SCIENCE AND CULTURE

SEPTEMBER-OCTOBER 2024/VOLUME 90/NO. 9-10

A JOURNAL OF NATURAL AND CULTURAL SCIENCES

PUBLISHED BY THE

INDIAN SCIENCE		Education and Journalism — Sudhendu Mandal		333
NEWS ASSOCIATION		— Suanenau Manaai		333
		ARTICLE		
EDITORIAL BOARD		Coping up Covid-19 and Sustainable Academic		
Editor-ii	n-Chief	Environment in New–Normal Period in Urban		
Professor Sudhendu Mandal		Area of West Bengal, India — Tanima Biswas		336
Edit	ors		•••	330
Dr. Satyabrata Chakrabarti		Unveiling the Governments Initiatives to Promote		
Professor Arnab Rai Choudhuri		Organic Farming — Sudipto Debnath, Manoosi Das,		
Members		Susmita Mondal and Gajji Babu		342
Professor Avijit Banerji		How Wetland Dependent Community Sustain		
Professor Syamal Chakrabarti		Livelihood and Nutrition: Contribution of Duma		
Professor Manas Chakrabarty		Wetland to Support SDGs		
Dr. Sabyasachi Chattopadhyay		— Basanta Kumar Das, Anurag Singh,		
Dr. Amit Krishna De		D.C. Yateesh, Liton Paul, Shreya Bhattacharya, Aparna Roy, Arun Pandit,		
Professor Prabir Kumar Saha		Avishek Saha, Kausik Mondal, Sangeeta		
Dr. T.V. Venl	kateswaran	Chakraborty and Gunjan Karnatak		351
COLLABORATORS		Assessment of Proximate Composition in Selected		
Kelvin Brown (Australia)	Deepak Kumar	Fish Species from Eastern Ghats of Odisha, India		
D. P. Chattopadhyaya	(New Delhi)	— Priyanjoli Roy, Alok Kumar Naik,		
(Kolkata)	Abhijit Lahiri	G. Kumari, Laxmipriya Hati, P. Sowjanya, Debashree Valley Monsoon Mishra and		
A. D. Choudhuri	(New Delhi)	Sharat Kumar Palita		358
(Kolkata)	Monoj K. Patairiya	Pathophysiological Impacts Arising from Disruption		
Mrinal K. Dewanjee	(New Delhi)	in Copper Homeostasis		
(USA)	B.K. Pattnaik (Kanpur)	— Kaustav Bhattacharyya, Abhijit Hazra		
R. Gadagkar (Bangaluru)	V. Ravichandran	and Subhadeep Ganguly	•••	367
Ajoy Ghatak (New Delhi)	(Kolkata)	Chhau Dance: A Socio-Cultural and Socio-Economic		
Irfan Habib (New Delhi)	Amit Roy (Kolkata)	Heritage of Eastern India		
Amiya K. Hati	Satyesh Chandra Roy	— Saikat Kumar Basu and Suparna Sanyal Mukherjee		372
(Kolkata)	(Kolkata)			S. -
Mridul Hazarika	Nimai Chandra Saha	Does Institutional Climate Influence on Teachers Burnout: A Cross - Sectional Study in Secondary		
(Guwahati)	(Burdwan)	School Teachers		
S. Kailas (Mumbai)	Rajinder Singh (Germany)	— Shishupal Gorain, Kislay Kishor Mirgank,		
Punam Kakkar	Srinivasan Srikanthan	Dibya Jyoti Boruah, Renuprava Sonowal		201
(Lucknow)	(Chennai)	and Akash Ranjan		381
		Contd	ne	xt nage

EDITORIAL

Education and Journalism



MEMBERS OF THE COUNCIL

President

Dr. K. Muraleedharan

Vice-Presidents

Professor S. K. Talapatra

Professor (Mrs.) Julie Banerji

Professor Bikas K. Chakrabarti

Professor Dhrubajyoti Chattopadhyay

Professor Basab Chaudhuri

Dr. Anil K. Rajvanshi

Honorary Secretaries

Professor Manas Chakrabarty

Dr. Amit Krishna De

Honorary Treasurer

Professor Prabir Kumar Saha

Editors, Science and Culture

Professor Sudhendu Mandal, Editor-in-Chief

Dr. Satyabrata Chakrabarti

Professor Arnab Rai Choudhuri

Members

Professor Avijit Banerji

Shri Prasanta K Bose

Dr. Manoj Kumar Chakrabarti

Professor Syamal Chakrabarti

Dr. Sabyasachi Chattopadhyay

Dr. (Mrs.) Sumitra Chaudhuri

Dr. Manas Pratim Das

Dr. D. P. Duari

Dr. S. P. Gon Chaudhuri

Shri Pathik Guha

Dr. Balaram Majumder

Professor Partha P. Majumder

Shri Sitendu Mandal

Professor Shankarashis Mukherjee

Professor Devaprasanna Sinha

Dr. D. K. Srivastava

Professor (Mrs.) Bani Talapatra

Dr. T.V. Venkateswaran

OPINION

Superfluidity 389 — Sushanta Dattagupta RESEARCH COMMUNICATION Well-Being, Satisfaction with Life, Subjective Happiness and Mindfulness Across Educational Groups: A Comparative Analysis — Pragati Sureka, Rajkumari Basu and Ivan Das 391 Assessment of T2DM Onset Risk: A Study in Bengalee Young Adult Females — Sweety Bardhan, Sayantika Saha, Sambaran Mondal, Sandipan Chatterjee, Neepa Banerjee and Shankarashis Mukherjee 399

Scutum royii - a New Species from Early Permian of West Bengal, India

— A.B. De ... 405

Demise of Dr. Sisir K. Majumdar

— Manas Chakrabarty and Amit Krishna De ... 408

NOTES AND NEWS

i) Report on 90th Foundation Day of ISNA ... 409
 ii) National Doctor's Day 2024 ... 410
 iii) International Faculty Development Program on "Empowering Faculty" – A Report ... 411
 Student Award on Basic Science Research ... 413

Cover: Duma Wetland (Page 352)

Members of the Advisory Committee of Indian Science News Association

Professor Padmanabham Balaram	Bengaluru		
Professor D. Balasubramanian	Hyderabad		
Professor Uday Bandyopadhyay	Kolkata		
Professor Basudeb Barman	Kolkata		
Professor Ashoke Nath Basu	Kolkata		
Dr. Balaram Bhargava	New Delhi		
Dr. Srivari Chandrasekharan	New Delhi		
Dr. Purnendu Chatterjee	Kolkata		
Professor Suranjan Das	Kolkata		
Professor Santa Datta (De)	Kolkata		
Dr. Rajesh S. Gokhale	New Delhi		
Dr. (Mrs.) N. Kalaiselvi	New Delhi		
Professor Abhay Karandikar	New Delhi		
Dr. K. Kasturirangan	Bengaluru		
Dr. R.A. Mashelkar	Pune		
Professor Goverdhan Mehta	Hyderabad		
Dr. Himanshu Pathak	New Delhi		
Professor Ashoke Sen	Allahabad		

SCIENCE & CULTURE ADVERTISEMENT

RATE

	Single Insertion	
	(Full Page)	(Half Page)
COVER (Back)	Rs. 20,000/-	×
COVER (Front Inside)	Rs. 15,000/-	×
COVER (Back Inside)	Rs. 15,000/-	×
OTHER PAGES	Rs. 10,000/-	×

N.B.: For colour or any other special types of advertisement—rates may be negotiated.

A discount of 20% for insertions in all issues in a year and of 15% for atleast three insertions will be allowed.

TO OUR READERS

Your appreciation of the journal makes us bold to suppose that some of your friends would also like to read SCIENCE AND CULTURE, the premier scientific bi-monthly of India devoted to the publication of the progress in pure and applied sciences. The Indian Science News Association has been conducting the journal for 90 years with the editorial co-operation of eminent scientists of India with the object of promoting and diffusing knowledge laying special stress on the progress of scientific studies here and abroad, and advocating methodical application of science to problems of national regeneration.

Editorial correspondence should be sent to the Editor-in-Chief, *Science and Culture*, 92, Acharya Prafulla Chandra Road, Kolkata-700 009, E-mail: editorial.scienceandculture@gmail.com/chiefeditorscienceandculture@gmail.com/Manuscripts prepared in accordance with the Instruction to Authors should be submitted through e-mail.

Correspondence relating to subscription, advertisement and other matters should be addressed to the Honorary Secretary, Indian Science News Association, 92, Acharya Prafulla Chandra Road, Kolkata - 700 009, Phone: 2350-2224. E-mail: editorial.scienceandculture@gmail.com Website: scienceandcultureisna.org

MEMBERSHIP FEE

Life Member (India)	Rs.	7,000.00*+
Life Member (Foreign)	\$	600.00
Ordinary Member (without journal)	Rs.	100.00
Ordinary Member (with journal)	Rs.	1,000.00
(Including Postage charge)		

ANNUAL SUBSCRIPTION

	_ :
Inland (Institution)	Rs. 3,000.00
Foreign	U.S.\$ 125.00
Inland (Individual)	Rs. 400.00
Foreign (Individual)	US.\$ 60.00
Single Copy (Inland)	Rs. 200.00
Single Copy (Foreign)	\$ 20.00

^{*} Entitles to receive Science and Culture for 15 years

⁺ Rs. 1000/- towards the cost of delivery of the journal for 5 years

Past Special Issues (Sponsored)

- Natural Sciences and Engineering for Sustainable Development, Vol. 90 (7-8), July-August 2024, by Department of Physics, Kazi Nazrul University, Asansol, West Bengal
- Lifestyle Disorders and Ayurveda, Vol. 90 (5-6), May-June 2024, by Paschimbanga Ayurved Chikitsak Samity, Kolkata
- Non-Linear Dynamics, Vol. 89 (11-12), November-December 2023, by Durgapur Govt. College, Durgapur, West Bengal
- Interdisciplinary Research, Vol. 89(9-10), September-October 2023, by the Central University of Odisha, Koraput, Odisha
- Interdisciplinary Research, Vol. 89(7-8), July-August 2023, by the Central University of Odisha, Koraput, Odisha
- Environmental Toxicology, Vol.89 (3-4), March-April 2023, by The University of Burdwan, West Bengal
- Fisheries of River Ganga Under Changing Climate, Vol.88 (11-12), November-December 2022, by the ICAR-Central Inland Fisheries Research Institute, Barrackpore, Kolkata
- Fisheries of the Holy Ganga River, Vol.88 (9-10), September-October 2022, by the ICAR-Central Inland Fisheries Research Institute, Barrackpore, Kolkata
- Climate Crisis in India: Issues and Concerns, Vol.86 (1-2), January-February 2020, by Department of Atomic Energy through Raja Ramanna Fellowship Award to Prof. Alak Ray and partly by All India Peoples Science Network.
- A Quantum Jump in Computation, Vol.85 (5-6), May-June 2019, by the Department of Science and Technology through J.C. Bose Fellowship Award to Prof. Bikas K. Chakrabarti
- How Bose Statistics Changed Our Understanding of Matter, Vol.85 (1-2), January-February 2019, by S. N. Bose National Centre for Basic Sciences, Kolkata
- Meghnad Saha and the World of Plasmas, Vol.84 (11-12), November-December 2018, by the Department of Science and Technology through J. C. Bose Fellowship Award to Prof. Arnab Rai Choudhuri
- Cooperative Learning and Social Games: Kolkata Restaurant Problems, Vol.84 (1-2), January-February 2018, by the Department of Science and Technology, through its J. C. Bose Fellowship Research Grant, to Saha Institute of Nuclear Physics, Kolkata.
- J. C. Bose, Bose Institute and Scientific Legacy, Vol.83 (11-12), November-December 2017, by Bose Institute, Kolkata
- International Year of Light 2015, Vol.81 (11-12), November-December 2015, by CSIR-Central Glass and Ceramic Research Institute, Kolkata
- Nuclear Chemistry Research: Past, Present and Future, Vol.81 (9-10), September-October 2015, by Saha Institute of Nuclear Physics, Kolkata
- Communicating Science Through Science Museums, Science Centres and Planetaria towards Developing a Culture of Science, Vol.79 (11-12), November-December 2013, by National Council of Science Museum, Kolkata
- Atomic Energy in National Development, Vol.79 (1-2), January-February 2013, by Department of Atomic Energy, Govt. of India
- CSIR-NML on the March, Vol.78 (11-12), November-December 2012, by CSIR-National Metallurgical Laboratory (NML), Jamshedpur

- CSIR-CSIO: Instrumental in Scientific-eco System Measurements, Vol.78 (9-10), September-October 2012, by CSIR -Central Scientific Instruments Organisation, Chandigarh
- A Journey from Plant Physiology to Plant Biology, Vol.78 (5-6), May-June 2012, by Bose Institute, Kolkata
- New Science of Synthetic and Systems Biology, Vol.78 (3-4), March-April 2012, by CSIR-Indian Institute of Chemical Biology, Kolkata
- Impact of CSIR-NEIST in the North East Region, Vol.77 (11-12), November-December 2011, by CSIR - North East Institute of Science and Technology (NEIST), Jorhat, Assam
- Recent Trends in Tea Research, Vol.77 (9-10), September-October 2011, by Tea Research Association, Assam
- Emerging Trends in Genomics: Applications in Health and Disease, Vol.77 (1-2), January-February 2011, by CSIR-Genomics and Integrative Biology, New Delhi
- Fifteen years of Econophysics Research, Vol.76 (9-10), September-October 2010, by Saha Institute of Nuclear Physics, Kolkata
- Cholera: A Disease that Eludes Technological Advance, Vol.76 (5-6), May-June 2010, by ICMR-National Institute of Cholera and Enteric Diseases, Kolkata
- Geomagnetism and Aeronomy, Vol.75 (9-10), July-August 2009, by Indian Institute of Geomagnetism, Mumbai
- Origin of Species-A Revolutionary Argument, Vol.75 (3-4), March-April 2009, by University of Calcutta
- Scientific Legacy of Acharya J. C. Bose The Doyen of Indian Science, Vol.74 (11-12), November-December 2008, by Bose Institute, Kolkata
- Radio Science, Vol.74 (9-10), September-October 2008, by National Physical Laboratory, New Delhi
- Mysteries of the Earth's Interior, Vol.74 (5-6), May-June 2008, by National Centre of Experimental Mineralogy and Petrology, Allahabad
- Natural Products Chemistry, Vol.74 (1-2), January-February 2008, by Prof. Biswapati Mukherjee
- Forensic Science in Criminal Justice Delivery System, Vol.73 (11-12), November-December 2007, by Central Forensic Science Laboratory, Kolkata, Directorate of Forensic Science, Ministry of Home Affairs, Govt. of India
- Current Trends in Leishmania Research, Vol.73 (5-6), May-June 2007, by CSIR-Indian Institute of Chemical Biology, Kolkata
- Unconventional Applications of Physics, Vol.73 (3-4), March-April 2007, by Prof. Indrani Bose and Prof. Bikas K. Chakrabarti
- Water Resources in South Asia: An Assessment of Climate Change - Associated Vulnerabilities and Coping Mechanisms, Vol.71 (7-8), July-August 2005, by Asia-Pacific Network for Global Change Research
- Glass and Ceramic Research in India, Vol.71 (5-6), May-June 2005, by CSIR- Central Glass and Ceramic Research Institute, Kolkata