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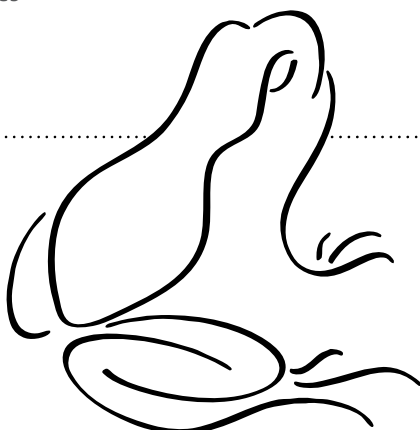
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### Awards and Recognitions

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## Amphibians as indicators of climate change

ATREE has initiated a long-term monitoring study of amphibian populations in the Kalakad- Mundanthurai Tiger Reserve area of the Western Ghats. Frogs and toads are sensitive to changes in temperature and moisture in the atmosphere, so their behaviour can serve as an indicator of climate change. ATREE researchers have placed automated sound recorders and climate data loggers in the forests to record mating calls. This and other data will be analyzed in relation to climate and frog species after a few years of monitoring.

This is a multi-dimensional project in which local volunteers have been roped in and trained in the use of equipment for long term monitoring and documentation. Researchers will also try to understand community perceptions of amphibians and build local stewardship for conservation.

According to K. S. Seshadri and Dr. T. Ganesh, the study treats the forest floor and the forest canopy as different landscapes. So, monitoring equipment has been positioned on the forest floor as well as in the canopy up to a height of 1200m. One season of observations was completed during the last northeast monsoon.



*Raorchestes chalazodes*

Meanwhile, the investigating team is delighted with the rediscovery of the Chalazodes Bubble-nest Frog (*Raorchestes chalazodes*), a species last reported in 1874 from the forests of the erstwhile Travancore State. This is a fluorescent green frog with ash-blue thighs, yellow eyes and black pupils, seen here 137 years after its discovery and photographed for the first time. The team also sighted the rare toad, *Duttaphrynus beddomei* (Beddome's toad). It was last seen in 2001. Read report in [http://www.losts-species-india.org/LAI2/new1\\_rediscovered.php](http://www.losts-species-india.org/LAI2/new1_rediscovered.php) and <http://www.thehindu.com/sci-tech/energy-and-environment/article1462797.ece>



innovative, creative activity that promotes environmental consciousness and thoughtful action. The partners agreed that this was going to be an award where action would speak louder. So the most thoughtful conservation action, with the most impact, among the most number of people would win.

Coordinating organizations – Pravah, in Delhi, and ATREE, in Bengaluru, started their interactions with schools in July 2010, briefing them on the long-term objectives of the awards, and guiding them through the process.

The organisers decided to announce the winners before the close of this school year at an environment mela, where shortlisted schools could showcase their projects and interact with each other.

The Delhi mela was held on 24 Jan 2011 at Andhra Education Society School premises. The three panelists were distinguished figures from the field of environment – Ankila Hiremath, Ravi Gulati and Ajay Mahajan. The Bengaluru mela was held on 28th February 2011 at ATREE campus.

Salwan Public School did a project called 'Parivartan'. The students got a tailor to stitch cloth bags from old clothes and gifted these bags to the residents of their area to use as an alternative to plastic bags. This simple project generated awareness and positive response from residents of that area. Father Agnel School's project was on waste management. They created utility products: folders, floor cleanser from the waste generated in their school to make it a zero-waste school.



*In preparation- Bengaluru schools put up display material*

In Bengaluru, both winning entries presented technically sound work on waste management.

K. K. High School's well thought out campaign for dry and wet waste management had a wide impact, as it was carried to school, teacher, locality and corporate audiences through the efforts of the students. SVEC students visited dump sites and investigated the problems related to waste management. They documented their efforts in segregating waste and composting in a film.

*S. Skanda, Ankila Hiremath*

### **Perspectives on Environment and Development**

With the intention of encouraging thinking, dialogue and interaction across disciplinary lines, ATREE conducted a week-long certificate course: 'Perspectives on Environment



and Development: Concepts and Debates' in March 2011. This certificate course continues on the lines of the 'Social Science for Natural Scientists' course held last year, and is designed for mid career professionals and researchers.

The course, organized by ATREE's Academy for Conservation Science and Sustainability Studies, included modules on socio-economic and bio-physical concepts and applications. Dr. Anshu Bharadwaj, Executive Director, Centre for Study of Science, Technology and Policy (CSTEP), Bengaluru, delivered the keynote address. Speakers included Dr. Priya Sangameswaran, Centre for Studies in Social Sciences (CSSS), Kolkata; K. J. Joy, Society for Promoting Participative Ecosystem Management (SOPPECOM), Pune and Dr. Sambit Mallick Indian Institute of Technology (IIT), Guwahati, in addition to ATREE faculty. Shrinivas Badiger and Bejoy K. Thomas were joint coordinators of the course.

*Bejoy K. Thomas*

### **Marine ecosystems celebrated at Biodiversity Festival 2011**

The Department of Biotechnology Nature Awareness Club – DNA Club had its annual closure with a focus on marine ecosystems. ATREE is resource organisation for five DNA Club schools in Karnataka. These schools get together at the end of each year to share what they have learnt. This time the two-day festival was held at Aversa, Ankola taluk.

On 25 Feb, citizens of Aversa were treated to the Gumtapanga, a harvest season dance of the Halakki Vokkaliga tribes, when club members and local artistes took a procession around the town to the venue. The biodiversity festival was officially declared open after the procession. Dr. U.G. Naik,

P.G. Centre of Marine Biology, Karwar gave a talk on Marine Ecosystems and Mangroves. He released the bilingual snake poster designed under the DNA club project, along with Dr. T. Ganesh and Dr. Aravind of ATREE. *You can contact [dnaclub@atree.org](mailto:dnaclub@atree.org) to get a copy of this poster.*

DNA Club coordinators of the schools gave presentations on programmes conducted in the year, while students put up exhibits of posters, photographs, scientific models and products made of recycled material. The day ended with a field visit to Belikeri beach.

On 26 Feb, DNA Club members visited the P.G. Centre of Marine Biology and then the science museum at Karwar. They were later taken to the mangroves where Mr. Cajy Silva taught students to identify different species of mangrove plants and spoke about the importance of mangroves.

*K. Abhisheka*

## Policy + Outreach

### **Evaluating the status of Manas – a World Heritage Site 'in Danger'**

Manas Wildlife Sanctuary in Assam was originally inscribed on the list of World Heritage Sites (WHS) in 1985 based on its spectacular natural beauty, significant ecological and biological processes, and its importance for in situ conservation of biological diversity. However, ethnic insurgency in the region resulted in considerable damage to park infrastructure, degradation of habitats and depletion of wildlife populations. Consequently, Manas was designated as a World Heritage Site 'in Danger' in 1992 by the World Heritage Centre.

A UNESCO-IUCN Reactive Monitoring

Mission visited the site from 25-29 January, 2011 to review the two-decade old 'in Danger' status of Manas. They interacted with local stakeholders to evaluate whether there has been an improvement in the site. ATREE helped Manas National Park authorities prepare the official documents for the Mission and also worked in close coordination with the Wildlife Institute of India, Dehradun, which is the authorized advisory body for WHS reporting in India.

The report on Manas will be up for discussion at the World Heritage Committee's next annual meeting at Bahrain in June 2011. ATREE hopes that the 'in Danger' tag will no longer apply.

*Niraj Kakati, Assam*

### **ATREE enables research in NE India**

In 2010- 2011, ten researchers from north east India have received support from the 'ATREE Small Grants for Research in Northeast India'. We present readers a brief account of their research areas and interests.

Two projects focus on the NE region's lesser known fauna—butterflies and turtles. One grant supports Dr. Krushnamegh Kunte and his team's studies on current populations and conservation priorities for rare, endangered and legally protected butterfly species in Sikkim by surveying populations across seasonal, altitudinal and habitat gradients. Ms. Naorem Linthoi is studying status and distribution of chelonians and their habitat in parts of Loktak Lake and its surroundings.

Prof. Mohamed Latif Khan and his team from the North-Eastern Regional Institute of Science & Technology (NERIST), Itanagar Have begun studies on native flora, mapping *Primula* species' diversity and distribution in the Eastern Himalayas and strategies for their conservation. Dr. G.N.

Hariharan of the MS Swaminathan Research Foundation and his team – on lichen ecological studies and what they might mean for habitat quality, biodiversity and climate change.

There are two projects on avifauna: Ms. Oinam Sunanda Devi's, to assess the status of threatened avian fauna of Loktak Lake, an Important Bird Area which also has the distinction of being covered by two major avian flyways. The other project – by Rohin D'Souza and his team – measures abundance and diversity of avifauna in Singalila National Park in the Darjeeling Himalayas.

Four Ph D students are pursuing research with support from the small grants programme. Anirban Datta-Roy is doing an interdisciplinary investigation of local hunting practices in northeast India instead of focusing on ecological impacts only. Aniruddha Marathe is studying ant diversity patterns across an elevation gradient. The gradient studied will encompass forest types from low elevation tropical evergreen to high elevation coniferous forests and their transition zones and the study is expected to generate the first quantitative estimates of ant diversity from this region. Kartik Teegalapalli is studying recovery patterns following shifting cultivation in the Eastern Himalayas. The practice is widespread across diverse ethnic groups in the north east and this research is to understand factors that affect native tree species regeneration and to explore ways to control invasion by an exotic species following shifting cultivation. Tenzing Ingti is looking at impacts of climate change on the patterns of natural resource utilization by the local communities in the alpine regions of the Eastern Himalayas and the resultant response based on their traditional ecological knowledge.

The ATREE Small Grants NE India

is supported by the John D. and Catherine T. MacArthur Foundation's Programme on Global Security and Sustainability, the Ford Foundation and the National Geographic Society – Committee for Research and Exploration. The programme supports research and field work in taxonomy; contribution to biodiversity databases; action research for conservation of endangered endemic species; and, supports high impact projects having the potential for immediate conservation impact. A sub-component supports doctoral studies in conservation biology with focus on the Eastern Himalayas region of India. *Samuel Thomas, Darjeeling*

### **Tirunelveli and Tuticorin survey their wetlands and birds**

#### **Bird census**

Bird lovers had a field day – quite literally – at the first large-scale waterbird census conducted at Tirunelveli and Tuticorin districts on 22 and 23 Jan. ATREE's Agasthyamalai Community-based Conservation Centre (ACCC) organised the census, in which 43 volunteers surveyed 32 tanks in Tirunelveli district, and 10 tanks in Tuticorin district. Experts from Bangalore, Kerala and Tamil Nadu participated, and several volunteers from the southern districts of Tamil Nadu helped in this massive exercise.

The results were shared with the public by the ACCC team and published in local dailies. Click here for news story: <http://www.hindu.com/2011/02/02/stories/2011020255180500.htm>

#### **Why wetlands are important**

River Tamiraparani and its associated rivers and tanks are a source of drinking water and irrigation for Tuticorin and Tirunelveli districts of



*Students leading a procession. Photo credit: A. Saravanan*

Tamil Nadu. These wetlands are rich in bird and plant diversity. However, in recent times, they are threatened by encroachment, pollution and other illegal activities.

To gather support for the conservation of the wetlands and to celebrate the World Wetland Day, Agasthyamalai CCC organized a procession in Tirunelveli. Fifty students from Kallanai Government Girls Higher Secondary School took part in the procession on 2 Feb 2011. The procession, flagged off by Mrs. H. Mary Jessy Roch, Chief Educational Officer of Tirunelveli district, went around Naynarkulam tank and its teeming population of water birds.

ATREE also released a brochure on Wetland Birds of Tamiraparani, 500 copies of which were given to Mr. Gajendra Babu, District Environmental Education Coordinator, for further distribution in schools. M. Mathivanan, Patrick David and A. Saravanan, staff at ACCC, delivered lectures on bird diversity and habitat. The event

was sponsored by Rotary Club of Tirunelveli West. *Mathivanan M, Agasthyamalai Community-based Conservation Centre, Manimuthar*

### **Vembanad reports**

#### **World Wetlands Day celebration**

ATREE and 50 partnering schools and colleges celebrated the World Wetlands Day 2011 in the Vembanad region of Kerala. The schools had special assemblies to communicate the importance of wetlands, led by members of the ATREE-organised wetland study centers. The programmes ranged from painting competitions, quizzes, awareness rallies, street plays and cleaning campaigns.

ATREE included fisherfolk in the celebrations. Lake Protection Forums paid homage to the lake, which provides local communities food and income for their subsistence. Swimming competitions were organized as part of the celebrations.





Close to 150 participants gathered lighted a lamp and prayed for the well being of the lake. The event came to an end with a sumptuous feast with wetland delicacies like tapioca and clam meat. See article in The Hindu at <http://www.thehindu.com/news/cities/Kochi/article1153129.ece>  
*Krishna Kumar, Vembanad CERC*

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#### Jalapaadom school yard fishery pond inauguration

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The inauguration of the school yard fishery pond was held at Little Flower HS Kavalam on 3 March 2011. The pond was cleaned manually by the Jalapaadom (ATREE's conservation education programme with schools) team members and stocked with indigenous fishes like kaari, varaal, chempally, mushi. The objective of maintaining the pond is to help in propagating the indigenous fish population. Jojo from ATREE spoke to students about the importance of the pond and their role in conserving it.

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#### Students Wetland Congress 2011

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Vembanad Community Environmental Resource Centre organized the Students Wetland Congress on 21 Feb. The objective of the programme was to encourage a scientific temperament

and equip students to become better wetland conservationists in the future. There were a total of 20 presentations from the Jalapaadom schools and 105 student participants. The topics included assessment of mangroves, organic farming, water borne diseases, fisheries resources etc.

The programme was inaugurated by Mr. Renjan Mathew Varghese, Director WWF-Kerala.

*Latha Bhaskar, Vembanad CERC*

#### Applied taxonomy

About fifty Forest Guards and Range Officers of Karnataka Forest Department attended Dr. R. Ganesan's talk on 'Practicing Botany in the Field', on 18 Feb. The talk, along with a visit to the Mysore University arboretum, highlighted the importance of basic plant taxonomy skills to deal with illegal collection of rare and threatened plants. This talk was arranged at the request of the Forestry Training College, Mysore and the Department of Botany, Mysore University. Participant feedback was that the abridged course on practicing botany should be conducted more often, with a companion booklet in local languages for the most common plants encountered in forests.

*R. Ganesan*

## Awards + Recognitions

**Lele, S.** Visiting Fellowship, awarded by Fitzwilliam College, University of Cambridge (Period: Lent Term, 2011)

**Dr. Latha Bhaskar** nominated to the working group for the formulation of state level strategy for climate change, Kerala.

**Siddappa Setty R** recognised as postgraduate teacher at the University of Agricultural Sciences, Bangalore.

## New

### Academy

ATREE's first Ph D student, **Bharath Sundaram**, submitted his thesis, 'Patterns and processes of Lantana camara persistence in South Indian tropical dry forests', at the end of January 2011.

### People

#### Staff

**Debal Deb**, Consultant  
**Jayamala**, Housekeeper  
**Madhu Sarin**, Consultant  
**Muralidharan**, Consultant  
**Patrick David**, Consultant  
**Rosa Abraham**, Sr. Research Associate  
**Sajid Pareeth**, Consultant  
**Shruthi J.**, Research Associate

#### Interns

**Apurve Gupta** and **Arnav Malik** are final year undergraduate students from BITS-Pilani K.K. Birla Goa

Campus. They are deeply passionate about the environment and are currently working on eco-innovation and waste management projects. At ATREE, they would like to pursue research in the field of remote sensing and GIS analysis. Both of them will be interning from January 6, 2011 to May 10, 2011 under the supervision of Dr. N. A. Aravind.

**Amelie Huber**, Master's student from the University of Wageningen, The Netherlands, has joined the ATREE Eastern Himalayas Programme as an intern for four months. She is interested in issues of water justice and the impacts of development interventions on local livelihoods. Her work is focused on the Darjeeling and Sikkim Himalayas.

**Pranietha Mudliar** is currently pursuing her Masters in Environmental Science from University of Pune. She will be doing her Masters Dissertation at ATREE under the guidance of Dr. Shrinivas Badiger. She will be interning from 1st January, 2011 to 30th April, 2011.

**Saori Ogura**, a student from Tokyo, has joined the ATREE Eastern Himalayas Programme as an intern for 1 year. She has a Master's degree from Lesley University, Boston and is interested in issues of sustainable livelihoods, poverty reduction and traditional ecological knowledge in the region.

## Publications

### Articles

**Shivanna, K. R.** 2010. Ant-pollination: A rare and enigmatic mutualism. *The Botanica* 58: 24-28.

### Reports

**Nagendra, H., Ramesh Sivaram, and S. Subramanya.** Report prepared

for BBMP. Lakes of Mahadevpura constituency, Bangalore: Current status, changes in distribution, and recommendations for restoration. February 2011.

**Lele, S.** and members of National Forest Rights Act Committee (FRAC) – set up jointly by the Ministry of Environment and Forests (MoEF) and Ministry of Tribal Affairs (MOTA): Report on Forest Rights Act implementation. December 2010. Minutes, state visit reports and final recommendations available at <https://sites.google.com/site/fracommittee/home>

### Popular Press

**Nitin Rai and Ashish Kothari.** Biligiri Tiger Reserve: Include Soligas in conservation plan. *Deccan Herald*, Feb.

**Harini Nagendra.** We need city-level green plans. *DNA*, Jan.

**Harini Nagendra.** How green was my Mehkri circle. *Bangalore Mirror*, Jan.

## Conferences

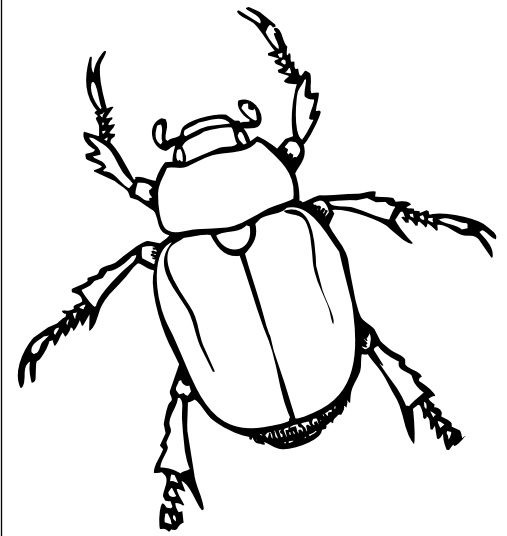
**Nagendra, H. and E. Ostrom.** 2011. Assessing Forest Change in Human Impacted Forests. International Association for the Study of the Commons, Hyderabad, 11 January.

**Nagendra, H.** 2011. Tree-killers having a free run in Bangalore. *Deccan Herald*, 4 January.

**Nagendra, H.** 2011. We need city-level green plans. *Daily News Analysis (DNA) Bangalore*, 2 January.

### Invited talks

**Lele, S.** Re-thinking Forest Governance in India: Integrating perspectives from different disciplines. Oxford Centre for Tropical Forestry, Oxford University. Oxford, UK. 25 March 2011.



**Lele, S.** Reflections on Interdisciplinarity. Seminar, Fitzwilliam Graduate Student Conference. Fitzwilliam College, University of Cambridge, Cambridge, UK. 19 March 2011.

**Lele, S.** Climate Change and India: Between energy, environment and development. Department of Land Economics, University of Cambridge. Cambridge, UK. 17 March 2011.

**Nagendra, H.** Urban Ecology in Bangalore. Confederation of Indian Industry conference on Urban Ecology, Bangalore. 16 March 2011.

**Nagendra, H.** Urban Conservation – Trees. One Day Seminar for Environmental Teachers, Bangalore. 16 March 2011.

**Shivanna, K. R.** Pollination-independent apomixis in *Commiphora wightii*, the source of guggul. As resource person in training programme on Apomixis in Horticultural Plants. Indian Institute of Horticulture, Bangalore. 10 March 2011.

**Setty, Siddappa.** Sustainable Use and Monitoring of Forest Resources. National conference on conservation, improvement and sustainable use of medicinal plants and non-wood forest products. Institute of Forest Productivity, Ranchi. 8-9 March 2011.

**Ganesan, R.** Future of NTFPs and livelihood options of forest dependents under the global climate change scenario. Symposium on El-Nino and climate change, their linkages with biodiversity in India. Organized by Annamali University and Research Dept. of Botany, Arignar Anna Government Arts College, Villupuram, Tamil Nadu. 4-5 March 2011.

**Lele, S.** Unpacking Decentralization. Conservation Discussion Group, University of Cambridge. Cambridge, UK. 23 February 2011.

**Lele, S.** Re-thinking Forest Governance in India: Integrating Collective Action theory with Political Ecology and Economics? Centre for South Asian Studies, University of Cambridge. Cambridge, UK. 16 February 2011.

**Ozmond, Roshan.** Forest Conservation and the Forest Dwelling Communities: Understanding Governance Issues. Indian Institute of Science Education and Research, Mohali. 7 February 2011.

**Ravikanth G.** Underground Plant Communication. Chemical Ecology, Brain storming conducted by School of Ecology and Conservation at BR Hills, Bangalore. 5-6 February 2011

**Setty, Siddappa.** Role of NGOs and CBOs in empowering youth and achieving the Millennium Development Goals. Conference on inter-disciplinary dialogue on Reaping the Demographic Dividend in Agriculture and Rural Development

at M S Swaminathan Research Foundation, Chennai. 19-21 February 2011.

**Setty, Siddappa.** ATREE work on conservation of non-timber forest produce. Discussion meet to conserve and promote propagation of medicinal plants in Karnataka State. Karnataka Forest Department, Aranya Bhavana, Bangalore. 12 February 2011.

**Setty, Siddappa.** Presentation on Biodiversity Conservation. Agriculture University, School of Ecology on 20 January and to Kuvempu University students on 4 Feb 2011.

**Nagendra, H.** Urban Ecosystems: Critical Ecological Resources. Indian Institution of Engineers, Bangalore, 21 January 2011.

**Madegowda C.** The impact of forest policy and livelihood insecurity on the Soliga tribe in Biligiri Rangaswamy Temple Wildlife Sanctuary, India. National Conference on Social Development in India : New vistas and challenges. Department of Social Work, Bharathidasan University, Tirichirapalli, Tamil Nadu. 10-11 Jan 2011.

**Nagendra, H.** Conservation in South Asian Forests: Challenges of Collective Action. South Asia Exchange Programme – Common Property Resource, Hyderabad, January 8.

#### Seminars/workshops attended

**Ravikanth G.** DBT supported Interaction meeting on Bioprospecting in the Tropics: Promises and challenges. University of Agricultural Sciences, Bangalore. 10-11 March 2011.

**Thomas, Samuel.** Workshop on Everyday Religion and Sustainable

Environments. Organized by the India-China Institute at The New School, New York and the Centre for Policy Research, New Delhi. New Delhi. 15 January 2011.

**Rai, Suman and Samuel Thomas.** Final Assessment Workshop of the CEPF Eastern Himalayas Programme. Hosted by the WWF Bhutan Programme. Paro, Bhutan. 6-8 December 2010.

## Events

**Biligiri Rangaswamy Hills and MM Hills CCC:** Dr. K. Narayana Gowda, Vice Chancellor of University of Agricultural Sciences, Bangalore visited MM Hills and BR Hills. He interacted with residents of Palar village who had recently received agriculture land deeds under the Forest Rights Act 2006 provisions. He emphasized the need to develop a long-term, sustainable livelihood model with understanding about agricultural inputs, water management, soil erosion control, organic fertilizer use, backward and forward linkages with market and government institutions. Dr. Gowda recommended an ATREE and UAS joint proposal for an integrated approach on lantana management in BR Hills WLS to the PCCF, Karnataka and Ministry of Environment and Forest, Government of India. 4-5 March 2011.

**Assam:** Under the aegis of the Assam Forest Department and in association with the Wildlife Institute of India, Dehradun, ATREE facilitated a consultative meeting on the preparation of Swamp Deer Recovery Plan; and Framework for Integrated Ecosystem-based Monitoring of Biological Resources in Manas World Heritage Site in Danger, based on the recommendations of the UNESCO-IUCN Reactive Monitoring Mission to Manas. Guwahati. 19 February 2011.



**Agasthyamalai CCC:** M. Mathivanan and Patrick David were invited as chief guests to Kalasalingam University, Srivilliputhur for Envira-2011, environmental festival. Mathivanan gave a lecture on water birds and wetland conservation. Patrick David served as judge for the photo and art competition. 16 February 2011.

**Male Mahadeshwara Hills CCC:** Ms. Rohini Nilekani, Chairperson of Arghyam, Bangalore and ATREE governing board member, visited MM Hills. Key stops were the Lantana Craft Centres at Palar village and Hannehole. She also trekked to the broomgrass collection areas – a key minor forest produce of the forest-fringe communities of MM Hills. 14 February 2011.

**DNA Club:** Field trips for DNA Club members of Shree Someshwara High School, Tumkur – to Devrayanadurga Reserve Forest, Jaycee English Medium School, Ankola to Anshi Tiger Reserve, and Government High School, Vyasrajapura to Bandipur National Park. January 2011.

**Vembanad CERC.** 'Participatory mapping of the resources of Vembanad lake' – by the Department of Environment and Climate Change (former EMAK). INR 700,000 over a two-year period .

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## Grants

**Nagendra, H.** BIO\_SOS Biodiversity Multisource Monitoring System: from Space To Species. European Union FP7 grant of Euro 100,000 for the period 2010-2013.

**Setty, Siddappa.** Medicinal plant conservation in Biligiri Rangaswamy Temple Tiger Reserve, project from DCF office, Karnataka Forest Department, Chamarajanagara grant of Rs 50,000 from March to July 2011.

**Setty, Siddappa.** Restoration in Lokkere forest area near Bandipur National Park in Collaboration with Junglescapes, USD 16000 funded by GE.

## Offices

### Bangalore

Royal Enclave, Srirampura  
Jakkur Post, Bangalore 560 064  
Tel: +91-80-23635555,  
Fax: +91-80-23530070

### Eastern Himalayas

E2, Second Floor, Golden Heights  
Gandhi Road, Darjeeling 734 101  
West Bengal  
Tel: +91-354-2259297

### New Delhi

2nd Floor, 1, K Commercial Complex  
Birbal Road, Jangpura Extension  
New Delhi 110014  
Tel: +91-11-2432 3133

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Ecosystem Services and Human Well-being  
and Convenor, Suri Sehgal Centre for  
Biodiversity and Conservation

Dr. Sharachchandra Lele,  
Forests and Governance and Convenor,  
Centre for Environment and Development

Dr. Priyadarsanan Dharma Rajan  
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Ecosystems and Global Change

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### Academy

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Science and Sustainability Studies

Satyadeep Rajan,  
Director, Development