INDIAN JOURNAL OF NATURAL SCIENCES (IJONS)

BIMONTHLY INTERNATIONAL JOURNAL

Editor-in-Chief Dr.S.Vijikumar

Published by TAMILNADU SCIENTIFIC RESEARCH ORGANISATION

ARIMALAM – 622 201, PUDUKKOTTAI, TAMIL NADU INDIA

Editor-in-Chief, Editorial Board and Publisher take no responsibility for inaccurate, misleading data, opinion and statements appeared in the articles and advertisements published in this journal. It is the sole responsibility of the contributors and advertisers. No part of this journal can be reproduced without the written permission of the Editor-in-Chief who also holds the copyright © of the "Indian Journal of Natural Sciences (IJONS)".

Indian Journal of Natural Sciences (IJONS)

| Editor-in-Chief | Dr.S.Vijikumar Director TamilNadu Scientific Research Organisation | |
|-------------------------|---|--|
| | Arimalam – 622 201. Pudukkottai, Tamil Nadu. India. | |
| | Editorial Committee | |
| Honorable Chief Advisor | Prof. Dr. V. Ramaiyan Marine Biologist Research Advisor Sri Venkateswara College of Arts & Science. Peravoorani, Thanjavur. Tamil Nadu. India. | |
| Honorable Member | Dr. N. Jayabalan Professor & Head, Dept. of plant Science, School of life Sciences Bharathidasan University, Tiruchirappalli. Tamil Nadu. India. | |
| Honorable Member | Dr. T.S. Saravanan Professor & Head Associate Professor in Zoology Jamal Mohamed College Tiruchirappalli – 620 020, Tamil Nadu. India. | |
| Honorable Member | Dr.S.P.Subramaniyan Asst.Controller of Patents and Designs (Govt.of India) Patent Office,IPR Building,GST Road,Guindy,Chennai 600032 | |
| Honorable Member | Er. Abdul Samad. M. Kamdod Assistant Professor Department of Civil Engineering Swami Ramananda Tirtha Institute of Science & Technology Nalgonda-508 004, Andhra Pradesh, India | |
| Honorable Member | Dr. Hina kousar Assistant Professor Department of Environmental Sciences, Kuvempu University Shankaraghatta, Shivamogga – 577 451, Karnataka ,India | |
| Honorable Member | Mr.B.Rajesh Manager (Tech. Services Env.) Grass Roots Research & Creation India (P) Ltd Noida – 201301,Uttar Pradesh,India | |
| Honorable Member | Mr. K.Ramanathan Head, Department of Bioinformatics, Thanthai Hans Roever College Perambalur, TamilNadu, India. | |
| Honorable Member | Dr. K.Gurunathan Prof & Head, Department of Nano science & Technology, Alagappa University, Karaikudi, TamilNadu, India. | |
| Honorable Member | Dr. Rajashekhar O, Patil Assistant Professor, Department of Environmental Management Sant Gadge Maharaj College of Commerce & Economics, Mumbai 400004, India | |

| Honorable Member | Dr.M.Ravichandran Prof.& Head Department of Environmental Management Bharathidasan University, Tiruchirappalli. Tamil Nadu. India. |
|------------------|---|
| Honorable Member | Dr.M.Krishnan Prof.& Head Department of Environmental Biotechnology Bharathidasan University, Tiruchirappalli. Tamil Nadu. India |
| Honorable Member | Dr.K.Kumarasamy Prof.& Head Department of Geography Bharathidasan University, Tiruchirappalli. Tamil Nadu. India |
| Honorable Member | Mr.Mohummad Jawaid Alam Nature Club of India 65/B,Zaakir Nagar, PC Colony, Kankarbah, Patna-800020, Bihar. |
| Honorable Member | Dr.G.G.Hammad Ahmad Shadab Senior Assistant Professor, Department of Zoology Aligarh Muslim University Aligarh-202002,Uttar Pradesh |
| Honorable Member | Dr.H.Syed Jahangir Assistant Professor, P.G. and Research Department of Botany Jamal Mohamed College(Autonomous) Trichirappalli-620020, TamilNadu, India. |
| Honorable Member | Dr. P. Santhanam Assistant Professor Department of Marine Science, School of Marine Sciences Bharathidasan University, Tiruchirappalli. Tamil Nadu. India |

Indian Journal of Natural Sciences (IJONS)

 Volume II
 October
 2011

 CODEN: IJONS (8) (2011)
 Issue 8
 ISSN: 0976 - 0997

| S. No | CONTENTS | Page No |
|-------|---|---------|
| | Editorial | |
| 1 | Production and Utilization of Marine Copepods as Live feed for Larval Rearing of Tiger Shrimp <i>Penaeus monodon</i> with Special Emphasis on Astaxanthin Enhancement - Ananthi P, P. Santhanam, R. Nandakumar, S. Ananth, K. Jothiraj, S. Dinesh Kumar, B. Balaji Prasath and T. Jayalakshmi | 494-503 |
| 2 | Effect of Growth Regulators on Yield and Quality in Phalsa (<i>Grewia Sub-Inaequalis</i> Dc)- Abhijit Debnath, K Vanajalatha , Umarfarooque Momin Adamsab.M.Patel and Hina Kousar | 504-510 |
| 3 | Anthropogenic Impacts on Hydrochemical Characteristics of River Gomti in Lucknow City,India- Rajesh B, Dhanakumar S and Mohanraj R | 511-517 |
| 4 | Biological Synthesis of Nanoparticles by using Crabshell (<i>Scylla serrata</i>) and Exploration of their Medicinal Properties - Sudeep jain and kasinathan | 518-524 |
| 5 | Removal of Mercury from Synthetic Effluent using Activated Rice Husk Carbon and Activated Carbon as an Adsorbents - Suman Pawar, Abdul Samad Kamdod, Sirajuddin.M.Horaginamani , M.Ravichandran and Krishna Gurlhosur | 525-531 |
| 6 | An Investigation on Heavy Metals Accumulation in Water, Sediment and Small Marine Food Chain (Plankton And Fish) from Coromandel Coast, Southeast Coast of India- V. Chinnaraja, P. Santhanam, B. Balaji Prasath, S. Dinesh Kumar and K. Jothiraj | 532-540 |
| 7 | Design and Development of Soil Moisture Deficit Based Drip Automation System- Umarfarooque Momin, D.Tamilmani, M.V.Ranghaswami, K.V.Laven, Manoj P Samuel and Prasad .S.Kulkarni | 541-546 |
| 8 | Selection of the Best Enzyme for the Production of Detergents Krishna Gurlhosur, Abdul Samad Kamdod, Sirajuddin M Hraginamani, M .Ravichandran and Suman Pawar | 547-553 |
| 9 | Solid Waste Management in Tiruchirappalli, Tamil Nadu,India Rajesh B , T.B.V. Krishna Reddy , Santhosh M.D | 554-567 |
| 10 | Species Diversity of Avenue Trees in the Coimbatore City, TamilNadu, South India. | 568-579 |
| | Mary Josephine R and Ramakrishnan B | |
| 11 | Influence of Drip Irrigation Methods on Growth and Yield of Onion at Raichur Region Mallikarjun Reddy, M. S. Ayyanagowdar , M. Nemichandrappa, Umarfarooque Momin , Sirajuddin. M. Horaginamani and M. Ravichandran | 580-587 |
| 12 | Screening of Antimicrobial Activity of Selected Medicinal Plants <i>Cassia surattensis</i> Burm.f and <i>Rhinacanthus nasutus</i> (<i>L</i>) Kure H. Syed Jahangir and R. Nazeerullah | 588-599 |
| 13 | Instruction to Author | 599-603 |

Editorial

Dear Readers...
International Year of Forests (IYF2011) Greetings

Forests contain some of our planet's most vibrant ecosystems, displaying a wondrous variety of birds, animals, and plants. Forests are the basis for more than 5,000 products, from aromatic oil distilled from leaves to herbal medicines, fuel, food, furniture and clothing; they prevent soil erosion and help to regulate the climate; they provide clean water; they inspire us in art, research and religion; and they are essential to the survival and well-being of people everywhere—all 7 billion of us. Yet, the world's forests are facing immense pressures and challenges. Key findings from the Global Forest Resources Assessment 2010 show that while deforestation has slowed some what in recent years as compared to the 1990s, it is still alarmingly high.



Continued deforestation has resulted in carbon emissions, shortages in water and food supply, and an unprecedented loss of biodiversity. But the world is not standing idly by. Governments, international organizations and forest stakeholder groups are taking action—to find ways of conserving and sustainably managing forests for the benefit of present and future generations.

The United Nations proclaimed 22 May as the International Day for Biological Diversity to promote a greater understanding and awareness of biodiversity issues. The theme of the 2011 International Day for Biological Diversity is forest biodiversity. The Secretariat of the Convention on Biological Diversity (CBD Secretariat) encourages governments and civil society everywhere to organize activities and events to celebrate this day, raise public awareness, showcase good practices and inspire further actions for preserving forest biodiversity.

This International Year of Forests (IYF2011) event aims to raise awareness of the threats and challenges faced by forests and to promote efforts for forest conservation and sustainable management. Maintaining the world's rich forest biodiversity will help us combat the climate crisis, alleviate poverty, support human health, and leave our children and grandchildren the bountiful and beautiful legacy of living forests that we enjoy today. Many of the essential benefits we derive from forests are underpinned by forest biodiversity, as is the capacity of forests to adapt to pressures, including climate change. The greater scientific, management and political focus on forest biodiversity conservation is offering new understanding, insights and opportunities for responding more effectively to forest biodiversity loss.

Naturally yours

Vijikumar. S

Chief Editor