



BIODIV News

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A Mango tree in bloom

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Editorial

Esteemed Readers,

Think Indian summer and think mango! This sweet smelling fleshy fruit is a delicious feast in itself and is aptly called "king of fruits". When mercury soars in north India, the markets get loaded with mangoes. The mango is one thing to look forward to during the Indian summer. Once the season starts, mango sneaks its way into our daily menu in some form or the other, be it *chutney*, *pickles*, *aam ka pana*, *aamchur*, *aampapad* etc. Till a couple of decades ago, the mango was actually one of the unifiers in a family, with most elderly people today having fond memories of large family homes, with orchards and simple contentment.

Mango is woven into art, emotions and palate of Indian culture. Its botanical name, "*Mangifera indica*" is a testimony to its Indian origin. Vavilov held the view that the mango tree originated in the Indo- Burma region. It is cultivated in diverse agro ecologies and is distributed throughout the length and breadth of the country except in hilly regions above 900 m sea level. It is an integral part of Indian cultural heritage for the past 4000 years. The 726 germplasm accessions conserved at Central Institute of Sub Tropical Horticulture, Lucknow is one of the world's richest collections.

The genetic wealth of mango however, is a threatened resource because of genetic erosion attributable to a variety of factors including monoculture, habitat loss and urbanization. In this background it has become imperative to critically examine the intrinsic value of mango biodiversity which has been done in this issue.

– Editor

1- MANGO : The king of fruits

Mango is almost grown in all states of India. It is mainly cultivated in Uttar Pradesh, Andhra Pradesh, Bihar, Orissa, Karnataka, Tamil Nadu, Gujarat, Kerala, Madhya Pradesh, Maharashtra and West Bengal.

Botanical Name : *Mangifera indica*- showing its Indian origin. The Tamil word for it is “Mangai”. In Chinese it is “mang-two”. Assamese call it “Ghari”, in Karnataka it is known as “Mavu” and in Malayalam it is called “Amra.” It is the most important member of the family Anacardiaceae. Other well known relatives of *Mangifera* are Cashew (*Anacarium occidentale*) and Pistachio (*Pistacia vera*) most members of the family Anacardiaceae are characterised by resin canals.

History : The Mango Tree is native to Burma and NE India and can grow to a height of over 30 m and live for more than a century. It is thought to have been planted as a fruit tree in India as far back as 2000 BC. Over time, plants have been selected that have larger, more flavourful fruit with less resin and fiber, and smaller pits. However, this has been difficult because they are cross-pollinated so that it is difficult to develop independent breeding lines. The long generation time is an added problem to the selection process. One way of getting round these problems has been to use vegetative propagation by grafting.

Introduction of Mango trees to the rest of subtropical Asia is thought to have started by about 400 BC. The Portuguese planted Mango trees in coastal areas of East and West Africa in the 17th century but has been suggested that they reached Africa earlier than this with Persian and Arab trade to East Africa. They were first planted in South America (in Brazil) in about 1700. Towards the end of the 19th century Mango trees had been introduced to most parts of the World where they could grow. The leaves and sap can cause skin problems (dermatitis). Eating too much mango can evidently cause kidney inflammation.

Plant Description : It is a large, branched perennial erect tree with wide evergreen crown which attains a height of about 30 meters. Leaves are simple, alternate. Flowers appear in large terminal panicles producing fruit which is a fleshy drupe.

Centre of Origin : South East Asia (De Candolle)

Pollination System : Cross pollinated

Chromosome No. : $2n = 40$

Nutritional levels of Mango Fruit

Source: National Horticulture Board

Moisture	81%	Potassium	205	Vitamins (mg/100g)	Carotene	2743
Protein	0.6%	Calcium	14		Thiamine	0.08
Fat	0.4%	Magnesium	270		Riboflavin	0.09
Mineral matter	0.4%	Iron	1.3		Niacin	0.9
Fibre	0.8%	Sodium	26		Vitamin C	16
Carbohydrate	16.9%	Copper	0.11			
Calories (K Cal)	74	Manganese	0.13			
		Zinc	0			
		Sulphur	17			
		Chlorine	3			
		Chromium	0.006			

Indian export of Mangoes 2010-2011

(Source : APEDA)

Country	Qty Mt	Value In Rs Lacs
United Arab Emirates	25,725.00	10,066.87
Bangladesh	23,049.69	1,859.43
United Kingdom	2,723.54	1,453.81
Saudi Arabia	1,592.18	617.99
Kuwait	580.29	377.79
Bahrain	980.66	355.42
Nepal	1,991.26	209.58
Singapore	387.81	206.04
Qatar	374.97	199.05
United States	136.70	193.94
Malaysia	397.82	163.20
Canada	426.62	125.73
Oman	135.91	83.09
France	132.39	64.30
Netherland	68.43	53.71
Switzerland	95.46	52.39
Hong Kong	106.49	47.22
Belgium	40.09	26.89
Iran	31.40	23.20
Japan	14.52	20.55
Germany	78.53	16.67
Turkey	23.14	15.10
Norway	38.59	12.37
Brunei	11.09	8.46
Ukraine	8.00	8.14
Bhutan	25.00	8.04
Unspecified	11.80	6.79
Maldives	9.18	3.60
Portugal	3.29	3.16
Italy	5.96	2.97
Austria	6.60	2.83
South Africa	4.35	1.30
Mauritius	2.17	1.17
Spain	0.43	0.48
China P Rp	0.59	0.35
Thailand	0.38	0.23
Sweden	0.10	0.12
Romania	0.16	0.05
Luxembourg	0.06	0.04
Pakistan	0.09	0.03
Israel	0.02	0.02
Lithuania	0.01	0.01

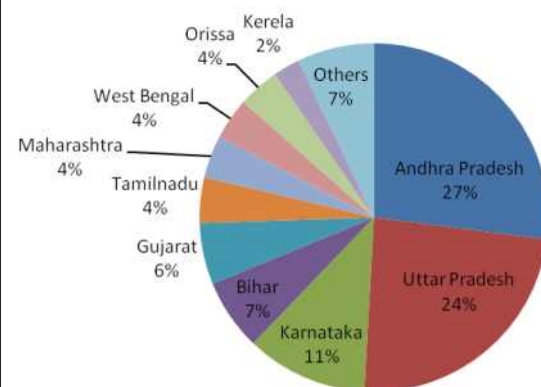
State wise Area, production and Productivity of mango in India

(Source : Indian Horticultural database 2010)

Andhra Pradesh leads the nation in the production of mangoes though productivity is highest in Uttar Pradesh.

State	Area (000 Ha)	Production (000MT)	Productivity Ha/MT
Andhra Pradesh	480.4	4058.3	8.4
Uttar Pradesh	276.4	3588.0	13.0
Karnataka	153.8	1694.0	11.0
Bihar	146	995.9	6.8
Gujarat	121.5	856.7	7.0
Tamil Nadu	132.7	636.3	4.8
Maharashtra	474.5	597.0	1.3
West Bengal	88.1	578.0	6.6
Orissa	177.6	577.5	3.3
Kerala	63.8	373.2	5.9
Others	197.425	1071.7	5.4
TOTAL	2312.3	15026.7	6.5

Leading Mango Producing states in India 2009-2010



UAE is the largest importer of mangoes from India closely followed by Bangladesh.

2- Mango Biodiversity In Uttar Pradesh

Dr. Rajan

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India is globally the second largest producer of fruits and vegetables. It is the largest producer of mango, banana, coconut, cashew, papaya and pomegranate. The effective management, enhancement, evaluation and valuation of genetic resources and development of improved cultivars with high quality characteristics, productivity remains important.

Uttar Pradesh is the birth land of several world famous mango varieties. In Northern region, Uttar Pradesh commands nearly more than 20% of the total production of mango in India. Mango varieties commercially successful in Uttar Pradesh are also grown in the neighboring states of Punjab, Haryana and Rajasthan and are available from mid-May to late August. *Dashehari*, *Langra*, *Samar Bahishi*, *Chausa* and *Rataul* are well known varieties of the state. Among the early varieties, *Bombay Green* and *Gaurjeet* are important.

Bombay Green is a good quality mango commercially important and comes to market by middle of May. It is also valued for its pleasant flavour. *Gaurjeet* is one of the best early varieties grown in Eastern Uttar Pradesh especially in the Gorkhpur Division.

Dashehari and *Langra* are the leading commercial mid-season varieties of the region starting from third week of May. *Dashehari* bears regularly, has a thin stone, absence of fibre and good quality. *Langra* known for its excellent taste and abundance of pulp is characterized by heavy fruit drop, dull green skin colour, turpentine flavour and typical biennial bearing habit.

Many types of *Fazli* mango predominate as late varieties in the markets of Northern India. However, from quality point of view, none of them is outstanding.

There are three main centres of these rich mango varietal collections in India viz., Lucknow-Saharanpur belt of Uttar Pradesh, Murshidabad area of West Bengal and Hyderabad area of Andhra Pradesh, where wide variability in is still available. Many Nawabs, owning large properties in Lucknow (Uttar Pradesh), Hyderabad, (Andhra Pradesh) and Murshidabad (West Bengal) planted large collections of mango varieties, which not only enhanced the genetic diversity but also played major role in conservation of diversity.

During last century, farmers used seedlings to plant new orchards. Varieties like, *Malihabad Safeda*, *Abdul Khalid Khan*, *Acharwala*, *Amin Khurd*, *Fakira*, *Fakirwala*, *Gilas*, *Gola*, *Gola Bhadaiya*, *Gullu*, *Hathizhool*, *Heere Hayat*, *Intaquab*,



Jafarbagh, Jauhari, Kalua, Khasul Khas, Muntkhab, Nawab Pasand, Nayab, Ramkela, Benajir Sandila, Taimuria varieties have evolved through selection process.

About 400 varieties existed in Malhibad as a result of collection from different parts of the country and selections from seedling mango planting. Important varieties like *Dashehari*, Malihabad Safeda (Johari), Prince, Gilas, Lucknow Safeda came into existence as result of selections in this region. Nurserymen have been the curators of mango varieties in Malihabad over long time for several generations. For example more than 300 varieties are conserved in a single nursery only (Abdulla Nursery). Around Malihabad, mango growing area of about 24000 ha has several seedling plantations which added to diversity as well as improved ecosystem by improving fruit set in highly self incompatible commercial varieties like *Dashehari*.

Superior mango seedlings growing in farmers field are identified by the nurserymen for display in mango diversity fair or feast and thus promotes exchange of varieties among them. The system was evolved in all the important areas of mango varieties development like Mallihabad, Sandila and Saharanpur. The practice is becoming uncommon but can be well practiced by planting of seedlings in boundary, panchayat lands, along the road.

“Mango Man” at Malihabad



with Haji Kalimullah Khan, “Mango Man”.



The famous Mango Tree of Haji Kalimullah Khan, Malihabad.

Haji Kalimullah Khan the famous “Mango Man” of India lives in the village of Malihabad. His family has been in the mango business for over three hundred years. In his nursery stands a mango tree, over 80 years old on which he says he has grafted over three hundred different varieties- from Totapari to Alphonso. He was awarded the Padam shri award in 2008 for this.



Grafting: Stock and Scion



A close up of the famous Mango Tree.

3- Mango varieties of India

The total number of distinct mango varieties named and maintained in India has been estimated to be over one thousand. About 30 varieties are commercially grown in India at a larger scale.

Name of State	Mango Variety
Andhra pradesh	Banganapalli, Suvarnarekha, Neelum and Totapuri
Bihar	Bombay Green, Chausa, Dashehari, Fazli, Gulabkhas, Kishen Bhog, Himsagar, Zardalu and Langr
Gujarat	Kesar, Alphonso, Rajapuri, Jamadar, Totapuri, Neelum, Dashehari and Langra
Haryana	Chausa, Dashehari, Langra and Fazli
Himachal Pradesh	Chausa, Dashehari and Langra
Karnataka	Alphonso, Totapuri, Banganapalli, Pairi, Neelum and Mulgo
Madhya Pradesh	Alphonso, Bombay Green, Dashehari, Fazli, Langra and Neelum
Maharashtra	Alphonso, Kesar and Pair
Punjab	Chausa, Dashehari and Mald
Rajasthan	Bombay Green, Chausa, Dashehari and Langra
Tamil Nadu	Alphonso, Totapuri, Banganapalli and Neelu
Uttar Pradesh	Bombay Green, Chausa, Dashehari and Langra
West Bengal	Fazli, Gulabkhas, Himsagar, Kishenbhog, langra and Bombay Green

Banganapalli (Baneshan, Safeda)

State : Andhra Pradesh and Tamil Nadu.

Also known as Chapta, Safeda, Baneshan and Chapai. Fruit is large in size and obliquely oval in shape. Variety suited for dry areas; fruit large sized, obliquely oval in shape, golden yellow in colour; good keeping quality; good for canning; biennial in habit. It is a mid season variety.



Alphonso (Happus)

State: Maharashtra, Gujarat, Karnataka and Madhya Pradesh.

This variety is known by different names in different regions, viz, Badami, Gundu, Khader, Appas, Happus and Kagdi Happus. Fruit medium in size, ovate oblique in shape, orange yellow in colour; juice is moderate-abundant; excellent keeping quality, good for pulping and canning; mainly exported as fresh fruit to other countries; Flesh develops spongy tissue.

Bangalora (Totapuri), State : Andhra Pradesh, Karnataka, and Tamil Nadu.

Common synonyms of this variety are Totapuri, Kallamai, Thevadiyamuthi, Collector, Sundersha, Burmodilla, Killi Mukku and Gilli Mukku. Fruits medium-large, oblong shaped with pointed base with golden yellow colour; good keeping quality; used for processing; heavy and regular bearing variety; susceptible to bacterial spot. It is a mid season variety.



Bombai (Malda)

State : Bihar, West Bengal and Madhya Pradesh.

Variety is alternate bearer; fruit medium, ovate and yellow in colour; keeping quality medium. It is an early season variety.



Bombay Green

State : Uttar Pradesh and Haryana.

Fruit size is medium, shape ovate oblong with spinach green colour; keeping quality is medium; early season variety; biennial in habit. Highly susceptible to both vegetative and floral malformation. It is an early season variety.

Dashehari

State : Uttar Pradesh, Haryana and Punjab.

Best varieties of the country; fruit size is small-medium, shape is elongated with yellow fruit colour, flesh is fibreless; good keeping quality; mainly used for table purpose; susceptible to mango malformation. Fruit quality is excellent and keeping quality is good.



Fernandin

State: Goa.

Fruit size medium-large, fruit shape oval to obliquely oval and fruit colour is yellow with a blush of red on shoulders; medium keeping quality; mostly used for table purpose. It is a late season variety.

Himsagar

State: West Bengal and Bihar.

This variety is indigenous to Bengal. Fruit is medium sized ovate fruit with yellow colour; good keeping quality; early season variety and mostly used for table purpose.



Kesar

State: Gujarat.

This is a leading variety of Gujarat. Fruit medium oblong with a red blush on the shoulders; good keeping quality; ideal for pulping and juice concentrates; early season variety. It is the second variety after Dashehari to have got a GI registration. After the GI registration, mango growers in 18 talukas of Junagadh and Amreli districts, located on the periphery of the Gir Wildlife Sanctuary, will be able to reap the benefits of added value attached to their produce. Talala, Keshod, Vanthali, Una, Kodinar and Mangrol talukas are the main production centres of Kesar mango in Junagadh district.

Kishen Bhog

State : West Bengal and Bihar.

Fruit medium oval oblique with yellow colour; keeping quality is good; bearing heavy.



Langra

State : Uttar Pradesh, Bihar, Haryana, Madhya Pradesh, Orissa, West Bengal and Punjab.

Trees vigorous and spreading; fruit medium, ovate in shape with lettuce green colour; poor keeping quality; skin is very thin and pulp is very sweet; alternate bearing variety mostly used for table purpose. This variety is indigenous to Varanasi area of Uttar Pradesh. It is a mid season variety.

Mankur

State : Goa and Maharashtra.

The variety develops black spots on the skin in rainy season. Fruit is medium ovate and yellow in colour. Fruit quality is very good but keeping quality is poor.



Mulgoa

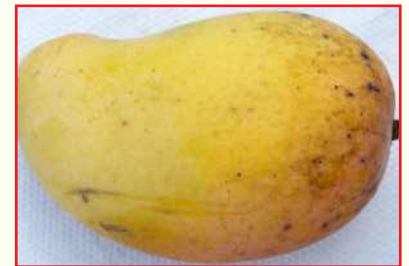
State : Tamil Nadu and Karnataka.

Fruit is large roundish-oblique in shape and yellow in colour; high fruit quality and good keeping quality.

Neelam

State : Tamil Nadu, Karnataka and Orissa.

Indigenous to Tamil Nadu. Fruit is medium ovate-oblique in shape and saffron yellow in colour; good keeping quality; high yielding and regular bearing; ideal variety for transporting to distant places. This variety is a late season variety.



Chausa

State : Uttar Pradesh and Punjab.

This variety originated as a chance seedling in the orchard of a Talukdar of Sandila district Hardoi, UP. Fruit large, ovate to oval oblique in shape and light yellow in colour, flesh fibrous; medium keeping quality; extremely sweet in taste; alternate bearing variety; shows apical dominance. It is mostly grown for table and processing purpose. It is a late season variety.

Suvernarekha

State : Andhra Pradesh and Orissa.

Fruit medium ovate oblong fruit, green in colour with prominent red blush on the shoulders; good keeping quality; bearing is heavy.



Vanraj

State : Gujarat.

Fruit medium, ovate oblong in shape with a blush of jasper red on the shoulders; good keeping quality.

Hybrid Varieties



Malika (Neelam X Dashehari)

Releasing Institute: Indian Agricultural Research Institute (IARI), New Delhi.

Fruit large, oblong elliptical yellow in colour; fruit and keeping quality is good and is mostly used for table purpose. 'Mallika' produces high quality, fiberless orange fruit. The fruit has prominent citrus, melon and honey notes and is exceptionally sweet.



Amrapali (Dashehari X Neelam)

Releasing Institute: Indian Agricultural Research Institute (IARI), New Delhi.

Dwarf, regular bearing and late maturing variety; suitable for high density planting - about 1600 plants may be planted in a hectare; flesh is fibreless; average yield 16 tonnes/hectare.

Ratna (Neelam X Alphonso)

Releasing Institute: Konkan Krishi Vidyapith, Maharashtra.

Tree moderately vigorous, precocious, fruits are medium sized, attractive in colour and free from spongy tissue with high pulp to stone ratio and a very thin and small stone.



Sindhu (Ratna back-crossed with Alphonso)

Releasing Institute: Konkan Krishi Vidyapith, Maharashtra.

Regular bearer, fruits medium sized, fibreless, free from spongy tissue with high pulp to stone ratio and very thin and small stone.

Arka Aruna (Banganapalli X Alphonso)

Releasing Institute: Indian Institute of Horticulture Research (IIHR), Bangalore.

Plants are dwarf regular bearing; Fruits oblong; skin is thin, rough and dull yellow in colour with slight red blush; pulp is soft, pale yellow in colour; free from spongy tissue and fibre, stone is small; average fruit weight is 500g. Suitable for homesteads as well as high density planting.



Arka Neelkiran (Alphoso x Neelam)

Releasing Institute: Indian Institute of Horticulture Research (IIHR), Bangalore.

Tree is semi-vigorous in nature; fruit is elliptical, medium size golden yellow in colour, average weight 270-280g; free from fibre and spongy tissue; keeping quality is good

References:

Banganapalli (Baneshan, Safeda): <http://exnora.in/mod/file/thumbnaill.php?file_guid=8374&size=large>, accessed on 20.06.2011

Alphonso: <<http://www.maxl.in/images/alphonso-mango1.jpg>>, accessed on 20.06.2011

Banglora totapari: <http://media.agriculturesource.com/product/imgage/Agriculture/2010080902/d58d20c048b60e311ab1d986e202eb37.jpg>>, accessed on 20.06.2011

Mumbai malda : <http://video.ilovekolkata.in/seyretfiles/uploads/thumbnails/user_62/user_62_tilzyw84jadcxq.gif>, accessed on 20.06.2011

Bombay green: <http://toptropicals.com/pics/garden/09/mango/palmerP6133135.jpg>, accessed on 20.06.2011

Dussheri :< <http://img.21food.com/20110609/product/1305680338406.jpg>>, accessed on 20.06.2011

Fernandin <<http://t3.gstatic.com/images?q=tbn:ANd9GcTSW4AF18KQIII0uLLzCSIGJhp3rjPGq16il685-a-3WJESvgkXbdZtuv4zXw>>, accessed on 20.06.2011

Himsagar : <http://upload.wikimedia.org/wikipedia/commons/a/a2/Mango_Himsagar_Asit_ftg.jpg>, accessed on 20.06.2011

Kesar: <<http://indiacurrentaffairs.org/wp-content/uploads/2011/08/Junagadh-Kesar-mango-gets-GI-tag.jpg>>, accessed on 20.06.2011

Langra : <http://farm2.static.flickr.com/1167/691185751_0f51787467.jpg>, accessed on 20.06.2011

Neelum : <<http://toptropicals.com/pics/garden/09/mango/pimsenmunP6143197.jpg>>, accessed on 20.06.2011

Suvarnarekha: < <http://www.ithappeninindia.com/wp-content/uploads/2010/05/Suvarna-rekha.jpg>>, accessed on 20.06.2011

Mallika : <<http://t1.gstatic.com/images?q=tbn:ANd9GcSL9KpmjR-OrLeDycA6KcMpHszHgrpJRAb3l4d45tUAqPrzV9Xgy7SAs65h>>, accessed on 20.06.2011

Amrapalli : <http://2.imimg.com/data2/VW/1L/IMFCP-1506102/mango_amarapali-250x250.jpg>, accessed on 20.06.2011

4- Mango in Tradition

Religious significance: The mango tree is another sacred tree of the Hindus. The significance of this finds mention in the Ramayana, Mahabharata and the Puranas. The mango as a fruit is a symbol of love and fertility. The leaf of the tree is used during most religious and social ceremonies of the Hindus.

A “*Purnakumbha*” is a pot filled with water and topped with fresh mango leaves and a coconut and considered to be the “*Sthaphna*” of the puja. The pot symbolizes Mother Earth, water is the life giver, coconut the divine consciousness and the mango leaves symbolizes life. Mango leaves are used to decorate the neck of the pot. The end tip of the mango leaves is pointed upwards. The whole “*Purnakumbha*” is symbolizes Goddess Lakshmi and good fortune.



On various auspicious occasions, mango leaves are used to adorn entrances at home to signify good fortune. These ‘*torans*’ signify auspicious occasions.

Mango blossoms are used on Basant Panchami day in the worship of Goddess Saraswasti.



The mango tree occupies an important place in Buddhist tradition too. The mango tree is carved on the sanchi stupa (150 BC). Amrapali, after whom a mango is also named was a courtesan from Vaishali in Buddha's time . She offered Buddha a mango orchard and impressed by his teachings turned bhikshu. At Nalanda University , a mango grove called ‘*pavarika*’ was buddha’s favourite place. The Mango grove at Jivaka called Amravana was the pharmacy of

Jivak , the Physician of the king of Magadha where Buddha is said to have come for treatment.

Mango motifs on fabrics : Mango motifs : The European weaving industry’s oldest pattern- the “paisley” was copied from kashmiri shawls of the 15th century. The East India Company initially imported these kashmiri shawls at the end of the 18th century. These were expensive and scarce. Craftsmen from Spitalfield, Norwich and Edinburgh in Britian started producing cheaper imitations in silk by 1780. Later these were produced from the Scottish town of Paisley in greater numbers, thanks to the frenchman's Jacquard loom loom, that automated weaving.

Andhra Pradesh’s exquisite kalamkari prints also have mango motifs





Aam ka pana : Green mangoes are used to make this drink along with rock salt, cumin seeds and a dash of mint. Serves as an excellent coolant of the body in summer.

Aam papad/ Amawat : It is a kind of fruit leather made out of mango pulp mixed with concentrated sugar solution and potassium metabisulfite. This is sundried. After the first layer dries another layer is spread over, the process is repeated until the desired thickness is reached.



Aamchur : Dried unripe mango powder is used in cooking of many vegetables and to add taste to food.

In addition, mango pulp, mango jam, mango juice, mango squash, mango pickles, mango chutney etc are other products made from mango.

Mango wood is used to make furniture and handicrafts. Villagers also use tender twigs as tooth brushes and the midrib of the leaf as a tongue cleaner!!

Conferences, Trainings, Tours

Conference at St Andrews college in Gorakhpur on Biodiversity conservation: On 17th May, 2011, Pratibha Singh, DCF attended as a special guest and gave a talk on the importance of Biodiversity conservation.

“Stakeholders Consultation and launch of UN Decade on Biodiversity for Asia and Pacific” was organized by the National biodiversity Authority in New Delhi - on 23rd May 2011, Pratibha Singh, DCF attended the meeting. Executive secretary of CBD, Mr Ahmed Djoghlaif was present at this meet. The logo was COP 11 was launched at this meet.

New BMC constituted in Bhauwapaar, Gorakhpur

The Biodiversity Management Committee of Bhauwapaar, District Gorakhpur was constituted on 05 April 11, 2011 in a meeting organized in Bhauwapaar village, Block Piprauli, District Gorakhpur as per guidelines of the Biological Diversity Act, 2002 and UP state Biological Diversity Rules, 2010. This village falls in the North Indian plain agroclimatic zone of Uttar Pradesh.



5- International Day for Biological Diversity-2011

Celebration and National Conference on "Forest Biodiversity-Earth's Living Treasure"



Uttar Pradesh State Biodiversity Board celebrated the International Day for Biological Diversity (IDB-2011) on 22-05-2011 at Dr. Ram Manohar Lohia National Law University Campus, Lucknow. On this occasion, one day National Conference on "Forest Biodiversity-Earth's Living Treasure" was also organized. In all, over 400 delegates including officers from U.P. Forest Department and other states, various research organizations/institutes, universities as well as NGO's attended the conference. The conference was organized to provide an effective platform for all those who are concerned or dealing with convention of biodiversity since it underpins the health and vitality of forests and also serves the basis for a wide range of ecosystem services necessary for people's livelihoods and well beings. The Chief guest on the occasion was Hon'ble Minister for Forests and Wildlife, U.P. Shri Fateh Bahadur Singh, The guest of Honor for this event was Padamshree P. K. Sen, I.F.S.(Retd.).

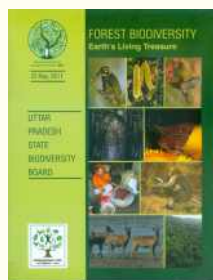
In the inaugural session, Sri D. N. S. Suman, Principal Chief Conservator of Forests, U.P. welcomed all the dignitaries and delegates of conference and delivered the welcome address. He said that that this year 2011 has been declared as International Year of Forests and the theme for 2011 is Forest Biodiversity-Earth's Living Treasure which is very important in saving the planet through long term planning for conservation of our forest resources and sustainable development. He further said that forest department is making continuous efforts to uplift the economic status of local people living in the fringes of forest through implementation of different projects on conservation of flora and fauna vis-à-vis biodiversity conservation.

Speaking on this occasion, Secretary of the U. P. State Biodiversity Board, Shri Pawan Kumar emphasized the objectives of the National Conference as well as the efforts made for conservation of floral and faunal biodiversity so far. In his presentation, he gave a brief account of different components of biodiversity and their importance. He said that about 80% of the people in developing countries use plants as a primary source of medicine. 57% of the 150 most prescribed drugs have their origins in biodiversity. In view of the theme of the conference, he highlighted the importance of the year 2012 as it being 20th anniversary of CBD as well





as United Nations Framework Convention on Climate Change (UNFCCC), India is going to host COP 12. As a host of COP 12, India must take lead to save the Biodiversity.



Shri Chanchal Kumar Tewary, Principal Secretary (Forests) and Chairman, U.P. State Biodiversity Board, in his talk stated that biodiversity is directly linked with our livelihood. Forests play vital role in serving human beings. Globally, forest biodiversity generates more than five thousand products of commercially importance. He emphasized on the urgent need to restore the degraded forests in order to save forest biodiversity.

In the inaugural session, a souvenir on the theme of the conference "Forest Biodiversity-Earth's Living Treasure" was also released. It carried 25 articles in 164 pages.



प्रदेश में 'ग्रास लैंड' को नष्ट नहीं होने दिया जायेगा : फतेह बहादुर

अन्तर्देशीय जैव विविधता दिवस पर राज्य अतिरिक्त राज्य जैव विविधता बोर्ड के अध्यक्ष श्री फतेह बहादुर सिंह ने कहा कि प्रदेश में जैव विविधता को नष्ट नहीं होने दिया जायेगा। उन्होंने कहा कि जैव विविधता को नष्ट होने से देश के विकास में बाधा पड़ेगी। उन्होंने कहा कि जैव विविधता को नष्ट होने से देश के विकास में बाधा पड़ेगी। उन्होंने कहा कि जैव विविधता को नष्ट होने से देश के विकास में बाधा पड़ेगी।

अन्तर्देशीय जैव विविधता दिवस

श्री फतेह बहादुर सिंह ने कहा कि जैव विविधता को नष्ट होने से देश के विकास में बाधा पड़ेगी। उन्होंने कहा कि जैव विविधता को नष्ट होने से देश के विकास में बाधा पड़ेगी। उन्होंने कहा कि जैव विविधता को नष्ट होने से देश के विकास में बाधा पड़ेगी।



HINDUSTAN TIMES, LUCKNOW
MONDAY, MAY 23, 2011

'PLANTATION CANNOT RECOVER BIODIVERSITY'

LUCKNOW: Plantation cannot compensate for the loss of biodiversity. Once the biodiversity is lost, it can't be re-grown through afforestation.

PK Sen, renowned wildlife expert from Bihar and Padma Shri awardee, expressed these views at a seminar organised on the occasion of International Day for Biodiversity at Ram Manohar Lohia Law University on Sunday.

"All efforts must be made to save the existing biodiversity of the country," Sen added.

India has five world heritage sites of biodiversity and 12 biosphere reserves. India was also one of the 12 mega biodiversity countries of the world, he pointed out. Comparing India's biodiversity with the rest of the world, Sen said, "Only Brazil and Costa Rica have more biodiversity reserves than India."

The country accounted for 7.8% of the identified species of the world despite the fact that it had only 2.5% of the land area of the world, he said.

Speaking on the occasion, principal chief conservator of forest, Manjiv Prasad, PB Gangopadhyay said, "Biological resources have traditionally been a major source of food for local inhabitants and of major economic value in terms of commercial exploitation."

"Exploitation of biological diversity has increased in the last century due to increase in human population," Gangopadhyay said. Principal chief conservator of forest, U.P. DNS Sumar said, "Uttar Pradesh has an area of 241,281 sq km. Out of this, 11,291 sq km consists of forest and tree cover, which is only about 3% of total forest cover of the country."

6- Newspaper Clippings

(i) International News

HINDUSTAN TIMES, LUCKNOW
WEDNESDAY, APRIL 06, 2011

Fourth variety of life found by US scientist

Press Trust of India
letters@hindustantimes.com

LONDON: It seems the debate about the possibility of a fourth domain of life refuses to die down, with a US scientist claiming to have discovered a whole new branch of the tree of life.

Living things are currently split into three domains — eukaryotes or complex-celled organisms like animals, plants and humans; bacteria; and archaea, the last two being simple-celled microorganisms.

Now, Professor Jonathan Eisen, an evolutionary biologist at the University of California, claims he may have discovered a fourth.

He has used complicated gene sequencing techniques to look at DNA collected by maverick researcher Dr Craig Venter on a round the world yachting trip. He found that some of the genes did not fit into the three domains and that he could possibly have stumbled on a whole new domain.

Trying to classify the new DNA has proved impossible and so Prof Eisen has published his findings in the Public Library of Science journal in the hope others can help.

"The question is, what are they from? They could represent an unusual virus, which is interesting enough. More interestingly still, they could represent a totally new branch in the tree of life.

"Even though we did not have the story completely pinned down, we decided to finally write up the paper to get other people to think about this issue," Prof Eisen was quoted by The Daily Telegraph as saying.

One of the difficulties of trying to study novel genes is that it is hard to culture them to such a quantity to make them easily readable. But Prof Eisen used methods honed by Dr Venter in his successful attempt to read human genetic code.

They have dubbed the technique as "metagenomics" and it involves breaking down the DNA to sizeable chunks, decoding them and then reassembling in the correct order.

Prof Eisen stumbled on variations of two genes called RecA and RpoB, both of which are old and abundant, which had different characteristics to anything in the public genetic databases.

PROF EISEN FOUND SOME OF THE GENES DID NOT FIT INTO THE THREE KNOWN DOMAINS OF LIFE

CIRCLE OF LIFE

All lifeforms are divided into three forms, based on their evolutionary origins:

		
EUKARYOTES Complex creatures like animals and plants	BACTERIA Most single-celled microorganisms.	ARCHAEA Primitive simple-celled microorganisms.

A scientist now claims there is a fourth domain of life.

Apr. 6, 2011 : There are three forms of living organisms currently recognized-

(1) Eukaryotes (2) Bacteria (3) Archaea . Prof Eisen at university of California has found a fourth domain of life.



DELHI
THE HINDU • MONDAY, APRIL 25, 2011

Stinking flower blooms



Titan Arum.
— PHOTO: REUTERS

GENEVA: Thousands have flocked to Swiss city of Basel to see a giant, stinky flower bloom for the first time.

The *amorphophallus titanum*, or corpse flower, is in full glory before the bloom wilts on Sunday. The plant is 17 years old and has never bloomed before.

Visitors haven't been deterred by the stench of rotting flesh the flower emits to attract insects for pollination.

The 6.6-ft tall flower is native to the Indonesian island of Sumatra. — AP

Apr. 25, 2011: A flower 6.6 ft. tall ? At Geneva, The *Amorphophallus titanum* flowered for the first time in 17 years. Commonly called the Titan Arum it has its origins in Sumatra.

Song dying out: Nightingales may become extinct in 30yrs

London: The nightingale — made immortal in an ode by famous British poet John Keats — could become extinct within 30 years, scientists have predicted.

Population of the bird that has been an “inspiration for generations of poets and romantics”, has drastically gone down by more than 90% in the last 40 years, says the study by the British Trust for Ornithology.

The bird would be upgraded to “red status” — signifying the highest degree of conservation concern. The nightingale’s decline has been blamed on the population explosion of the muntjac deer, which has reduced the availability of the bird’s habitat in the woods.

The muntjac is a small deer native to Asia, including Sri Lanka, India, China and Japan, and was introduced to Britain by accident when some escaped in 1925 from the Duke of Bedfordshire’s estate.

Pressures on its habitat in sub-Saharan African, where the bird goes during



CLOSING NOTES: The nightingale population has fallen by 90% in the last 40 years

winters, as well as along its migration route to UK have contributed to the threat.

The trust is searching for solutions to halt the bird’s ex-

inction. It has launched the Nightingale Appeal and a CD of the bird singing, profits from which will go to research. IANS

May 31, 2011:

Population of the nightingale has gone down by more than 90% in the last 40 years say scientists

Newspaper Clippings

(ii) National News

HINDUSTAN TIMES, LUCKNOW
TUESDAY, APRIL 19, 2011

FIRST SHOTS

Freeze! Here comes the snow leopard



HT Correspondent
letters@hindustantimes.com

DEHRADUN: Finally shot! The camera traps have worked. That's how the Uttarakhand forest department officials shouted after capturing the endangered snow leopard on camera for the first time. And why not? It's the rarest of the rare success achieved after long hours of strategically laying camera traps in the rough terrains to catch the elusive cat.

Chief wildlife warden

THE BIG CAT WAS SPOTTED IN THE MALARI REGION OF NANDA DEVI BIOSPHERE RESERVE ON APRIL 10 BY A JOINT TEAM

Srikant Chandola said the big cat was spotted in the Malari region of Nanda Devi biosphere reserve last week (April 10) by a Wildlife Institute of India (WII) and forest department team. Snow leopard is locally called 'him bagh' or the 'bur-fani chita'. It is the top predator of the Himalayan ecosystems. The leopard preys on blue sheep, musk deer and many small mammals such as marmots, pika and galliformes.

"This is the first-ever photographic record of the snow leopard in Uttarakhand. The hunt will tell the exact count of the animal. It is 500-odd in India," Chandola said adding, "The snow leopard project has been centrally-sponsored. The idea is to safeguard the snow leopard and the associated wildlife."

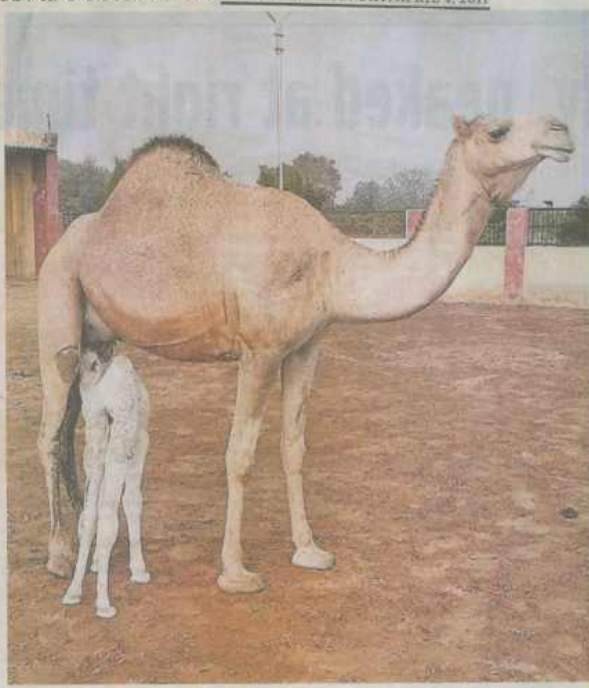
The union forest and environment ministry had initiated the project in 2006 across J&K, HP, Uttarakhand, Sikkim and AP. Leopard habitats are found in Badrinath-Mana, Malari-Lapthal, Nanda Devi NP (core zone), Valley of Flowers, national park, Nelong Valley in Gangotri and a few areas in Uttarkashi, Rudrapur and Pithoragarh districts. WII scientist S Sathyakumar provided camera training to the researchers and field staff of Nanda Devi Biosphere Park in August 2010.

HT PHOTO

The photo of the snow leopard spotted in Nanda Devi biosphere on April 10.

Apr 19, 2011: Snow leopard spotted the Nanda Devi Biosphere Reserve. This is the first ever photographic record of the snow leopard in this

A rare occurrence THE HINDU • MONDAY, APRIL 4, 2011



INSIDE BIKANER: A female Mewari breed camel gave birth to a white non-albino calf, an occurrence for the first time in the last 27 years at the National Research Centre on Camel in Rajasthan. — PTI

Endangered species to be put on Red list

NEW DELHI: To strengthen its efforts at conservation of endangered plants and animals, India will undertake the Red listing process regularly. A high-level committee of the Ministry of Environment and Forests has decided to bring its first report on the endangered species by the end of next year. — PTI

Apr 4, 2011: An altrino camel (Mewari breed)

THE HINDU • MONDAY, APRIL 25, 2011

Relocation of leopards discouraged

Guidelines say animals should be released in the vicinity of capture

K.K. Sudhi

KOCHI: The national guidelines for human-leopard conflict management have advised against relocating the captured animals, a practice widely followed in Kerala.

If an animal has to be released, it should be done in the immediate vicinity of capture. Leopards are highly adaptable animals which exhibit amazing hunting instincts. The space vacated by a captured leopard will soon be occupied by another big cat.

The Kerala Forest Research Institute, Thrissur, had listed 42 cases of leopard attacking cattle in the Chalakkudy forest division between 2003 and 2008.

The relocation of captured animals often leads to the transfer of conflict to another unaffected site. A relocated leopard trying to navigate to its home territory through a dense human landscape may lead to more conflicts. The arbitrary removal of leopards can lead to increased conflict, say the guidelines.

The decision to capture an animal should be the last option and human intervention should be restricted to avoid conflict. No animal captured after a deliberate attack on a human should be released into the wild. The animals should be micro-chipped, ear-tagged or collared using colour-coded collars before release and monitored after the release, it is recommended.

E.A. Jayan, scientist of the Division of Wildlife Biology of the Forest Institute, who studied the conflict in the Kerala region, says the proposal in the guidelines to allow the leopard to feed on the animal it kills will address the food needs of the animals. However, such a practice is never followed in Kerala.

The denial of food through the removal of the prey will lead to the leopard making a kill the next day. Serial killings can take place in some cases.

P.A. Namer, Head of the Centre for Wildlife Studies of the College of Forestry, Thrissur, says leopards captured in Kerala are mostly released in the Wayanad forests. The relocation will succeed only in shifting the conflict locations. Sufficient animal rehabilitation centres should be set up for keeping and injured animals which cannot be released into the wild. A holistic approach rather than an ad-hoc one was needed in dealing with the issue, Dr. Namer says.

Bullets for man-eaters

For man-eating leopards, the Ministry has suggested "eliminating the problem animal with the help of shooters after spotting the animal. Man-eaters attack human beings with an intention to kill and they usually lift children from the precincts of houses and attack people sleeping inside houses. Trap cages should be installed to capture them when such attacks occur in highly populated places.

Animals trapped after found deliberately attacking humans should not be released back into the wild. It is mainly authorizing such animals should be the preferred option, it suggests.

The Ministry has come up with a suggestion to form primary and emergency response teams to deal with the situations of conflict. Steps to be followed for darning and trapping the animals and providing their escape routes in some other cases have been listed.

For animals injured beyond recovery or permanently disabled, euthanasia has been recommended. Immediate payment and quick response to loss of life, livestock and property have been suggested.

Apr 25, 2011: National guidelines for human-leopard conflict management have advised against relocate captured leopards.

Newspaper Clippings

THE HINDU • SUNDAY, JUNE 12, 2011



MAIDEN APPEARANCE: Tigress T-19 takes her almost three-month-old cubs out for a walk in the Nel Ghatti-Kamaldhar area of Rajasthan's Ranthambore National Park. — PHOTO: SPECIAL ARRANGEMENT

Celebration time at Ranthambhore

T-19 parades her nearly three-month-old little ones finally

Somy Sebastian

JAIPIR: One more proud feline mother came out with her cubs on a "parade" this week at the Ranthambhore National Park, confirming the presence of at least 17 cubs there at present.

Though the park authorities were aware that T-19, the nearly six-year-old tigress, had delivered a litter, this was the first time that she gave a "debüt" to the eyes of the camera.

T-19 — born to the famous Machli, also known as the "Bhairi female", a classification given by the territory she presided over during her hey-

day — took her cubs for a walk in the scrubby woods of the Nel Ghatti-Kamaldhar area in Zone 2 of the park.

Ranthambhore: Deputy Conservator of Forests Y.K. Sahoo confirmed the young mother as T-19.

Impressive lineage

Going by their size, the cubs could be about three months to three-and-a-half months old. The family was sighted by tourists and forest guard Shivraj.

"The lineage of T-19 is both impressive and interesting," he points out. Rajasthan Board for Wildlife member Jagad Singh.

"Born in August 2006, one of her siblings, T-36, was shifted to the Sariska Tiger Reserve as a part of the tiger reintroduction programme there," he notes.

Machli so far has given four litters, and another female given birth to by her earlier too is now in Sariska.

Though aged around seven years, this tigress — as some of the tresses in Sariska have — is yet to be a mother.

Interestingly, a more aggressive sibling of T-19, Machli had three female cubs in that litter, is T-42, who has reportedly taken over 70 per cent of her mother's territory of the Padam Talab Rajghat.

Nalghati area

Now the good part of her aggression is that she too has been reportedly mating, Machli, admitting to the new power equations in her area, now reportedly surveys a territory near Laksharia, on way to Malhi Talab and Baholia.

"It is celebration time in Ranthambhore. The appearance of T-19 with her three cubs has confirmed the earlier claims of the authorities on the presence of 17-18 cubs in the park," observes Mr. Singh.

According to him, the eldest among the cubs — born to the Sahajpur female — would be two-one-year-old juveniles.

Jun 12, 2011:
T-19 the 6 year old tigers has 3 cubs at Ranthambore National Park. She (T-19) is the daughter of Machli and was born in Aug 2006

SUNDAY TIMES OF INDIA, LUCKNOW
JUNE 12, 2011

Guj flamingo habitat turns into graveyard

Over 100 Birds Electrocuted, Hounded By Dogs

Vijaysinh Parmar | 176



Bhavnagar: Hundreds of flamingos are dying of electrocution daily as they fly into high-voltage electricity cables going over their habitat on the outskirts of Bhavnagar city. The situation is made worse by stray dogs which attack these birds, causing the flock to take-off in panic and hit the high-tension lines.

"A marsh near Bhavnagar has become the habitat of the flamingos. I visited the site on June 9 and saw nearly 30 dead flamingos below the electric power line. Locals said the figure was more than 100," said I. R. Gadgvi, head of the Department of Marine Science, Bhavnagar University, and president of Dhamakumariniji Nature Conservation Society.

Arjun Bharvad, a local said, "I have been watching this since the last 10 days and have informed the authorities concerned. Also, stray dogs have made life miserable for the birds as they corner them and panic-stricken birds collide with the wires overhead," Bharvad said.

According to the Dhamakumariniji Nature Conservation Society, that has monitored the wetland for a

decade for the bird census of Wetlands International, the marsh is home to more than 20,000 birds during winter.

"We recorded about 40 species of water birds and water dependent birds in this site," said Gadgvi. The weeks ahead of monsoon rains is when flamingos congregate for breeding. "Every year we count 25,000 to 50,000 flamingos in this area. It is actually a unique area. The population disperses immediately after commencement of monsoon," said Gadgvi, who is also the Saurashtra region coordinator of Indian Bird Conservation Network.

According to him, flamingos are recorded as a near-threatened species according to the list published by Bird Life International. "We try to rescue the birds but they are so severely injured that we are unable to save their lives. Now, we trying to establish a rescue camp at the site," said Harshil Shah, a member of Black Buck Nature Club.

Bhavnagar's Deputy Conservator of Forests K.R. Randhawa said he had written to the power company suggesting three to four options to prevent bird deaths and was awaiting a response.

BUFLING FEATHERS: (Anti-clockwise from top) Stray dogs attack flamingos, causing the flock to take-off in panic and hit the high-tension lines; a dead flamingo floating in a marsh

Jun 12, 2011: Flamingoes at Gujarat- die due to electrocution as they fly into cables when chased by stray dogs.

HINDUSTAN TIMES, LUCKNOW
TUESDAY, JUNE 21, 2011

Kawal is tiger reserve no. 42

Chetan Chauhan
chetan@hindustantimes.com

NEW DELHI: The government has declared an important wildlife corridor for tigers between Andhra Pradesh and Maharashtra as the 42nd tiger reserve in India. With this, the government has provided another exclusive zone for the big cats.

India's tiger population has increased from 1,411 in 2006 to 1,706 in 2010 but their habitat area shrunk by about 22%.

In the last two years, the environment ministry added about 13 new tiger reserves ensuring their better protection. Each tiger reserve has a core area where no development activity is allowed and the buffer zone also has

restrictions on the developmental works. The latest addition in the list of protected areas for tiger is the 893 sq km Kawal wildlife sanctuary in Adilabad district of

Andhra Pradesh, adjacent to Chandrapur district of Maharashtra. "Apart from being a tiger habitat, it is an important west-south tiger corridor... its protection is required for providing space to the tiger movement," environment minister Jairam Ramesh said.

The tiger census report in March, 2011, had cited huge degradation of forest corridors between tiger reserves as a major hindrance for increase in tiger population.

By declaring Kawal a wildlife area, the government expects an increase in number of tigers, especially in central Indian landscape for tigers. The sanctuary has about 20 tigers as per unofficial count.

SAVING THE BIG CAT

- Tiger census report in 2011 cited huge degradation of forest corridors between tiger reserves as a major hindrance for tiger population increase
- India's tiger population has increased from 1,411 in 2006 to 1,706 in 2010 but habitat area shrunk by about 22%
- About 13 new tiger reserves added in the last two years; Four new wildlife areas to be added by end of December

Jun 21, 2011:
The latest tiger count reported decline in tiger habitat. But the Government has recently declared 93 sq km Kawal Wildlife Sanctuary in Adilabad district of AP creating a corridor for tigers between Andhra Pradesh and Maharashtra.

Newspaper Clippings

SUNDAY TIMES OF INDIA, LUCKNOW
JUNE 19, 2011

MoEF comes up with wetland atlas, Sonbhadra largest in UP

TIMES NEWS NETWORK

Lucknow: In the latest assessment of status of wetlands in the state, Sonbhadra has emerged as the district with maximum wetland area. It has 5.08% of the total wetland area of UP. The Ministry of Environment and Forest has come up with a national wetland atlas and state wetland atlases, prepared by the Space Applications Centre (SAC) of Indian Space Research Organisation (ISRO).

Wetlands, whether natural or man-made, coastal or inland, are under severe threat. The MoEF in December 2010 notified Wetlands (Conservation and Management) Rules, 2010. The rules are meant to ensure better conservation and management and to prevent degradation of existing wetlands. Coming up with a wetland atlas is another step in this direction.

Bahraich and Lakhimpur are other two districts with considerable wetland area. This is the first time such an atlas has been prepared on the

The state has 1,21,242 wetlands. Of this at least 97,000 wetlands with an area less than 2.25 hectare have been identified. There are some 23,000 bigger wetlands. UP has 5.16% wetland area. Despite being under threat, natural wetlands are still a common occurrence. River/stream, lake/pond, ox-bow lakes, and waterlogged areas are major natural wetland types.



Reservoir/barrage and waterlogged areas dominate the man-made wetlands. Wetlands are critical for human development and well-being. Lot of people are dependent on wetlands for drinking water, food and livelihood. Despite their immense importance, wetlands are one of the most de-

sources, discharge of industrial effluents, fertilisers and pesticides and uncontrolled siltation and weed infestation, are primarily responsible for wiping out or severely damaging over 1/3rd of the country's wetlands.

Wetland conservation has been accorded a high priority in the country. Since 1987, National Wetlands Conservation Programme has been financially supporting wetland conservation activities. Under it, 115 wetlands have been identified for conservation and management. India is also a signatory to Ramsar convention on wetlands. As many as 25 wetland sites in the country are protected as Ramsar sites.

In order to ensure that there is no further degradation of wetlands, conservation rules specify activities, which are harmful to wetlands such as industrialisation, construction, dumping of untreated waste, reclamation etc. and prohibit these activities in wetlands. Activities such as harvesting, dredging etc may

Jun 19, 2011:

Sonbhadra has emerged as the district with maximum wetland area in Uttar Pradesh. U.P. has 5.16% of wetland area.

SUNDAY TIMES OF INDIA, LUCKNOW
JUNE 19, 2011

Gharial hatchlings sighted in Yamuna

Faiz Rahman Siddiqui | THE

Kanpur: The wildlife experts have spotted nearly 46 gharial hatchlings in Yamuna river at National Chambal Sanctuary on the borders of Etawah and Auraiya. Gharial hatchlings have been seen in this area for the first time.

Gharials have been declared as 'critically endangered' by the International Union For Conservation of Nature. A giant female gharial (around 12-15 feet long) was also sighted near the nesting site.

The hatchlings were noticed in the first week of June in the sand-beds after the 60-90 days of incubation period, the forest officials said.

Rajiv Chauhan, secretary, Society for Conservation of Nature, who is working on gharial conservation, said, "It was during a visit after being informed by the locals of Gohani Kalan village situated at the borders of Etawah and Auraiya districts, on June 2 that



Hatchlings in Yamuna at National Chambal Sanctuary

I first spotted nearly 46 eggs of gharial at a nesting site on a Yamuna river bank."

He added, "The villagers were surprised when they came across unusual beep sounds coming from inside the eggs and alerted us. This happens

only when the eggs are about to hatch. It is a very good and positive sign for the nature lovers that for the very first time, gharials have chosen Yamuna river for breeding in India."

Principal chief conservator of forests (PCCF) B K Patnaik

said, "It is indeed a good news for wildlife conservationists as gharial is a critically endangered specie. Going by the latest sighting of gharial hatchlings, that too in Yamuna river, their number is surely going to increase."

Jun 19, 2011:

46 Gharial hatchlings spotted in national Chambal sanctuary on borders of Etawah and Auriya

Newspaper Clippings

THE TIMES OF INDIA, LUCKNOW
THURSDAY, JUNE 23, 2011

Lesser known mangoes may perish soon

TIMES NEWS NETWORK

Lucknow: The mango fortunes of Uttar Pradesh are dwindling; not in terms of numbers but diversity. Though UP farmers grow several varieties of the King of Fruits, only the prominent ones, like Dussehri, Chausa, Langda and Lakhanua Safeda, tickle taste buds of the public. The other mangoes, generally, perish without being savoured.

Now, to salvage and conserve the endangered varieties of the fruit, farmers from the state's mango belt, Malihabad, have formed a society. The society includes 125 farmers from four villages of Malihabad — Kasmandi Kalan, Mohammadnagar, Sarsandi and Gopramau. About 30-odd farmers from this society have put up a mango show here where more than 300 endangered varieties are on the display. The show has been organised with the support of the Central Institute of Subtropical Horticulture (CISH).



TESTING TASTE: Mango lovers getting a first-hand idea about their favourite fruit during a mango exhibition in the city



may stop growing them. Farmers send some of these varieties to Dubagga mandi. "But they do not fetch more than Rs 8 or 10 per kg," said Babuial, a mango grower from Gopramau. The threatened ones are the sucking varieties. Farmers say it's much easier to grow them. "Some of them may crop up from a discarded seed," said a farmer.

To reap better profits, Malihabad mango growers are switching over to popular varieties. Efforts like setting up a conservation society though may go a long way in preserving the genetic diversity of mangoes. CISH has helped farmers to constitute a society. "They are getting support from UNEP in the form of training," said Shailendra Rajan of CISH.

The society wants to have a direct link with customers. "Those willing to buy rare varieties can call us on (9005551372 or 9636660155) and we will provide those mangoes," said Hasan.

There's 'paan' mango, a heart-shaped variety. Then there is the crimson streak of 'husn-e-ara' which comes as a rare mango feature. "A commoner cannot tell the difference in beak, shoulder and slender edge," said Shailendra Rajan, principal scientist and head, division of crop improvement, CISH.

"But these varieties are now slowly slipping out of the public memory. City folks may not know of them at all," said A Hasan, secretary, society for conservation of mango diversity. These mangoes have lost out to popular brands. "People know them (Dussehri, Langda, Chausa, etc), buy and savour them," said Anil Kumar, a farmer from Mohammadnagar. "Since they are not easily available, people do not know them," he added.

These include Zard ameen, Surkha, Chand gola, Tuhru, Mujjad ameen, Ramkela, Seb Jannat, Desi bambai, Zardalu, Tukami heera, Deshi mitthu, etc. But given their poor commercial viability, the farmers

▶ **Jun 23, 2011:**

300 varieties of mangoes were on display at the mango exhibition organized by 125 farmers of kasmandi Kalan, Mohammadnagar, Sarsandi and Gopramau (in Lko) with the help of CISH.

HINDUSTAN TIMES, LUCKNOW
FRIDAY, JUNE 24, 2011

SUHELWA TOPS IN STATE VULTURE COUNT

A CENSUS OF VULTURES CARRIED OUT BY THE STATE FOREST DEPARTMENT ON MAY 17 IN 17 FOREST DIVISIONS ACROSS THE STATE THREW LIGHT ON SOME ENCOURAGING FACTS

508

Vultures were found in Suhelwa wildlife division, which is the maximum number in the state.

500

Vultures were found in the Kamur wildlife division, making it second in the population of vultures.

4

vultures found in Basti forest division, which was the lowest in UP.



The vulture count has gone up in the state. All the vultures counted in the state were non-migratory

B.K. PATNAIK
Principal chief conservator, forest (wildlife)

MIGRATORY BIRDS NOT COUNTED

The migration period of birds was over when the census was carried out, which means that all the vultures counted in the census belonged to the state, said B.K. Patnaik, Principal chief conservator of forest. The census was carried out in a scientific manner and experts of the forest department were engaged, he added.

2097

is the total number of vultures in the state, as per the census report



SPECIES SPOTTED

8 species were spotted in the state during the survey

Different species of vulture found during survey were Oriental white backed, Long billed, Slender billed, Himalayan Griffon, Eurasian Griffon



White backed vulture



Himalayan Griffon



Long billed vulture

▶ **Jun 24, 2011:** The vulture census of the State reported 2097 vultures!

7-World Environment Day



The World environment Day was on 5th of June for which a Quiz competition was organized in Regional Science City, Lucknow in collaboration with Lucknow University, Zoology Department on 4th of June. The aim of the program was to bring awareness to conserve nature, especially endangered species and threatened habitats, in partnership with communities and Governments. Students from class 5 to class 12 took part in the Quiz. The contest had two categories were organized- Class 5 to 8 and Class 9 to class 12. About 75 questions comprised the Quiz and these were prepared by Pratibha Singh, Dr Ramjee Srivastava , U.P.State Biodiversity Board and Dr. Amita Kanaujia, Dept. of

Zoology, University of Lucknow.

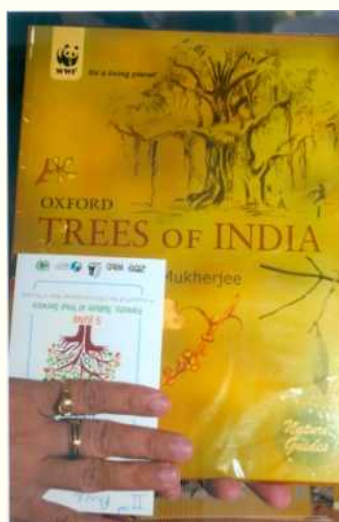
The questions were based on animals, plants, important days, environment and conservation. About 86 students participated in the event. About 17 schools participated in the quiz. Prizes were distributed by RSC. Prof Nityanand ex-Director CDRI and NC Mehrotra, Director, BSIP, Lucknow and Dr S Kumar, Coordinator, Regional Science City.

1. C.M.S. Aliganj
2. C.M.S. Mahanagar
3. C.M.S. Rajendranagar
4. D.P.S. Kalyanpur
5. St. Fidelis College
6. Mount Carmel College
7. W Vidhya Mandir, Gujarat, Kutch
8. Amity International School
9. Cathedral Senior Secondary School
10. Millennium School
11. New Way School, Niralanagar
12. St. Anthony
13. Loreto Convent, M.G. Road
14. Montfort Inter College
15. Spring Dale College
16. La Martiniere Girls College
17. K.V.S, Gomtinagar



Prizes: Books and Certificates

- First prize: *Amazing Adaptations* by Sukanya Datta [National Book Trust, India]
- Second prize: *Trees of India* by Pippa Mukherjee [WWF]
- Third prize: *Fishes of India* by B.F. Chapgar [WWF]
- Consolation prize: *How Birds Fly* [National Book Trust, India]



The quiz was conducted by research scholars of Department of Zoology, University of Lucknow- Sonika Kushwaha and Pallavi Gupta under the supervision of Dr Amita Kanaujia.

PRIZE WINNERS OF THE QUIZ ON WORLD ENVIRONMENT DAY 5th June, 2011

Category 1: Class 5-8th

Position	Name	Class	School
1st	Kunal Sulekh	VIII	Amity International School
2nd	Aditya Dwivedi	VIII	C.M.S. Mahanagar
3rd	Shobhit Arya	VIII	C.M.S. Aliganj
Consolation	Madhav Kumar	VI	P.P.S Jankipuram

Category 2: Class 9-12th

Position	Name	Class	School
1st	Ashutosh Dwivedi	XII	Scholars Home, Vipul Khand-3, Gomtinagar
2nd	P. Sudeepam	IX	St. Francis' College, Hazratganj
3rd	Sarthak Goel	IX	St. Francis' College, Hazratganj
3rd	Bharat Singh	X	D.P.S. Indiranagar
3rd	Prajwal Rastogi	IX	Catherdal Sr. Sec. School, Hazratganj
3rd	Prerna Chaurasiya	XI	Navayuga Radiance Senior Secondary School, Rajendranagar



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