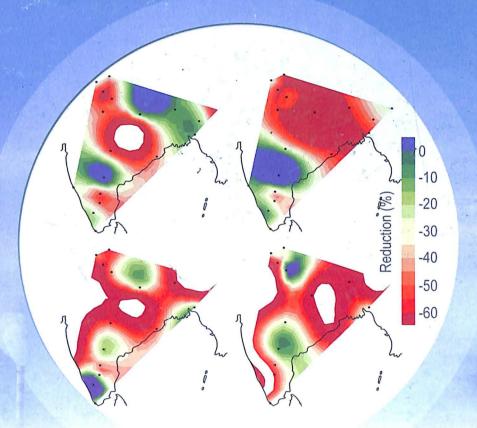
CURRENT SCIENCE

Volume 120 Number 2

25 January 2021



Environmental impact of COVID-19

Red-coloured glacial lake in Ladakh

Horticultural nurseries and nematode dissemination

Current Science Association
 Indian Academy of Sciences

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



SPECIAL SECTION: ENVIRONMENTAL IMPACT OF COVID-19

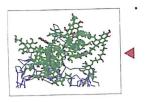
- 285 Foreword K. Krishna Moorthy, S. Suresh Babu, B. V. Krishna Murthy and J. Srinivasan
- 287 Impact of lockdown-related reduction in anthropogenic emissions on aerosol characteristics in the megacity, Bengaluru A. Ajay, K. Krishna Moorthy, S. K. Satheesh and G. Ilavazhagan
- 296 Impacts of reduced 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 premonsoon: 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

RESEARCH ARTICLES



382 Chronology of coastal dune ridges in Vaigai 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: GiHsp60 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/GEOBASE/CHEMICAL ABSTRACTS/IndMED/SCOPUS/ WEB OF SCIENCE

