

SCIENCE AND CULTURE

MAY-JUNE 2004/VOLUME 70/NOS. 5-6

A JOURNAL OF NATURAL AND CULTURAL SCIENCES

PUBLISHED BY THE
**INDIAN SCIENCE
NEWS ASSOCIATION**

EDITORIAL BOARD

R. K. Mandal
Editor-in-Chief
Amalendu Bandyopadhyay
Julie Banerji
Syamal Chakraborty
N. C. Datta
Amit Krishna De
Vinod Kumar Gupta
Samarjit Kar
N. D. Paria
S. C. Roy

COLLABORATORS

S. Aditya
Amiya Bagchi
B. B. Biswas
R. N. Chatterjee
D. P. Chattopadhyay
Mihir Chowdhury
D. P. Duary
D. Ganguli
S. K. Ghaswala
Irfan Habib
A. K. Hati
S. B. Karmohapatro
Balaram Majumdar
C. H. Meheta
A. S. Mukherjee
Biswapati Mukherjee
S. K. Mukherjee
S. P. Mukherjee
R. P. Purkayastha
P. K. Ray
Parimal Sen
S. P. Sen
S. P. Sengupta

EDITORIAL

DR. B. C. Guha
— R. K. Mandal ... 179

ARTICLES

Cyanobacteria—A Wonderful Gift of Nature
— M. N. Jha, S. K. Misra and A. N. Prasad ... 182

Nectar Host Plants of Some Butterfly Species
at Visakhapatnam
— A. J. Solomon Raju, Atanu Bhattacharya
and S. Purnachandra Rao ... 187

Studies on Pollution Status of Jalangi River Around
Krishnanagar City in West Bengal
— P. B. Maity, T. Saha, P. B. Ghosh and
T. S. Bandyopadhyay ... 191

Predictability of Severe Tropical Cyclones over
North Indian Ocean—Statistical Exposition
— Sutapa Chaudhuri and
Surajit Chattopadhyay ... 195

Barks of *Erythrina Indica* Lam.—Hope for a
Non-toxic Hypoglycemic Agent
— P. R. Bhattacharjee, S. Pal (Datta)
D. P. Bhattacharjee, U. K. Majumder
and M. Gupta ... 198

History of Indian Pharmacy – A Perspective
— A. P. Hardas ... 201

OBITUARY

Professor Monindra Mohan Chakrabarty
— D. K. Bhattacharyya ... 206

Prof. B. R. Nag (1932-2004)
— P. K. Basu ... 208

NOTES AND NEWS

... 210

Contd. next page.



Indian Science News Association

President

Dr. A. P. Mitra

Vice-Presidents

Professor Sujit Kumar Basu
Professor B. B. Biswas
Professor (Mrs.) Asima Chatterjee
Professor Nityananda Saha
Professor M. Siddiqi
Professor M. S. Swaminathan

Hony. Secretaries

Professor (Mrs.) Julie Banerji
Professor Naresh Chandra Datta

Hony. Treasurer

Professor Amalendu Bandyopadhyay

Council Members

Professor (Mrs.) Tapati Basu
Dr. Amitabha Chatterjee
Dr. Amal Roy Chowdhury
Dr. Satya Brata Das Gupta
Dr. S. Dattagupta
Dr. E. Desha
Dr. Dibyendu Ganguly
Dr. H. S. Maiti
Dr. C. R. Maity
Dr. Baram Majumder
Dr. Sisir Kumar Majumdar
Professor Sudhendu Mandal
Professor Biswapati Mukherjee
Professor Debasish Mukherjee
Dr. Gopeswar Mukherjee
Professor P. K. Ray
Professor Parimal Chandra Sen
Professor S. K. Talapatra

*Members of the Editorial Board are also
members of the Council*

LETTERS TO THE EDITOR

- Determination of a Relation among the Planetary Motion, Time Period and distance Between Planet and Star without using Newton's and Kepler's Laws
— *Shaon Sahoo* ... 219
- Partial Mechanization of Raw Jute Processing
— *T. Ghosh and K. Chakraborty* ... 223
- Rice Cultivation by Bonda Tribes in Orissa
— *B. C. Patra, S. R. Dhua and S. Sasmal* ... 225
- Identification of Sanguinarine (Benzophenanthridine Alkaloid) : Rapid Detection of Agremone Oil in Mustard Oil
— *Avanish Kumar Shukla,
Anuradha Tiwari and Arvind Dixit* ... 227

Cover : World Environment Day : The challenge of the green century.
Inset : Dr. B. C. Guha whose Birth Centenary falls on 7th June, 2004.

**Members of the Advisory Committee
of
Indian Science News Association**

Professor Padmanabham Balaram	Bangalore
Professor B. B. Baliga	Mangalore
Professor Basudeb Barman	Kolkata
Professor Ashok Nath Basu	Kolkata
Dr. Sandip Kumar Basu	New Delhi
Professor Jagadish Chandra Bhattacharyya	Bangalore
Professor M. K. Das Gupta	Kolkata
Professor Asis Datta	Kolkata
Dr. H. K. Gupta	Hyderabad
Dr. K. Kasturirangan	Bangalore
Dr. R. A. Mashelkar	New Delhi
Professor M. G. K. Menon	New Delhi
Dr. S. C. Pakrashi	Kolkata
Professor Yash Pal	New Delhi
Dr. V. S. Ramamurthy	New Delhi
Dr. C. N. R. Rao	Bangalore
Professor (Mrs.) Manju Sharma	New Delhi
Dr. Bikash Sinha	Kolkata
Professor D. K. Sinha	Kolkata

**SCIENCE & CULTURE
ADVERTISEMENT**

RATE

	Single Insertion	
	(Full Page)	(Half Page)
COVER (Back)	Rs. 5,000/-	×
COVER (Front Inside)	Rs. 3,500/-	×
COVER (Back Inside)	Rs. 3,500/-	×
OTHER PAGES	Rs. 2,000/-	Rs. 1,200/-

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 & CULTURE**, the premier scientific 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 over 69 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, *Science and Culture*, 92, Acharya Prafulla Chandra Road, Kolkata : 700 009. Manuscripts prepared in accordance with the Instruction to Contributors should be submitted in **Triplicate** and will not be returned unless accompanied with return postage.

Correspondence relating to subscription, advertisement and other matters should be addressed to the **Hony. Secretary, Indian Science News Association, 92, Acharya Prafulla Chandra Road, Kolkata : 700 009, Phone :- 2350-2224. E-mail : isna@vsnl.net**

MEMBERSHIP FEE

Life Member	:	Rs. 1500.00
Ordinary Member (without journal)	Rs.	100.00
Ordinary Member (with journal)	Rs.	400.00

ANNUAL SUBSCRIPTION

Inland (Institution)	Rs.	800.00
Foreign	U.S.\$	100.00
Inland (Individual)	Rs.	400.00
Foreign (Individual)	US.\$	50.00
Single Copy (Inland)	Rs.	80.00
Single Copy (Foreign)	\$	20.00

SCIENCE AND CULTURE

Published by :— INDIAN SCIENCE NEWS ASSOCIATION
92, Acharya Prafulla Chandra Road, Kolkata-700 009

AN APPEAL

The Indian Science News Association (ISNA) was established in the year 1935 by eminent scientists Professor Meghnad Saha and Acharya P. C. Ray, and was sustained by Professor S. K. Mitra, Professor B. C. Guha, Professor D. S. Kothari, Professor S. S. Bhatnagar, Professor P. C. Mahalanobish, Prof. D. M. Bose and many other stalwarts. The main objective of the Association is to promote and disseminate knowledge, laying special stress on scientific studies in India and abroad and to advocate the methodical application of science to problems of national regeneration. The Association provides a platform to the growing scientific knowledge vis-a-vis the culture of our country. The first President of the Association was Acharya P. C. Ray and the founder secretaries were Professor Meghnad Saha and Professor B. B. Roy.

The 'Science and Culture' is the mouth piece of the organization. With the above objectives in view, the Association has been publishing 'SCIENCE AND CULTURE' monthly, since 1935. Not only scientific articles but also articles on social and cultural aspects of the country are published in the journal. Many important articles on nationally important events, conservation and developmental aspects have been published in the journal.

Besides the publication of the journal, the Association holds a number of memorial and endowment lectures throughout the year. Since 1983, an annual course (of 10-12 weeks duration) on Science Communication and Media Practices is held to train young aspirants.

During its long period of existence, the Association witnessed several financial crises as it is autonomous and depends on grants and donations, both from government and charitable organizations. However, the slump during 1992-95 was acute and affected the publication of the journal. It was decided during that time to publish the journal bimonthly and keep the continuity. Since then, by acquiring some funds, an endowment has been created and the journal is brought out on the interest proceeds of the fund. Recent years have witnessed an increasing popularity of the (truncated bimonthly) journal and there is a demand amongst readers for monthly publication.

However, the funds position do not permit this. As more and more well written and thought provoking articles are arriving at our office for publication in the journal, it is all the more tempting to revamp the journal and bring it back to monthly publication. Hence this appeal to you to donate generously to ISNA to help us put our plans into action in the new millennium.

The donation will be exempt from income tax vide U/S 80G of I.T. Act 1961, Order No $\frac{\text{DIT (E) / 1290}}{8E / 87 / 99 - 2000}$
Dated- 25.03.2004.

Any donation/contribution should be issued by crossed cheque/draft drawn in favour of Indian Science News Association.

We trust your liberal participation and patronage will help us to restore the heritage (running into 68th year) of Indian Science to new heights of glory.

Thanking you,

President : Dr. A. P. Mitra, F.R.S.
Vice-Presidents : Prof. (Mrs.) Asima Chatterjee
Prof. M. S. Swaminathan
Prof. B. B. Biswas
Prof. M. Siddiqi
Prof. Nityananda Saha
Prof. Sujit Kumar Basu

Honorary Secretaries : Prof. (Mrs.) Julie Banerji
Prof. Naresh Chandra Datta

Honorary Treasurer : Prof. Amalendu Bandyopadhyay

Members of the Editorial Board: Prof. R. K. Mandal (Editor-in-Chief)
Prof. N. C. Datta
Prof. (Mrs.) Julie Banerji
Prof. Amalendu Bandyopadhyay
Prof. Vinod Kumar Gupta
Prof. S. C. Roy
Prof. N. D. Paria
Dr. Syamal Chakraborty
Shri Samarjit Kar
Dr. Amit Krishna De