more camera traps in the sanctuary following the sighting of the melanistic leopard from deciduous forests.

Vijayanandan, Wildlife Warden of the reserve, says the survey will cover the evergreen forest areas shortly.

More such interesting information is expected to emerge from the survey, he adds.

ALLAHABAD  
THE HINDU • SUNDAY, JULY 22, 2012

## Exotic excuses

Orchids are rampantly smuggled as wildlife trophies across international borders in large numbers. Now several of the species are on the verge of extinction



**BETWITCHING BEAUTIES:** (top) Orchid hybrid from Munmar; (top) an orchid growing on the trunk of a tree; (bottom) wild Vanda species of orchids in full bloom at Kanha National Park. PHOTOS: N. SHIVA KUMAR

N. Shiva Kumar

In the last week of June, an orchid house was set up in Munmar to preserve 87 species of orchids found in the state's jungles and also to check their plunder. So far, 54 species have been preserved. It is one of the many baby steps taken by the government to preserve disappearing orchids which exhibit an incredible range of diversity in our country.

Orchids are the most bewitching flower species, being the most exotic and aquatic members of the plant kingdom. They come in specified shades of scarlet, range of yellow, in moody indigos, blues and purples, in pastel pinks and greens, strange shapes and sizes. There are around 25,000 to 30,000 species of orchids across the globe but some of these are on the brink of extinction. In earlier days, fascinated by these beautiful flowers, many wealthy and

powerful men spent fortunes to collect and maintain them in their backyard. It is precisely for this reason that orchids are rampantly smuggled as wildlife trophies across international borders in large numbers.

A bag full of wild orchids was recently confiscated on the Indo-Nepal border by the local police — a proof that smuggling continues despite a ban. To stop such pillage, an Orchidarium was set up in Shillong in 1986 and at Yeracud near Coimbatore in 1993 by the Botanical Survey of India (BSI).

The National Research Centre for Orchids (NRCO) established in 1996 at Gangtok, Sikkim, is also involved in documentation, conservation, development of orchid hybrids and mass multiplication by tissue culture. While some scientists suggest that India is home to over 1,200 species, the NRCO website indicates 1,700 species of orchids, of which 20



per cent are found in the north-eastern part of India.

The Himalayan belt of the seven sisters is not only rich in orchid species, but many of them rank at the top of the 'ornamentally important' list. The Western Ghats also harbour endemic orchids, many of these, once abundant, are threatened or might have already disappeared.

"Natural and man-made disasters like landslides, road-making and other anthropological interventions have profoundly contributed to their extermination," says Dr. D. Burman, principal scientist of NRCO. He adds: "Thanks to modern propagation and production technologies, orchids are accessible to the common man."

"Horticulture worldwide today grows orchids not only because they are mysterious and magical but they are simply beautiful and long-lasting. Cultivation and sale of orchids occupy over 10 per cent of the global horticultural trade and is growing."

In 320 B.C., Greek philosopher Theophrastus, who is al-

so known as the father of botany, had meticulously studied diverse plants and gave the name 'orchids' to these fascinating group of herbs. Since ancient times, orchids were in huge demand and illegally traded due to the belief that the tubers have aphrodisiac qualities. The evolution of orchid culture from hobby to commercial growing was slow but steady as they needed a certain controlled moist atmosphere, specific pollination and germinating conditions.

With contemporary techniques of propagation, numerous man-made hybrids are being produced. In 1913, the Sun Kee Nursery of Singapore started the first cut-flower production of orchid hybrids. Today orchids are grown on assembly-line methodology in expensive and extensive glasshouses. International exhibitions are held exclusively on orchids, with countries competing with each other for bigger and better fusion of petals and colours. This has substantially boosted the sale of

orchids into a million dollar global industry. Yet the quest for rare and wild orchids thrives relentlessly. According to Dr. Pankaj Kumar at KFBG Botanic Garden, Hong Kong, the basic reason for interest in orchids is its status symbol. In China, India and many western countries, orchids are the symbol of wealth since traditionally affluent people usually kept orchids for their ornamental value. Orchids also have high medicinal value as they contain several alkaloids which are used against various ailments; hence, they are copiously used in ayurvedic and Chinese medicine. Vanilla, used as a flavouring agent worldwide, is also extracted from a particular species.

Being a profitable business, orchid floriculture flourishes in countries like Singapore, Thailand and Malaysia. In India, too, private business of orchids is increasing at a brisk pace in Karnataka, Kerala, Tamil Nadu and parts of the North-east.



**SUNSHINE YELLOW:** Nepal's national flower. PHOTO: PANKAJ KUMAR

**20 July 2012:** Many animals exhibiting melanism have been spotted of late in the Parambikulam Tiger Reserve, Kerala which is an evergreen habitat. In such habitats, melanism is an adaptation technique as it enables animals to stay unnoticed in the dark interior forests.

**22 July 2012:** To preserve orchid species in Mizoram an orchid house has been set up. This houses over 87 species of orchids found in the state's jungles. The National Research Centre for orchids (NRCO) established in 1996 at Gangtok, Sikkim has documented 1,700 species of orchids in India of which 50% occur only in the North-eastern part of India.



# Newspaper Clippings

ALLAHABAD  
THE HINDU • FRIDAY, JULY 27, 2012

## AGRICULTURE

### The cotton conundrum

Maharashtra sends mixed signals on GM crops

Meena Menon

Mixed signals are being sent by the Maharashtra government on genetically modified (GM) crops with a show-cause notice issued to Maharashtra Hybrid Seeds Company Limited (Mahyco) in May for cheating and criminal breach of trust. Earlier this year the state agriculture commissioner had proceeded against another company, Bayer BioScience, for its poor quality seeds and now a case is pending in the Bombay high court after the company went in appeal.

While Maharashtra has not shown any aversion to transgenic crop varieties and has encouraged Bt cotton, the state agriculture minister Radhakrishna Vikhe Patil has

threatened to cancel the license of Mahyco if the company failed to comply with the law. In a related matter, since a year, the state government is dragging its feet on issuing a no objection certificate (NOC) for field trials in GM crops in the cases of nine applications. Now the chief minister is planning to write to the Centre, specifically to the minister for science and technology and the environment minister saying that there is no provision for a state government to issue an NOC in the case of field trials under the Environment Protection Act or the Rules prescribed under it, and the Centre should not insist on this NOC. The Genetic Engineering Approval Committee (GEAC) had written to the companies

last year saying that some governments had opposed GM crops and to avoid disruption of ongoing field trials, the companies and organisations were directed not to go ahead with trials unless the state issued an NOC.

As a result applications from the Rubber Research Institute of India for GM rubber, and companies like Bayer, Syngenta, Mahyco, Dow, Bayer, and Metahelix apart from the Central Institute for Cotton Research (CICR) to conduct field trials on cotton, corn, rice and rubber are pending. The Rubber Research Institute was keen on trials in Maharashtra since Kerala has banned them in GM crops.

In March, Union agriculture minister Sharad Pawar



**CROP SCIENCE:** Area under Bt cotton has increased in Maharashtra. PHOTO: M.SRINATH

had told the Rajya Sabha that Bt cotton had doubled cotton production in the country to 340 lakh bales from 164 lakh bales in 2004-05. He also referred to the loss in yield of farmers from Dhule district and Khargone district in Madhya Pradesh after using hybrid cotton seeds produced and marketed by Bayer BioScience Pvt Ltd.

Despite the spread of Bt cotton, the State government

has realised the need for cotton varieties which can grow well in scarcity conditions. The vice chancellors of all agricultural universities in the State have been directed to focus on research of cotton varieties which will withstand drought and increase productivity, state agriculture commissioner Umakant Dangat confirmed to The Hindu. The State is not against GM crops and there is no

thought of banning GM field trials, he clarified. He said while the area under Bt cotton had increased, there was no increase in productivity and the cost of production was also not reducing. There was a need to encourage local varieties of cotton and revive them as they were good for dryland cultivation. Bt cotton was using more and more pesticides and fertilisers and needed vast quantities of water. In Maharashtra only three to four per cent of the cotton growing area was under irrigation, over 95 per cent was grown on rainfed areas, Mr Dangat said.

In January the government took another company, Bayer Bio Science, to task for failing to provide good quality Bt cotton seeds in Dhule district. Mr Dangat said that 143 farmers in Dhule who bought the seeds, suffered crop losses and demanded a compensation of Rs 45 lakhs. The agriculture department conducted an inquiry and refuted the company's claim that the seeds were less susceptible to

pests as stated on the label. The company appealed before the agriculture commissioner but the order to pay compensation to the aggrieved farmers was passed. However, Bayer went to court which asked the company to deposit Rs 30 lakhs before taking cognizance of its petition appealing against the government order, Mr Dangat said.

A statement from Bayer BioScience, a business unit of Bayer CropScience said, "Surpass cottonseed hybrids of Bayer have been setting new trends in sustainable cotton crop production. Besides good seed, good crop management and a favourable climate condition is very critical for good yields. Our field teams constantly work with farmers to impart extension and education on agronomic practices in order to help them to raise good crop. The yields below expectations in a few pockets are due to a combination of inadequate crop management and adverse environmental conditions.

We are in the process of contesting the unjustifiable claims through a legal course."

While Mahyco has refuted the show cause notice and claimed that it did not perpetrate any fraud, the hearing is now complete. The matter will be decided soon, official sources said. In its reply to the notice of June 15, Mahyco said it had submitted district wise and product wise sales plan in January and again in March. There is no question of violation of the license agreement and the company had complied with all rules and had not violated the Maharashtra Cotton seeds (Regulation of Supply, distribution, Sale and Fixation of Sale Price) Act. After a case of criminal breach of trust was filed in Beed, the company approached the Aurangabad bench of the Bombay high court for quashing of the first information report (FIR) and anticipatory bail. Mahyco said that the anticipatory bail was granted and the court stayed the operation of the FIR.

**27 July 2012:** The Maharashtra govt. has issued a show cause notice to (Maharashtra Hybrid Seeds Company Limited (MAHYCO) for cheating and criminal breach of trust. The Maharashtra govt. also has not issued NOC to applications for NOC's for field trials of GM crops. The Govt. says there is no provision for a State Govt. to issue an NOC for field trial of GM crops under the Environment Protection Act.

ALLAHABAD  
THE HINDU • SUNDAY, JULY 29, 2012

## Health & Environment

### Chirpy tidings from the Western Ghats

N. Shiva Kumar

Starting from the southern tip of Gujarat, traversing through the States of Maharashtra, Goa, Karnataka and Kerala and ending at the southern tip of Tamil Nadu is one of the oldest mountain ranges in the world. This 16,000-km-long range of hills and dales, called Western Ghats, runs parallel to the beautiful west coast of India. Some of the flora and fauna in this region is endemic and unique to this place. Unfortunately, this 7,953.15 sq km. expanse houses random sanctuaries and national parks interspersed with barren patches formed due to reckless mining and deforestation.

Much before it acquired the coveted UNESCO World Heritage Site tag on July 1, a few scientists have been fascinated by this region. They have made repeated forays into these dense forests for in-depth studies for decades. Even amateurs have been working silently over the years on cataloguing various flora and fauna.

Recently, Dr. K. Prabhakar Achar and Shivashankar, who hail from the region, have come out with a compact bi-lingual volume on the avifauna of coastal and hinterland Karnataka. *Birds of Southern Coastal Karnataka*. The book's novelty lies



**DAZZLING EMERALD:** Vernal hanging parrot. PHOTO: SHIVASHANKAR

In the photographs of birds shot in the wild and its bi-lingual approach. While Dr.

A book on the new UNESCO World Heritage Site's vibrant avifauna wealth captures the winged creatures in all their glory

up the arduous task of data collection and photo editing. In a free-wheeling interview, amateur birdwatcher and environmentalist Shivashankar says he prefers to be in the jungles in his free time chasing winged wonders. What provoked an engineer to bring out a book on birds? When did you take up bird photography?

I used to spend my free time taking photographs of birds in my backyard at Karkala near Mangalore. In 2004, when I came back following a stint in the U.S. and Singapore, I again gradually took up bird photography and ended up exploring various bird habitats in and around my hometown. After four years, I realised that my collection of bird photos was quite substantial. Once I acquired the necessary equipment and paraphernalia for bird photography, there was no looking back.

How long did it take to prepare the draft for the first

and second editions? The first book was named *Birds of Dakshina Kannada* and it took two years to complete it with the help of Bhuvanendra Nature club, Mangalore. It had black and white drawings of 212 birds. The successor to that book is



**GREEN HAVEN:** Map of the Western Ghats.

named *Birds of Southern coastal Karnataka*. The second edition also took two years for data mining, photo shooting and editing.

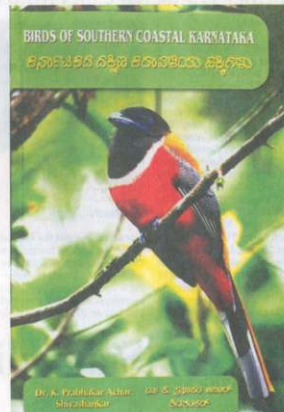
What was the objective behind authoring the books? Apart from educating students and scholars alike about the wealth of birds in the region, the book would also be a photo guide for information seekers. I hope it spreads awareness and contributes to nature conservation.

Can you share an experience where you tracked a bird for long to click its photograph?

The Sri Lankan Frogmouth, a nocturnal bird is very hard to find. I had to conduct several surveys to locate its presence and wait patiently during dusk when they are active. Once it was located, I spent more than 15 days to find the right spot to shoot the bird using flash-light by night. My wife and two kids were along with me when I shot the first photo of a Frogmouth. That was a memorable day for me.

Which areas did you cover for photographing birds? Mangalore, Mukli, Udipi, Kundapur, Karkala, Mood-shidi, Agumbe, Kudremukh, Puttur, Belthangadi, Sullia and all other part of the Western Ghats.

Which of the all the 224 species depicted in photos



**PHOTO GUIDE:** The cover of the book featuring the Malabar Trogon. PHOTOS: N. SHIVA KUMAR

and the checklist of 389 bird species indicated mentioned in the books is your favourite?

Malabar Trogon, a brilliantly coloured forest bird but elusive and rarely photographed. Only few good photos of these birds are available as of today and it adorns the cover of the book.

Have your photographs been published elsewhere? I have contributed images/articles to India Birds

magazine and books like *Rainforest Safari* (Carlton Books Ltd), *Glimpses from India's Natural World* (Broadway publishers) *Birds of Kolkata* and many more.

Do you plan any more books on nature in the future? Yes, I am planning to cover the variety of butterflies plants and trees, maybe mammals as well in this rich bio-diverse region.

**29 July 2012:** The Western Ghats have been declared a World Heritage Site in July 1, 2012. Recently a bilingual book on the avifauna of this region titled "Birds of Southern Coastal Karnataka" has been published. It depicts 224 species of birds found in this region and has a checklist of over 389 bird species including the Malabar Trogon and Sri Lankan Frogmouth.



# Newspaper Clippings

## (iii) State News

**17 हिन्दुस्तान**  
नई दिल्ली • शनिवार • 07 जुलाई 2012

**पर्यावरण संरक्षण के लिए पहल**

### माईचारे की भावना को ऑक्सीजन देते वृक्ष

‘हिंदू, मुस्लिम, सिख, ईसाई-आपस में सब माई-माई’ सामाजिक माई-चारे की इस भावना को अब वृक्षों के माध्यम से भी ऑक्सीजन दी जा सकती है। बस जरूरत इच्छावित्त जमाने भर की है। हिंदू मसीही यादिका लगाए और मुसलमान पंचवटी। बौद्ध वर्मावलम्बी ‘गुरु की बाग’ और सिख तीर्थकर वाटिका। कुछ ऐसी ही एक कोशिश उत्तर प्रदेश के जैव विविधता बोर्ड ने शुरू की है।

पंचवटी के प्रमुख वृक्ष	गुरु के बाग के वृक्ष
पीपल, आंवला, अशोक, बरगद और बेल (बृहद पंचवटी में लगने वाले कुल वृक्षों की संख्या 39 होती है)	नानकमता का पीपल वृक्ष, रीठा साहब का रीठा वृक्ष, बेर साहब, हरिमंदिर साहिब (अमृतसर) के बेर वृक्ष- दुख भजनी बेर, बाबा बुद्धा जी की बेरी और सुखसा सिंह महताब सिंह की बेरी
<b>बुद्ध वाटिका के वृक्ष</b>	<b>तीर्थकर और उनके फैवली वृक्ष</b>
पीपल (बोधिवृक्ष), शाल (साखु), बरगद, जामुन, खिरनी, पाकड़	वट वृक्ष, चितवन-सप्तपर्णी, साल-साखु, चीड़, पियंगु, सिरस, नागकेसर, बहेड़ा, बेल, लैट्ट, कदम्ब, जामुन, पीपल, कैथा, तुल, तिलक, आम, अशोक, चम्पा, मौलमी, बांस, देवदार
<b>बुद्ध से जुड़े वृक्ष</b>	<b>मसीही वादिका के प्रमुख वृक्ष</b>
● सलल कुटी ● कोसम्ब कुटी ● करेरे कुटी	अंजीर, अनार, पापलर, विलो, खजूर, अंगूर, मेहदी, बेर, नरकुल, घृतकुमारी, अरण्ड (रेड) देवदार
<b>बुद्ध से जुड़े नाम पर प्रसिद्ध वन</b>	
● अस्म वन (आम के वन) ● वैध वन (बांस के वन) ● ताड़ वन (तरकुल का वन)	● सिंसा वन (श्रीराम के वन) ● आमलकी वन (आंवला वन) ● साकेत के अजल वन

● नलकपान के कैतक वन  
● पलाश वन

► **07 July 2012** : The UPSBB has come out with 9 brochures on the various tree species important in different religions. These are available on <http://www.upsbdb.org/>

HINDUSTAN TIMES, LUCKNOW  
MONDAY, JULY 16, 2012

**SELDOM SEEN**

## Rare Indian snake sighted at Katarniaghat

**LAKHIMPUR KHERI:** Photographed out of curiosity for its unusual colour, a snake later turned out to be a rare Indian species sighted only twice earlier ever since it was first discovered in Kheri forests nearly eight decades ago.

Fazlurrahman, a conservationist and member of an NGO named Katarniaghat Foundation, was roaming at the Katarniaghat Wildlife Sanctuary (KWS) during night on July 8 last when he happened to see a snake he had never sighted elsewhere.

"It was of orange colour and nearly one meter long snake that attracted my attention," Rahman said.

"I did not have the slightest idea that I was going to photograph a snake which was first discovered only in Kheri forests in 1936 and it had been named by its discoverer after its Kheri-specific location."

"I just picked up my infrared night-vision enabled camera and clicked as the reptile was not in a mood to give me another chance," he added.

As per the records, it is one of the rarest species of Indian snakes.

After its discovery, it was once seen in Mahendranagar, Nepal and then in West Bengal.

The records revealed that this snake, which is commonly known as Red Coral Khukri was first discovered in 1936 in the North Kheri division, eastern circle of United Province by the two Zoological Survey of India scientists MN Acharji and HC Ray, who had later published their report about the rare Indian reptile.

Dr Abhijit Das, a reputed herpetologist and head of reptile division in Assam-based non-government organisation 'Aaranyak', described the discovery as most exciting.

Dr Das, when contacted over the phone, said, "This snake is mostly found in the Terai region of Kheri and Nepal."

Describing the reptile, he added that the snake is non-venomous.

"This nocturnal reptile, which feeds on small mammals and eggs, has Kukhri (a Nepali knife)-shaped teeth, which help it break the egg-shells," he further said.

Das, who recently presented his research paper on reptiles and amphibians of KWS in the Dudhwa Tiger Reserve (DTR), lauded the rich flora and fauna of Katarniaghat Wildlife Sanctuary (KWS).

Elated at the discovery, field director, Dudhwa Tiger Reserve, Shailesh Prasad said, "The discovery is very encouraging."

"In fact, the Katarniaghat Wildlife Sanctuary is one of those sanctuaries where human interference is minimum. It gives the indigenous species a natural environment to flourish," he added.

**—DEO KANT PANDEY**

**Photograph of the Red Coral Khukri snake found at the Katarniaghat Wildlife Sanctuary in Kheri.**

**16 July 2012** : The red coral khukri snake was photographed by Fazul Rahman from KWF at Katarniaghat Wildlife Sanctuary on July 8. This snake was first recorded in 1936 only and is a non-venomous snake. It is a rare species of snake.



# Newspaper Clippings

THE TIMES OF INDIA, LUCKNOW  
MONDAY, JULY 30, 2012

## Forest dept gears up for eco-sensitive zones

TIMES NEWS NETWORK

**Lucknow:** Acting on the government directives, the state forest department will speed up creation of eco-sensitive zones. Principal secretary forest RK Singh has directed officers to act on the recommendations of the committee set up to identify the eco-sensitive zones.

To conserve wildlife, state forest department has planned setting up eco-sensitive zones in wildlife-dominated areas. The government order to set up these zones in the national parks and sanctuaries was issued in 2010.

The district-level committees were set up under district magistrates and commissioners to identify zones around protected areas. As per the rules, an eco-sensitive zone should be set up within 10km from the protected areas.

Principal secretary forest has directed the officers to obtain the



recommendations from the committees and act on them fast so that the state can declare eco-sensitive zones. The committees have

to recommend the location of the zones, if the zones have to be set up within 10km from the protected areas or more.

Depending upon the wildlife in the area, number of residents around it, rural and urban locations, the nature of eco-sensitive zones may vary. "So far nothing has happened in this regard," said sources. But now, the department has been told to act on setting up the zones.

The eco-sensitive zones have been planned to conserve wildlife, reduce man-animal conflict and improve socio-economic conditions of people living around eco-sensitive zones.

Once the zones are identified, there is a need to create awareness among locals regarding them so that they can understand the importance of these zones. The wildlife that exists on the fringes of the protected areas will be conserved by setting up these zones. The birds like Sarus crane, that are found in human-dominant areas, will also be saved by the move.

**30 July 2012:** The Forest Department is speeding up creation of eco-sensitive zones around National Parks and Sanctuaries.



# Newspaper Clippings



## International Vulture Awareness Day on Sept 1

SHARMILA KRISHNA ■ LUCKNOW

The UP State Biodiversity Board in association with the Zoology Department of Lucknow University will celebrate the 'International Vulture Awareness Day' by flagging off a car from the Lucknow University which will distribute pamphlets about vulture awareness across the city and in various schools.

Deputy Conservator of Forests, Pratibha Singh, said that the flagging off the car would take place from Lucknow University.

She said that the car would go to more than 30 schools here and would be stationed at five locations from where pamphlets on vulture awareness would be distributed.

The International Vulture Awareness Day is celebrated on

every first Saturday of the September month and this time it will fall on September 1.

"We will try to involve young children in the process of creating awareness about vultures and so this campaign is being carried out. The pamphlets will also carry an additional outline of the bird which will be coloured by the students and the entries will be sent to the Biodiversity Board," said Singh.

Pratibha said that there were several causes for the dwindling number of vultures.

"The primary reason has been the use of diclofenac but the other reason is kite flying due to which the wings of the bird get destroyed by the manjha (thread) which the people who fly them use. The habitat of this bird of prey is also get-

**"WE WILL TRY TO INVOLVE YOUNG CHILDREN IN THE PROCESS OF CREATING AWARENESS ABOUT VULTURES AND SO THIS CAMPAIGN IS BEING CARRIED OUT," SAID SINGH**

ting adversely affected because it sits on dead trees. But these trees are being removed for getting revenue," said Pratibha Singh.

The Deputy Conservator of Forests said that there were over eight species of vultures in

the state of UP, including the Oriental white vulture, slender-billed vulture, long-billed vulture, red-headed vulture, Egyptian vulture, Indian Griffon vulture, Himalayan vulture and the bearded vulture.

"The Oriental white vulture, the slender-billed vulture and the long-billed vulture fall in the Schedule I Part 3 of the Wildlife Protection Act which means that killing of the tiger and the killing of the vulture can be put in the same bracket. One vulture eats around 120 kg of rotten meat and thus plays an important role in maintaining the ecological balance or otherwise the population of rats will increase. Vultures are ecological incinerators," said Pratibha Singh.

She added that the Oriental white vulture, the slender-

billed vulture, the long-billed vulture and the red-headed vulture were in the critically-endangered category as was declared by the IUCN.

The Deputy Conservator of Forests said that just how harmful was the use of diclofenac in the declining population of vultures could be gauged from the fact that researches had shown that if out of the 760 carcasses even one carried diclofenac it would lead to a decline in its population.

"While several countries have banned the manufacture and import of diclofenac, no measures have been taken yet to control the use and sale of this dangerous drug. What is again an area of concern is the movement of the human diclofenac in the vet diclofenac," she added.

30 August 2012:

hindustantimes HINDUSTAN TIMES, LUCKNOW SATURDAY, SEPTEMBER 01, 2012

## INT'L VULTURE AWARENESS DAY

### Throw 'fleshy parties' to make 'em breed

**AVIAN CONSERVATION** Animal carcasses would be kept at identified spots across the state to raise their depleting number

Rajesh Mukherjee and Richa Srivastava  
@hindustantimeslucknow

LUCKNOW: In order to attract more vultures to the state, biodiversity experts are mulling the introduction of vulture restaurants.

Animal carcasses and other types of meat preferred by the scavengers would be a part of the menu in these spots.

"The hunt for such spots is on," says Anita Kousalya, an associate professor in the zoology department, LU.

She is one of the members of the State Vulture Conservation Society, forest department, UP as well as the principal investigator of the project 'Monitoring of roosting and breeding sites of vultures in Jhansi, Lalitpur, Jalaun and Mahoba'. The project is being funded by the UP State Biodiversity Board.

Kousalya explains: "The idea is to attract vultures and serve them food that is free from diclofenac. Despite a ban, the drug is used extensively to treat animals. When the animals consume it through carcasses, it harms them. The concept of a vulture restaurant already exists in Gujarat and other parts of the country. Vulture restaurants are developed on the city outskirts in areas like Mohanlalgarh.

The first Saturday of every September is celebrated as International Vulture Awareness Day. Started by Birds of Prey Programme in South Africa and the Hawk Conservancy Trust in England, it is now being celebrated all over the world. In Lucknow, a vulture awareness drive will be flagged off from Lucknow University. Pratibha Singh, UP State Biodiversity Board, will attend the event. Booklets on vultures, pamphlets, vulture kits will also be distributed in schools and colleges across the city.

#### WHAT ARE THE CAUSES OF POPULATION DEPLETION?



● Gyps indicus (juvenile)

● Kidney failure due to widespread use of the drug diclofenac  
● The loss of natural habitats  
● High temperatures  
● A new virus hypothesis  
● Killed by feeding on poisoned carcasses laid by villagers for carnivores  
● Harassed and killed because they destroy trees on which they rest and roost with their acid excreta leaving the "bare poles" standing  
● Modernization of primitive slaughter houses and ban on dumping of carcasses is resulting in shortage of food supply in some areas

#### WHAT WE CAN DO.....

● Report vulture population when seen  
● Report their breeding, feeding and roosting sites to wildlife conservationists  
● Participate in rescue and care of nest fallen chicks and injured vultures  
● Co-operate in education, awareness & community participation  
● Say no to kite flying  
● Protect large trees like peepal and samal

#### THE RECOVERY PLAN

● Identifying a safe alternative drug to diclofenac  
● Start conservation breeding programme  
● Regular searches for dead vultures at breeding sites and roosts within the zone and post mortem examination to look for visceral gout  
● Surveys at sales outlets and use by veterinarians, and agreements signed to ensure unsafe drugs are not used, within a minimum 100 km radius of the focal point of the site  
● Removal of diclofenac or other harmful drug stocks from pharmacies and veterinary organisations  
● Launch a swapping programme for meloxicam



#### COLOUR AND WIN

Visit the state biodiversity board <http://www.upsbb.org/international-vulture-awareness-day.php> and download the picture of a vulture. Students of Classes 1 to 5 may colour this picture and all the entries may be sent back to Ramjee Srivastava, UP State Biodiversity Board, 3rd floor, PICUP Bhawan, A Block, Gomti Nagar, Lucknow - 226010 before September 4, 2012. Best entries would be awarded.

#### ESSENTIAL FOR ECO-BALANCE

Vultures have an important role to play in maintaining the ecological balance. If it weren't for vultures, many parts of the world would look like junkyards of bones and rotten meat. They are nature's disposal squads or "incinerators". Vultures carry out a number of 'services', most notably disposal of carrion. They also help control livestock diseases such as brucellosis, tuberculosis, and anthrax by disposing of infected carcasses. The extinction of vultures would be an irreparable loss of a link in the food chain.

SUNDAY HINDUSTAN TIMES, LUCKNOW SEPTEMBER 02, 2012

## 04 | metro | hindustantimes

### LU sets 'save-vulture' drive in motion

HT Correspondent  
@hindustantimeslucknow

LUCKNOW: Lucknow University's zoology department and UP State Biodiversity Board celebrated the international vulture day by flagging off an awareness car and holding a host of programmes here on Saturday. The vulture car was set in motion at 6:30am from the vice-chancellor's lounge by vice-chancellor Manoj Kumar Misra and his wife Meena Misra.

The car drove past the National Botanical Research Institute took a turn towards Ram Manohar Lohiya Park, Regional Science City, Pun Republic, touched Wave Mall, Sahara Gang, turned towards zoo, Charbagh railway station,

THERE ARE 22 KINDS OF VULTURES WHICH INCLUDES 15 TYPES OF OLD WORLD VULTURES AND 7 TYPES OF NEW WORLD VULTURES

#### INTERNATIONAL VULTURE DAY OBSERVED

8 species of vulture found in UP (including local and migratory vultures)

**RESIDENTIAL**

- 1 Gyps indicus (Long-billed vulture)
- 2 Gyps bengalensis (White-backed vulture)
- 3 Gyps tenuirostris (Slender-billed vulture)
- 4 Sarcophaga calvus (King vulture)
- 5 Neophron percnopterus (Egyptian vulture)

#### MIGRATORY

- 1 Anegophus monachus (Creosote vulture)
- 2 Gyps fulvus (Griffon vulture)
- 3 Gyps himalayensis (Himalayan Griffon vulture)

(Above) Lucknow University vice-chancellor Manoj Kumar Misra and his wife Meena Misra flagged off the vulture awareness car on Saturday.

02 Sept., 2012

The International Vulture Awareness Day was celebrated on Sept. 1 the UPSBB. Vultures have an important role to play in maintaining the ecological balance. This day was being celebrated along with the Zoology Department of Lucknow University.

01 Sept., 2012





Source : India Nature Watch

Red Pierrot (*Talicada nyseus*)

***“There is nothing in a Caterpillar  
that tells you it is going to be a butterfly.”***

***Richard Buck Minister Fuller***

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