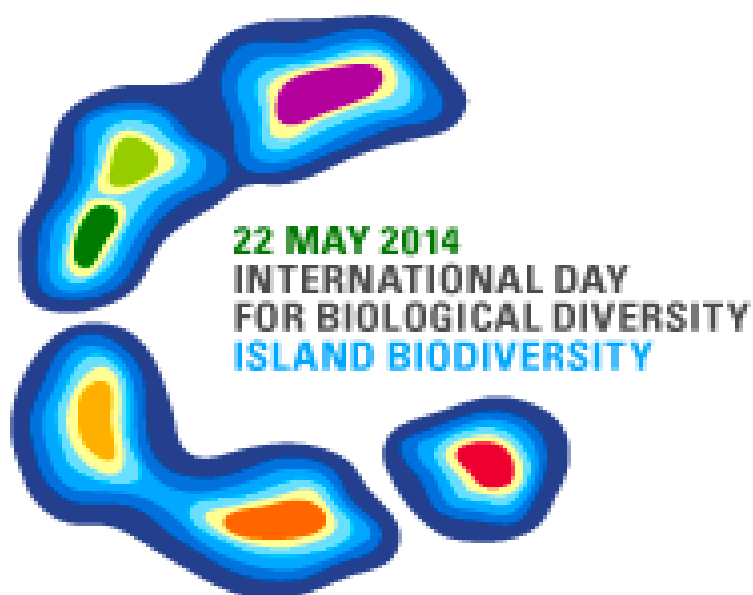


INTERNATIONAL DAY FOR BIOLOGICAL DIVERSITY

22ND MAY, 2014



Uttarakhand Biodiversity Board, Dehradun

The day 22nd May is celebrated as **the International Day for Biological Diversity** in each of the 192 countries which are party to the Convention on Biological Diversity (CBD). In December 2000, the UN General Assembly adopted 22nd May as the International Day for Biological Diversity, to commemorate the adoption of the text of the Convention on 22 May 1992 by the Nairobi Final Act of the Conference for the Adoption of the Agreed Text of the Convention on Biological Diversity.

Every year, CBD declares a theme for its celebration and the theme for 2014 was '**Island Biodiversity**', highlighting these ecosystems that are rich in biodiversity yet environmentally fragile and economically vulnerable to climate change.

Uttarakhand Biodiversity Board celebrates the International Day for Biological Diversity each year focusing primarily on raising awareness among the people on the subject of biodiversity. This year the highlight of celebration of Biodiversity Day 2014 in Uttarakhand are as follows :-

1. Organising state level function by the office of UBB in the Auditorium of the Indian Council for Forestry Research & Education (ICFRE), Kaulagarh, Dehradun. This included talk on Biodiversity and Photography competition.
2. Organising Green Wave at Malsi Deer Park in Dehradun. This included pledge by school children and painting competition. Children from 15 schools participated in the programme.
3. Celebration of contribution of farmers in conservation of agro biodiversity in Pithoragarh.
4. Celebration of Biodiversity Day by Chakrata Forest Division at Aasan Conservation Reserve, Rampur Mandi, Kalsi, Dehradun.
5. Celebration of Biodiversity Day by Nainital Forest Division at Govind Ballabh Pant High Altitude Zoo and Himalayan Botanical Garden, Nainital.
6. Celebration of Biodiversity Day by Kedarnath Wildlife Division at Gopeshwar, Chamoli.

The details are as follows :-

1. State Level Programme

The main programme celebrating the International Biodiversity Day, 22nd May, 2014 was organized by the Uttarakhand Biodiversity Board in the Auditorium of the Indian Council for Forestry Research & Education (ICFRE), Kaulagarh, Dehradun. Shri Dinesh Agarwal, Hon'ble Minister, Environment and Forests, Government of Uttarakhand was the chief guest for the occasion. The event commenced with an introduction by Shri G.S. Pande, Member Secretary, Uttarakhand Biodiversity Board welcoming all invited guests, including officers of the different departments of the State Government of Uttarakhand, probationers of Indian Forests Service, trainees of State Forests Service, scientists, experts, students of Forest Research Institute Deemed University, Doon University, officers and front line staff of forest department, members of Biodiversity Management Committees of various districts and the members of the print and electronic media. The programme held in the august presence of Dr. Dr. Rakesh

Shah, Chairman, Uttarakhand Biodiversity Board, Shri S.S. Sharma, Principal Chief Conservator of Forests, Uttarakhand, Dr. S.P. Singh, former Vice Chancellor of Garhwal University and Shri Threesh Kapoor, a renowned photographer.

Shri Threesh Kapur, a renowned photographer followed the welcome address with a slideshow of his unique photographs taken across the State of Uttarakhand, highlighting the beauty, diversity and biodiversity of the state.

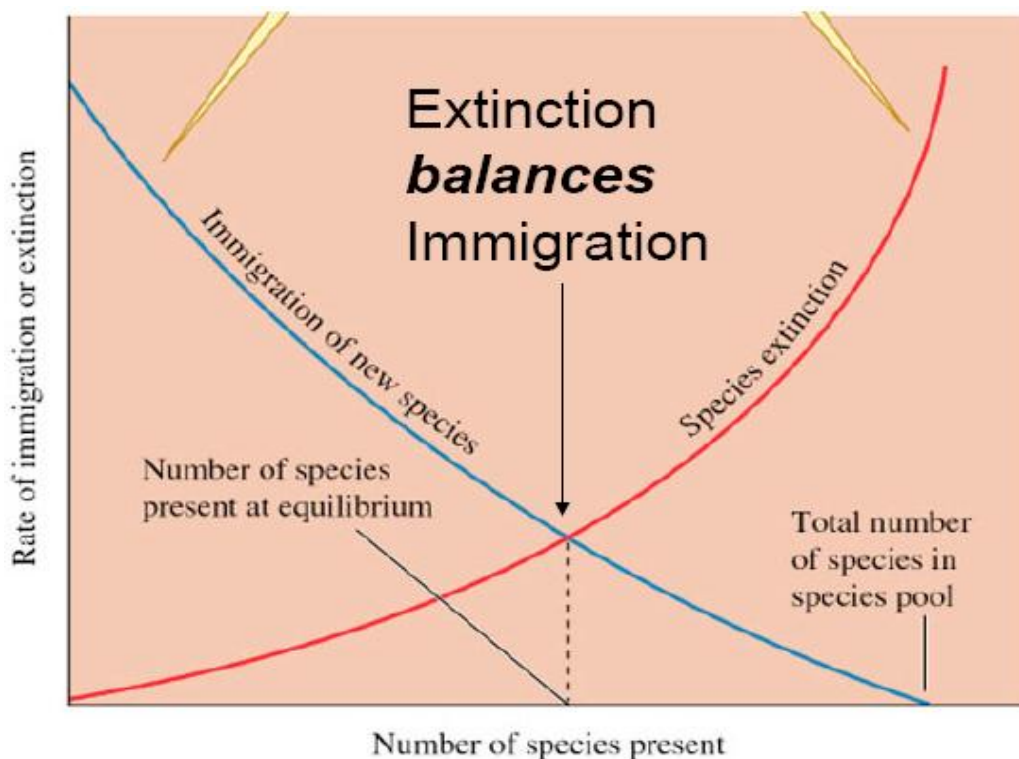


(starting from left): Shri G.S. Pande (Member Secretary UBB), Dr. S.P. Singh (Former V.C. Garhwal University), Dr. Rakesh Shah (Chairman UBB), Shri Dinesh Agarwal (Hon'ble Forest Minister Uttarakhand), Shri S.S. Sharma (PCCF, Uttarakhand), Shri Threesh Kapoor (Photographer)

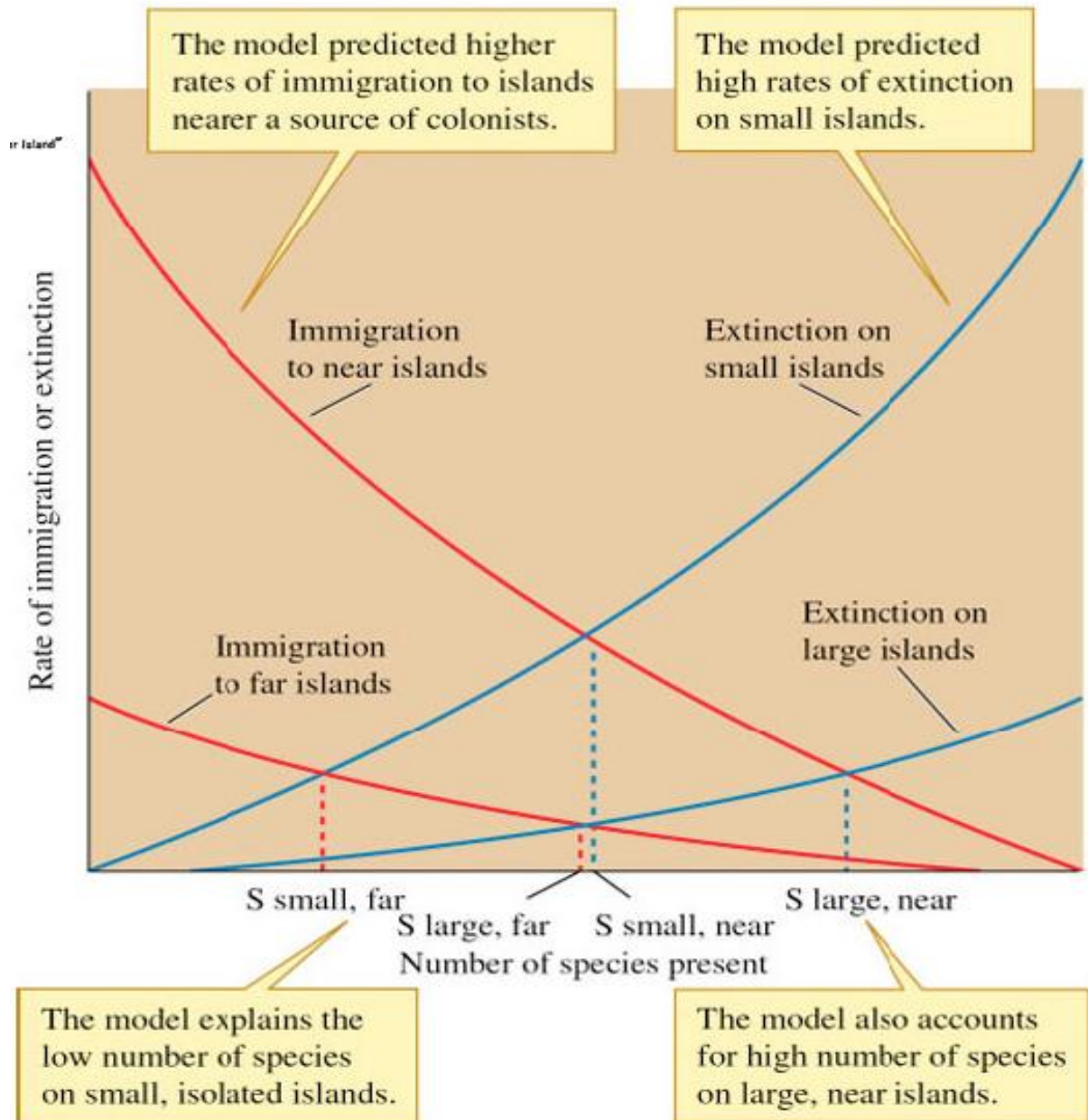
Dr. S.P. Singh, Former Vice Chancellor delivered the key-note address on the occasion. He gave a presentation which covered various issues related to biodiversity conservation, climate change and Island Biodiversity wherein he described with the help of facts and figures the various unique aspects of an island ecosystem. Some of the facts stated by him are as follows:-

- Over 10% of the world's population (600 Million) lives in around 100,000 islands of the world, which make up for just over 3% of the global surface area.
- Also, half of the 724 recorded animal extinctions in the last 400 years have been island species, however over 90% of the recorded bird species extinctions have been island bird species.
- 12 out of 18 centers of marine endemism are around islands.

- Islands are defined as lands isolated by surrounding water and with a high proportion of coast to hinterland. Sizes of Islands may vary from 0.151 sq. km. to the size of Greenland, which is 2.2 million sq. km.
- Islands are rich reservoirs of mostly endemic and specialized species, as they evolve in isolation. For example, Hawaiian Islands have over 90% endemism, Mauritius has over 50% endemism and Madagascar has over 8000 endemic species. The islands of Seychelles have the highest recorded number of endemic amphibians in the world.
- The reason for this high endemism is that species that arrive in islands are able to find many unoccupied niches and are allowed to flourish due to the lack of competition and predators that are more common in the main lands. After their arrival at the islands, the species show adaptive radiation, i.e. diversification of species subsequent to colonization to fill the empty niches. Eg. Darwin's Finch species on the Galapagos Islands diversifying in beak size to exploit the diversity of seeds.
- **The Island Biogeography Theory** - Mac Arthur Robert & Wilson E.O. (1960s) developed the theory of island biogeography to explain species richness of isolated natural communities/ actual islands; then extended to mountain peaks surrounded by deserts, lakes by dry lands, fragmented forests surrounded by man-made landscapes, etc.
 - Number of species in an island = Immigration from mainland or other islands – extinction



The equilibrium model of island biogeography explained variation in number of species on islands by the influences of isolation and area on rates of immigration and extinction.

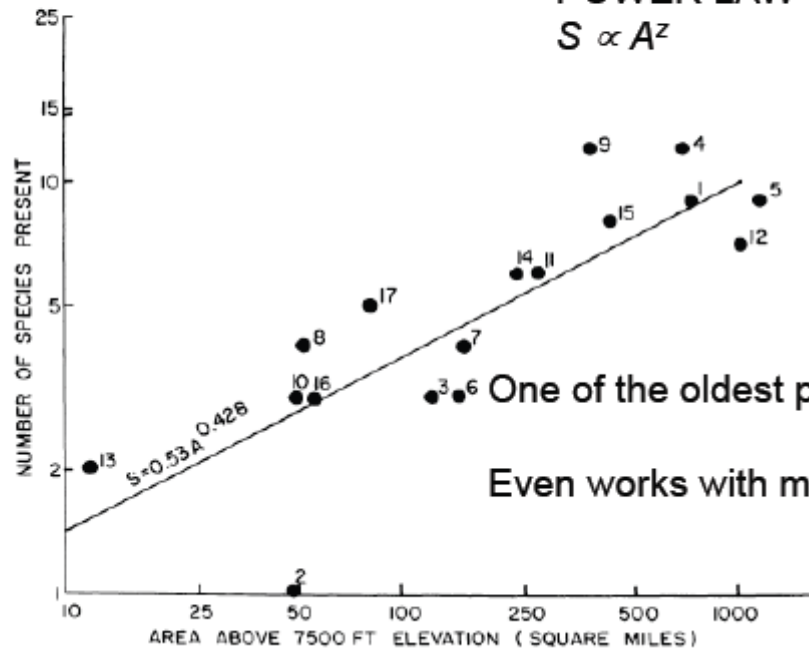


The Species-Area Relationship

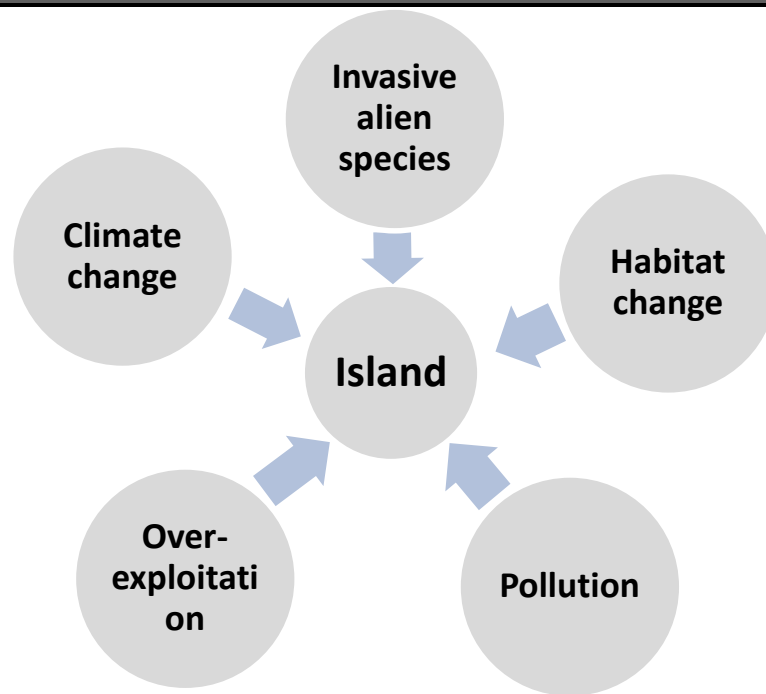
Larger "Islands" contain more species

POWER LAW

$$S \propto A^z$$



- Island heterogeneity and size contribute to species survival, while isolation exacerbates extinction.
- Experiment of re-colonization of arthropods after fumigation showed that islands closer to the mainland recovered faster. For Example, Siberia & Greenland connection helped species to migrate.
- Island ecosystems are also the first to be impacted by the unmitigated climate change. They are also the most damaged by climate change without having contributed to it in any significant manner. Small island Developing States are among those with the most alarming rate of biodiversity loss. The following diagram shows the five major causes of island species extinction.



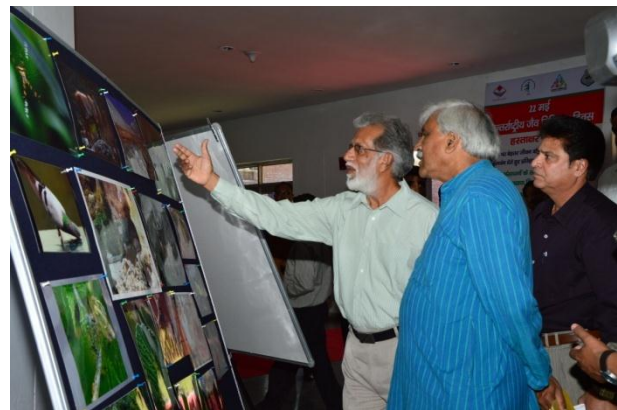
- One of the more pronounced examples of the damage that invasive alien species cause to the local biodiversity of an Island in that of the Brown tree snake in Guam, which led to the extinction of almost all vertebrates on the island.

In conclusion, with the example of Sukhatal in Nainital, Uttarakhand, he spoke on the possibility of declaring the region as a heritage site or a flagship city of Uttarakhand, so that the precious ecosystem in the valley may be better preserved.

Dr. Rakesh Shah, Chairman, Uttarakhand Biodiversity Board, addressed the assembly, after the prize distribution. Dr. Shah explained the importance of biological diversity in India and in Uttarakhand. He also went on to explain the various provisions of the Biological Diversity Act, 2002 (enacted in 2003), emphasizing on the importance of People's Biodiversity Registers and the Fair and equitable sharing of benefits arising from the utilization of genetic resources and associated knowledge.



Hon'ble Forest Minister Shri Dinesh Aggarwal and Other distinguish guests in the lamp lighting



Dr. Rakesh Shah Chairman UBB and Shri Threesh Kapoor with Hon'ble Forest Minister in the photo exhibition



Hon'ble Forest Minister Shri Dinesh Aggarwal signing the pledge



Invitees in the IBD programme at ICFRE Auditorium in Dehradun

Dr. S.S. Sharma, Principle Chief Conservator of Forests, Uttarakhand addressed the gathering and explained as to why we need to give importance to biological diversity and the factors adversely affecting biodiversity in India and in the State.

Shri Dinesh Agarwal, Hon'ble Minister of Forests, Government of Uttarakhand, in his address highlighted the richness of biodiversity in Uttarakhand, natural and biological resources and the ecosystem services that these resources provide. He also expressed concern over the disappearing floral and faunal species, with the help of a few examples. He stated that in order to take the first step at saving the planet, one needs to start from one's own backyard. He accentuated the need to implement conservation measures with increased vigor.

His address was followed by the vote of thanks given by the Mr. Dhananjay Prasad, Deputy Director, Uttarakhand Biodiversity Board.

On this occasion Uttarakhand Biodiversity Board had organized photography competition. Entries had been invited for participation through advertisements in various local newspapers. The themes for this competition were:-

1. Biodiversity and Culture in Uttarakhand
2. Landscape and People of Uttarakhand

The selected entries were displayed on this day at the event site outside the ICFRE auditorium for the audience to appreciate. Following photographers were adjudged winners of the competition:

Theme 1 - Biodiversity and Culture in Uttarakhand

First Prize – Shri Sirsendhu Gyan

Second Prize – Shri Dev Bharti

Third Prize – Dr. Vinay Bhargav

Theme 2 - Landscape and People of Uttarakhand

First Prize – Shri Anil Risal Singh

Second Prize – Dr. Pankaj Sharma

Third Prize – Shri Subham Sharma



Hon'ble Forest Minister Shri Dinesh Aggarwal giving away the prize



Invitees in the IBD programme at ICFRE Auditorium in Dehradun

A prize distribution was carried out at the event, with the Chief Guest, Shri Dinesh Agarwal handing out the cash prizes and certificates to the respective winners. The first, second and third prizes were ` 5,000/-, ` 3,000/- and ` 2,000/-



2. Organising Green Wave at Malsi Deer Park in Dehradun

The Green Wave was organized at Malsi Deer Park in Dehradun by Dehradun Forest Division and UBB. Girls and boys of 15 schools of Dehradun participated In this programme. These schools were :-

- (1) St. Thomas College, Dehradun.
- (2) Convent of Jesus & Merry, Dehradun.
- (3) The Montessory School, Dehradun.
- (4) Sai Grace Academy International, Dehradun.

- (5) Government Primary School, Malsi, Dehradun.
- (6) Olumpus High School, Dehradun.
- (7) S.S. Inter College, Rajpur, Dehradun.
- (8) Government Purv Madhymik Vidlaya, Malsi, Dehradun.
- (9) G.J.H.S. Malsi, Dehradun.
- (10) Summer Valley School, Dehradun.
- (11) Sandalwood School, Derhadun.
- (12) Sahansai Sarva Hitkari Inter College, Rajpur Raod, Dehradun.
- (13) Government Inter college, Nathuawala, Dehradun.
- (14) Brooklyn School, Curzon Road, Dehradun.
- (15) Raja Ram Mohan Roy Academy, Dehradun.

The programme started with signing of following pledge prescribed by National Biodiversity Authority. All the school children participated by taking pledge in Hindi and signed it.



जीवन के लिये प्रतिज्ञा

- ✓ स्वीकार करना कि पृथ्वी पर मौजूद जीवन की विविधता से ही मेरा, मेरे परिवार एवं विश्व के अन्य नागरिकों का अस्तित्व संभव है।
- ✓ यह मानना कि हमारी जैव विविधता को सुरक्षित रखने के लिये हमें जिम्मेदारीपूर्ण व्यवहार करने की आवश्यकता है।
- ✓ पृथ्वी पर मौजूद हमारे पौधों, जीवों और अन्य सजीव स्वरूपों की बढ़ती हुई हानि के प्रति प्रतिक्रिया दर्शाना।
- ✓ मेरे आस-पास हो रहे जैव विविधता के उपयोग व उचित प्रबंधन के प्रति अपने दायित्व को स्वीकार करना।

मैं पृथ्वी पर बेहतर जीवन के लिये निम्नलिखित सिद्धांतों को समर्थन देते हुए प्रतिज्ञा लेता/लेती हूँ कि :-

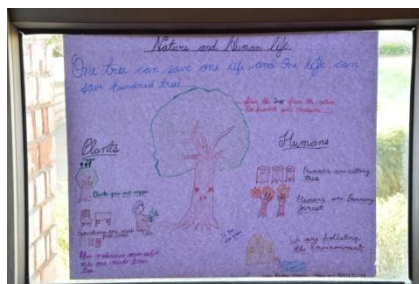
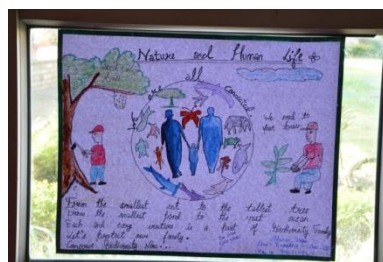
- जैविक संसाधनों के संरक्षण एवं उनके टिकाऊ प्रबंधन को बढ़ावा मिले।
- मैं स्वयं वह बदलाव बनाऊँ जो मैं दूसरों में देखना चाहता/चाहती हूँ।
- यह सुनिश्चित हो कि पृथ्वी पर जीवन सुरक्षित रहे।
- मैं संरक्षण के लाभों, सकारात्मक प्रयासों व उपयोगों के प्रति लोगों को शिक्षित करूँगा/करूँगी।

This was followed by a painting competition for junior, middle and senior classes' students. Following topics were given for the competition:-

1. Junior Group (Class 1 to 5)
2. Middle Group (Class 6 to 8)
3. Senior Group (Class 9 to 12)

Following students were declared winners of the competition :-

1. Junior Group (Class 1 to 5) – Apaksha Uniyal, Jyoti Kumari, Preeti Kumari, Manoj Kumar.
2. Middle Group (Class 6 to 8) – Sandhya Uniyal, Abhinav Uniyal, Deepk Kumar, Uttara Kandiyal.
3. Senior Group (Class 9 to 12) – Yashashwini Dhyani, Ritik Thapa, Pooja Kumari, Kailash Chaudhary.



Paintings drawn by School Children on the Occasion of Biodiversity Day 2014

3. Celebration of contribution of farmers in conservation of agro biodiversity in Pithoragarh.

This programme was organized with the participation of Theater for education in Mass Society, Pithoragarh, the Technical Support Group associated with the board and assisting Biodiversity Management Committees in Pithoragarh District. The local farmers were explained the importance of biodiversity in general and agro-biodiversity in particular.

4. Celebration of Biodiversity Day by Chakrata Forest Division at Aasan Conservation Reserve, Rampur Mandi, Kalsi, Dehradun.

On the occasion of Biodiversity Day, a painting and Essay competition was organised in which 40 students participated. The topic of essay was "The Aasan Conservation Reserve" and theme of painting was "Biodiversity of Aasan Conservation Reserve". The Chief Guest of the event was Conservator of Forests Yamuna Circle, Dehradun. The session was followed by a musical performance given by Mrs. Kaul and her students from Oil & Natural Gas Corporation, Dehradun. The performance was heart touching and praised by all participants. Prize distribution was done in the end. The prizes were given away by Conservator of Forests Yamuna Circle, Dehradun and Divisional Forests Officer, Chakrata.

5. Celebration of Biodiversity Day by Nainital Forest Division at Govind Ballabh Pant High Altitude Zoo and Himalayan Botanical Garden, Nainital.

A conference was held on the occasion. The conference was attended by Conservator of Forests, South Kumaun Circle, Nainital, Divisional Forests Officer Nainital, Dr. Ajay S. Rawat, Environmentalist, Ward Members of Municipality, Nainital and Officers and staff of Forests Department.

6. Celebration of Biodiversity Day by Kedarnath Wildlife Division at Gopeshwar, Chamoli

The occasion was celebrated by organising debate competition, essay competition and painting competition. The students of Govt. Girls Inter College, Gopeshwar, Nalanda Public School, Gopeshwar participated in the programme. The winners of the competition were given cash prizes. Besides this slogan writing was done along Gopeshwar-Chopta Road.

(G.S. Pande)
Member Secretary,
Uttarakhand Biodiversity Board,
Dehradun



A view of Nainital Lake

“Uniformity is not nature’s way; diversity is”