

Current Content Alert Services

Current Content Alert Services

MONTH *July* YEAR *2021*

Compiler: Y. K. Rajoriya



LIBRARY
REGIONAL INSTITUTE OF EDUCATION
(NATIONAL COUNCIL OF EDUCATIONAL RESEARCH AND TRAINING)
Capt. D.P. Choudhary Road, Ajmer - 305004
E-mail: rieajmer@yahoo.com Phone: 0145-2643721, 2643864; (Fax) 2643862

Library
RIE, Ajmer

S.No.	Name of Journals	Vol.No.	Pages
1	अनौपचारिका	47(3-5)	1-2
2	Current Science	120(1-12),121(1)	3-32
3	Edutracks	20(11)	33
4	Indian Literature	65(321)	34-38
5	मधुमती	61(4-5)	39-42
6	Resonance	26(1-7)	43-56
7	साहित्य अमृत	26(10-12),27(1)	57-58

LIBRARY, RIE, AJMER
CURRENT CONTENT ALERT SERVICES

अनौपचारिका वर्ष 47 No. 3, मार्च, 2021

समानो मन्त्रः समितिः समानी समानं मनः सहचिन्तमेवाम्।
समानं मन्त्रमभिमन्त्रये वः समानेन वो हविषा जुहोमि॥
समानी व आकृतिः समाना हृदयानि वः।
समानमस्तु वो मनो यथा वः सुसहासति॥ कण्वद

श्री शिक्षा, सहायकालय, अजमेर
दिनांक 12/4/2021
हस्ताक्षर

अनौपचारिका

समाकालीन शिक्षा-चिन्तन की पत्रिका
वर्ष : ४७ अंक : ३ फाल्गुन-चैत्र वि.सं. २०७७ मार्च, २०२१

क्रम

०३ वाणी
अलफ़ाज बोलते भी हैं

०७ लेख
भूरीबाई और 'चित्तरकाज'

१४ कविता
मंगलेश डबराल -
नया डर

२१ लेख
तमीज़ का हास

२४ विभूति
पण्डित सुखलालजी संघवी

अपील

समिति के सभी सदस्यों, दूर-
दराज के मित्रों एवं भारत के
विभिन्न राज्यों में फैले सुधी
पाठकों से निवेदन है कि समिति
के प्रकाशन की निरंतरता बनाये
रखने के लिए अपनी सहयोग
राशि पूरी उदारता के साथ
भिजवाने का अनुरोध करें।
आज किसी भी पत्रिका का
प्रकाशन बहुत मुश्किल काम है
मगर समिति अपने पूर्ण सेवा भाव
के साथ अनौपचारिका को पिछले
47 वर्षों से निरंतर निकाल रही
है। सभी प्रबुद्ध पाठक जानते हैं
कि अभी हाल ही में कादम्बिनी
भी बंद हो गई है जो हिन्दुस्तान

०५ अपनी बात
स्त्री सशक्तिकरण के
पक्षधर थे :
स्वामी विवेकानन्द

१३ पत्र
नाना का पत्र नाती के नाम

१६ संस्मरण
राजस्थान के शिक्षा मनीषी
श्रद्धेय बालगोविन्द जी
तिवारी

२६ पिछला पन्ना
पण्डित सुखलालजी संघवी

टाइम्स का प्रकाशन था। ऐसी स्थिति में हम कटिबद्ध हैं कि अनौपचारिका
निरंतर निकलती रहे। आपका सहयोग सादर अपेक्षित है।

बैंक विवरण
BANK OF BARODA
Rajasthan Adult Education Association
Branch Name : IDS Ext. Jhalana Jaipur



I.F.S.C. Code : BARBOEXTNEH (Fifth
Character is zero)
Micr Code : 302012030
Acct.No. : 98150100002077

संस्थापक संपादक एवं संरक्षक :
रमेश थानवी
कार्यकारी संपादक :
प्रेम गुप्ता
प्रबंध संपादक :
दिलीप शर्मा

राजस्थान प्रौढ़ शिक्षण समिति
७-ए, झालाना इंगरी संस्थान क्षेत्र,
जयपुर-३०२००४
फोन : 2700559, 2706709, 2707677
ई-मेल : raeajipur@gmail.com

सद्भावना सहयोग :
व्यक्तिगत ३५०/- रुपये

संस्थागत वार्षिक
शुल्क ५००/- रुपये
मैत्री समुदाय ३०००/- रुपये

अनौपचारिका | ०४ | मार्च, २०२१

अनौपचारिका वर्ष 47 No. 4-5, अप्रैल- मई, 2021

समानो मन्त्रः समितिः समानी समानं मनः सहचित्तमेषाम्।
समानं मन्त्रमभिमन्त्रये वः समानेन वो हविषा जुहोमि।।
समानी व आकृतिः समाना हृदयानि वः।
समानमस्तु वो मनो यथा वः सुसहासति।। ऋग्वेद

क्षेत्र शि.रा. पुस्तकालय
दिनांक 12/1/2021
हरताश

अनौपचारिका

समकालीन शिक्षा-चिन्तन की पत्रिका
वर्ष : ४७ अंक : ४-५ चैत्र-वैशाख-ज्येष्ठ वि.सं. २०७८ अप्रैल-मई (संयुक्तांक), २०२१

क्रम

- ०३ वाणी
महावीर की वाणी
- ०७ लेख
आंदोलनकारी शिक्षक
- १४ गीत
दो पदगीत
- २१ विभूति
प्रोफेसर श्रीलाल औदित्य
- २३ किताबें
योगी रमणनाथ जी की तीन
किताबें

अपील
समिति के सभी सदस्यों, दूर-
दराज के मित्रों एवं भारत के
विभिन्न राज्यों में फैले सुधी
पाठकों से निवेदन है कि समिति
के प्रकाशन की निरंतरता बनाये
रखने के लिए अपनी सहयोग
राशि पूरी उदारता के साथ
भिजवाने का अनुग्रह करें।
आज किसी भी पत्रिका का
प्रकाशन बहुत मुश्किल काम है
मगर समिति अपने पूर्ण सेवा भाव
के साथ अनौपचारिका को पिछले
४७ वर्षों से निरंतर निकाल रही
है। सभी प्रबुद्ध पाठक जानते हैं
कि अभी हाल ही में कादम्बिनी
भी बंद हो गई है जो हिन्दुस्तान

- ०५ अपनी बात
हमारे जीवन की बगिया
किसके हाथ में !!!
- १६ रपट
मरु मंथन
- २५ संवाद
ऑनलाइन शिक्षा से जुड़ा पन्ना
- २६ पिछला पन्ना
आभार...

टाइम्स का प्रकाशन था। ऐसी स्थिति में हम कटिबद्ध हैं कि अनौपचारिका
निरंतर निकलती रहे। आपका सहयोग सादर अपेक्षित है।

बैंक विवरण
BANK OF BARODA
Rajasthan Adult Education Association
Branch Name : IDS Ext. Jhalana Jaipur



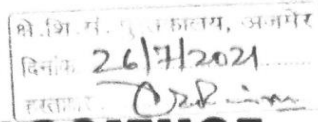
I.F.S.C. Code : BARB0EXTNEH (Fifth
Character is zero)
Micr Code : 302012030
Acct.No. : 98150100002077

संस्थापक संपादक एवं संरक्षक :
रमेश थानवी
कार्यकारी संपादक :
प्रेम गुप्ता
प्रबंध संपादक :
दिलीप शर्मा

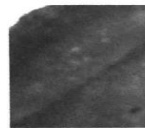
राजस्थान प्रौढ़ शिक्षण समिति
७-ए, झालाना इगरी संस्थान क्षेत्र,
जयपुर-३०२००४
फोन : 2700559, 2706709, 2707677
ई-मेल : raceajipur@gmail.com

एक प्रति सहयोग :
व्यक्तिगत ३०/- रुपये
सद्भावना सहयोग :
व्यक्तिगत ३५०/- रुपये
संस्थागत वार्षिक
शुल्क ५००/- रुपये
मैत्री समुदाय ३०००/- रुपये

अनौपचारिका | ०४ | अप्रैल-मई, २०२१ (संयुक्तांक)

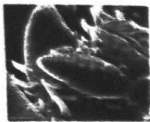


CURRENT SCIENCE



6	In this issue
	GUEST EDITORIAL
7	A perspective on water security in India Sharad K. Jain
	CORRESPONDENCE
9	Setting electricity generation targets: some concerns , R. B. Grover ■ 9 When flowering of a species threatens its survival , P. Surath Kumar, Gopal Shukla, Vineeta, Pankaj Panwar and Sumit Chakravarty ■ 10 Locusts plague: an emerging threat to India , Priyanka Sarkar and Nirmal Debnath
	NEWS
12	Current Science Reports ■ 16 Indian Academy of Sciences, Bengaluru – 86th annual meeting , Pratik Pawar and S. Priya ■ 18 The Upper Indus Basin Network , A. P. Dimri, M. Anand, A. Shrestha and A. Kulkarni
	OPINION
20	<i>Ralstonia solanacearum</i>: an emerging threat as a mysterious plant pathogen Niraj Singh
	COMMENTARY
22	COVID-19-specific clinical research using traditional medicine: lessons from traditional Chinese medicine for India's AYUSH systems , S. Natarajan, C. Anbarasi, M. Sendhilkumar and P. Manickam ■ 24 Connecting the unconnected: the way forward for public health to reach the unreached tribal communities in India , Nishant Saxena, Dinesh Kumar and Aparup Das
	SCIENTIFIC CORRESPONDENCE
27	Design and development of multifunctional agroforestry for family farming K. T. Parthiban, Deepak Srivastava and A. Keerthika
29	The need for publishing business aquaculturist farming data Mohammad Tabish and S. Daniel
30	<i>Scytinostroma portentosum</i> (Berk. and Curt.) Donk from West Bengal, India on a new host Asit Baran De and Sayantan Jash
	GENERAL ARTICLES
34	Working/non-working status of patents granted to HEIs and NRLs in India Mamta Bhardwaj and Amandeep Sandhu
43	The Chennai Water Crisis: Insufficient rainwater or suboptimal harnessing of runoff? Sumant Nigam, Alfredo Ruiz-Barradas and Agniv Sengupta
56	Requirements for biosimilar authorization: a legal and comparative perspective – FDA versus EMA Alfonso Noguera Peña and Carlos del Castillo Rodríguez

Current Science Vol.120 No. 1, 10 January, 2021



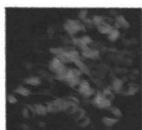
REVIEW ARTICLE	
66	Gall-inducing insects and plants: the induction conundrum Anantanarayanan Raman
SPECIAL SECTION: ISRO'S PAD ABORT TEST	
79	Preface B. N. Suresh
79	Foreword S. Somanath
80	Message K. Sivan
81	Flight performance of Crew Escape System during pad abort condition S. Somanath, S. Unnikrishnan Nair, T. Sivamurugan and S. L. N. Desikan
89	Mission design, preflight and flight performance and observations for Pad Abort Test Jayanta Dhaoya, N. Remesh, C. Ravikumar, P. Bhanumathy, A. K. Anilkumar, Abhay Kumar and V. Ashok
96	Evolution of Crew Escape System configuration Juluri Sreenivasulu, Sanjoy Kumar Saha, M. M. Patil and V. Ashok
105	Onset separation aerodynamics of Crew Module from Crew Escape System R. Saravanan, J. A. Tennyson, S. L. N. Desikan, M. M. Patil, R. Kalimuthu and Surendranath
110	Aerothermal design of Crew Escape System K. S. Lakshmi, M. Ram Prabhu, Rishi Padmanabhan, Ullekh Pandey, M. Manirajan, P. Anoop, T. Sivamurugan, B. Sundar and M. J. Chacko
116	Design, development, static and flight tests of reverse flow multiple nozzle solid rocket motor with high burn rate propellant K. Sreejith, Shailesh Prasad, R. Bagavathiappan, C. Prasanth, R. Jeenu, J. Paul Murugan, Thomas Kurian, N. Mansu, R. Harikrishnan, G. Levin and V. Eswaran
122	Design, development and flight performances of deceleration system Johns Paul, Atin Aggarwal, Santhosh J. Nalluveetil, P. Purushothaman and M. Premdas
129	Structural design, qualification and post-flight assessment of Crew Module Fairing Nishant Singh, R. K. Sajeev, P. Ayyappadas, A. P. Beena and C. K. Krishnadasan
141	Structural design, development and qualification tests of grid fin Able C. Kurian, B. Santhosh, P. D. Shaji, Sibi Joseph and A. Rajarajan
147	Quality assurance challenges for development of Crew Escape System Motors Suvendu Jana, S. M. Sreedhar, R. Krishnakumar, R. Vinod Kumar and S. Saratchandran
152	Wireless instrumentation system experiment Bibin Varghese, S. Sreelal, S. Sreekumar, P. Vinod, M. N. Namboothiripad, Joseph Lal and K. Anand
161	Digital telemetry transmitter in Crew Escape System K. S. Smitha, Sherly Joy, D. Sheba Elizabeth, Sathya Bhushan Shukla, S. Sanoj Kumar Roy and K. K. Mukundan

LIBRARY, RIE, AJMER
CURRENT CONTENT ALERT SERVICES

Current Science Vol.120 No. 1, 10 January, 2021

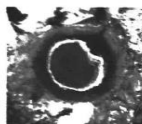
RESEARCH ARTICLES

- 166 **Generation of sub-pixel-level maps for mixed pixels in hyperspectral image data**
Prem Kumar and Soddatta Chakravortty
- 177 **Anticancer nanometre-biomissiles carrying a leucine insulator and an antibody complementarity-determining region**
Meng Xing, Xiaoxia Li, Shanshan An, Chongfeng Lan, Min Fu, Yunfan Shi, Yan Huang, Man Tang, Yulin Wan, Yuchuan Wang, Jingli Peng, Kai Wang, Zi-Wei Ye, Shaoping Weng, Qiuyun Liu, Jianguo He and Wenliang Zhou
- 186 **Protein hydration**
M. R. N. Murthy
- 193 **Fusion of complementary information of SAR and optical data for forest cover mapping using random forest algorithm**
Naveen Veerabhadraswamy, Guddappa M. Devagiri and Anil Kumar Khaple
- 200 **Identification of heavy metal pollution source due to idol immersion activity across the Cauvery river basin, Tamil Nadu, South India**
Vinothkannan Anbazhagan, Rajaram Rajendran, Ganeshkumar Arumugam and Arun Ganesan



RESEARCH COMMUNICATIONS

- 209 **Citation-based criterion for identifying long-lasting research papers**
Shubhada Nagarkar and Shridhar R. Gadre
- 215 **The contribution of sense of place to shifting cultivation sustenance: evidence from West Garo Hills, North East India**
D. K. Pandey, Amandine Junot and P. Adhiguru
- 220 **Assessment of colour changes in Lonar lake, Buldhana district, Maharashtra, India using remote sensing data**
Anurag Mishra, K. Abdul Hakeem, V. V. Rao, P. V. N. Rao and Santanu Chowdhury



BOOK REVIEWS

- 227 **More Things in the Heavens: How Infrared Astronomy is Expanding our View of the Universe.** Michael Werner and Peter Eisenhardt; *reviewed by* Manoj Puravankara

PERSONAL NEWS

- 229 **Amrendra Vijay (1967–2020),** M. V. Sangaranarayanan



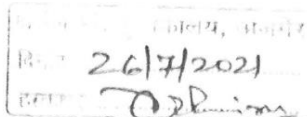
- ◀ COVER. Pad Abort Test Article at launch pedestal. Inset: Burn-out phase; Crew Module on parachutes. See special section.

The editor thanks Dr S. Somanath (Vikram Sarabhai Space Centre, Indian Space Research Organisation, Thiruvananthapuram), Dr S. Unnikrishnan Nair (Human Space Flight Centre, Indian Space Research Organisation, Bengaluru), Dr T. Sivamurugan and Dr S. L. N. Desikan (Vikram Sarabhai Space Centre, Indian Space Research Organisation, Thiruvananthapuram) for agreeing to be Guest Editors for special section.

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

Current Science Vol.120 No. 2, 25 January, 2021

Founded: 1932



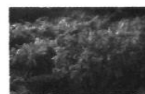
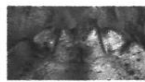
ISSN 0011-3891

CURRENT SCIENCE

Volume 120 Number 2

25 January 2021

- 246 **In this issue**
- GUEST EDITORIAL**
- 247 **Addressing resilience to cyclones – a perspective**
Shailesh Nayak
- CORRESPONDENCE**
- 249 **Microplastics pollution pathways to groundwater in India**, Rakesh Kumar and Prabhakar Sharma ■ **249 Discovery of fossil dragonfly from India – a rejoinder**, K. A. Subramanian and R. Babu
- NEWS**
- 251 **France Honours Rohini Godbole with ‘Ordre National du Mérite’** ■ **252 Current Science Reports** ■ **256 Is polypill a stroke of luck for cardiac patients?**, Arjun R. Krishnan ■ **257 Modelling atmospheric–oceanic processes for weather and climate extremes**, Manju Mohan, Sandeep Sukumaran, Vimlesh Pant, Ravi Kumar Kunchala and Julian Hunt
- OPINION**
- 260 **Spermatogonial stem-cell transplantation: an alternative approach for transgenesis in farm animals**
Ankur Sharma, A. Kumaresan and M. S. Chauhan
- COMMENTARY**
- 262 **Wheat blast readiness of the Indian wheat sector**, S. K. Bishnoi, Sudheer Kumar and G. P. Singh ■ **264 Biotic stresses of agricultural crops in India: re-visiting national status and mitigation strategies**, J. Kumar, R. K. Murali-Baskaran, S. K. Jain, P. N. Sivalingam, A. Dixit, J. Mallikarjuna and P. K. Ghosh
- SCIENTIFIC CORRESPONDENCE**
- 266 **COVID-19 endemicity: a taste of the future**
T. Jacob John and M. S. Seshadri
- 268 **Does India have the invasive brown marmorated stink bug, *Halyomorpha halys* (Stål)**
S. Salini, K. J. David and M. Pratheepa
- 270 **Kaabar Tal, Bihar’s first Ramsar site: status, challenges and recommendations**
Manudeo Singh and Rajiv Sinha
- GENERAL ARTICLES**
- 273 **National Surveillance Programme for Aquatic Animal Diseases – a stepping stone for establishing disease governance system in India**
Neeraj Sood, Pravata K. Pradhan, T. Raja Swaminathan, Gaurav Rathore, J. K. Jena and Kuldeep K. Lal
- 278 **Horticultural nurseries and nematode dissemination**
K. Poornima and R. K. Walia



LIBRARY, RIE, AJMER
CURRENT CONTENT ALERT SERVICES

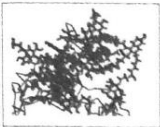
Current Science Vol.120 No. 2, 25 January, 2021

- SPECIAL SECTION: ENVIRONMENTAL IMPACT OF COVID-19
- 285 **Foreword**
K. Krishna Moorthy, S. Suresh Babu, B. V. Krishna Murthy and J. Srinivasan
- 287 **Impact of lockdown-related reduction in anthropogenic emissions on aerosol characteristics in the megacity, Bengaluru**
A. Ajay, K. Krishna Moorthy, S. K. Satheesh and G. Ilavazhagan
- 296 **Impacts of reduced anthropogenic activities on black carbon concentration and related atmospheric parameters at an urban metropolis near the land ocean boundary during COVID-19 pandemic**
Soumyajyoti Jana, Gargi Rakshit and Animesh Maitra
- 304 **Ambient fine particulate matter pollution over the megacity Delhi, India: an impact of COVID-19 lockdown**
M. Arunkumar and S. Dhanakumar
- 313 **Variation of black carbon and particulate matter in Bhubaneswar during the pre-monsoon: possible impact of meteorology and COVID-19 lockdown**
Jyotishree Nath, Subhasmita Panda, Satya S. Patra, Boopathy Ramasamy and Trupti Das
- 322 **Impact of lockdown due to COVID-19 outbreak on O₃ and its precursor gases, PM and BC over northeast India**
Binita Pathak, Pradip Kumar Bhuyan, Arshini Saikia, Kalyan Bhuyan, P. Ajay, Sankar Jyoti Nath and Shyam Lochan Bora
- 332 **Impact assessment of change in anthropogenic emissions due to lockdown on aerosol characteristics in a rural location**
A. Ajay, K. Krishna Moorthy, S. K. Satheesh and G. Ilavazhagan
- 341 **Response of ambient BC concentration across the Indian region to the nation-wide lockdown: results from the ARFINET measurements of ISRO-GBP**
Mukunda M. Gogoi, S. Suresh Babu, B. S. Arun, K. Krishna Moorthy, A. Ajay, P. Ajay, Arun Suryavanshi, Arup Borgohain, Anirban Guha, Atiba Shaikh, Binita Pathak, Biswadip Gharai, Boopathy Ramasamy, G. Balakrishnaiah, Harilal B. Menon, Jagdish Chandra Kuniyal, Jayabala Krishnan, K. Rama Gopal, M. Maheswari, Manish Naja, Parminder Kaur, Pradip K. Bhuyan, Pratima Gupta, Prayagraj Singh, Priyanka Srivastava, R. S. Singh, Ranjit Kumar, Shantanu Rastogi, Shyam Sundar Kundu, Sobhan Kumar Kompalli, Subhasmita Panda, Tandule Chakradhar Rao, Trupti Das and Yogesh Kant
- 352 **Dominance of natural aerosols over India in pre-monsoon: inferences from the lockdown effects**
S. S. Prijith, J. Srinivasulu and M. V. R. Sesha Sai
- 360 **Effect of SARS-CoV-2 pandemic induced lockdown on the aerosol loading over the coastal state, Goa**
Atiba A. Shaikh, Avirup Sen and Harilal B. Menon
- 368 **Effect of COVID-19 lockdown on the spatio-temporal distribution of nitrogen dioxide over India**
Shuchita Srivastava, Asfa Siddiqui, D. Mitra and Prakash Chauhan
- 376 **Impact of COVID-19 lockdown on surface ozone build-up at an urban site in western India based on photochemical box modelling**
Meghna Soni, Narendra Ojha and Imran Girach
-

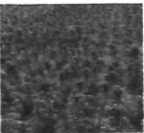
CURRENT SCIENCE, VOL. 120, NO. 2, 25 JANUARY 2021

Current Science Vol.120 No. 2, 25 January, 2021

RESEARCH ARTICLES

- 
- 382 **Chronology of coastal dune ridges in Vaigal prodelta region, southeastern Tamil Nadu, India**
S. Sathiyaseelan, D. K. Panda, D. Banerjee, D. Ramesh and A. D. Shukla
- 389 **Computational studies of mycorrhizal protein: Gillsp60 and its interaction with soil organic matter**
Dipti Mothay and K. V. Ramesh
- 398 **Integrating state-of-the-art *in silico* tools with molecular docking to predict the impact of the most deleterious amino acid substitutions on TRAPPC6A protein**
Mohammed Baqur S. Al-Shuhaib and Jafar M. B. Al-Shuhaib
- 406 **Assessment of germination time of finger millet for value addition in functional foods**
Ashwani Kumar, Amarjeet Kaur, Kritika Gupta, Yogesh Gat and Vikas Kumar
- 414 **Estimation of dielectric properties of clay loam and silty soil with different salinity levels over low frequency range**
Virendrakumar N. Patel, Prahalad D. Chaudhary, Vipin A. Rana and Deepak H. Gadani
- 423 **Enhanced insecticide-resistance spectrum in green lacewing predator, *Chrysoperla zastrowi sillemi* (strain PTS-8) and its potential role in the management of sucking pests of cotton**
M. Ashwini, M. Mohan, G. Sivakumar and T. Venkatesan

RESEARCH COMMUNICATIONS

- 
- 429 **Space-based observation of a high-altitude red-coloured glacial lake in Ladakh, Northwest Himalaya, India**
Pratima Pandey, Prakash Chauhan, S. Nawaz Ali and Mamta Chauhan
- 432 **Occurrence of cassava mealybug, *Phenacoccus manihoti* Matile-Ferrero (Pseudococcidae: Hemiptera), a new invasive pest on cassava in India and prospects for its classical biological control**
M. Sampathkumar, M. Mohan, A. N. Shylesha, Sunil Joshi, T. Venkatesan, Ankita Gupta, S. Vennila, S. R. Venkatachalam, M. Vijayakumar, Madhu Subramanian, M. Yoganayagi, T. R. Ashika and N. Bakthavatsalam

BOOK REVIEWS

- 436 **Nature Strange and Beautiful: How Living Beings Evolved and Made the Earth a Home.** Egbert Giles Leigh Jr and Christian Ziegler; *reviewed by* Sutirth Dey
- 437 **Annual Review of Biophysics, 2020.** Ken A. Dill (ed.); *reviewed by* Somnath Dutta



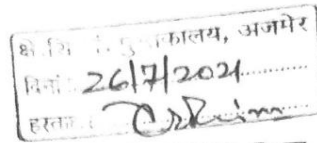
- ◀ COVER. Artist's visualization of normal pre-lockdown anthropogenic environmental emissions (bottom background) and the clear skies (during lockdown). The centre-set shows the percentage reduction in the ambient concentrations of black carbon aerosols across Indian mainland during different phases of the lockdown as inferred from measurements. See page 341.

The editor thanks Dr K. Krishna Moorthy (Centre for Atmospheric and Oceanic Sciences, Indian Institute of Science, Bengaluru), Dr S. Suresh Babu (Space Physics Laboratory, Vikram Sarabhai Space Centre, Thiruvananthapuram), Dr B. V. Krishna Murthy (Chennai) and Dr J. Srinivasan (Centre for Atmospheric and Oceanic Sciences, IISc, Bengaluru) for agreeing to be Guest Editors for special section.

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

Current Science Vol.120 No. 3, 10 February, 2021

Founded 1932



ISSN: 0011-1891

CURRENT SCIENCE

Volume 120 Number 3

10 February 2021

454 **In this issue**

GUEST EDITORIAL

- 455 **Flood management in India**
Sharad K. Jam

NEWS

- 457 **Current Science Reports**

COMMENTARY

- 461 **Off-season short-duration leafy coriander (*Coriandrum sativum*) with peri-urban market linkage model for small holders in drylands**, V. Maruthi, K. S. Reddy, P. K. Pankaj, A. G. K. Reddy, G. Srikrishna and S. M. Vidya Sekhar ■ **463 A tale of two biologies: distinctions in philosophy and practice between organismal and sub-organismal science**, Kartik Shanker and Vishwesha Guttal

SCIENTIFIC CORRESPONDENCE

- 467 **Coppicing behaviour for clonal forestry in *Melia dubia* Cav.**
Sourav Ranjan Mohapatra, Neha Singh Panwar, Rahul Kumar and Ashok Kumar
- 468 **Quality enhancement of nutri-cereal browntop millet through agronomic practices**
A. Sai Kishore, K. Bhanu Rekha, S. A. Hussain and A. Madhavi
- 470 **Live observation of great blue whale (*Balaenoptera musculus*) from northern Arabian Sea, off Gujarat, India**
K. Chandrasekar, N. Saravanane, Sherine Sonia Cubelio and M. Sudhakar

GENERAL ARTICLES

- 472 **Challenges to identify and mentor gifted children in developing countries: the Indian experience**
Anitha Kurup
- 479 **Are we conscious of isoprene emissions from our poplar plantations?**
Vibha Singhal, Dinesh Jinger and Jyotirmoy Ghosh

REVIEW ARTICLES

- 484 **Role of electrostatics in artificial pollination and future agriculture**
Dipak S. Khatawkar, Shaji P. James and D. Dhalin
- 492 **Soil degradation challenges for sustainable agriculture in tropical India**
Ch. Srinivasarao, S. Rakesh, G. Ranjith Kumar, R. Manasa, G. Somashekar, C. Subha Lakshmi and Sumanta Kundu

RESEARCH ARTICLES

- 501 **Mortality due to COVID-19 in different countries is associated with their demographic character and prevalence of autoimmunity**
Bithika Chatterjee, Rajeeva Laxman Karandikar and Shekhar C. Mande
- 509 **Niger seed (*Guizotia abyssinica*) alters *in vitro* rumen fermentation and reduces methane emission**
Tariq A. Malik and Madhu Mohini

452

CURRENT SCIENCE, VOL. 120, NO. 3, 10 FEBRUARY 2021

Current Science Vol.120 No. 3, 10 February, 2021



514 *Aspergillus aeneus* rediscovered in India from an extreme habitat
Skarma Nonzom and Geeta Sumbali

519 Rare earth elements of sediments in rivers and estuaries of the east coast of India
Shaik Sai Babu, R. Venkata Ramana, V. Purnachandra Rao, M. Ram Mohan,
S. Sawant, N. Satyasree and A. Keshav Krishna

538 Characterization of lime plaster of a Portuguese medieval monument in the Indian
Ocean coast
M. P. Sujith, L. Rajeswari and G. Santhana Krishnan

547 Ecomorphological variations and flow-induced phenotypic plasticity in
Trichogaster fasciata using geometric and truss analysis
Farah Bano and M. Serajuddin

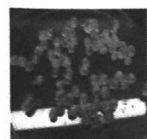


553 Wintering harriers in a rapidly changing landscape in southern Tamil Nadu, India
A. Saravanan, M. B. Prashanth and T. Ganesh

RESEARCH COMMUNICATIONS

562 Radiocarbon dating and status of the oldest extant Ceylon iron wood (*Manilkara
hexandra*) in the riverine Ramsar site of India
Arti Garg, Roxana T. Patrut, Adrian Patrut, Stephan Woodborne and Laszlo Rakosy

567 Syncing phenology phase and canopy spectral reflectance of common tree species
of four forest covers in India
Amrita N. Chaurasia, Reshma M. Parmar, Maulik G. Dave, Nirav Mehta, Rajesh
Kallaje, Aradhana Sahu, Indu K. Murthy, C. P. Singh and N. S. R. Krishnayya



570 Effective use of synthetic seed technology in the regeneration of *Cymbidium
aloifolium* using protocorm-like bodies
Shivani Verma and Promila Pathak

BOOK REVIEWS

573 DISHA: A Career Resource Book for Life Science and Biotechnology Students.
Suman Govil; reviewed by S. C. Lakhotia

574 Combustion Emissions: Formation, Reaction and Removal of Trace Metals in
Combustion Products. Keith Schofield; reviewed by S. Varun Kumar

HISTORICAL NOTES

575 Water-distribution efforts in Madras: from sailor George Baker (1750s) to
engineers John Jones, Hormusji Nowroji and James Madeley (1870s–1920s)
Anantanarayanan Raman and Natarajan Meenakshisundaram

ACADEMY NEWS

586 Indian Academy of Sciences announces new Fellows for 2021

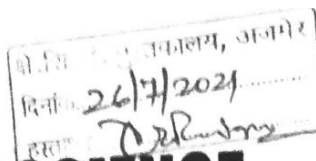


COVER. The south Tamil Nadu grasslands are critical for the Montagu's harrier during their migratory stay in the subcontinent (Photo: Dr Rajasekhar Rajamanickam). See page 553.

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

Current Science Vol.120 No. 4, 25 February, 2021

Founded 1932



ISSN 0011 1891

CURRENT SCIENCE

Volume 120 Number 4

25 February 2021

602 In this issue

GUEST EDITORIAL

- 603 **Traditional knowledge systems and new science policy thrust**
Bhushan Patwardhan and Subhash Chandra Lakhotia

CORRESPONDENCE

- 605 **Range extension of pyrosomes in oligotrophic waters of the Indian Ocean**, N. Marimuthu, S. Vignesh Kandasamy and Nandini Ray Chaudhury ■ 606 **Invasive South American weed – *Tradescantia fluminensis* Vell. (Commelinaceae): a threat to native flora of India**, Ankit Singh, Nidhan Singh and M. C. Nautiyal ■ 607 **Community Health Officers: key players in the delivery of comprehensive primary healthcare under the Ayushman Bharat Programme**, Priya Kotwani, Apurvakumar Pandya and Somen Saha ■ 608 **Narratives about the electricity sector**, Thangasamy Sangarappan; *Response* by R. B. Grover

NEWS

- 610 **Current Science Reports**

COMMENTARY

- 614 **NIRF: regional realities for intervention**, G. Srinivas and S. Salil

SCIENTIFIC CORRESPONDENCE

- 617 **Space-based observations on annular solar eclipse of June 2020**, Manu Mehta, Prakash Chauhan, Praveen Thakur, Taibanganba Watham and Ritika Srinet ■ 619 **Natural occurrence of entomopathogens on the invasive fall armyworm, *Spodoptera frugiperda* (J.E. Smith) in South India**, G. Sivakumar, M. Mohan, M. Kannan, K. Elango, P. Ram Kumar, T. Venkatesan, R. Rangeshwaran, Mahesh S. Yandigeri and O. Dhanyakumar

GENERAL ARTICLES

- 622 **Technology demonstration of a novel seabed resident event-driven profiling system**
Antonio Mascarenhas, Nitin Dabholkar, Jayu Narvekar, Shivanand Prabhudesai, Siddharth Ghatkar, Sadaf Ansari, Pramod Maurya, Elgar Desa, Anand Lokapure, Surekha Nagvekar, Gajanan Navelkar, R. Madhan, Fernando Vijayan, Vidish Shetye, Llewellyn Fernandes, Sanjeev Afzulpurkar and T. Suresh
- 628 **Mycology and mycotechnology on postal stamps**
Vandana Ghormade, Ejaj Pathan, Jeevan Jyoti, Ajit Vartak and Mukund Deshpande
- 637 **Digital health technologies for universal health coverage: a promising change**
Prakash Babu Kodali and Shankar Das

REVIEW ARTICLE

- 644 **Agroforestry practices in Tamil Nadu, India – a boon for farmers for livelihood security**
S. Saravanan and Nanita Berry

RESEARCH ARTICLES

- 654 **Repossession and recognition system: transliteration of antique Tamil Brahmi typescript**
S. Brindha and S. Bhuvaneshwari

600

CURRENT SCIENCE, VOL. 120, NO. 4, 25 FEBRUARY 2021

Current Science Vol.120 No. 4, 25 February, 2021



- 666 **Deleterious missense single nucleotide polymorphism alters the structural conformation of human anti-apoptotic Bcl-2 protein**
P. P. Anand and Y. Shibu Vardhanan
- 676 **Assessment of forecast skill of high- and coarse-resolution numerical weather prediction models in predicting visibility/fog over Delhi, India**
Aditi and Raghavendra Ashrit
- 684 **16S rRNA and hydrazine gene-based profiling of the *Candidatus Scalindua* community from the Arabian Sea hypoxic sediments**
Jovitha Lincy and Cathrine Sumathi Manohar
- 694 **The coupling of *Orbulina universa* diameter with the warming and cooling events in the Arabian Sea over the past 40,000 years**
P. M. Nimmy, N. Rajeshwara Rao, K. Neelavannan, S. M. Hussain and S. R. Mahapatra
- 699 **An empirical study on the influence of on-road static obstacles on driver behaviour**
Bhupali Dutta and Vinod Vasudevan
- 707 **Effectiveness of solar fence in reducing human–elephant conflicts in Manchahalli village, Mysuru, Karnataka, India**
G. Vibha, H. G. Lingaraju and G. V. Venktaramana

RESEARCH COMMUNICATIONS

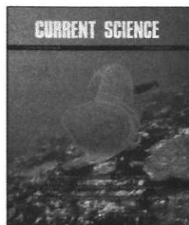
- 712 **Linnean shortfall still a major concern in India: as evident by the micromoth family Tortricidae (Lepidoptera)**
Santhosh Naik, P. R. Shashank, N. N. Rajgopal and Naresh M. Meshram
- 715 **Ethnic study on bastenga, a fermented bamboo shoot product of Nagaland, India**
Lydia Yephtho, T. Ajungla and Keviphruonuo Kuotsu
- 718 **A new modified nutrient media for cultivation of Actinobacteria**
A. N. Ganeshamurthy, B. Saritha, T. K. Radha and P. Panneerselvam

BOOK REVIEWS

- 723 **Reading the Soil Archives: Unraveling the Geocological Code of Palaeosols and Sediment Cores.** Jan M. van Mourik and Jaap J. M. van der Meer (eds); *reviewed by* S. K. Tandon ■ 724 **Annual Review of Neuroscience, 2020.** Botond Roska and Huda Y. Zoghbi (eds); *reviewed by* Nishikant Subhedar

PERSONAL NEWS

- 726 **Arthur Ashkin (1922–2020)**, S. Goswami and D. Goswami
- 728 **Indra Bir Singh (1943–2021)**, D. M. Banerjee
-
- 730 **Publications received – 2020**

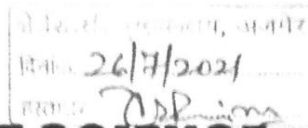


- ◀ COVER. Underwater documentation of Pyrosomes in the oligotrophic waters of Lakshadweep Archipelago. See page 605.

Indexed in CURRENT CONTENTS/GEOTitles/SCOPUS/INDIAN MEDICAL ABSTRACTS/WEB OF SCIENCE

Current Science Vol.120 No. 5, 10 March, 2021

Founded 1932



ISSN 0011-1891

CURRENT SCIENCE

Volume 120 Number 5

10 March 2021

746 In this issue

GUEST EDITORIAL

747 Sustainable management of our coasts in the era of climate change
S. S. C. Shenoi



CORRESPONDENCE

749 *Alternaria tenuissima* causes leaf spot in makhana, Santosh Kumar, M. N. Akhtar, Tribhuvan Kumar and Mahesh Kumar ■ 750 Bt-cotton hybrid seeds and 'refuge-in-bag' strategy, S. Mohan Komarlingam; Response by K. Muralimohan and H. M. Mahesh

NEWS

752 Current Science Reports ■ 756 Scientists pave way for possible carbon-neutral aviation, Arjun R. Krishnan



SCIENTIFIC CORRESPONDENCE

757 Evidence of proteoid roots in Chinar (*Platanus orientalis* L.): taxonomic implications
Anup Raj, Lalhruaitluanga Sailo and Amjad M. Husaini

759 Vanadium-bearing titaniferous-magnetite mineralization from the Simdega area, Chhotanagpur Gneissic Complex, Eastern India
Deepak Kumar, Dinesh Pandit and N. V. Chalapathi Rao

763 Molecular phylogeny of *Scymnus latifolius*, a predator species of mealy bug shows divergent evolution among *Scymnus* species
N. Lalitha, H. Chatterjee, R. Gandhi Gracy and M. V. Santhakumar

GENERAL ARTICLE

766 An assessment of mangrove management during the colonial and post-colonial periods
V. Selvam

SPECIAL SECTION: NATIONAL MISSION ON HIMALAYAN STUDIES

772 Preface
R. K. Kohli and Ajai

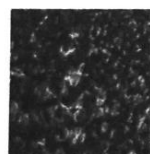
774 Climate change, cryosphere and impacts in the Indian Himalayan Region
A. P. Dimri, S. Allen, C. Huggel, S. Mal, J. A. Ballesteros-Cánovas, M. Rohrer, A. Shukla, P. Tiwari, P. Maharana, T. Bolch, R. J. Thayyen, M. Stoffel and Aayushi Pandey

791 Hydrological process monitoring for springshed management in the Indian Himalayan region: field observatory and reference database
Bhargabnanda Dass, Sumit Sen, Anita Sharma, Sana Hussain, Nitin Rana and Debashish Sen

800 Estimation of price and income elasticity of water: a case study of Darjeeling town, West Bengal, India
Debi Prasad Bal, Ashish Chhetri, Barun Kumar Thakur and Kanish Debnath

Current Science Vol.120 No. 5, 10 March, 2021

- 809 **Water purification and biomineralization using nanofibres-based membrane technology**
Manish Kumar, Siddhant Kumar, Samar Agnihotri, Bharat Singh Rajpurohit and Jaspreet Kaur Randhawa
- 818 **Enhancing the livelihood of Himalayan communities through action research and transforming wild produce into high-value products**
Meenakshi Garg, Mahendra Singh Kunwar and Hema Kashyap
- 825 **A sustainable approach for livelihood improvement and integrated natural resource management in Central Himalaya, India**
D. S. Chauhan, D. S. Bisht, Mukesh Deorai, D. S. Rawat and R. C. Sundriyal
- 835 **Efficient fuelwood consumption with innovative solar water-heating system for forest conservation and mitigation of household carbon emission**
Lal Singh, Maninder Jeet Kaur and D. K. Thakur
- 841 **Screening and molecular identification of hypercellulase and xylanase-producing microorganisms for bioethanol production**
Nivedita Sharma and Nisha Sharma
- 850 **Quantitative assessment of vegetation layers in tropical evergreen forests of Arunachal Pradesh, Eastern Himalaya, India**
Sudhansu Sekhar Dash, Samiran Panday, Dinesh Singh Rawat, Vikas Kumar, Subhajit Lahiri, Bipin Kumar Sinha and Paramjit Singh
- 859 **Indian Himalayan timberline ecotone in response to climate change – initial findings**
S. P. Singh, A. Bhattacharyya, Amit Mittal, Aseesh Pandey, Ashish Tewari, Avantika Latwal, Bency David, Bhupendra S. Adhikari, Devendra Kumar, G. C. S. Negi, Ishfaq Ahmad Mir, Krishna Kumar Tamta, Kumar Sambhav, Mayank Shekhar, Mohit Phulara, Munisa Manzoor, Nandan Singh, Pankaj Tewari, Parminder S. Ranhotra, Pradeep Singh, Pratap Dhaila, Priyanka Sah, Rahul Kumar, Rajesh Joshi, Ranbeer S. Rawal, Renu Rawal, Ripu Daman Singh, Shruti Shah, Subrat Sharma, Subzar Ahmad Nanda, Surabhi Gumber, Utsa Singh and Zafar Reshi
- 872 **Studies on subalpine forests of Hamta Pass area in Himachal Pradesh, India with a focus on *Betula utilis* populations**
Khashti Dasila, S. S. Samant and Anita Pandey
- 883 **Preliminary assessment and conservation of insect pollinators through community participation in the Lahaul and Spiti district of Himachal Pradesh, India**
Mona Chauhan, V. P. Uniyal, Agni Chandra, Pooja Thakur and Vandana Mehrwar
- 888 **Climate change impacts on glacier-fed and non-glacier-fed ecosystems of the Indian Himalayan Region: people's perception and adaptive strategies**
Jagdish Chandra Kuniyal, Nidhi Kanwar, Ajay Singh Bhoj, Kuldeep Singh Rautela, Pramod Joshi, Kireet Kumar, Mohd Sharjeel Sofi, Sami Ullah Bhat, Irfan Rashid, Mahindra Singh Lodhi, Ch. Anniebesant Devi and Huidrom Birkumar Singh
-
- RESEARCH ARTICLES
- 900 **Effect of alumina filler on spherulite growth and ionic conductivity of $PEO_x(LiClO_4)_y$ solid polymer electrolyte**
B. A. Karunaratne, F. A. E. Nugera, M. A. K. L. Dissanayake, G. K. R. Senadeera and B.-E. Mellander
- 907 **Surface modification of titanium alloy by anodic oxidation method to improve its biocompatibility**
Anil Kumar and Manoj Kumar Kushwaha



LIBRARY, RIE, AJMER
CURRENT CONTENT ALERT SERVICES

Current Science Vol.120 No. 5, 10 March, 2021

- 915 **Inundation mapping of Kerala flood event in 2018 using ALOS-2 and temporal Sentinel-1 SAR images**
V. S. K. Vanama, Mohamed Musthafa, Umesh Khati, R. Gowtham, Gulab Singh and Y. S. Rao

- 926 **Biodegradation kinetics of acenaphthene by *Sphingobacterium* sp. strain RT5B isolated from a petroleum-contaminated soil**
Somnath Mallick

RESEARCH COMMUNICATIONS

- 932 **Study on snowmelt and algal growth in the Antarctic Peninsula using spatial approach**
M. Geetha Priya, N. Varshini, G. Chandhana, G. Deeksha, K. Supriya and D. Krishnaveni

- 936 **Wavelength selection and classification of hyperspectral non-imagery data to discriminate healthy and unhealthy vegetable leaves**
Anjana N. Ghule and Ratnadeep R. Deshmukh

- 942 **Astronomical explanation of the enigmatic sundial in Agra, India**
Aalok Pandya, Tej Bahadur and Sandip Bhattacharya

- 945 **Traditional knowledge of medicinal plants among the Thangal-Naga ethnic group of Manipur, India**
Babina Pampuinath and Maibam Dhanaraj Meitei

BOOK REVIEW

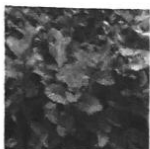
- 951 **Mesenchymal Stem Cells in Human Health and Diseases.** Ahmad H. K. El-Hashas (ed.); reviewed by R. R. Bhonde

PERSONAL NEWS

- 953 **V. Shanta (1927–2021)**, P. C. Kesavan and M. S. Swaminathan

- 955 **B. R. Subba Rao (1925–2020)**, J. Poorani

- 957 **Shashikumar M. Chitre (1936–2021)**, Ajit Kembhavi



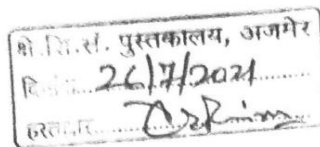
- ◀ COVER. Proteoid roots in the germinating seedlings of *Platanus orientalis*. See page 757.

The editor thanks Dr R. K. Kohli and Dr Ajai, for agreeing to be Guest Editors for special section.

Indexed in CURRENT CONTENTS/GEOTitles/SCOPUS/
WEB OF SCIENCE

Current Science Vol.120 No. 6, 25 March, 2021

Founded 1932



ISSN-0011-3891

CURRENT SCIENCE

Volume 120 Number 6

25 March 2021

970 In this issue

GUEST EDITORIAL

- 971 The case for hydrogen economy**
Ganapati D. Yadav

CORRESPONDENCE

- 973 Satish Dhawan, Jai P. Singh ■ 974 Identifying gifted children,** Dipankar Chatterji; *Response by* Anitha Kurup

NEWS

- 975 Current Science Reports ■ 979 Climate change awareness and resilience building among rural women in the Himalaya, India,** Sumit Rai, Jagdish Chandra Kuniyal, Mithilesh Singh and Kapil Kesarwani

GENERAL ARTICLES

- 981 New farm Acts, 2020: rationale and challenges**
S. K. Srivastava and Raka Saxena
- 989 Potential of underutilized wild crops in Koraput, Odisha, India for improving nutritional security and promoting climate resilience**
Debabrata Panda and Sharat Kumar Palita
- 997 Specimens of William Roxburgh in the Central National Herbarium at the A.J.C. Bose Indian Botanic Garden, Howrah**
Henry John Noltie, Anand Kumar, Kumar Avinash Bharati, Avishek Bhattacharjee and Gopal Krishna
- 1007 Soil erosion and policy initiatives in India**
Debashis Mandal and Nishita Giri
- 1012 Corrigendum: Climate change, cryosphere and impacts in the Indian Himalayan Region**
A. P. Dimri, S. Allen, C. Huggel, S. Mal, J. A. Ballesteros-Cánovas, M. Rohrer, A. Shukla, P. Tiwari, P. Maharana, T. Bolch, R. J. Thayyen, M. Stoffel and Aayushi Pandey
[*Curr. Sci.*, 2021, 120(5), 774–790]

REVIEW ARTICLE

- 1013 Microbial bioremediation of heavy metals**
Amanso Tayang and L. S. Songachan

RESEARCH ARTICLES

- 1026 INSAT-3DR-rapid scan operations for weather monitoring over India**
M. Mohapatra, A. K. Mitra, Virendra Singh, S. K. Mukherjee, Kavita Navria, Vikram Prashar, Ashish Tyagi, Atul Kumar Verma, Sunitha Devi, V. S. Prasad, Mudumba Ramesh and Raj Kumar
- 1035 Allelopathic potential and allelochemicals in different intercrops for weed management in rainfed cotton**
Pooja Verma, D. Blaise, J. Annie Sheeba and A. Manikandan

LIBRARY, RIE, AJMER
CURRENT CONTENT ALERT SERVICES

Current Science Vol.120 No. 6, 25 March, 2021

- 1040 **Prediction of potential drug targets for cutaneous leishmaniasis by *Leishmania major* and *Leishmania tropica*: a quantitative proteomics and bioinformatics approach**
Nastin Amiri-Dashatan, Matzieh Ashrafmansouri, Mostafa Rezaei-Tavirani, Mehdi Koushki and Nayebali Ahmadi
- 1050 **Does plant root architecture respond to potassium under water stress? A case from rice seedling root responses**
Dipika S. Patel, Bardhan Kirti, P. Patel Dhiraji, Parekh Vipulkumar, Jena Suchismita, V. Narwade Ajay and N. Chhatrola Harshadkumar
- 1057 **Endemic Philippine teak (*Tectona philippinensis* Benth. & Hook. f.) and associated flora in the coastal landscapes of Verde Island Passage, Luzon Island, Philippines**
Anacleto M. Caringal, Inocencio E. Buot, Jr and Elaine Loreen C. Villanueva
- 1066 **Origin and source characterization of methane in the shallow-water environment of Southern Lake Tanganyika Rift Basin, Tanzania**
Januarius Matata Bishanga and Jin Qiang
- 1074 **Ground motion prediction equation for earthquakes along the Western Himalayan arc**
Srinagesh, S. K. Singh, D. Arroyo, D. Srinivas, G. Suresh and G. Suresh

RESEARCH COMMUNICATIONS

- 1083 **Biomass accumulation and carbon stock in different agroforestry systems prevalent in the Himalayan foothills, India**
Amit Kumar, Salil Tewari, Hukum Singh, Parmanand Kumar, Narendra Kumar, Sarita Bisht, Suruchi Devi, Nidhi and Rajesh Kaushal
- 1088 **BDNF protects photoreceptors from light-induced oxidative stress through upregulating CERKL *in vitro***
Qianwen He, Juan Yang, Mengting Gao and Yinxian Wen
- 1092 **Development of vulnerability framework for assessing the air pollution-related health impacts in four districts of Delhi, India**
Anoop Raj Singh and Neha Oli

BOOK REVIEWS

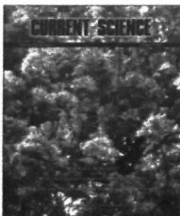
- 1099 **Conceptual Breakthroughs in Evolutionary Ecology**. Laurence Mueller; reviewed by Amitabh Joshi ■ **1100 Fifty Years in the Indian Pharmaceutical Industry**. M. D. Nair; reviewed by Madhu Dikshit ■ **1101 Perennial Grasses for Bioenergy and Bioproducts: Production Uses, Sustainability and Markets for Giant Reed, Miscanthus, Switchgrass, Reed Canary Grass and Bamboo**. Efthymia Alexopoulou (ed.); reviewed by Kripal Singh

PERSONAL NEWS

- 1102 **Paul Josef Crutzen (1933–2021)**, Vinayak Sinha

HISTORICAL NOTES

- 1107 **Hidden treasures of the past**, Sanjeev Dhurandhar

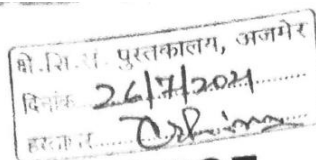


- ◀ COVER. Mass flowering of the Philippine teak (*Tectona philippinensis* Benth & Hook. f.), a threatened plant species growing in the coastal landscapes along Verde Island Passage in the Philippines. See page 1057.

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

Current Science Vol.120 No. 7, 10 April, 2021

Founded: 1932



ISSN 0011 3891

CURRENT SCIENCE

Volume 120 Number 7

10 April 2021

- 1130 **In this issue**
GUEST EDITORIAL
- 1131 **National strategy for landslide risk management**
R. K. Bhandari
- NEWS
- 1133 **Current Science Reports** ■ 1137 **Seagrass: a 'natural sieve' for marine plastic**, Arjun R. Krishnan
- OPINION
- 1138 **New Geospatial Data Guidelines – impact on research and education**
Bharat Lohani
- COMMENTARY
- 1139 **Food and nutrition security: analytical fallacies and way forward**
Sudipta Paul and Shivendra Kumar Srivastava
- SCIENTIFIC CORRESPONDENCE
- 1142 **Gregarious flowering of a geriatric semelparous bamboo – *Bambusa tulda* Roxb. in Mizoram, India**
David C. Vanlalfakawma, B. Malsawmkima and S. K. Tripathi
- GENERAL ARTICLES
- 1144 **Analysing the stability of India Rankings**
Marisha
- 1152 **Taxonomic practices and Indian concerns**
Potharaju Venu and Munivenkatappa Sanjappa
- 1160 **'Thang bun': indigenous practice of *in situ* biochar preparation-cum-application for improved jhum cultivation in North East India**
H. C. Hombegowda, Praveen Jakhar, M. Madhu and Yearbok Marwein
- REVIEW ARTICLES
- 1169 **Evolution of personal protective equipment from its inception to COVID-19**
P. L. Jagadeshvaran, Aishwarya Vijayan Menon and Suryasarathi Bose
- 1184 **Sandalwood plantations – points to ponder**
Doddabasawa and B. M. Chittapur
- RESEARCH ARTICLES
- 1194 **A location-specific nowcast and SMS-based dissemination system for thunderstorm and lightning warning over Jharkhand, India**
S. D. Kotal, Soma Sen Roy, R. S. Sharma and M. Mohapatra
- 1202 **Adaptive cluster sampling-based design for estimating COVID-19 cases with random samples**
Girish Chandra, Neeraj Tiwari and Raman Nautiyal

1128

CURRENT SCIENCE, VOL. 120, NO. 7, 10 APRIL 2021

LIBRARY, RIE, AJMER
CURRENT CONTENT ALERT SERVICES

Current Science Vol.120 No. 7, 10 April, 2021

- 1211 **Indo-Arabian stone anchor of Manikapatna, Odisha, east coast of India: an indicator of maritime contacts of Odisha**
Sila Tripathi
- 1217 **Cultivated land utilization index vis-a-vis cropping intensity for crop diversification and water resource management in Odisha, India**
P. S. Brahmanand, Biswaranjan Behera, Shivendra Kumar Srivastava, R. B. Singandhupe and A. Mishra
-
- RESEARCH COMMUNICATIONS
- 1225 **High fluoride in groundwater and fluorosis related health hazard in Rarh Bengal, India: a socio-environmental study**
Biswajit Bera, Sumana Bhattacharjee, Meelan Chamling, Arijit Ghosh, Nairita Sengupta and Supriya Ghosh
- 1233 **Full-parameter optimization to locate multi-passage-seepage in abutment using groundwater temperature**
Xinjian Wang and Wei Wang
- 1240 **Identification of begomoviruses from legume crop and weed plants and viruliferous status of the whitefly *Bemisia tabaci* in Central India**
Rakesh Singh Marabi, Shoumitra Bikash Das, Niraj Tripathi, Takashi Wada and Hiroaki Noda
- 1246 **Urban sustainability analysis of Solan district, Himachal Pradesh, India**
Jyotsana Pandit, S. K. Bhardwaj and Anish Kumar Sharma
- 1250 **Assessment of tank sediments in terms of plant nutrients equivalent: an approach towards agricultural sustainability**
Bisweswar Gorain, V. R. Ramakrishna Parama and Srijita Paul
-
- BOOK REVIEWS
- 1255 **Artificial Intelligence and the Future of Power: 5 Battlegrounds.** Rajiv Malhotra; reviewed by Y. Narahari ■ 1256 **The Code of Life: Revolutions in Genetics.** Mohan Sundara Rajan; reviewed by Anuradha Ratnaparkhi
-
- PERSONAL NEWS
- 1257 **B. K. Sadashiva (1946–2020),** N. Jayaraman and S. Krishna Prasad
-
- HISTORICAL NOTES
- 1259 **The multifaceted Dr John Berry White and the Berry White Medical School in Dibrugarh, Assam, India,** Gaurangi Maitra and Ramesh Chandra Deka
-

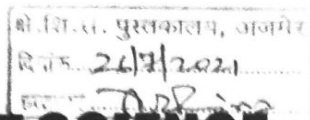


◀ COVER. Flowering of *B. tulda* Roxb. at Muallungthu area, Aizawl district. See page 1142.

Indexed in CURRENT CONTENTS/GEOTitles/SCOPUS/WEB OF SCIENCE

Current Science Vol.120 No. 8, 25 April, 2021

Founded 1932



ISSN 0011 3891

CURRENT SCIENCE

Volume 120 Number 8

25 April 2021

1278 In this issue

EDITORIAL

- 1279 **Investment in science, technology and development**
N. Sathyamurthy

CORRESPONDENCE

- 1281 **Sustenance of mangroves on the west coast of Kerala**, S. Sreeram, A. Arunprasath and V. Sankara Vel ■ 1282 ***Drosophila ananassae* Doleschall and *Drosophila pallidosa* Bock and Wheeler: a unique pair of sibling species**, B. N. Singh

NEWS

- 1284 **Current Science Reports** ■ 1288 **IEEE awards Milestone status for the Giant Metrewave Radio Telescope**, Rajaram Nityananda ■ 1289 **Origami-inspired surgical patch seals inner wounds**, Arjun R. Krishnan ■ 1290 **2021 King Faisal International Prize for Science and Medicine**, Sameen Ahmed Khan

OPINION

- 1291 **Delta yield reflects better site-specific crop response in multi-locational trial**
D. V. K. Nageswara Rao, K. Surekha and P. G. S. Manjusha

SCIENTIFIC CORRESPONDENCE

- 1293 ***Vachellia nilotica* subsp. *cupressiformis* – status and conservation approach of an endemic agroforestry tree in Rajasthan**
A. Keerthika, A. K. Shukla, Dipak Kumar Gupta, M. B. Noor Mohamed and B. L. Jangid

GENERAL ARTICLES

- 1295 **The pathways to manage air pollution: an ontological assessment of the National Clean Air Programme 2019, India**
Munikrishnappa Anilkumar, Shwetmala Kashyap, Susanna G. Mitra, Devina Neogi, Arkalgud Ramaprasad, Anupama Sanjeev, Chetan Singai, S. D. Sreeganga and Nibras K. Thodika
- 1303 **Can crop diversification be widely adopted to solve the water crisis in Punjab?**
Shruti Bhogal and Kamal Vatta
- 1308 **Transboundary insects of the current decade: potential of biological control in the Indian context**
S. Vennila, Shabistana Nisar and Puran Chandra

REVIEW ARTICLE

- 1315 **Inducing quality immune response to respiratory viruses may not be a simple task**
Udaykumar Ranga and Mangaiarkarasi Asokan

RESEARCH ARTICLES

- 1324 **Optimization algorithm-based Elman neural network controller for continuous stirred tank reactor process model**
I. Baranilingesan

1276

CURRENT SCIENCE, VOL. 120, NO. 8, 25 APRIL 2021

LIBRARY, RIE, AJMER
CURRENT CONTENT ALERT SERVICES

Current Science Vol.120 No. 8, 25 April, 2021

- 1334 **Quantifying carbon sequestration potential of soils in an agro-ecological region scale**
K. Rajan, P. Raja, D. Dinesh, Sanjeev Kumar, B. P. Bhatt, U. Surendran, Deo Karan and B. P. Bhaskar
- 1342 **Dynamical modelling and analysis of COVID-19 in India**
R. Gopal, V. K. Chandrasekar and M. Lakshmanan
- 1350 **Measuring technical efficiency and frontier intervention for farm machinery manufacturers using slacks-based data envelopment analysis**
Manoj Kumar, M. B. Tamhankar, Sandip Mandal, V. Bhushana Babu and Bikram Jyoti
- 1358 **Does recently invaded fall armyworm, *Spodoptera frugiperda* displace native lepidopteran pests of maize in India?**
J. Divya, C. M. Kallshwaraswamy, H. B. Mallikarjuna and Sharanabasappa Deshmukh
- 1368 **Relationship of physiological plant functional traits with soil carbon stock in the temperate forest of Garhwal Himalaya**
Amit Kumar, Parmanand Kumar, Hukum Singh, Sarita Bisht and Narendra Kumar
-
- RESEARCH COMMUNICATIONS
- 1374 **Nutritional evaluation and storage stability of popped pearl millet bar**
Ritu Singh, Karuna Singh and Manjeet Singh Nain
- 1381 **Insights into the petrogenesis of depleted mantle dunite from the central part of the Nagaland–Manipur Ophiolites, North East India**
A. Krishnakanta Singh, S. Khogekumar, Santosh Kumar, L. Romendro Singh and S. S. Thakur
- 1388 **Food plasticity for mating and reproductive success in *Propylea dissecta* (Mulsant) (Coleoptera: Coccinellidae)**
Priya Singh, Geetanjali Mishra and Omkar
-
- BOOK REVIEW
- 1393 **Annual Review of Phytopathology, 2020.** Jan E. Leach and Steven E. Lindow (eds); reviewed by R. Sridhar
-
- PERSONAL NEWS
- 1396 **K. Chandrashekara (1957–2021)**
Anindya Sinha and R. Uma Shaanker
-
- HISTORICAL NOTES
- 1399 **Conjunction of planets – Historical Records of India**
B. S. Shylaja and Geetha Kydala Ganesha
-

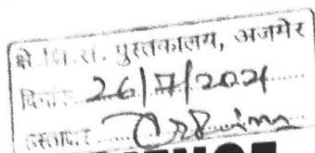


- ◀ COVER. Two antennas of the Giant Metre Wave Radio Telescope (GMRT) near Khodad, Maharashtra. Thirty of these, each 45 metres in diameter, have been functioning as a 25 km wide array, attracting radio astronomers from all over the world for the last two decades to the National Centre for Radio Astrophysics of the Tata Institute of Fundamental Research (NCRA–TIFR). In addition to the daring, innovative structural and mechanical design, many other engineering innovations went into this project in the 1990's, leading to designation as a Milestone by IEEE (Courtesy: NCRA–TIFR). See page 1288.

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

Current Science Vol.120 No. 9, 10 May, 2021

Founded: 1932



ISSN 0011-3891

CURRENT SCIENCE

Volume 120 Number 9

10 May 2021

1414 **In this issue**

GUEST EDITORIAL

- 1415 **Understanding anthropogenic earthquakes**
Harsh K. Gupta

NEWS

- 1417 **Current Science Reports**

- 1421 **Science for contemporary challenges**
B. Jayashree, N. Anil Kumar, R. V. Bhavani, E. D. I. Oliver King, G. N. Hariharan and R. Rengalakshmi

OPINION

- 1423 **Suggestions for a course on environment and social hydrology for hydrologists**
Sharad K. Jain and Paritosh C. Tyagi

GENERAL ARTICLES

- 1426 **Big questions in geoscience and challenges for the geoscience community**
Rasoul Sorkhabi
- 1433 **Recent trends in insecticide resistance research on whiteflies (Hemiptera: Aleyrodidae): a bibliometric profile**
S. Rajna, K. V. Praveen, M. Laneesha and S. S. Kelageri
- 1441 **Development of an urban flood model for Bengaluru city, Karnataka, India**
P. P. Mujumdar, M. S. Mohan Kumar, G. S. Sreenivasa Reddy, Shubha Avinash, Ila Chawla, G. S. Kaushika, Aisha Sharma, Saimy Davis, Tom Thomas, Claris Ann Thomas, Vanishri S. Jahagirdar, H. M. Arpitha, K. Parashuram and Anjan Kumar

REVIEW ARTICLES

- 1449 **Regional disparity in summer monsoon precipitation in the Indian subcontinent during Northgrippian to Meghalayan transition**
Som Dutt, Anil K. Gupta, Rahul Devrani, Ram R. Yadav and Raj K. Singh
- 1458 **Nucleotide metabolism pathway: the achilles' heel for bacterial pathogens**
Sujata Kumari and Prajna Tripathi

RESEARCH ARTICLES

- 1464 **Antiviral drugs prioritization for COVID-19 management based on rational selection**
Rakesh S. Joshi, Ashok P. Giri, Mahesh J. Kulkarni, Mahesh Gupta, Savita Verma, Dhruva Chaudhry, Narendra Deshmukh and Anita Chugh
- 1471 **Understanding the impact of future climatic scenarios upon key environmental factors that determine piscine assemblage of a torrential upland river of Eastern Himalayas, India**
Soumyadip Panja, Anupam Podder and Sumit Homechaudhuri
- 1482 **Survey of uranium in drinking water sources in India: interim observations**
S. K. Sahoo, S. K. Jha, V. N. Jha, A. C. Patra and M. S. Kulkarni

1412

CURRENT SCIENCE, VOL. 120, NO. 9, 10 MAY 2021

LIBRARY, RIE, AJMER
CURRENT CONTENT ALERT SERVICES

Current Science Vol.120 No. 9, 10 May, 2021

1491 **Mapping surface-water area using time series landsat imagery on Google Earth Engine: a case study of Telangana, India**
P. D. Sreekanth, P. Krishnan, N. H. Rao, S. K. Soam and Ch. Srinivasarao

1500 **Optimal generation of fast transit corridors in a city**
Aman Sharma and Raman Parti

1507 **Dyke-controlled chute canyon at Mendha on River Par, western India**
A. D. Patil, P. S. Hire, M. K. Jaiswal, G. W. Bramhankar and K. Goswami

RESEARCH COMMUNICATIONS

1514 **The 22 June 2020 Mizoram, India earthquake (M_w 5.5): an unusual intra-wedge shallow earthquake in the Indo-Burmese Wedge**
J. Malsawma, Paul Lahnunluanga, Saitluanga Sailo, V. Vanthangliana, R. P. Tiwari and V. K. Gabalaut

1517 **Grafting as a promising technique for popularizing marigold cultivation in bacterial wilt sick soils in humid tropics of Kerala, India**
U. Jeevan, U. Sreelatha, C. Narayanankutty, M. S. Parvathi and T. V. Anupama

1520 **Starch granule analysis reveals the functions of stone tools and implications on subsistence economy in Neolithic Yangtze River Basin, China**
Zhiwei Wan, Siping Lin, Min Ju, Fuqiang Liao, Guangming Zhou and Yulian Jia

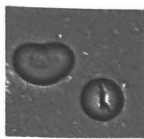
BOOK REVIEWS

1527 **Climate Change and Energy Options for a Sustainable Future.** Dinesh Kumar Srivastava and V. S. Ramamurthy; *reviewed by* Bikash Sinha

1527 **Annual Review of Public Health, 2020.** Jonathan E. Fielding, Ross C. Brownson and Lawrence W. Green (eds); *reviewed by* Mario Vaz

HISTORICAL NOTES

1530 **Prof. Govind Swarup's connection to the archetypal radio galaxy Cygnus A**
Gopal-Krishna

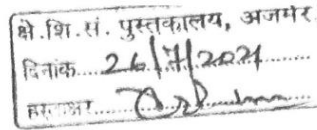


◀ COVER. Photograph showing a cross view of the constricted Mendha Chute Canyon and highly eroded dolerite Dyke at beginning of the MCC. See page 1507.

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

Current Science Vol.120 No. 10, 25 May, 2021

Founded. 1932



ISSN 0011-3891

CURRENT SCIENCE

Volume 120 Number 10

25 May 2021

1546 In this issue

EDITORIAL

- 1547 **The COVID-19 pandemic: a dynamic infection with unpredicted public health emergency of the decade**
H. Paramesh

CORRESPONDENCE

- 1549 **Cultivation in gunny sack**
Debarati Datta, A. K. Ghorai and Sourav Ghosh

NEWS

- 1550 **Current Science Reports**

OPINION

- 1554 **Highly informative point sources of data: soil health cards for interpolated soil maps**
D. V. K. Nageswara Rao

COMMENTARY

- 1556 **Communication in the times of COVID-19**
Geetha Vani Rayasam and Shekhar C. Mande

SCIENTIFIC CORRESPONDENCE

- 1557 ***Grewia tenax* (Forsk.) Fiori – popularization, conservation and utilization of lesser known multipurpose shrub**
M. B. Noor Mohamed, A. K. Shukla, A. Keerthika, Dipak Kumar Gupta, S. R. Meena, Kamla K. Choudhary and R. S. Mehta

GENERAL ARTICLES

- 1559 **Housing for all: analysis of possibility and potential**
Darpagiri Mondal and Bishwajit Bhattacharjee
- 1567 **Can the Ayurvedic pippali plant (*Piper longum* L.) be a good option for livelihood and socio-economic development for Indian farmers?**
Padma Raj Gajurel, Soyala Kashung, Sisibaying Nopi, Robert Panmei and Binay Singh
- 1573 **Role of arbuscular mycorrhizal fungi in soil and water conservation: a potentially unexplored domain**
Trisha Roy, Uday Mandal, Debashis Mandal and Devideen Yadav

REVIEW ARTICLE

- 1578 **Co-developing climate services for resilient public health system in India**
Abha Tewary, Rajeev Kumar Mehajan, Mahaveer Golechha and Dileep Mavalankar

RESEARCH ARTICLES

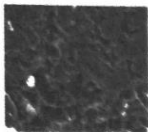
- 1587 **Shock waves induce changes in meningiomas of the brain**
B. J. Sudhir, Anita Mahadevan and K. P. J. Reddy
- 1593 **Heat wave fatalities over India: 1978–2014**
Preeti Malik, Pankaj Bhardwaj and Omvir Singh

1544

CURRENT SCIENCE, VOL. 120, NO. 10, 25 MAY 2021

LIBRARY, RIE, AJMER
CURRENT CONTENT ALERT SERVICES

Current Science Vol.120 No. 10, 25 May, 2021



- 1600 **Quantification of reduction in air pollution due to bypassing traffic in Delhi, India**
Ch. Ravi Sekhar, Niraj Sharma, Mukti Advani and Ravindra Kumar
- 1611 **Immunocytochemical localization of leptin hormone in the neurosecretory cells of brain-suboesophageal ganglion complex of tropical tasar silkworm, *Antheraea mylitta* (D.) eco-race Bhandara**
Deepak D. Barsagade, Shruti A. Gharade and Vikas G. Barsagade
- 1616 **Fate of stem cells grown on the extracellular matrix isolated from cancer cells and their possible applications in tissue engineering**
Koyeli Girigoswami, Devender, N. Srinivasan and Agnishwar Girigoswami
- 1623 **X-ray crystal structure of a new triterpene, 3,23-cycloglutin-5(10)-ene from *Euphorbia vajravelui***
Vijayalekshmi Anju and Koranappallil Bahuleyan Rameshkumar
- 1627 **Biomass production and carbon stock in *Psidium guajava* orchards under hot and sub-humid climate**
Sushanta Kumar Naik, Pradip Kumar Sarkar, Bikash Das, Arun Kumar Singh and Bhagwati Prasad Bhatt

RESEARCH COMMUNICATION

- 1636 **Application of electrical resistivity tool to monitor soil contamination by herbicide**
Pandurang Balwant, Kavita Bramhanwade, Veligeti Jyothi, Paras R. Pujari, Shalini Dhyani, Parikshit Verma, Alberto Godio and Fulvia Chiampo

BOOK REVIEW

- 1640 **Lobsters: Biology, Fisheries and Aquaculture, 2019.** E. V. Radhakrishnan, Bruce F. Phillips and Gopalakrishnan Achamveetil (eds); reviewed by Ali Reza Radkhah and Soheil Eagderi

PERSONAL NEWS

- 1642 **M. S. Srinivasan (1938–2021)**
Arun Deo Singh, Devesh Kumar Sinha, Komal Verma and Ashutosh Singh
-

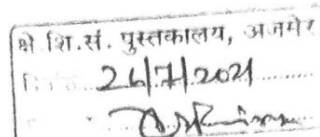


◀ COVER. Flower of *Grewia tenax* (Forsk.) Fiori. See page 1557.

Indexed in CURRENT CONTENTS/GEOTitles/SCOPUS/WEB OF SCIENCE

Current Science Vol.120 No. 11, 10 June, 2021

Founded 1932



ISSN: 0011-3291

CURRENT SCIENCE

Volume 120 Number 11

10 June 2021

1654 In this issue

GUEST EDITORIAL

- 1655 How to survive and excel as an academician in India**
Biman Bagchi

CORRESPONDENCE

- 1657 TTR cardiac amyloidosis: the right time to start clinical diagnosis globally.** Ashwani Kumar Thakur, Shreya Ghosh, Dibbendhu Khanra, Ajay Naik, Ravi Kumar, Sandeep Bansal, Prakash Negi, Gurpreet Wander, Vinay Krishna and Kewal Kishan Talwar ■ **1657 Antimicrobial activity of piggery-waste medicinal maggots – ‘waste to wealth’ approach towards developing natural therapeutics,** Rajib Deb, Swaraj Rajkhowa, Seema Rani Pegu, Ajay Kumar Yadav, Souvik Paul and D. Ramesh

NEWS

- 1658 Prof. C. N. R. Rao receives the Eni International Award for Research in Energy Frontiers** ■ **1659 Current Science Reports**

COMMENTARY

- 1663 The murky origins of the coronavirus SARS-CoV-2, the causative agent of the COVID-19 pandemic,** P. Balaram ■ **1667 Can the restrictive boundaries of intellectual property create a larger social impact?,** Akriti Jain and Anjula Gurtoo ■ **1669 How much do we know about the threat of combined stresses in Indian agriculture?,** Anupriya Singh and Muthappa Senthil-Kumar

GENERAL ARTICLES

- 1672 TIFR zero-pressure balloon programme crosses a milestone**
D. Anand, B. Suneel Kumar and Devendra Ojha
- 1679 Exhaustion and scepticism within the scientific community: the case of women scientists and their peers in India**
Cheshta Arora
- 1686 The many uses of data in public clinical trial registries**
Gayatri Saberwal

REVIEW ARTICLE

- 1692 Torpor in insects**
S. Borkataki, B. Bhattacharyya, S. Sen, R. R. Taye, M. D. Reddy and S. P. Nanda

RESEARCH ARTICLES

- 1698 Using high effective risk of adult–senior duo in multigenerational homes to prioritize COVID-19 vaccination**
Brijesh Saraswat, Santosh Ansumali and Meher K. Prakash
- 1705 A methodology for unsupervised feature learning in hyperspectral imagery using deep belief network**
C. Sherin Shibi and R. Gayathri
- 1712 Policy-driven approach to demand management from space cooling and water heating appliances: insights from a primary survey of urban Bengaluru, India**
Sashi Kiran Challa, Shoibal Chakravarty and Kshitija Joshi


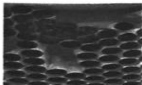
1652

CURRENT SCIENCE, VOL. 120, NO. 11, 10 JUNE 2021



LIBRARY, RIE, AJMER
CURRENT CONTENT ALERT SERVICES

Current Science Vol.120 No. 11, 10 June, 2021

- 1721 **Characterizing shifting pattern of disaster-induced death and disaster management policies: a regional analysis from Odisha, India**
Manoranjan Mishra, Tamoghna Acharyya and Namita Pattnaik
- 1728 **Rithi Ranjana: reconstructing crop economy based on archaeobotanical evidence and radiocarbon dates from an Early Iron Age site in semi-arid Vidarbha, Maharashtra, India**
Himani Patel, Anil K. Pokharia, Nihildas, N., Niraj Rai and Rajeshwar P. Sinha
- 1740 **Accumulation and enrichment of platinum group elements in hydrogenous Fe–Mn crust and nodules from the Andaman Sea, India**
Saju Varghese, Rajani P. Ramesh, Rachna Pillai, Sethu Rose Joseph, B. Gopakumar, Resmi Sathikumar, Rajesh Kumar Joshi, Priyanka Dey Guha, R. V. Manoj and M. Nagasundaram
- 
- 1749 **Fossil remains of proterosuchian from the Panchet Formation, Damodar valley of India**
Saurabh Pal
- 1753 **Disequilibrium of uranium mineralization – a case study of Devri area, Surajpur district, Chhattisgarh, India**
Dheeraj Singh, U. P. Sharma and G. B. Rout
- 1758 **Stability of pillar and drive advances in hard rock mine through numerical modelling and instrumentation**
K. K. Rao, B. S. Choudhary and G. D. Raju
- 1768 **Modelling lateral width for merging of U-turning vehicles in divided urban roads**
Tathagatha Khan and Smruti Sourava Mohapatra
-
- RESEARCH COMMUNICATIONS
- 
- 1778 **Intrusion pathway of invasive Asian subterranean termite, *Coptotermes gestroi* (Wasmann) from the Neotropics into the Indian mainland**
T. Venkatesan, C. M. Kalleshwaraswamy, Ankita Gupta and T. R. Ashika
- 1781 ***Laevicaulis haroldi* (Veronicellidae: Gastropoda), a potential future invader to India**
Biswa Bhusana Mahapatra and N. A. Aravind
-
- BOOK REVIEWS
- 1786 **Annual Review of Nuclear and Particle Science, 2020.** Barry R. Holstein, Wick C. Haxton and Abolhassan Jawahery (eds); reviewed by B. Ananthanarayan
- 1788 **Heart: A History.** Sandeep Jauhar; reviewed by Mohan D. Deshpande
-
- PERSONAL NEWS
- 1790 **Sanjay Bajpai (1965–2021),** Ashutosh Sharma, Rajiv K. Tayal, Akhilesh Gupta, Neelima Alam, G. V. Raghunath Reddy, Vineet Saini, J. B. V. Reddy, Ranjith Krishna Pai, Ligy Philip, Prasada Raju and T. Pradeep

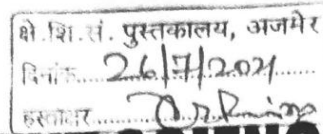


◀ COVER. Hydrogen-inflated T500 balloon before lift-off – static anchor line launch method. See page 1672.

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

Current Science Vol.120 No. 12, 25 June, 2021

Founded. 1932



ISSN 0011 3891

CURRENT SCIENCE

Volume 120 Number 12

25 June 2021

1802 In this issue

EDITORIAL

- 1803 Strengthening geological prospecting capabilities in India to meet the aims of the new National Mineral Policy**
R. Srinivasan

CORRESPONDENCE

- 1805 What is expected in an editorial of a medical science journal?**
Bhushan Patwardhan, Ravindra Ghooi and Sharad Deshpande

NEWS

- 1806 Current Science Reports ■ 1810 Two South Asians from UNEP shared the first Y. P. Abrol Memorial Award, N. Raghuram ■ 1811 This air-powered robot requires no electronics for movements, Arjun R. Krishnan**

COMMENTARY

- 1812 Insights into differential biomining traits of Indian copper sulphides, Sharadindra Chakrabarti and Ranen Sen ■ 1814 The re-emerging Karnal bunt disease of wheat and preparedness of the global wheat sector, S. K. Bishnoi, Sudheer Kumar and G. P. Singh ■ 1817 Erratum: The murky origins of the coronavirus SARS-CoV-2, the causative agent of the COVID-19 pandemic, P. Balaram [*Curr. Sci.*, 2021, 120(11), 1663–1666]**

SCIENTIFIC CORRESPONDENCE

- 1818 A satellite view of the changes in summer-time aerosol vertical distribution before and during COVID-19 lockdown conditions in India**
Manu Mehta, Waris Hooda and Prakash Chauhan

GENERAL ARTICLES

- 1820 Natural and unnatural history of the coronavirus: The uncertain path to the pandemic**
P. Balaram
- 1827 Case studies for integration of renewable energy sources in power grid – lessons for India**
B. G. Desai
- 1833 Discerning sustainable interaction between agriculture and energy in India**
K. V. Praveen, Girish K. Jha and K. S. Aditya
- 1840 Rapid assessment of the October 2020 Hyderabad urban flood and risk analysis using geospatial data**
Vinay Ashok Rangari, C. M. Bhatt and N. V. Umamahesh

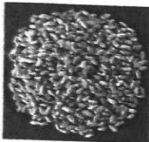
REVIEW ARTICLE

- 1848 Chalcogen and pnictogen bonds: insights and relevance**
Rahul Shukla and Deepak Chopra

RESEARCH ACCOUNT

- 1854 Empowering rural tribal youth through agripreneurship – evidence from a case study in North East India**
S. K. Baishya, H. M. Sangtam, Mhalo Tungoe, Megokhono Meyase, Zuchamo Tongoe, B. C. Deka, L. K. Baishya, D. J. Rajkhowa and Sanjay Ray

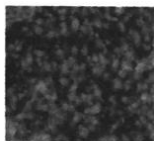
CURRENT SCIENCE, VOL. 120, NO. 12, 25 JUNE 2021



Current Science Vol.120 No. 12, 25 June, 2021

RESEARCH ARTICLES

- 1863 **Do seasonal forecasts of Indian summer monsoon rainfall show better skill with February initial conditions?**
K. Rajendran, Sajani Surendran, Stella Jes Varghese and Arindam Chakraborty
- 1875 **A modification to the Indian practice of scour depth prediction around bridge piers**
B. A. Vijayasree and T. I. Eldho
- 1882 **Transcriptomic response of *Caenorhabditis elegans* expressing human $A\beta_{42}$ gene treated with salvianolic acid A**
Chee Wah Yuen, Mardani Abdul Halim, Nazalan Najimudin and Ghows Azzam
- 1894 **Elemental composition and microstructure analysis of archaeological copper from Central Ganga Valley, India**
Sidharth Shankar Rai
- 1905 **Multiple linear regression analysis to estimate hydrological effects in soil Rn-222 at Ghuttu, Garhwal Himalaya, India: a prerequisite to identify earthquake precursors**
Vishal Chauhan, Naresh Kumar, Vaishali Shukla and Sanjay Kumar Verma
- 1912 **Gynaecological disorders associated with *Brucella melitensis* in goat flocks with potential risk of occupational zoonoses in Central India**
S. P. Awandkar, S. Kale, C. Sonekar, G. K. Gabhane, S. P. Chaudhari and N. V. Kurkure
- 1917 **Unexplored pharmaceutical potential of phytocompounds extracted from the mushroom, *Geastrum saccatum***
Pramod C. Mane, Ashok N. Khadse, Deepali D. Kadam, Shabnam A. R. Sayyed, Vrushali T. Thorat, Sunita D. Sarogade and Ravindra D. Chaudhari



RESEARCH COMMUNICATIONS

- 1923 **A simple protocol for rearing a native predatory mite *Neoseiulus indicus***
Chandish R. Ballal, S. K. Gupta, Tripti Gupta and Richa Varshney
- 1927 **Spatial distribution of landslides vis-à-vis epicentral distribution of earthquakes in the vicinity of the Main Central Thrust zone, Uttarakhand Himalaya, India**
Vikram Gupta, Ajay Paul, Sandeep Kumar and Biswajit Dash

BOOK REVIEWS

- 1933 **The Indus.** Andrew Robinson; reviewed by T. R. S. Prasanna
- 1936 **Annual Review of Nutrition, 2020.** Patrick J. Stover and Rudi Balling (eds); reviewed by Mahtab S. Bamji

PERSONAL NEWS

- 1938 **Srikumar Banerjee (1946–2021),** Gautam Kumar Dey and R. B. Grover
- 1940 **Bhabatarak Bhattacharyya (1944–2021),** Dulal Panda, Tapas Manna, Gopal Chakrabarti and Siddhartha Roy

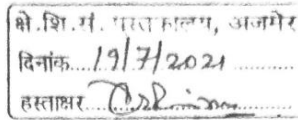


- ◀ COVER. Mushroom, *Geastrum saccatum* Fr. on the campus of Shri Shiv Chhatrapati College, Junnar. Photo: Ravindra D. Chaudhari. See page 1917.

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

Current Science Vol.121 No. 1, 10 July, 2021

Founded 1932



ISSN 0011-1891

CURRENT SCIENCE

Volume 121 Number 1

10 July 2021

-
- 6 **In this issue**
- EDITORIAL**
- 7 **Are we creating an unsustainable State of Fear?**
R. Uma Shaanker and K. N. Ganeshaiyah
-
- CORRESPONDENCE**
- 9 **Hydrogen economy**
V. S. Ramamurthy and D. K. Srivastava; *Response by Ganapati D. Yadav*
- 10 **AlgaeBase: a global database for algae**
Michael D. Guiry; *Response by Surajit Roy and Jai Prakash Keshri*
-
- NEWS**
- 12 **Current Science Reports**
- 16 **2021 Abel Prize**
Sameen Ahmed Khan
- 17 **Evidences of airborne coronavirus transmission and necessary cautionary measures**
Arjun R. Krishnan
- 18 **Addendum: 2020 Nobel Prize for Physics: Black holes and the Milky Way's darkest secret**
Joseph Samuel [*Curr. Sci.*, 2020, 119(10), 1598–1602]
-
- COMMENTARY**
- 19 **'Kannadipaya' – role of geographical indication in brand-making and conservation**
A. V. Raghu and Syam Viswanath
-
- SCIENTIFIC CORRESPONDENCE**
- 21 **Rediscovery of *Bunium nothum* (C.B. Clarke) P.K. Mukh. (Apiaceae), an endemic and critically endangered umbellifer after 137 years from the Nilgiris, Tamil Nadu, India**
M. Murugesan, R. Tharani, V. Ravichandran, B. Karthik and V. Anusuba
- 24 **Increasing smoke and carbonaceous aerosols over the Indian region (2007–2016)**
Manu Mehta
-
- GENERAL ARTICLES**
- 26 **Emerging and re-emerging biotic stresses of agricultural crops in India and novel tools for their better management**
J. Kumar, R. K. Murali-Baskaran, S. K. Jain, P. N. Sivalingam, J. Mallikarjuna, Vinay Kumar, K. C. Sharma, J. Sridhar, P. Mooventhan, A. Dixit and P. K. Ghosh
- 37 **Community well-being and the 'invisible' subjectivities of indigenous people: a focus on the Irulas of the Nilgiri Biosphere Reserve, Tamil Nadu, India**
Jyotsna Krishnakumar and Pratim Roy

Current Science Vol.121 No. 1, 10 July, 2021

- 44 **Multi-hazard analysis and design guidelines: recommendations for structure and infrastructure systems in the Indian context**
Tathagata Roy and Vasant Matsagar

REVIEW ARTICLES

- 56 **Allopatric and sympatric modes of speciation: examples from *Drosophila***
B. N. Singh
- 61 **Seismic performance of precast slab to beam connection: an overview**
D. Vinutha, R. Vidjeapriya and K. P. Jaya
- 77 **Investigations into the origin of SARS-CoV-2: an update**
Anirban Mitra

RESEARCH ARTICLES

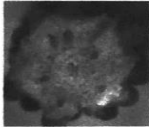
- 85 **Characterization of the second wave of COVID-19 in India**
Rajesh Ranjan, Aryan Sharma and Mahendra K. Verma
- 94 **Strain/stress evaluation of Dorsa Geikie using Chandrayaan-2 Terrain Mapping Camera-2 and other data**
A. S. Arya, Joyita Thapa, Abhik Kundu, Rwiti Basu, Amitabh, Ankush Kumar and Arup Roychowdhury
- 103 **Modified restoration technique for improved visual perception of shallow underwater imagery**
M. Dhana Lakshmi and S. Sakthivel Murugan
- 109 **Fate of heavy metals in sewage and polluted water bodies**
Harsha Rao, Lakshminarayana Rao and H. N. Chanakya
- 115 **Profound implications of COVID-19 pandemic lockdown on the Earth's ecosystem: a case study using remote sensing data**
Nidhi Verma, Nilesh Kumar, Pooja Mishra and Neetesh Purohit
- 121 **Unusually high frequency of cross-pollination between rice landraces Shiuli and Kharah with coincident flower-opening times**
Debal Deb and D. Bhattacharya
- 127 **Artificial nests conserve important native bees, *Braunsapis* spp. pollinating cashew**
K. Vanitha and T. N. Raviprasad
- 133 **Observations of synchronized spawning, larval survival and settlement in corals of the genus *Acropora* in Lakshadweep, India**
S. Nina Tabitha, Kevin Shimrone Moses and Rajkumar Rajan
- 141 **How to break into a microcosm: localization of hidden hosts by fig wasp parasitoids**
Pratibha Yadav, Anusha L. K. Kumble, Mahua Ghara, Jean-Marie Bessière and Renee M. Borges
- 148 **Analysis of the determinants of service headway variability at tollbooths under mixed traffic scenario in emerging countries**
Yogeshwar V. Navandar, Chintaman Santosh Bari, Ashish Dhamaniya, Shrinivas S. Arkatkar and D. A. Patel

BOOK REVIEW

- 161 **Entropy for Smart Kids and their Curious Parents.** Arieh Ben-Naim; *reviewed by* Anirban Hazra and Arnab Mukherjee

PERSONAL NEWS

- 163 **Saraswathi Natarajan Balasubrahmanyam (1932–2021)**
H. Surya Prakash Rao and I. N. N. Namboothiri

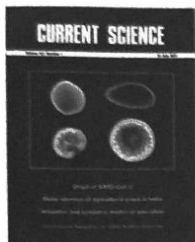


Current Science Vol.121 No. 1, 10 July, 2021

- 165 **Chindhu Sona Warke (1931–2020)**
Rajeev S. Bhalerao, Sandhya Devi and B. Sriram Shastry

HISTORICAL NOTES

- 167 **Yelseti Ramachandra Rao's contribution to entomology and his pioneering work on the management of invasive plant species in India**
Anamika Sharma and Rangaswamy Muniappan



- ◀ COVER. A close-up image of coral species *Acropora cytherea* (Dana, 1846) releasing egg-sperm bundles (Top). Embedded collage (from left to right) showing fertilised egg, planula larva (free-swimming), and the attached larva (recruit) of day two, and day 7 of coral *A. cytherea*, cultured *in-vitro*, of the egg-sperm bundles collected during the mass spawning event at Kavaratti Island, Lakshadweep. See page 133.

Indexed in CURRENT CONTENTS/GEOTitles/SCOPUS/WEB OF SCIENCE

EDUTRACKS
July, 2021 Vol. 20 No. 11

Publisher:
Suresh Chandra Sharma
Editor: G S Reddy
Asst. Editor: Payal Sharma
M.S. in Print Media,
College of Imaging Arts & Sciences,
Rochester Institute of Technology, New York, USA

Consultant Editor:
K S Sarma, IAS (Retd.)
Former Chairman, ICSSR
Former CEO, Prasar Bharati.

Editorial Board

Sri Chukka Ramalah
IIT Coaching Centre, Hyderabad.

Prof. Ghanta Ramesh
Senior Professor of Education, Maulana
Azad National Urdu University, Hyd.

Prof. C L Kundu
Advisor, Rehabilitation Council of India,
New Delhi.

Dr. L Govinda Rao
Former Director, National Institute for the
Mentally Handicapped, Secunderabad.

Prof. H M Kasinath
Former Professor and Dean,
Dept. of Education, Karnatak University,
Dharwad.

Prof. G Damodar
Vice-Chancellor
Chaitanya deemed to be University,
Warangal, Telangana.

Dr. S K Mangal
Eminent Educationist, Rohtak.

Prof. V Sudhakar
Prof. of Education, Dept. of Education,
EFLU, Hyderabad.

Prof. D Kumaran
Professor & Head, Dept. of Education,
University of Madras, Chennai.

© Neelkamal Publications Pvt. Ltd.
All rights reserved, Reproduction in
any manner is prohibited.

Printed & Published by
Suresh Chandra Sharma
Managing Director,
Neelkamal Publications Pvt. Ltd.,
Koti, Hyderabad - 500 001, India.
☎ : 91-40-24757140, 24757944,
24757951, +91 80199-18182
e-mail : edutracksneelkamal@gmail.com
website: www.edutracks.neelkamalbooks.com
Delhi Office: # 4764/1, 23, Ansari Road,
Daryaganj, New Delhi-110 002, India.
☎ : 91-11-23244237, +91 98118-28953

The views expressed in the articles inside are
the individual opinions of the authors and they
in no way represent or reflect the opinion of
EDUTRACKS nor does EDUTRACKS subscribe
to these views in any way. All disputes are
subject to the jurisdiction of Hyderabad courts
only.

EDUTRACKS

Inside

भो.शि.सं. पुस्तकालय, अजमेर
दिनांक 20/7/2021
हस्ताक्षर: [Signature]

Articles

05 .. NEP, 2020: Cognitive Development and Revamping of School Structure, Curriculum and Pedagogy
Dr. H.M. Kasinath

10 .. Bharat Ratna Sir Mokshagundam Visveswaraiyah A Notable Engineer, Scholar & Statesman
Dr. N.N. Prahallada

12 .. Edutaining the Students through Co-curricular Activities
Dr. Prabhat Shukla, Dr. Amit Sharma & Pavitra Chauhan

18 .. Fostering Creativity in Classroom
Dr. Regalia May Tongper

21.. Developing Love & Respect for Nature in the Minds of Pupils through Teacher Training Program
Dr. Usha Rao

26 .. Transforming Learning through Easy Technology Solutions
Dr. Priya Pillai, Dr. Raju Talreja

Research

35 .. Career Aspirations & Socioeconomic Status: A Correlation Study
Irshad Ali Dar

39 .. Science Process Skills among Secondary School Students
Aditi Pandey, Dr. Sonia Sthapak

44 .. Issues and Challenges in Inclusive Education in Faridabad
Pradeep Kumar

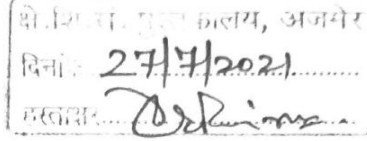
47 .. Environmental Awareness among Secondary Schools Students
Lijo Varghese, Dr. Nalinilatha

50 .. Health Track

53 .. News Track

LIBRARY, RIE, AJMER
CURRENT CONTENT ALERT SERVICES

Indian Literature Vol.65 No. 321 January-February, 2021



CONTENTS

Editorial	7
IN MEMORIAM	
Sugathakumari	9
Soft as a petal, hard as a diamond <i>Anitha Thampi</i>	10
"I can't but sing" <i>Excerpts from a conversation</i>	19
Some poems by Sugathakumari	22
No, I won't come! <i>K. Satchidanandan</i>	28
Alokeranjan Dasgupta	31
A poet and a polyglot <i>Nirmal Kanti Bhattacharjee</i>	32
Some poems by Alokeranjan Dasgupta	38
Manabendra Bandyopadhyay	46
Bringing home magic realism <i>Sayantan Dasgupta</i>	47

LIBRARY, RIE, AJMER
CURRENT CONTENT ALERT SERVICES

Indian Literature Vol.65 No. 321 January-February, 2021

4

Indian Literature: 321

The Modern Indian Short Story 53
An essay by Manabendra Bandyopadhyay

Swapan Majumdar 69

Careful custodian of culture 70
Sayantan Dasgupta

Routes of Bhakti in Medieval Indian Literature 74
An essay by Swapan Majumdar

Mangalesh Dabral 84

The Memory Maker 85
Nirupama Dutt

Some poems by Mangalesh Dabral 89

POETRY

Sankha Ghosh Bengali 92

Gulzar Urdu 94

Sitanshu Yashaschandra Gujarati 97

Perundeivi Tamil 102

Paul Kaur Punjabi 105

Shanta Acharya English 106

Gagan Gill Hindi 108

Banna Ailaiah Telugu 112

A.J. Thomas English 114

Joopaka Subadra Telugu 116

Gopan Kalathara Malayalam 118

FICTION

Online Urdu 120
Gulzar

LIBRARY, RIE, AJMER
CURRENT CONTENT ALERT SERVICES

Indian Literature Vol.65 No. 321 January-February, 2021

		5
		<i>Contents</i>
The Bed <i>Priyamvad</i>	Hindi	127
Ambulance <i>Sethu</i>	Malayalam	133
Duck Curry, Pork Curry <i>Mitra Phukan</i>	English	141
Locusts <i>Sirsho Bandopadhyay</i>	Bengali	153
The Sealed <i>B. Murali</i>	Malayalam	164
Travellers in the Dark <i>Dipanwita Roy</i>	Bengali	170
The Princess and the Snake Prince <i>Folktale</i>	Gujarati	175
ESSAY		
Missionaries of Assam <i>Bimal Phukan</i>		179
BOOK REVIEWS		
<i>Interpreting Cinema</i> Usha Bande		191
<i>Indian Drama In English</i> Sanjukta Dasgupta		194
<i>Indian English Literature 2001-2015</i> Anand Prakash		197

LIBRARY, RIE, AJMER
CURRENT CONTENT ALERT SERVICES

Indian Literature Vol.65 No. 321 January-February, 2021

		5
		<i>Contents</i>
The Bed <i>Priyamvad</i>	Hindi	127
Ambulance <i>Sethu</i>	Malayalam	133
Duck Curry, Pork Curry <i>Mitra Phukan</i>	English	141
Locusts <i>Sirsho Bandopadhyay</i>	Bengali	153
The Sealed <i>B. Murali</i>	Malayalam	164
Travellers in the Dark <i>Dipanwita Roy</i>	Bengali	170
The Princess and the Snake Prince <i>Folktale</i>	Gujarati	175
ESSAY		
Missionaries of Assam <i>Bimal Phukan</i>		179
BOOK REVIEWS		
<i>Interpreting Cinema</i> Usha Bande		191
<i>Indian Drama In English</i> Sanjukta Dasgupta		194
<i>Indian English Literature 2001-2015</i> Anand Prakash		197

LIBRARY, RIE, AJMER
CURRENT CONTENT ALERT SERVICES

Indian Literature Vol.65 No. 321 January-February, 2021

6	
<i>Indian Literature: 321</i>	
<i>Singing in the Dark</i> Semeen Ali	199
<i>The Word in the World</i> Umesh Kumar	201
<i>God is Dead, There is No God</i> Kamalakar Bhat	203
<i>The Scholar</i> Kusumita Debnath Mukherjee	205
<i>Asti aur Bhavti</i> Shobha Narain	207
CONTRIBUTORS	210
COVER STORY	220

LIBRARY, RIE, AJMER
CURRENT CONTENT ALERT SERVICES

मधुमती वर्ष 61 अंक 4, अप्रैल, 2021

क्रम

क्षे.शि.सं. पुस्तकालय, अजमेर
दिनांक..... 19/7/2021
हस्ताक्षर..... *Delima*

संपादक की बात

विशेष स्मरण

	क्रम		लेख
मुझे विश्वास नहीं होता कि आदमी मृत्यु के बाद बिल्कुल नष्ट हो जाता है माधव भान से बातचीत	11	हीली बोन् की बतखें : द्वन्द्व एवं संघर्ष राजाराम भादू	74
मकबूल की हुसैनी कलम निर्मल वर्मा	18	अकबर इलाहबादी और उनका गाँधीनामा हेरम्ब चतुर्वेदी	80
शिमला और निर्मल गगन गिल	23	आकलन	
निर्मल वर्मा की सीख शंकर शरण	35	मधुमती : रचनात्मक उत्कर्ष के दो वर्ष कृष्ण बिहारी पाठक	86
मौन और संवाद का निर्मल एकान्त जयशंकर	42	संस्मरण	
बहस की कहानी का नाटक होना अनिरुद्ध उमट	49	सावित्री दीदी की याद आती रहेगी पद्मजा शर्मा	102
परिन्दे : हम कहाँ जाएँगे अमरेन्द्र कुमार शर्मा	54	डायरी अंश	
मेरे जीवन में निर्मल साया कुशल राजेश्री-बिपिन खन्धार	69	यह कैसा समय है सत्यनारायण	106

LIBRARY, RIE, AJMER
CURRENT CONTENT ALERT SERVICES

मधुमती वर्ष 61 अंक 4, अप्रैल, 2021

कहानी	समीक्षा
लेडी राबिन्सन क्रूसो की उड़ान क्षमा शर्मा	पधारो कवि के देश ! रेणु व्यास
110	138
बैंग्रोव वन रश्मि शर्मा	एक सिरफिरे पाठक के नोट्स गोपाल माथुर
118	141
अनुवाद	विचार का बतरस जीवन सिंह
	145
बूढ़ा आदमी और समुद्र मूल : अर्नेस्ट हेमिंग्वे अनुवाद : सुशांत सुप्रिय	श्रद्धांजलि साहित्यिक समाचार संवाद निरन्तर प्राप्ति स्वीकार सूचना
126	148 149 151 152 154
कविताएँ	
विनोद पदरज	130
अमिताभ चौधरी	133
आस्तीक वाजपेयी	135
लवली गोस्वामी	137

आवश्यक सूचना

मधुमती पत्रिका की एजेन्सी के लिए पहली बार आप छह ग्राहक बनाकर एजेन्ट बन सकते हैं। तत्पश्चात् आपको समय-समय पर मधुमती के ग्राहक बनाने होंगे, जिस पर अकादमी द्वारा नियमानुसार 30 प्रतिशत कमीशन देय होता है। आप अपना रजिस्ट्रेशन-पत्र के माध्यम से आवश्यक शुल्क जमा करवा कर एजेन्ट बन सकते हैं। इस हेतु आप madhumati.udaipur@gmail.com पर भी अपना प्रस्ताव प्रेषित कर सकते हैं।

LIBRARY, RIE, AJMER
CURRENT CONTENT ALERT SERVICES

मधुमती वर्ष 61 अंक 5, मई, 2021

क्रम

क्षे.शि.सं. पुस्तकालय, अजमेर
दिनांक... 19/7/2021
हस्ताक्षर... *Dr. R. K. Sharma*

सम्पादकीय	क्रम	विषय	पृ.सं.
ग्रंथमालाएँ और साहित्य	7	राजाराम भादू और संस्कृति के तीन अध्याय त्रिभुवन	68
विशेष स्मरण			
श्रीकांत वर्मा : एक द्विध-विभक्त कवि सुधीश पचौरी	11	पीयूष दईया : जैसे शब्द में बज रहा हो शंख ओम निश्चल	81
विजेंद्र : कवितामय व्यक्तित्व जीवन सिंह	14	विनोद कुमार शुक्ल की कविताओं में विस्थापन	88
नरेन्द्र कोहली : जाना पौराणिक कथाओं के आधुनिक लेखक का प्रभात रंजन	19	राकी गर्ग	
रमेश उपाध्याय : एक जीवंत रचनाकार का जाना नन्द भारद्वाज	23	हिन्दी कविता में घर रचना सिंह	94
लेख		रामराज्य और स्वराज श्री भगवान सिंह	100
देवनागरी लिपि : कुछ अद्यतन सुधार लीलाधर जगूड़ी	31	कहानी	
निराला और जागरण अजय तिवारी	35	ध्रुव तारा नितिन यादव	113
अमीर ख़ुसरो का काव्य-वैशिष्ट्य और हिन्दी कुमार अनुपम	63		

LIBRARY, RIE, AJMER
CURRENT CONTENT ALERT SERVICES

मधुमती वर्ष 61 अंक 5, मई, 2021

संस्मरण

आचार्य हजारी प्रसाद द्विवेदी : कालिदास और बाणभद्र के युगपत्	118
पाण्डेय शशिभूषण शीतांशु	

कविताएँ

लीलाधर मंडलोई	127
नरेन्द्र पुण्डरीक	131
राजेश कुमार व्यास	133

समीक्षा

अस्तित्व और व्यक्तित्व के अँधेरों की पड़ताल रिज़वान उल हक	136
उम्मीद का उजास वत्सला पाण्डे	142
जनपक्षधरता की वैचारिकी अनिल मिश्र	146
श्रद्धांजलि	149
साहित्यिक समाचार	150
संवाद निरन्तर	151
प्राप्ति स्वीकार	152
सूचना	154

आवश्यक सूचना

मधुमती पत्रिका की एजेन्सी के लिए पहली बार आप छह ग्राहक बनाकर एजेन्ट बन सकते हैं। तत्पश्चात् आपको समय-समय पर मधुमती के ग्राहक बनाने होंगे, जिस पर अकादमी द्वारा नियमानुसार 30 प्रतिशत कमीशन देय होता है। आप अपना रजिस्ट्रेशन-पत्र के माध्यम से आवश्यक शुल्क जमा करवा कर एजेन्ट बन सकते हैं। इस हेतु आप madhumati.udaipur@ gmail.com पर भी अपना प्रस्ताव प्रेषित कर सकते हैं।

Resonance Vol. 26 No. 1, January, 2021

श्री. जे. ए. सं. पुस्तकालय, अजमेर
दिनांक 26/7/2021
R.D. Singh

Resonance journal of science education

January 2021 Volume 26 Number 1

61



Pygmy jerboa

61



Bumblebee bat

61



Bee hummingbird

GENERAL ARTICLES






- 13 **Stephen Hawking (1942–2018)**
Rajesh Gopakumar and Spenta R. Wadia
- 33 **Recent Progress on the Black Hole Information Paradox**
Computation of the Page Curve
Raghu Mahajan
- 47 **Of Light and Shadows**
Raychaudhuri's Equation, the Big Bang and Black Holes
Joseph Samuel
- 61 **Body Size Matters in the Lives of Organisms**
T. Ramakrishna Rao
- 73 **Priyadarshan Rây**
Contributions to Chemical Science
Rajarshi Ghosh
- 89 **Brownian Motion**
B V Rao


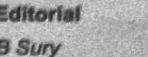

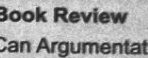
SERIES ARTICLES

- 105 **How to Design Experiments in Animal Behaviour**
16. *Cutting-Edge Research at Trifling Cost*
Raghavendra Gadagkar



Resonance Vol. 26 No. 1, January, 2021

	Classroom	
	A Visual Proof: $e \leq A \leq B \Rightarrow A^B > B^A$	127
	Nazrul Haque	
	Classics	
	Particle Creation by Black Holes	133
	S W Hawking	
	Information & Announcements	
	Science Academies' Refresher Course on Recent Trends in Molecular Biology Technology—Concepts and Practice 01–14 March 2021	157
	Science Academies' Virtual Refresher Course on Taxonomy of Cryptogams, Their Sustainable Utilization and Conservation in Climate Change	158
	<i>Inventa</i> Science Magazine	159
Front Cover		
	Stone memorial for Hawking, with his entropy formula for black holes engraved on it, at Gonville & Caius College, Cambridge, UK. Image Courtesy: Gonville & Caius College	
Back Cover		
	Stephen Hawking (1942–2018) Illustration: Subhankar Biswas	

DEPARTMENTS	
	General Editorial 1
	Editorial 5 <i>B Sury</i>
	Science Smiles 9 <i>Ayan Guha</i>
	Book Review 129 Can Argumentation be Taught in School? <i>Jeena Anne K</i>
Inside Back Cover	
Night Life	
Text Credit: Manjari Jain	
Photo Credit: Manisha Tomar	

Follow us on Facebook
Resonance, Journal of
Science Education
@Resonance.IASc.Bng

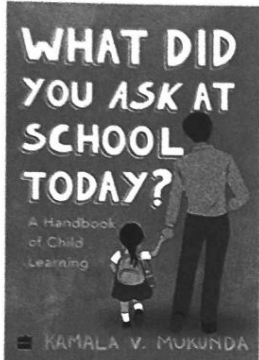
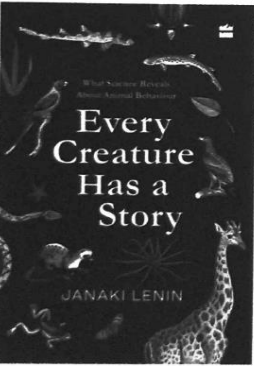
Resonance Vol. 26 No. 2, February, 2021

Resonance journal of science education



February 2021 Volume 26 Number 2

श्री. पुस्तकालय, जजमेर
R. 26/7/2021
D. R. Vishnu


GENERAL ARTICLES

- 275  **WHAT DID YOU ASK AT SCHOOL TODAY?**
A Handbook of Child Learning
KAMALA V. MUKUNDA
- 167 **S S Shrikhande: The Euler Spoiler**
Sharad S. Sane
- 177 **Shrikhande and Designs**
Bhaskar Bagchi
- 191 **Measuring Causality**
The Science of Cause and Effect
Aditi Kathpalia and Nithin Nagaraj
- 211 **The Many Avatars of Curzon–Ahlborn Efficiency**
Ramandeep S. Johal and Arun M. Jayannavar
- 227 **CRISPR/Cas for Crop Improvement**
A Brief Review
Arvinder Singh and Muskan Bokolia
- 241 **Discovery of Room Temperature Ionic Liquid**
P C Rây versus P Walden
Rajarshi Ghosh
- 245 **Continent Deformation Due to Earthquake Cycle and Landscape Evolution**
Vineet K. Gahalaut
- 257 **The Idea of a Lax Pair–Part II**
Continuum Wave Equations
Govind S. Krishnaswami and T R Vishnu
- 281  **Every Creature Has a Story**
JANAKI LENIN

Resonance Vol. 26 No. 2, February, 2021


Book Review		
What Did You Ask at School Today? Lilavati Krishnan		275
Let Us Read a Wonderful Story... Sujata Deshpande		281
 Classics		
The Impossibility of Certain Symmetrical Balanced Incomplete Block Designs S S Shrikhande		283
 Information and Announcements		
Masterclass Series		291
Admission to PhD Programme in Science Education – 2021		292

Front Cover



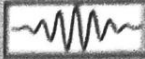
Shrikhande and Bose at work.
(Image courtesy: The Shrikhande Family
and/Bhavana The Mathematics Magazine)

Back Cover




S S Shrikhande
(1917–2020)
Illustration: Subhankar Biswas

DEPARTMENTS



Editorial
B Sury 191



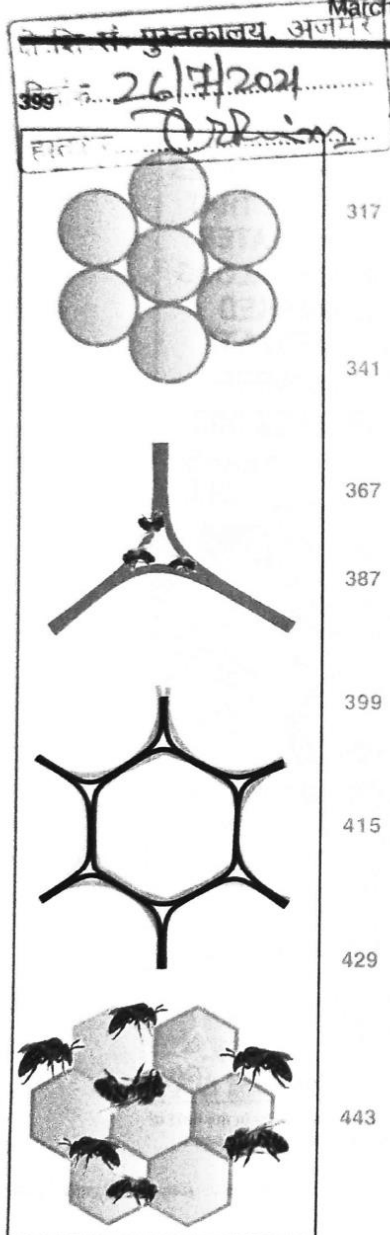
Science Smiles 166
Ayan Guha

Inside Back Cover
Birds in the Backyard
Text Credit:
T N C Vidya
Photo Credit:
Meghna Boby Basumallick

Follow us on Facebook
Resonance, Journal of
Science Education
[@Resonance.IASc.Bng](https://www.facebook.com/Resonance.IASc.Bng)

Resonance journal of science education


March 2021 Volume 26 Number 3



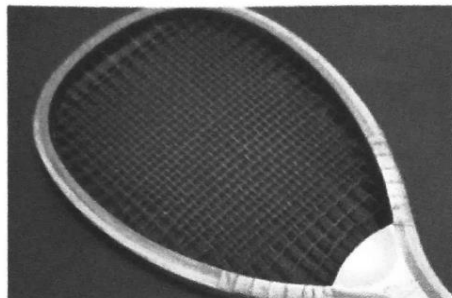
GENERAL ARTICLES


- 317 **Khadg Singh Valdiya**
Six Decades of Himalayan Geology and Environment (Life and Work)
Sampat Kumar Tandon and Ananya Divyadarshini
- 341 **Chlorine and the Chemistry of Disinfectants**
A Fascinating Journey—8th Century to the COVID Times
N. Dastagiri Reddy and Anil J. Elias
- 367 **Gamma Function and Its Functional Equations**
Ritesh Goenka and Gopala Krishna Srinivasan
- 387 **Bacteriocins from Lactic Acid Bacteria**
A Natural Strategy for Inhibiting Unwanted Bacteria
Joyleen Fernandes, Rohit Kumbhar and Ram Kulkarni
- 399 **Natural Hexagons**
Honeybee's Pursuit of Perfection and Revered Mystery
Kishore Dutta
- 415 **Building Research Competence in Undergraduate Students**
Smitha Hegde and Indrani Karunasagar
- 429 **Partial Least Square (PLS) Analysis**
Most Favorite Tool in Chemometrics to Build a Calibration Model
Keshav Kumar
- 443 **Maxwell's Demon, Szilard Engine and Landauer Principle**
P S Pal and A M Jayannavar


Resonance Vol. 26 No. 3, March, 2021

 **Classroom**
Arbitrary vs. Random
Aniruddha V Deshmukh 463

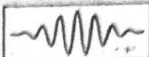
317




Front Cover
 Prof. K S Valdiya's home town Pithoragarh
(Image Credit: Jaishri Sanwal).

Back Cover
 Khadg Singh Valdiya
(1937–2020)
Illustration: Subhankar Biswas

DEPARTMENTS

 **Editorial** 293
Kusala Rajendran

 **Science Smiles** 297
Ayan Guha

Article-in-a -Box 301
The Journey of a
Foot-Soldier Geologist
K S Valdiya: (20 March 1937
to 29 September 2020)
Jaishri Sanwal

Errata 468

Inside Back Cover
Life Under Water
Text Credit:
Sindhu Radhakrishna
Photo Credit:
Mayukh Dey

Follow us on Facebook
Resonance, Journal of
Science Education
@Resonance.IASc.Bng

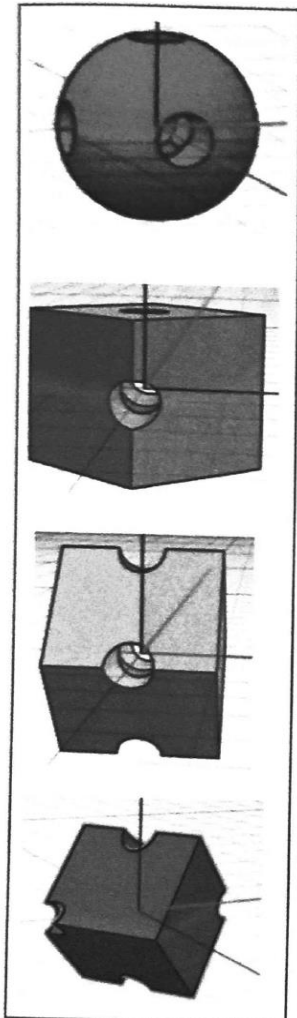
Resonance Vol. 26 No. 4, April, 2021

Resonance journal of science education

सि. डि. सं. पुस्तकालय, अजमेर
दि. 26/4/2021
491

April 2021 Volume 26 Number 4

GENERAL ARTICLES







- 479 **The Origin of Eukaryotic Cells**
Varsha Singh
- 491 **Drilling Holes Through Balls and Cubes**
Maximizing the Total Exposed Surface Area
Jaskirat Kaur, Jasmeen Lally and Jyotirmoy Sarkar
- 515 **Ghosh's Law**
A Retrospection
Rajarshi Ghosh
- 523 **Stochastic Energetics and Thermodynamics at Small Scales**
Sourabh Lahiri and Arun M. Jayannavar
- 537 **A Ride to Exoplanets**
Finding Potentially Habitable Worlds
Simran Kaur and Varinderjit Kaur




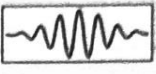

551

Resonance Vol. 26 No. 4, April, 2021

	<p>Classroom</p> <p>Ecology for Birdwatchers 551 <i>A Simple Introduction to Optimal Foraging Theory</i> Abdul Urfi</p> <p>On the Rank of a Matrix 575 S Kesavan</p>
	<p>Classics</p> <p>Whittaker's Five Kingdoms of Organisms: Minor Revisions Suggested by Considerations of the Origin of Mitosis 579 Lynn Margulis</p>
	<p>Information and Announcements</p> <p>Science Academies' Refresher Course on 587 Spectroscopic Techniques</p>

Front Cover  Cells can gain new functions by acquiring new genes or via mutations in existing genes. A whole set of new functions such as aerobic respiration can be obtained by a cell via symbiosis or the engulfment of another cell with those functions. Endosymbiotic theory states that mitochondria came about by the engulfment of a respiration-capable bacterium by a larger cell. Some of the cells with mitochondria later engulfed a bacterium capable of photosynthesis and became plant cells.
 (Illustration: Samiran Mukherjee and Subhankar Biswas)

Back Cover  Lynn Margulis
 (1938–2011)
 Illustration: Subhankar Biswas

DEPARTMENTS	
	
Editorial 469 <i>Varsha Singh</i>	
	
Science Smiles 471 <i>Ayan Guha</i>	
Article-in-a -Box 475 Lynn Margulis <i>The Champion of Symbiogenesis</i> <i>Varsha Singh</i>	
Crossword 585	
Inside Back Cover	
Life Under Water Text Credit: Sindhu Radhakrishna Photo Credit: Mayukh Dey	

Follow us
Facebook:
@Resonance.IASc.Bng
Twitter: @IAScResonance

Resonance Vol. 26 No. 5, May, 2021

Resonance journal of science education

May 2021 Volume 26 Number 5



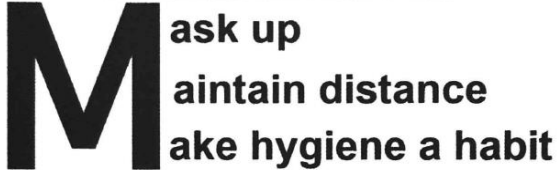
क्षे.शि.स. पुस्तकालय, अजमेर
दिनांक 26/7/2021
हस्ताक्षर





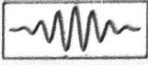

GENERAL ARTICLES

- 603 **The Winning Ways of John Conway**
Madhavan Mukund
- 615 **Conway, Knots and Groups**
Siddhartha Gadgil
- 629 **Airy Functions Demystified – I**
The Mathematical Physics of an Innocent Looking Differential Equation – Basics and Numerical Solutions
M S Ramkarthik and Elizabeth Louis Pereira
- 649 **Dosage Compensation**
A Mechanism to Equalize X-linked Gene Products Between the Sexes
Rajiva Raman
- 671 **Quantum Game Theory – I**
A Comprehensive Study
Indranil Ghosh
- 685 **IntelliChem Identifier**
An Intelligent Search Engine at Your Fingertips for the Identification of Unknown Organic Compounds
Suchandra Chakraborty, Kaushik Basu, Sanjib Halder and Chandan Saha

Resonance Vol. 26 No. 5, May, 2021

	Classroom An Alternative Approach to Write the General Solution of a Class of Second-order Linear Differential Equations Dharm Prakash Singh and Amit Ujjayan	705
	Classics Monsters and Moonshine J H Conway	715
 <p>Mask up aintain distance ake hygiene a habit</p>		

Front Cover 	An artist's impression of the cartoon of John H. Conway with Alexander's horned sphere growing from his head. (Reference: Weisstein, Eric W. "Alexander's Horned Sphere." From MathWorld--A Wolfram Web Resource. https://mathworld.wolfram.com/AlexandersHornedSphere.html).
Back Cover 	John Horton Conway (1937–2020) Illustration: Subhankar Biswas

DEPARTMENTS	
	Editorial 589 B Sury
	Science Smiles 594 Ayan Guha
Article-in-a -Box 595 <i>John Horton Conway</i> <i>The Magical Genius Who Loved Games</i> Arvind Ayer and B Sury	
Crossword 723	
Inside Back Cover Birds in the Backyard Text Credit: T N C Vidya Photo Credit: Satyajit Ganguly and Parth Chauhan	
Follow us Facebook: @Resonance.IASc.Bng Twitter: @IAScResonance	

Resonance Vol. 26 No. 6, June, 2021

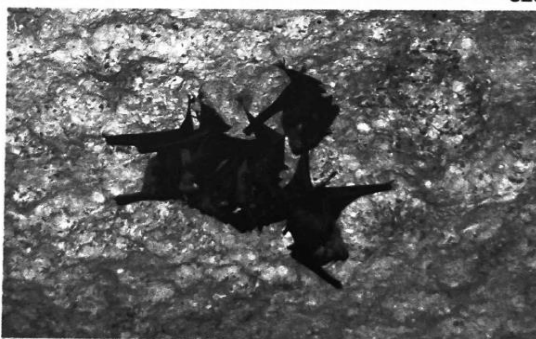
Resonance journal of science education

June 2021 Volume 26 Number 6


बि.शि.सं. पुस्तकालय, अजमेर.
दिनांक 26/7/2021
हस्ताक्षर [Signature]



GENERAL ARTICLES



- 737 **Life and Science of Clemens C.J. Roothaan**
Shridhar R Gadre and Subhas J Chakravorty
- 757 **Airy Functions Demystified – II**
The Mathematical Physics of an Innocent Looking Differential Equation – Asymptotic Forms and Some Applications
M S Ramkarthik and Elizabeth Louis Pereira
- 791 **Quantum Game Theory – II**
A Comprehensive Study
Indranil Ghosh
- 813 **Teaching Irrational Numbers Through Trigonometry**
Sameen Ahmed Khan
- 829 **The Beauties Beneath: Cave Bats of Meghalaya**
Uttam Saikia and Manuel Ruedi



Resonance Vol. 26 No. 6, June, 2021

Classroom	
 Mathematics of Securing a Box With a Single Rubber Band	841
Jayanth Vyasanakere and Rajaram Nityananda	
Graceful Labelings of Caterpillar Trees: A Proof without Words	851
Venkata Karthik Bandaru	
Error Propagation	853
Arvind Singh and Priyanka Chaturvedi	

Front Cover	
	What do esoteric subjects like molecular quantum chemistry have to do with the real world? Roothaan's work is a milestone which led to the development of modern computational quantum chemistry and fast processing chips that are at the heart of all computing devices.
Back Cover	
	Clemens C. J. Roothaan (1928-2019) Illustration: Subhankar Biswas

DEPARTMENTS	
	
Editorial	725
Susanta Mahapatra	
	
Science Smiles	730
Ayan Guha	
Article-in-a-Box	731
Clemens C. J. Roothaan: $FC = SC \epsilon$ Susanta Mahapatra	
Inside Back Cover	
Night Life Sindu Radhakrishna Kalyan Varma	

Follow us
Facebook:
@Resonance.IASc.Bng
Twitter: @IAScResonance

Resonance Vol. 26 No. 7, July, 2021

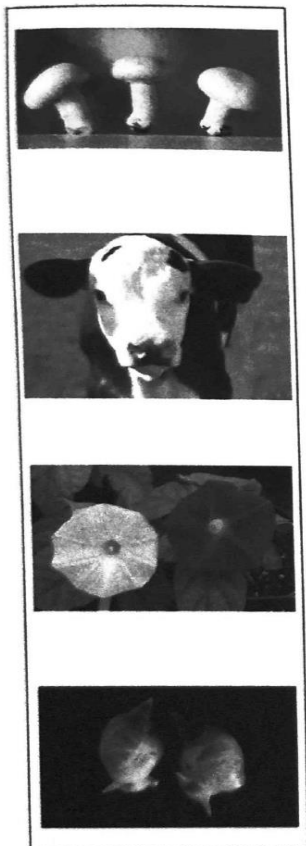
क्षे.शि.सं. पुस्तकालय, अजमेर
दिनांक... 23/7/2021.....
हस्ताक्षर... 0...

Resonance journal of science education

July 2021 Volume 26 Number 7

GENERAL ARTICLES

971



Govind Swarup

869 *Tribute to a Legend*
Dhruba J. Saikia

895 **Beginnings and Growth of Radio Astronomy in TIFR**
*The Ooty Radio Telescope and the Giant Metrewave
Radio Telescope*
S Ananthakrishnan and V Balasubramanian

919 **Atomic Hydrogen in Distant Galaxies**
Nissim Kanekar, Aditya Chowdhury, and
Jayaram N. Chengalur

939 **Quantum Game Theory – III**
A Comprehensive Study
Indranil Ghosh


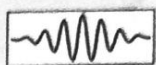





953 **Machine Learning in Nonlinear Dynamical Systems**
Sayan Roy and Debanjan Rana

971 **Genome Editing Revolution in Life Sciences**
Alok Kumar Singh, Sivaprakash Ramalingam,
Desirazu N. Rao and Srinivasan Chandrasegaran

919



Resonance Vol. 26 No. 7, July, 2021

 <p>Classroom</p> <p>Four Color Problem 999 Jasbir Chahal, Rebekah Bassett, Jennifer Canizales, Thomas Fackrell and Vanessa Rico</p> <p>Visual Estimation of Sum of First n Triangular, Tetrahedral and Pentatope Numbers 1007 Rajib Mukherjee and Manishita Chakraborty</p> <p>Upper Limit of the Periodic Table and the Future Superheavy Elements 1015 Rajarshi Ghosh</p>	<div style="background-color: black; color: white; text-align: center; padding: 5px;">DEPARTMENTS</div> <div style="text-align: center; margin-top: 10px;">  </div> <p>Editorial 863 <i>Jasjeet Singh Bagla</i></p> <hr/> <div style="text-align: center; margin-top: 10px;">  </div> <p>Science Smiles 868 <i>Ayan Guha</i></p> <hr/> <p>Inside Back Cover</p> <p>Birds in the Backyard T N C Vidya Chaduranga Kanthraj Urs Angshuman Roy Choudhury Suvendu Bhattacharjee</p> <hr/> <p>Errata 1028</p>
 <p>Classics</p> <p>Evidence of Limb-brightening of the Sun at 60 cm Wavelength 1023 G Swarup and R Parthasarathy</p>	
 <p>Information and Announcements 1027 Resonance Conference</p>	
<p>Front Cover</p>  <p>The cover features the Ooty Radio Telescope in the background and one dish of the Giant Meterwave Radio Telescope in the inset.</p> <p>Back Cover</p>  <p>Govind Swarup (1929-2020) Illustration: Subhankar Biswas</p>	<div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p>Follow us</p> <p>Facebook: @Resonance.IASc.Bng</p> <p>Twitter: @IAScResonance</p> </div>

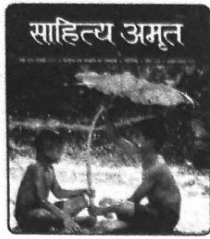
साहित्य अमृत वर्ष 26 अंक 10-12, मई-जुलाई, 2021

साहित्य अमृत

ज्येष्ठ-श्रावण, संवत्-२०७८ ❖ मई-जून-जुलाई २०२१ (संयुक्तांक)

वर्ष-२६ अंक-१०-१२ ❖ पृष्ठ १६४ यू.जी.सी. केयर लिस्ट में उल्लिखित

ISSN 2455-1171



इस अंक में

- संपादकीय
हिंदी में पाठकों की कमी ?
प्रतिस्मृति
ओ हुतात्माओ! विनायक दामोदर सावरकर
कहानी
सावित्री/ लक्ष्मीनिवास झुंझुनवाला
सुशीला/ रामदरश मिश्र
छाया मौसी/ मोहिनी गर्ग
मैं बेवकूफ हूँ/ कृष्णाकांत शुक्ल
तसवीरें बोलती हैं/ वंदना मुकेश
छुट्टन की डॉक्टर/ सुभाष चंद्र

वरदान/ मनमोहन गुप्ता	७९
सप्राटों की शताब्दी/ दीर्घ नारायण	९२
अग्निमुख/ रजनी शर्मा बस्तरिया	९८
दौना/ सुब्रत चटर्जी	१०४
एग्जिमा/ मनोज शर्मा	१०८
दलदल/ पुष्पेश कुमार पुष्प	११२
गली के मोड़ पे सूना सा एक दरवाजा/ रंजना जायसवाल	१२०
डिपेंडेंट/ इंदु सिंह	१४६
आलेख	
अनुपस्थितियों का सतत शोक, साहित्यकारों की	
सिकुड़ती हुई दुनिया/ ओम निश्चल	२०
कोविड और हृदय/ श्रीधर द्विवेदी	३०
इंग्लैंड के लिए भारतीय फूल/ कादंबरी मेहरा	३८
'माटी' पर प्राचार्य विद्यासागर प्रणीत प्रथम 'महाकाव्य'/	
सत्येंद्र चतुर्वेदी	४८
गांधीजी और गिरमिटिया प्रथा/ ममता कुमारी	६२
जयशंकर प्रसाद : एक असाधारण व्यक्तित्व/ साधना अग्रवाल	७३

संपादक
संस्थापक संपादक
पं. विद्यानिवास मिश्र
निवर्तमान संपादक
डॉ. लक्ष्मीमल्ल सिंघवी
श्री त्रिलोकी नाथ चतुर्वेदी
संस्थापक संपादक (प्रबंध)
श्री श्यामसुंदर
प्रबंध संपादक
पीयूष कुमार

संयुक्त संपादक
डॉ. हेमंत कुकरेती
उप संपादक
उर्वशी अग्रवाल 'उर्वी'
कार्यालय
४/१९, आसफ अली रोड,
नई दिल्ली-११०००२
फोन : ०११-२३२८९७७७
०८४४८६१२२६९
ई-मेल : sahityaamrit@gmail.com

शुल्क
इस अंक का मूल्य—₹ ७५
सामान्य अंक—₹ ३०
वार्षिक (व्यक्तियों के लिए)—₹ ३००
वार्षिक (संस्थाओं/पुस्तकालयों के लिए)—₹ ४००
विदेश में
एक अंक—चार यू.एस. डॉलर (US\$4)
वार्षिक—पैंतालीस यू.एस. डॉलर (US\$45)
प्रकाशक, मुद्रक तथा स्वत्वाधिकारी पीयूष कुमार द्वारा
४/१९, आसफ अली रोड, नई दिल्ली-२
से प्रकाशित एवं न्यू प्रिंट इंडिया प्रा. लि., ८/४-बी,
साहिबाबाद इंडस्ट्रियल एरिया, साइट-IV,
गाजियाबाद-२०१०१० द्वारा मुद्रित।
साहित्य अमृत में प्रकाशित लेखों में व्यक्त विचार एवं
दृष्टिकोण संबंधित लेखक के हैं। संपादक अथवा
प्रकाशक का उनसे सहमत होना आवश्यक नहीं है।

साहित्य अमृत वर्ष 27 अंक 1, अगस्त, 2021



साहित्य अमृत

मासिक

आषाढ़-श्रावण, संवत् २०७८ अगस्त २०२१

ISSN 2455-1171

वर्ष-२७ अंक-१ पुष्प १०८

यू.जी.सी. केयर लिमिटेड में उल्लिखित

संस्थापक संपादक पं. विद्यानिवास मिश्र निवर्तमान संपादक डॉ. लक्ष्मीमल्ल सिंघवी श्री प्रिलोत्ती नाथ चतुर्वेदी संस्थापक संपादक (प्रबंध) श्री श्यामसुंदर प्रबंध संपादक पीयूष कुमार संपादक लक्ष्मी शंकर वाजपेयी संयुक्त संपादक डॉ. हेमंत कुकरेती उप संपादक उर्वशी अग्रवाल 'उर्वी' कार्यालय ४/१९, आसफ अली रोड, नई दिल्ली-०२ फोन : ०११-२३२८९७७७ ०८४४८६१२२६९ ई-मेल : sahytaamrit@gmail.com	संपादकीय स्वर्णिम पर्व का गौरवशाली दिन** ४ प्रतिस्मृति जुलूस/ प्रेमचंद ६ रम्य रचना पाँच की पंचायत/ उमा शंकर चतुर्वेदी १३ कहानी मानकर दाजी/ सुमन चौरे १९ दोपहरी/ वंदना यादव ४२ खरपतवार बनाम गरीब/ कर्नल पी.सी. वशिष्ठ ४८ जुगाड़िन/ तपेश भौमिक ६० इक्केवाले/ धीरज कुमार श्रीवास्तव ७२ सुरक्षा कवच/ अर्चना दुबे ८४ घर का पता/ संजय कुमार सिंह ९० आलेख प्रतिबंधित साहित्य**/ मदनलाल वर्मा 'क्रांत' १६ भगत सिंह और भाग्य/ राजशेखर व्यास ४६ साहस और संवेदना**/ सुप्रिया पी ५७ प्रेमचंद : 'गुल्ली डंडा' से 'क्रिकेट मैच' तक/ कमल किशोर गोयनका ६४ सुकेत सत्याग्रह/ पवन चौहान ७० आतंकवाद और अहिंसा/ कुसुम पटोरिया ७६ 'प्रसाद'—साहित्य में समस्याएँ/ रेणु बाली ८२ स्वस्थ जीवन के लिए उपयोगी बातें/ रमेश चंद्र बादल ८६ समकालीन हिंदी कहानी**/ चंद्रशेखर यादव ९३ लघुकथा मदद/ वंदना गोपाल शर्मा 'शैली' १०१ कविता रक्षाबंधन/ रोहित प्रसाद पधिक १८ कोरोना महामारी/ प्रणय श्रीवास्तव 'अस्क' २९ वीरों की है धरा/ राहुल ३७ सैनिक का संदेश/ शंकर लाल माहेश्वरी ४१ ओ नवयुग के/ संतोष श्रीवास्तव 'सम' ४७	आजाद/ मनोरमा चंदा 'रमा' ६९ तिरंगी पतंग/ नंदिनी कौशिक ५२ आँगन के पंछी/ तुषिल मिश्रा ६३ लिख गया/ मधु शुक्ला ७१ क्रांतिकारी मित्र के नाम/ सुरेश ऋतुपर्ण ७५ हम सबका प्यारा तिरंगा/ हेमचंद्र सकलानी ८१ हमारा पर्यावरण/ प्रभात कुमार धवन ८९ बरसते पानी में/ राजेंद्र ओझा ९२ चिड़िया/ के.एल. व्यास ९५ व्यावहारिक दोहे/ सत्यशील राम त्रिपाठी ९६ परिदृश्य का रंग/ देवेश पथ सारिया १०३ पुरस्क-अंश आजादी के तराने/ राजेंद्र पटोरिया २२ मेरा आजीवन कारावास/ सावरकर २६ अंतिम समय की बातें/ रामप्रसाद बिस्मिल ३८ राम झरोखे बैठ के शिकारपुर की खोज/ गोपाल चतुर्वेदी ५० यात्रा-वृत्तांत निम से गंगोत्तरी तक/ रुक्मणी संगल ३२ लोक-साहित्य अनुपम कथा बंधेज की/ चंद्रकांता शर्मा १०० व्यंग्य पी राधा और मैं/ अरुण अर्णव खरे ६८ साहित्य का भारतीय परिपार्श्व इनसान यानी**/ दिनकर जोशी ७८ साहित्य का विश्व परिपार्श्व दो कविताएँ/ रुडयार्ड किपलिंग ८८ बाल-संसार हवा सुहानी, हवा सुहानी/ संजीव ठाकुर ९९ पक्षियों वाला पेड़/ सुमन वाजपेयी १०२ पाठकों की प्रतिक्रियाएँ १०४ वर्ग-पहेली १०५ साहित्यिक गतिविधियाँ १०६
---	--	--

साहित्य अमृत में प्रकाशित लेखों में व्यक्त विचार एवं दृष्टिकोण संबंधित लेखक के हैं। संपादक अथवा प्रकाशक का उनसे सहमत होना आवश्यक नहीं है।