

CURRENT SCIENCE

Volume 126 Number 8

25 April 2024



Diatoms from ancient pots

Bootstrapping quantum field theory

Ocean heat content in the Bay of Bengal

Current Science Association ■ Indian Academy of Sciences

CURRENT SCIENCE

Volume 126 Number 8

25 April 2024



866 In this issue

GUEST EDITORIAL

- 867 Development-led transition to net zero
R. B. Grover

CORRESPONDENCE

- 869 The NIRF top 8 IITs and the Leiden 2023 rankings
Gangan Prathap

NEWS

- 870 Current Science Reports
- 874 Enhancing nutritional security and sustainable health through millets
Suman Ray, Manish Mohan Gore, Ravi Roshan Kumar, Ayaan Husain and Rupali Sharma
- 875 Eleventh RNA group meeting
Nilanjana Das and Amitabha Majumdar

COMMENTARY

- 877 Syncing Moon and minutes: the call for lunar time standards
Shanay Rab and Meher Wan
- 878 Could the microbial to host cell numbers in healthy multicellular organisms be following the golden ratio?
Mayank Murali, Alka Gupta and Murali Gopal

SCIENTIFIC CORRESPONDENCE

- 882 A unique drinking behaviour of capped langur
Samrat Sengupta and Narayan Sharma
- 883 Identification and distribution of Fe-Mg spinel bearing lithology in Mare Fecunditatis, the Moon
Joyita Thapa, Mamta Chauhan, Koyel Sur, Abhik Kundu, Prakash Chauhan and Vipin Kumar Verma

GENERAL ARTICLE

- 887 Bootstrapping quantum field theory: past, present and future
B. Ananthanarayan and Aninda Sinha

REVIEW ARTICLE

- 894 Pesticide scenario and reduction strategies in Indian cardamom farming – present and future perspectives
M. Nafeesa, M. Murugan, J. S. Remya, T. T. Preethy and Jins. K. Abraham

RESEARCH ARTICLES

- 903 Ocean heat content variability in the Bay of Bengal: a CMIP6 model analysis with implications on the Indian Ocean Dipole
A. B. Asok, A. P. Joshi and H. V. Warrior
- 916 Diatoms from ancient pots: exploring pottery sherds and palaeoenvironmental insights in the lower Kaveri River Basin archaeological landscape, Tamil Nadu, India
Mital Thacker, Atul Dwivedi, C. R. Gayathri and Balasubramanian Karthick

- 923 **Movement and home range of golden mahseer (*Tor putitora*, Hamilton 1822) inhabiting the Himalayan waters in India**
Bhawna Dhawan, Kuppusammy Sivakumar, Gopala Arcendran and Jeyaraj Antony Johnson
- 932 **Olfaction of leaf volatiles determines the most attractive host plant for *Aleurodicus rugioperculatus* Martin (Hemiptera: Aleyrodidae): potential pest management opportunities**
C. Gunalan, S. Jeyarani, M. Murugan, S. Mohankumar, S. Haripriya, P. Saravan Kumar and P. D. Kamala Jayanthi
- 941 **Evaluation of plant defence related biomolecules produced by nematophagous fungi in tomato against root-knot nematode**
S. Saranya and S. I. Patel
- 951 **Disaggregation of daily rainfall data into hourly rainfall data using statistical methods for stormwater management in urban areas**
K. M. Sri Ranga and S. Shyam Prasad

RESEARCH COMMUNICATION

- 959 **On-farm trial of oyster mushroom cultivation: the technology assessment-refinement for sustainable livelihood and strategic out-scaling**
Pinaki Roy, Ram Eshwar Prasad, Manohar Panjikar, Sachchidanand Prasad, Shriti Moses, Saloni Chauhan, Kinkar Kumar and Sangeeta Bhattacharyya

BOOK REVIEWS

- 964 **Nuclear Decommissioning Case Studies: Accidental Impacts on Workers, the Environment and the Public.** Michele Laraia; *reviewed by* N. Karunakara and B. N. Dileep
- 964 **Annual Review of Public Health, 2023.** Jonathan E. Fielding, Ross C. Brownson and Rachel C. Shelton (eds); *reviewed by* Mario Vaz

PERSONAL NEWS

- 966 **Gyan Prakash Johari (1940–2024)**
Jagdish K. Vij

HISTORICAL NOTES

- 969 **Government Marine Aquarium on the Marina promenade, Madras, established in 1909**
Anantanarayanan Raman
-



- ◀ **COVER.** Golden mahseer, the king of freshwater fish from Kosi River, Uttarakhand. Photo credit: J. A. Johnson. See page 923.

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