

CURRENT SCIENCE

Volume 111 Number 5

10 September 2016

774 **In this issue**

GUEST EDITORIAL

775 **A crisis in fundamental physics**
G. Rajasekaran

CORRESPONDENCE

777 **India University Rankings 2016**, Hardev Singh Virk ■ 777 **Box-cut clarity, mathematicians and Make-in India**, Arni S. R. Srinivasa Rao ■ 778 **World's tenth largest banyan tree at Narora in Upper Ganga Ramsar site, Uttar Pradesh, India**, Arti Garg, Pushpi Singh and Kartik Garg ■ 779 **Corrigendum: Shangai rankings 2016: poor performance of Indian universities**, Hardev Singh Virk [*Curr. Sci.*, 2016, 111(4), 601]

NEWS

780 **Science Last Fortnight** ■ 782 **Reactive nitrogen assessment in South Asia**, T. K. Adhya, H. Pathak, N. Raghuram and Y. P. Abrol ■ 783 **Chemoeological approaches for insect borer pest management**, Abraham Verghese, N. Bakthavatsalam and Kesavan Subaharan

RESEARCH NEWS

785 **Joker of the climate system: aerosols control climate**
Manish Kumar Tekam

COMMENTARY

787 **Promoting responsible conduct while doing global science**
Indira Nath and Ernst-Ludwig Winnacker

SCIENTIFIC CORRESPONDENCE

789 ***Sicyos angulatus* L. (Cucurbitaceae): a new adventive species for the flora of India**
Anil Kumar Thakur

790 **Patterns of herbivory on *Macaranga peltata*, a pioneer species in the mid-elevation forests of the Western Ghats, India**

Ovee Thorat, Ronita Mukherjee, R. Venkat Ramanujam, Vikram Aditya and M. Soubadra Devy

792 **Unusual weather condition causing the transfer of seahorses *Hippocampus kuda* onto the sandy beach of Sindhudurg district, Maharashtra**

Amit Patil, Bhupendra Shirke, S. Babu, G. Babu Rao and Goldin Quadros

793 **An unusual diet of *Ichthyophis caecilians* (Amphibia: Gymnophiona)**

Govindappa Venu, Sagar Krishna Parwar and Govindaiah Venkatachalaiah

GENERAL ARTICLES

796 **Wind and solar energy for reducing electricity deficits in Karnataka**

A. Gangopadhyay, A. Sampath, B. Velury, D. P. Sen Gupta and D. R. Ahuja

808 **Designing and developing a Bioresource Information Centre for Floral Resources of Himachal Pradesh, Western Himalaya**

Astha Gupta, Sanjay Kr. Uniyal, Meenakshi, Amit Kumar and R. D. Singh



REVIEW ARTICLES

- 815 **Viable feedstock options and technological challenges for ethanol production in India**
Anil Kumar Singh, Neelima Garg and Ajay Kumar Tyagi
- 823 **Late Cenozoic global pulsations in hotspot magmatism and their possible interplay with plate tectonics, Earth's core and climate**
Rolf Mjelde

RESEARCH ARTICLES

- 836 **Assured solar energy hot-spots over Indian landmass detected through remote sensing observations from Geostationary Meteorological Satellite**
Swapnil S. Vyas, Bimal K. Bhattacharya and Rahul Nigam
- 843 **State space analysis of ocean surface warming on decadal scale**
K. S. Yajnik
- 853 **Genome-scale classification of recombinant and non-recombinant HIV-1 sequences using artificial neural network ensembles**
Ashok Kumar Dwivedi and Usha Chouhan
- 861 **Crop damage by wild herbivores: insights obtained from optimization models**
Milind Watve, Abhijeet Bayani and Samriddha Ghosh
- 868 **Transverse tectonics feature delineated by modelling of magnetotelluric data from Garhwal Himalaya corridor, India**
M. Israil, Paramjeet Mamoriya, Pravin K. Gupta and S. K. Varshney

RESEARCH COMMUNICATIONS

- 876 **On the orthogonality of indicators of journal performance**
Gangan Prathap, P. Nishy and S. Savithri
- 882 **Modelling of diurnal profile of surface air temperature and surface dissolved oxygen of lake water**
Mihir Pal, Nihar R. Samal, Malabika B. Roy and Pankaj K. Roy
- 886 **Farmer-friendly technique for multiplication of bamboo (*Bambusa vulgaris*)**
R. K. Tewari, Asha Ram, Inder Dev, K. B. Sridhar and Ramesh Singh
- 890 **Full-length cloning and characterization of abiotic stress responsive *CIPK31-like* gene from finger millet, a drought-tolerant crop**
K. N. Nagarjuna, M. S. Parvathi, R. S. Sajeevan, V. Pruthvi, H. M. Mamrutha and K. N. Nataraja
- 895 **Electrophysiological and behavioural responses of sweetpotato weevil, *Cylas formicarius* Fab. to sweetpotato varieties**
Tanmayee Samantaray and Rajasekhara Rao Korada
- 901 **Cytochrome P450 isoforms transcriptional, larval growth and development responses to host allelochemicals in the generalist herbivore, *Helicoverpa armigera* (Hübner) (Lepidoptera: Noctuidae)**
G. Sharath Chandra, R. Asokan, M. Manamohan and T. Sita
- 907 **U–Pb, Pb–Pb and Sm–Nd ages of davidite within albitite zone from Bichun, Jaipur district, Rajasthan, India: possible link between uranium mineralization and Grenvillian orogeny**
G. S. Yadav, U. K. Pandey, S. L. Aravind, P. K. Panchal, A. S. Venkatesh, P. R. Sahoo, A. K. Chaturvedi, A. K. Rai and P. S. Parihar
- 913 **Constraints on source parameters of the 25 April 2015, $M_w = 7.8$ Gorkha, Nepal earthquake from synthetic aperture radar interferometry**
K. M. Sreejith, P. S. Sunil, Ritesh Agrawal, D. S. Ramesh and A. S. Rajawat



- 919 **Rumen virome: an assessment of viral communities and their functions in the rumen of an Indian buffalo**
Nidhi R. Parmar, Subhash J. Jakhesara, Amitbikram Mohapatra and Chaitanya G. Joshi

LIVING LEGENDS IN INDIAN SCIENCE

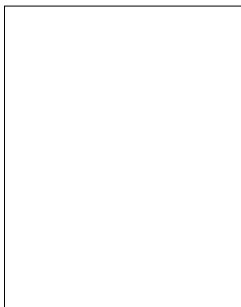
- 926 **C. N. R. Rao**
A. K. Ganguli and T. V. Ramakrishnan

BOOK REVIEWS

- 932 **Basic Principles of Drug Discovery and Development** by Benjamin E. Blass,
reviewed by S. Chandrasekhar
- 933 **Landforms of the World with *Google Earth: Understanding our Environment*,**
Anja M. Scheffers, Simon M. May and Dieter H. Kelletat, *reviewed by* K. S.
Sajinkumar
- 933 **Annual Review of Genetics, 2015**, Bonnie L. Bassler, Michael Lichten and Gerturd
Schüpbach (eds), *reviewed by* Saikat Chakraborty and K. P. Arunkumar

PERSONAL NEWS

- 936 **Ahmed Hassan Zewail (1946–2016)**
Sameen Ahmed Khan
-



◀ COVER. Tenth largest banyan tree in the world. See page 778.

Indexed in CURRENT CONTENTS/GEOTitles/CHEMICAL ABSTRACTS/IndMED/SCOPUS/
WEB OF SCIENCE