



Estd. 1954

প্ৰাগজ্যোতিষ মহাবিদ্যালয়  
**PRAGJYOTISH COLLEGE**

Affiliated to Gauhati University and  
Recognized under Sections 2(f) and 12(B) of the U.G.C. Act, 1956

**Self-Study Report (SSR)**

**2018-2023**

**CRITERIA 3.3.1**

**Number of papers published per teacher in the Journals notified on UGC website**

**RESEARCH, INNOVATION AND EXTENSION**


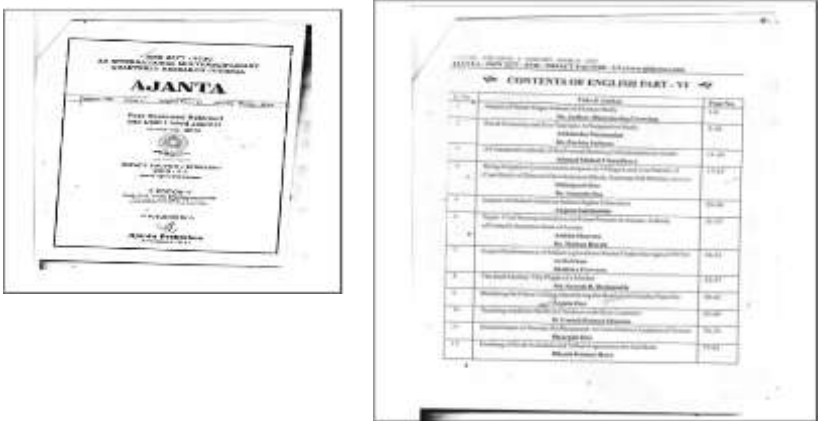
**Submitted to**

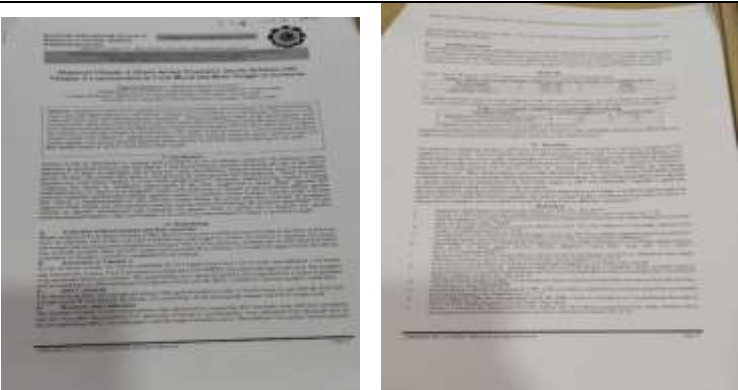





**THE NATIONAL ASSESSMENT AND ACCREDITATION COUNCIL**

**Supporting documents related to Research Innovation, and Extension under Criterion III for Number of research papers published per teacher in the Journals notified on UGC website is provided as follows**

2018-2019

SI No	Title of the paper	Name of the author	Title of the journal	Supporting document
1	Arsenic stress responses and tolerance in rice physiological cellular and molecular approaches	AmitKumar Pradhan	ScienceDirect	
2	Breaking the Glass ceiling Identifying the Barriers to Gender Equality	ArpitaDas	Ajanta	

<p><b>3</b></p>	<p>Maternal Vitamin A status during pregnancy and it's relation with Vitamin A Concetration in CordBlood and Birth Weight of Newborns</p>	<p>Baghmita Bhagawati</p>	<p>NaturalScience</p>	
<p><b>4</b></p>	<p>A new type of difference class of interval numbers</p>	<p>Dr. AmarJyoti Dutta</p>	<p>Proyecciones Journal of Mathematics</p>	

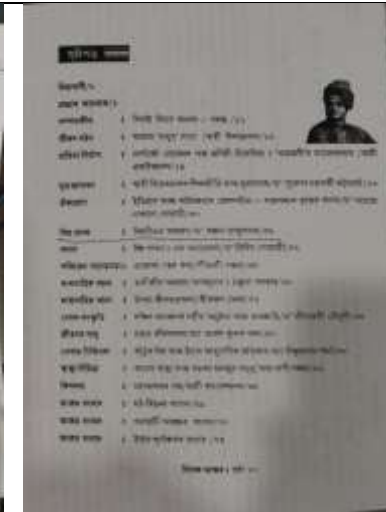
<p><b>5</b></p>	<p>Dry Fish Market: An Analytical Study of Jagiroad Dry Fish Market Assam India</p>	<p>Dr. Jayanta Deka</p>	<p>International Educational Scientific Research Journal</p>	
<p><b>6</b></p>	<p>Brahmaputra River Pollution and its effect on channa punctatus in terms of energy calculation</p>	<p>Dr. Jayanta Deka</p>	<p>Asian Academic Research for Multi Disciplinary</p>	

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Bihu Geetot Angarag

Dr. Kalpana Talukdar


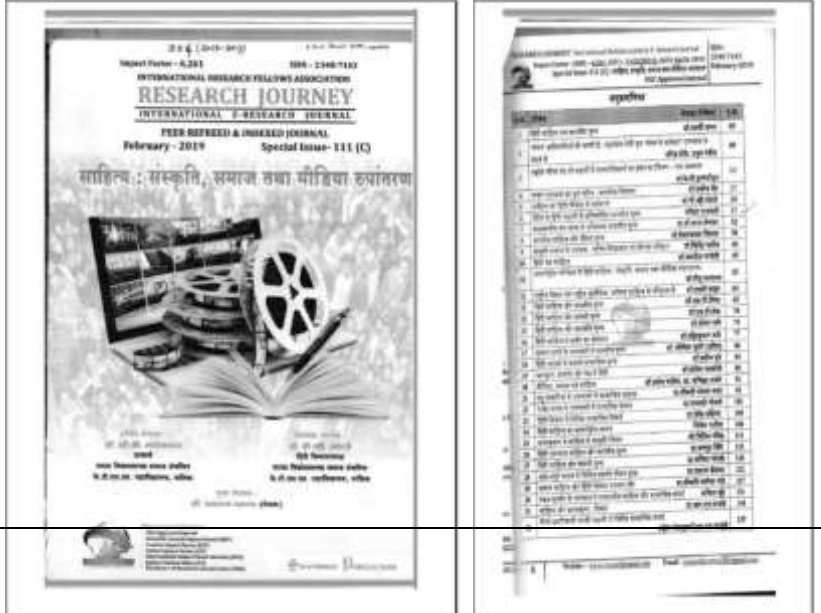
Bibek Bhaskar

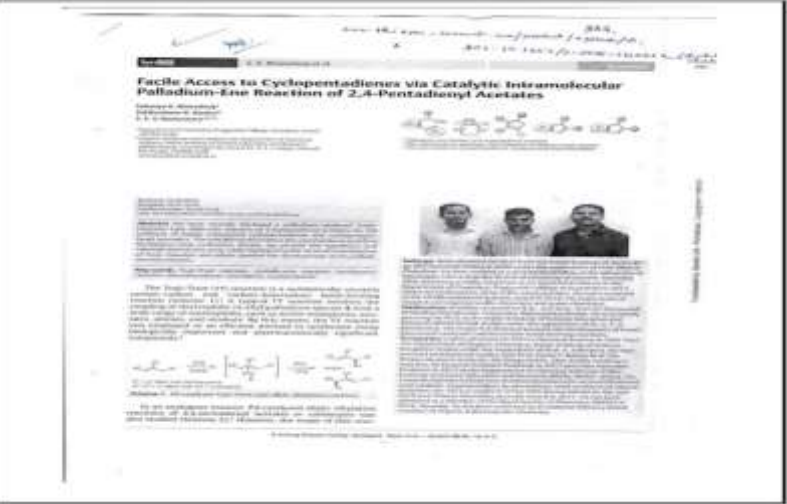




<p><b>9</b></p>	<p>Antioxidant defences and oxidative stress effects of methanol extract of Oroxyllum indicum Vent. Leaves in murine macrophages of M1 and M2 Phenotype</p>	<p>HimadriSaikia</p>	<p>International Immunopharmacology</p>	
<p><b>10</b></p>	<p>Health Expectancy Under Dynamic Set up for India and its Selected States</p>	<p>MompiSharma</p>	<p>Indian Journal of Public Health Research Development</p>	



<p><b>11</b></p>	<p>Monazite and xenotime UThPb Total ages from basement rocks of the (central) Shillong Meghalaya Gneissic complex Northeast India</p>	<p>Dr.Mridul Rabha</p>	<p>Indian Academy of Science</p>	
<p><b>12</b></p>	<p>Britainke Hindi Kahani Mein Abhiyanjit Manabiya Muyla</p>	<p>Nandita Rajbongshi</p>	<p>Researchjourney</p>	

<p><b>13</b></p>	<p>Facile Access to Cyclopentadienes via Catalytic Intramolecular Palladium-Ene Reaction of 2,4-Pentadienyl Acetates</p>	<p>Saitanya K Bharadwaj</p>	<p>Thieme</p>	 <p>The image shows the cover of a scientific article. The title is 'Facile Access to Cyclopentadienes via Catalytic Intramolecular Palladium-Ene Reaction of 2,4-Pentadienyl Acetates'. The authors listed are Saitanya K. Bharadwaj and Thieme. The cover features a chemical reaction scheme showing the conversion of a 2,4-pentadienyl acetate derivative to a cyclopentadiene derivative. There is also a small photograph of three people, likely the authors, and some text in a non-English script at the top.</p>

### 3.2.1 Number of papers published per teacher in the Journals notified on UGC website during the year- 2020-2021

Title of paper	Name of the author/s	Link to the recognition in UGC enlistment of the Journal
In depth study on POS tagging for Assamese language	Dr.Karabi Kherkatary Boro	<a href="http:journal.dbuniversity.ac.in/ojs/index.phd/AJET/article/view/1407">http:journal.dbuniversity.ac.in/ojs/index.phd/AJET/article/view/1407</a>
Transcriptomic analysis revealed reactive oxygen species scavenging mechanisms associated with ferrous iron toxicity in aromatic Keteki Joha rice	Preetom Regon, Sangita Dey, Mehzabin Rehman, Amit Kumar Pradhan, Bhaben Tanti, Anupam Das Talukdar, Sanjib	<a href="#">Transcriptomic analysis revealed reactive oxygen species scavenging mechanisms associated with ferrous iron toxicity in aromatic Keteki Joha rice   bioRxiv</a>

	Kumar Panda	
Cobalt sulfide-reduced graphene oxide: An efficient catalyst for the degradation of rhodamine B and pentachlorophenol using peroxymonosulfate	Priyakshree Borthakur	<a href="https://doi.org/10.1016/j.jece.2021.106018">https://doi.org/10.1016/j.jece.2021.106018</a>
CuS nanoparticles decorated MoS <sub>2</sub> sheets as an efficient nanozyme for selective detection and	Priyakshree Borthakur	<a href="https://doi.org/10.1039/D1NJ00856K">https://doi.org/10.1039/D1NJ00856K</a>

photocatalytic degradation of hydroquinone in water		
CuS and NiS Nanoparticle-Decorated Porous-Reduced Graphene Oxide Sheets as Efficient Peroxidase Nanozymes for Easy Colorimetric Detection of Hg(II) Ions in a Water Medium and Using a Paper Strip	Priyakshree Borthakur	<a href="https://doi.org/10.1021/acssuschemeng.1c04203">https://doi.org/10.1021/acssuschemeng.1c04203</a>
Bayesian Modeling Coherenced Green Synthesis of NiO Nanoparticles Using <i>Camellia sinensis</i> for Efficient Antimicrobial	Saitanya Kumar Bharadwaj	<a href="https://doi.org/10.1007/s12668-021-00882-x">https://doi.org/10.1007/s12668-021-00882-x</a>

Activity		
Separation of Lipoprotein Fractions by Selective Precipitation Method for Carotenoid Analysis	Bagmita Bhagawati	<a href="http://rias.org/Article/Article/3644">http://rias.org/Article/Article/3644</a>

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<p>Effect of Different Acids in the Extraction Procedure of Anthocyanin from Locally Available Banana Bract (Bhimkol) by two Different Conventional Methods</p>	<p>Bagmita Bhagawati, Satya Sandhya Das</p>	<p><a href="http://rjas.org/Article/Article/3897">http://rjas.org/Article/Article/3897</a></p>
<p>□□□□□□ □□□□□ □□□□□ □□□ □□□□□□□ □□□□□□ □□□□□□□</p>	<p>□□ □□□□□□ □□□□□□</p>	<p><a href="https://drive.google.com/file/d/1X2j3JKI75mJGss0N6U4yU5QHniyFA6Gt/view?usp=drivesdk">https://drive.google.com/file/d/1X2j3JKI75mJGss0N6U4yU5QHniyFA6Gt/view?usp=drivesdk</a></p>
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<p>Generalized ISI index of certain families of nanostar dendrimers</p>	<p>Ankur Bharali, Aditya Pegu, Jibonjyoti Buragohain, Budheswar Deka</p>	<p><a href="https://www.tandfonline.com/journals/tjim20">https://www.tandfonline.com/journals/tjim20</a></p>

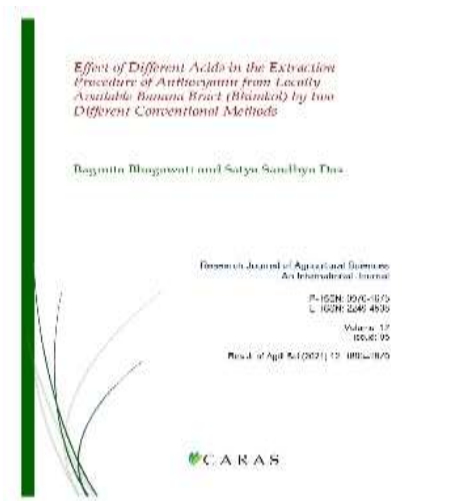
Concept of Moksa in Samkhya in Samkhya Philosophy: A Study in the Light of Samkhyakarika	Dr. Kabita Doloj	<a href="http://www.pracyajournal.com">www.pracyajournal.com</a>
Religion and Society: A thereotical perspective	Dr.Arпита Das	<a href="http://www.openaccessjournal.com">www.openaccessjournal.com</a>
The Importance of Kautilya's Arthasastra for the Promotion of Indian Philosophical Tradition	Dr. Anjali Devi	<a href="http://seresearchfoundation.in/shodhsarita">http://seresearchfoundation.in/shodhsarita</a>
First record of the genus Chinattus Logunov 1999 with the description of a new species from India (Araneae: Salticidae: Hasariini)	Paris Basumatary , Sangeeta Das , John T. D. Caleb & Dulur Brahma	<a href="https://www.istage.ist.go.ip/article/asjaa/69/2/69_127/_pdf">https://www.istage.ist.go.ip/article/asjaa/69/2/69_127/_pdf</a>



<p>A study on web asymmetry and prey capture in <i>Argiope pulchella</i> Thorell, 1881 (Araneae: Araneidae)</p>	<p>Sangeeta Das, Jatin Kalita and Nilutpal Mahanta</p>	<p><a href="http://www.envirobiotechjournals.com/article_abstract.php?aid=10900&amp;iid=320&amp;jid=3">http://www.envirobiotechjournals.com/article_abstract.php?aid=10900&amp;iid=320&amp;jid=3</a></p>
<p>Redescription of the net-casting spider <i>Asianopis goalparaensis</i> (Tikader et Malhotra, 1978) comb.n. (Araneae: Deinopidae) from India</p>	<p>Paris Basumatary , John T.D. Caleb, Sangeeta Das, Dulur Brahma</p>	<p><a href="https://www.semanticscholar.org/paper/Redescription-of-the-net-casting-spider-Asianopis-Basumatary-Caleb/9543cfc0588975753f00676e3c7c9ad8bfc3e8b">https://www.semanticscholar.org/paper/Redescription-of-the-net-casting-spider-Asianopis-Basumatary-Caleb/9543cfc0588975753f00676e3c7c9ad8bfc3e8b</a></p>
<p>Rights of Tribal Women - With Sspecial References to the Martrilineal Descent System of the Khasi Tribe of Meghalaya</p>	<p>Seema Kaur</p>	<p><a href="http://www.aadharsocial.com">www.aadharsocial.com</a></p>

<p>UV-B Radiation Response on Inducible Nitric Oxide Synthase and Antioxidant Defense System in Heteropneustes fossilis</p>	<p>Pritimoni Das, Manas Das, Sankranti Devi</p>	<p><a href="https://link.springer.com/epdf/10.1007/s12595-021-00372-8?sharing_token=R1nicV4mfpwHD14D0_j4ave4RwlQNchNByi7wbcMAY6VHhpNr3ufq3hgSdl7PJkkNRAYFhaVj_4vQGjtLeSGHueWovAxBeza49C8VyzoUxGjwN9vQP01B1Hv-MOvNHw9LKLiWhD6hh2HgC8lzS4OAQCufzU2qvy7VALwwl14THA%3D">https://link.springer.com/epdf/10.1007/s12595-021-00372-8?sharing_token=R1nicV4mfpwHD14D0_j4ave4RwlQNchNByi7wbcMAY6VHhpNr3ufq3hgSdl7PJkkNRAYFhaVj_4vQGjtLeSGHueWovAxBeza49C8VyzoUxGjwN9vQP01B1Hv-MOvNHw9LKLiWhD6hh2HgC8lzS4OAQCufzU2qvy7VALwwl14THA%3D</a></p>
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### 3.3.2 Number of research papers published per teacher in the Journals notified on UGC website during the last five years 2021-2022

Sl No	Title of the paper	Link of the paper/ Supporting document
1.	Evaluation of the potential yield and associated component traits of lowland Boro rice cultivars in Assam, India	<a href="https://www.springer.com/journal/42535">https://www.springer.com/journal/42535</a>
2.	Transcriptomic Analysis Revealed Reactive Oxygen Species Scavenging Mechanisms Associated With Ferrous Iron Toxicity in Aromatic Keteki Joha Rice	<a href="http://dx.doi.org/10.3389/fpls.2022.798580">http://dx.doi.org/10.3389/fpls.2022.798580</a>
3 and 4	Effect of Different Acids in the Extraction Procedure of Anthocyanin from Locally Available Banana Bract (Bhimkol) by two Different Conventional Methods	 <p> <b>Effect of Different Acids in the Extraction Procedure of Anthocyanin from Locally Available Banana Bract (Bhimkol) by two Different Conventional Methods</b>              Bagmati Bhagwati<sup>1*</sup> and Satya Sandhya Das<sup>2</sup> </p> <p>             Received: 21 Aug 2021   Revised accepted: 21 Jan 2022   Published online: 18 Oct 2021              © CARAS (Centre for Advanced Research in Agriculture Sciences) 2021         </p> <p> <b>ABSTRACT</b>              Anthocyanin, a natural natural pigment possesses many phytochemical activities along with various health benefits. It can be used as a natural colorant in food and as a preservative in pharmaceutical industry. In this study anthocyanin was extracted from banana bract at Shimoga, Karnataka by LC and ultrasonic waves, LC (Local Anthocyanin Content) was determined using a HPLC method and estimated by using UV-visible spectrophotometer under different extraction conditions. The finding of this study reveals that LC is found to be 40.39 mg/100g in the studied banana bract using two different extraction methods. In this study, a suitable extraction procedure, the extraction conditions used in this study is more, lower degradation of anthocyanin and cost-effectively harvesting the banana bract and thus, easy extraction of anthocyanin and can be used by producing a strong purple colorant material.         </p> <p> <b>Key words:</b> Bhimkol, Banana Bract, Anthocyanin, LC, pH-Dependent method, PAC         </p> <p>             Banana is one of the most important and popular cultivated food crops available all over the world that provides numerous health benefits (1). The banana bract or banana sheath, also known as banana leaf or banana inflorescence is a byproduct of banana stem. The vegetable waste from banana bract is used in the preparation of variety of dishes in our country whereas, the discarded byproduct of banana bract, the banana sheath (Bhimkol) did not involving the banana stem (2). Several researches across the world reported the presence of different types of pigments in banana bract like flavonoids and poly phenolic compounds (3, 4) revealed that the waste of banana bract can be the potential phytochemical rich byproduct (5). Anthocyanin is the abundance of polyphenolic which belongs to the phenolic group which is flavonoids and serves many health benefits throughout the world (6, 7). There are many methods to extract food colourant derived from variety of other sources. It such as they have conventional and ultrasonic extraction and processing additional health benefits. They also improve flavonoid and polyphenolic activity due to the presence of strong beneficial antioxidants. It is reported that natural food colours are more expensive than synthetic ones such as         </p> <p>             * Bagmati Bhagwati              1. Department of Agriculture, Technology, 201008,              Bangalore, Karnataka, India              2. Department of Agriculture, Technology, 201008,              Bangalore, Karnataka, India         </p>

5. A crowdsourced global data set for validating built-up surface layers,

www.nature.com/scientificdata/

## scientific data

OPEN

DATA DESCRIPTOR

### A crowdsourced global data set for validating built-up surface layers

Linda See<sup>1,2\*</sup>, Iselina Georgieva<sup>3</sup>, Martine Duressoy<sup>4</sup>, Thomas Kampen<sup>5</sup>,  
Christine Corbane<sup>6</sup>, Luca Maffionni<sup>7</sup>, Javier Gallego<sup>8</sup>, Martino Pesaresi<sup>9</sup>, Flavio Sirbu<sup>10</sup>,  
Rokib Ahmed<sup>11</sup>, Kateryna Blyshchyk<sup>12</sup>, Brigitte Magori<sup>13</sup>, Volodymyr Blyshchyk<sup>14</sup>,  
Oleksandr Melnyk<sup>15</sup>, Roman Zadorozhnyi<sup>16</sup>, Milan-Traian Mendici<sup>17</sup>, Yuan-Fang Su<sup>18</sup>,  
Ahmed Hani Badawi<sup>19</sup>, Ana Pérez-Hoyos<sup>20</sup>, Roman Vasylyshyn<sup>21</sup>, Chandra Kant Pawar<sup>22</sup>,  
Svitlana Bilous<sup>23,24</sup>, Serhi B. Kovalivskyi<sup>25</sup>, Sergii S. Kovalivskyi<sup>26</sup>, Kusumbar Bordoloi<sup>27</sup>,  
Andrii Bilous<sup>28</sup>, Kripal Pangloss<sup>29</sup>, Valentyn Bilous<sup>30</sup>, Reinhard Prestele<sup>31</sup>,  
Dhrubajyoti Sahaiah<sup>32</sup>, Anjan Deka<sup>33</sup>, Nityanjan Nath<sup>34</sup>, Rui Neves<sup>35</sup>,  
Viktor Myroniuk<sup>36</sup>, Matthias Kerner<sup>37</sup> & Stefan Fritz<sup>38</sup>

Several global high-resolution built-up surface products have emerged over the last five years, taking full advantage of open sources of satellite data such as Landsat and Sentinel. However, these data sets require validation that is independent of the producers of these products. To fill this gap, we designed a validation sample set of 88K locations using a stratified sampling approach in dependence of any existing global built-up surface products. We launched a crowdsourcing campaign using Geo-Wiki (<https://www.geo-wiki.org/>) to visually interpret this sample set for built-up surfaces using very high-resolution satellite images as a source of reference data for labelling the samples, with a minimum of five validations per sample location. Data were collected for 10 m sub-pixels in an 80 × 80 m grid to allow for geo-registration across as well as the application of different validation modes including exact pixel matching to majority or percentage agreement. The data set presented in this paper is suitable for the validation and inter-comparison of multiple products of built-up areas.

**Background & Summary**  
At present, around 55% of the world's population lives in cities, which is projected to increase to 68% by 2050. Cities are strongly responsible for between 71–76% of global CO<sub>2</sub> emissions and they consume 67–78% of the world's energy despite adding only a small share of the Earth's land surface<sup>1</sup>. With the effects of climate change (i.e., urban heat islands, sea level rise and increases in the frequency and magnitude of extreme events), cities are even more vulnerable to these and located on the coast or on the floodplains of major rivers<sup>2</sup>. Mapping the location of urban areas is increasingly important for high-resolution climate modelling<sup>3</sup>, air quality change

**Footnotes:** <sup>1</sup>Department of Geomatics and Management Program, International Institute for Applied System Analysis (IIASA), Schlossplatz 1, Laxenburg, Austria; <sup>2</sup>European Commission, Joint Research Centre, Via Enea 100, I-20090, Sesto San Giovanni, Italy; <sup>3</sup>Wroclaw University of Technology, Rybnik 100 St., Wrocław, 51-147, Poland; <sup>4</sup>Department of Geography, University of Granada, Granada, Spain; <sup>5</sup>ITD, Institute for Urban and Environmental Sciences of Ukraine (IUUES), Heraclea Clujului 19, Efta, 41051, Ukraine; <sup>6</sup>Institute of Farming and Landscape Park Management, National University of Life and Environmental Sciences of Ukraine (NLU), Heraclea Clujului 19, Efta, 41051, Ukraine; <sup>7</sup>Regional Meteorological Center Baia Mare, Ghemariei Adam nr.15, Timisoara, 400110, Romania; <sup>8</sup>Department of Harbor and River Engineering, National Yang-Ming University, No.2, Sec.1, Sec.2, Yangmingshan, Tainan, ROC; <sup>9</sup>National Science and Technology Center for Disaster Reduction, P.O. Box 2100, Sec. 3, Baotou Rd., Xizhou District, Baotou City, 21001, Taiwan, ROC; <sup>10</sup>Darmstadt University, Faculty of Agriculture, Natural Resources & Agricultural Engineering Department, 10.30400-Campus, Hohenheim, 70558, D. Germany; <sup>11</sup>Department of Geography, Pongshobh College, Gwalior-50, Gwalior, Madhya Pradesh, India; <sup>12</sup>Institute of Meteorology and Climate Research-Interdisciplinary Environmental Research (IMR-IFU), Leibniz Institute of Technology & IT, Cottbus-Technische 10, 13055, Cottbus, Germany; <sup>13</sup>Risk and Safety Department, Higher Institute of Information and Administration Sciences, Santa Maria, 38104-888, Azeiteiro, Portugal; <sup>14</sup>Institute for Evolutionary Ecology, National Academy of Science of Ukraine, Lviv, Lvivska, 37, Efta, 79114, Ukraine. \*Email: see@iiasa.ac.at

SCIENTIFIC DATA | (2022) 11:1796 | <https://doi.org/10.1038/s41598-022-08227-9>

6  
and  
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Drivers of tropical forest loss between 2008 and 2019,

**scientific data**

**OPEN DATA DESCRIPTOR**

### Drivers of tropical forest loss between 2008 and 2019

Juan Carlos Leon Bayona<sup>1,2,3</sup>, Linda See<sup>4,5</sup>, Isabella Georgiewa<sup>6,7</sup>, Emily Schepacharuk<sup>8,9</sup>, Olga Danylova<sup>10</sup>, Martina Duvacek<sup>11</sup>, Hedwig Bock<sup>12</sup>, Florian Hoffmann<sup>13</sup>, Norman Zabelowitsch<sup>14</sup>, Sakayon Burasriwong<sup>15</sup>, Ropika Sathya<sup>16</sup>, Brijesh Kaggari<sup>17</sup>, Anurag Bhatnagar<sup>18</sup>, Valsarajyo Vysalyayya<sup>19</sup>, Ahmed Hady Rada<sup>20</sup>, Charita Kani Poon<sup>21</sup>, Vuon Phung Bai<sup>22</sup>, Rajarajithra Adnan<sup>23</sup>, Pragal Mangray<sup>24</sup>, Kishore K. Marth<sup>25</sup>, Ganesha Vignayalagan<sup>26</sup>, Roman Vasylyshyn<sup>27</sup>, Anubh Bhow<sup>28</sup>, Svetlana Bhow<sup>29</sup>, Krishna Das<sup>30</sup>, Reinhard Freytag<sup>31</sup>, Ana Maria Reyes<sup>32</sup>, Indragiriella Bourgharnee<sup>33</sup>, Anviti Lachhuvansi<sup>34</sup>, Ananya Lakshmi<sup>35</sup>, Ivan Lakshmi<sup>36</sup>, Chikarati Suresh<sup>37</sup>, Gayana Dornemann<sup>38</sup>, Vicky Vastak<sup>39</sup>, Muelita Kogan<sup>40</sup>, & Stefan Fritz<sup>41</sup>

During December 2020, a crowdsourcing campaign for verification of deforestation drivers has been driving tropical forest loss during the past decade was undertaken. For 2 months, 88 participants from 49 countries identified potential drivers of forest loss in 100,000 pixels from the Global Forest Watch (GFW) dataset 2008-2019. Potential drivers include agricultural expansion, illegal logging, and other drivers of forest loss, but the current campaign is to explore the relationship and the specific role of each driver in the process of forest loss. The data described here are the results of this campaign and are available on the GFW website (<https://www.gfw.org>) where the participants were asked to identify the potential drivers of forest loss. The data described here are a spatially explicit and are the aggregated results of the data described here. The data described here are a spatially explicit and are the aggregated results of the data described here. The data described here are a spatially explicit and are the aggregated results of the data described here.

**Background and Summary**

Reducing the rate of deforestation is a key global challenge for addressing climate change, halting biodiversity loss, and preserving crucial forest ecosystem services, such as carbon sequestration, timber production, and other ecosystem services. The current rates of deforestation are estimated to be around 10 million ha per year, driven primarily by agricultural expansion. However, the direct and indirect causes of deforestation are complex and often complex, multiple factors that operate at the local level, e.g., agricultural expansion in combination with road construction and expansion of infrastructure. To date, most of them drivers have been identified at a local level and through a set of methods of experts or through a set of local studies. The current campaign, through crowdsourcing, sought to explore the drivers of deforestation at a global scale, covering the years 2001 to 2019. The results indicated that around 80% of deforestation was due to agricultural expansion for agricultural expansion (AP), logging (L), and other (O) drivers. Other drivers of deforestation include mining (M), infrastructure (I), and other (O) drivers. The data described here are a spatially explicit and are the aggregated results of the data described here. The data described here are a spatially explicit and are the aggregated results of the data described here.

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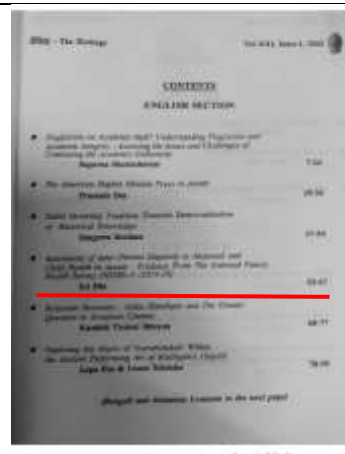
The collage consists of three main images:

- Left Image:** A book cover titled "दिवासी राष्ट्रसेवक" (Diaspora Rashtra Sevak) by N.S.N. 1171, 2014. The cover features a sunset over a body of water with a person in a boat.
- Middle Image:** A page from a newspaper or magazine with a table of contents. The table lists various items and their corresponding page numbers. The text is in Hindi.
- Right Image:** A newspaper clipping with a photograph of a woman and a headline in Hindi. The text below the photo is also in Hindi.



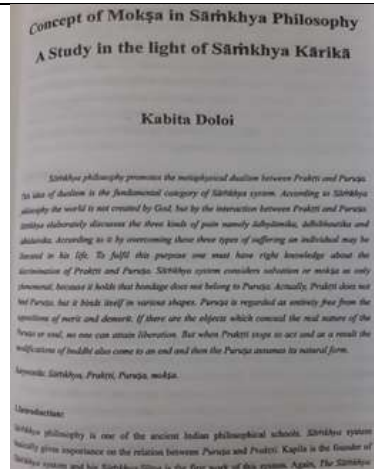
16

Assessment of Inter District Disparity in maternal and Child Health in Assam: Evidence from the National family Health Survey (NFHS)-5(2019-20)



17

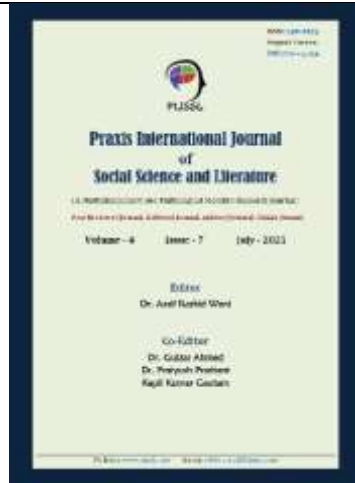
Concept of Moksha in Samkhya Philosophy: A Study in the Light of Samkhya Karika





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### Understanding Puranic Goddesses of Early Assam



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**Understanding Puranic Goddesses of Early Assam**  
 Dr. Anil Ranjit Ward


**Abstract**  
 The study aims to explore the understanding of Puranic goddesses in early Assam. It focuses on the goddesses of the Puranic era, such as Durga, Lakshmi, and Saraswati, and their roles in the society. The study also examines the cultural and religious practices associated with these goddesses. The study is based on a review of the literature and field research. The study finds that the goddesses of the Puranic era played a significant role in the society of early Assam. They were worshipped as deities and their worship was an integral part of the religious and cultural life of the people. The study also found that the goddesses of the Puranic era were associated with various social and economic activities. For example, Durga was associated with the festival of Dussehra, Lakshmi with the festival of Navratri, and Saraswati with the festival of Vasant Purnima. The study concludes that the goddesses of the Puranic era were an important part of the religious and cultural heritage of early Assam.

**Keywords**  
 Puranic goddesses, Early Assam, Durga, Lakshmi, Saraswati, religious practices, cultural heritage.

**Introduction**  
 The study aims to explore the understanding of Puranic goddesses in early Assam. It focuses on the goddesses of the Puranic era, such as Durga, Lakshmi, and Saraswati, and their roles in the society. The study also examines the cultural and religious practices associated with these goddesses. The study is based on a review of the literature and field research. The study finds that the goddesses of the Puranic era played a significant role in the society of early Assam. They were worshipped as deities and their worship was an integral part of the religious and cultural life of the people. The study also found that the goddesses of the Puranic era were associated with various social and economic activities. For example, Durga was associated with the festival of Dussehra, Lakshmi with the festival of Navratri, and Saraswati with the festival of Vasant Purnima. The study concludes that the goddesses of the Puranic era were an important part of the religious and cultural heritage of early Assam.



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2022-2023

S l N o.	Department	Name of the Teacher	Front page the Journal,ISSN/ISBN/DOI, Year of Publication, Photograph containing Title of the paper with author name	Link of the paper for online journal
1	Botany	Dr. Ranjan Kumar Bora	 <p><b>SPRINGER LINK</b></p> <p>Find a journal   Publish with us   Search</p> <p>Home &gt; <i>Acta Oecologica Plantarum</i> &gt; Article</p> <p>Original Article   Published: 11 January 2023</p> <p><b>Concurrent effect of aluminum toxicity and phosphorus deficiency in the root growth of aluminum tolerant and sensitive rice cultivars</b></p> <p>Anil Kumar Pradhan<sup>1,2*</sup>, Debjit Kumar Pradhan<sup>1,2</sup>, Ranjan Kumar Bora<sup>1,2</sup>, Sanku Kumar Pradhan<sup>1,2</sup>, Anil Kumar Pradhan<sup>1,2</sup>, Anil Kumar Pradhan<sup>1,2</sup></p> <p><i>Acta Oecologica Plantarum</i> 45: Article number 45 (2023)   <a href="https://doi.org/10.1007/s11738-022-03509-0">doi:10.1007/s11738-022-03509-0</a></p> <p>366 Accesses   3 Citations   Metrics</p> <p>This article has been updated</p> <p><b>Abstract</b></p> <p>Aluminum (Al) toxicity and phosphorus (P) deficiency are the major constraints to plant growth under acidic soils (pH &lt; 4.5). In this study, the co-effect of Al toxicity and P deficiency on the root growth, root structure, Al uptake and gene expression in Al-tolerant and -sensitive rice cultivars. About 64.8–68.0% root growth inhibition was recorded in the susceptible cultivars, whereas only 2.66–4.26% was recorded in tolerant cultivars. Whereas, the relative Al uptake in sensitive cultivars ranged from 1.90- to 3.1-fold higher than the control, whereas it was 1.28- to 1.6-fold higher in tolerant cultivars. The distortion in root was observed in sensitive cultivars, whereas it was less in tolerant cultivars. In addition, hematoxylin and Evans blue staining showed high intensity of stain in the tips of sensitive cultivars as compared to tolerant cultivars, indicating a higher effect of</p>	<a href="https://link.springer.com/article/10.1007/s11738-022-03509-0">https://link.springer.com/article/10.1007/s11738-022-03509-0</a>

2	Botany	Dr. Amit Kr Pradhan	 <p><b>SPRINGER LINK</b></p> <p>Find a journal   Publish with us   Search</p> <p>Home &gt; Vegetos &gt; Article</p> <p>Research Articles   Published: 13 July 2022</p> <p><b>Evaluation of the potential yield and associated component traits of lowland Boro rice cultivars in Assam, India</b></p> <p>Amit Kumar Pradhan &amp; Rhaben Tanti</p> <p><i>Vegetos</i> 36, 453–463 (2023)   <a href="#">Cite this article</a></p> <p>45 Accesses   1 Citations   <a href="#">Metrics</a></p> <p><b>Abstract</b></p> <p>The selection and development of potent boro rice, a lowland rice cultivar among types has been a major concern in Assam. The present study was conducted to find boro rice cultivar based on potential yield and associated component traits, follow standard evaluation system of the International Rice Research Institute. The evaluation carried out by randomized block design method and found out the potential yield rice cultivars based on their phenotypic yield traits. Bahurupi, PSB 68, Mandhya, Bahumpi, and Pathariya were the best performing cultivars, in terms of high grain better performing associated traits. While yield and production of the cultivars have found to be affected by crop duration, yielding was more in short crop duration (90 days). A wide range of effective tillers was also observed among the cultivars. About 10.76% possess below 10, 30.76% possess 11–20, and 33.89% possess above 20 effective tillers per plant. However, grain yield was highly influenced by associated component traits such as panicle length, spikelets per panicle and panicle weight. The result of the study indicates a significant association of grain yield with its associated component traits and further</p>	<a href="https://link.springer.com/article/10.1007/s42535-022-00426-y">https://link.springer.com/article/10.1007/s42535-022-00426-y</a>
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3	Botany	Dr. Amit Kr Pradhan	<p><b>SPRINGER LINK</b></p> <p>Find a journal   Publish with us   Search</p> <p>Home &gt; Genetic Resources and Crop Evolution &gt; Article</p> <p>Research Article   Published: 03 January 2023</p> <p><b>Assessment of the genetic variability and population structure in boro rice cultivars of Assam, India using candidate gene based SSR markers</b></p> <p>Amit Kumar Pradhan, Lakshmi Narayana R. Vemmeddy &amp; Shabon Tanti</p> <p>Genetic Resources and Crop Evolution 70, 1747–1765 (2023)   Cite this article</p> <p>252 Accesses   Metrics</p> <p><b>Abstract</b></p> <p>Evaluation of the genetic diversity and assessment of structural association within a mixed set of rice cultivars facilitate breeders in selection of potential breeding strategy for crop development. This study was conducted to examine the genetic variability and population structure among 117 boro rice cultivars. About 44 candidate gene based SSR markers located across 12 rice chromosomes were used to evaluate the selected cultivars. Altogether, 152 alleles were observed with the number of alleles ranging from 1 to 8 with mean of 3.45 alleles per locus. An average of 0.43 polymorphic information content (PIC), 0.32 heterozygosity, 0.62 major allele frequency and 0.48 gene diversity among the markers were found respectively. SCM2-Indel1 marker showed the highest PIC value (0.78), highest heterozygosity (0.91) and highest gene diversity (0.81), indicating it to be the most polymorphism-rich marker and ideal for characterising boro rice cultivars. The results of both genetic distance-based clustering analysis and population structure clustered the 117 cultivars into three significant clusters. Cluster 1 included mixture of 23 hybrids and 21 landraces followed by cluster 2 with 16 hybrid</p>	<p><a href="https://link.springer.com/article/10.1007/s10722-022-01533-0">https://link.springer.com/article/10.1007/s10722-022-01533-0</a></p>
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4	Botany	Dr. Amit Kr Pradhan	<p><b>SPRINGER LINK</b></p> <p>Find a journal Publish with us Search</p> <p>Home &gt; Acta Physiologiae Plantarum &gt; Article</p> <p>Original Article   Published 11 January 2023</p> <p><b>Concurrent effect of aluminum toxicity and phosphorus deficiency in the root growth of aluminum tolerant and sensitive rice cultivars</b></p> <p>Amit Kumar Pradhan , Zina Moni Shandilya, Parishmita Sarma, Ranjan Kumar Bora, Prasenjit Saha, Lakshmi Narayana R. Venkireddy &amp; Sreben Tard </p> <p>Acta Physiologiae Plantarum 45, Article number: 33 (2023)   <a href="#">Cite this article</a></p> <p>386 Accesses   2 Citations   <a href="#">Metrics</a></p> <p> This article has been updated</p> <p><b>Abstract</b></p> <p>Aluminium (Al) toxicity and phosphorus (P) deficiency are the major constraints to plant growth under acidic soils (pH &lt; 4.5). In this study, the co-effect of Al toxicity and P deficiency at pH 4.5 was studied to analyze the root growth, root structure, Al uptake and gene expression in Al-tolerant and -sensitive rice cultivars. About 24.2–28.9% root growth inhibition was recorded in the susceptible cultivars, whereas only 2.69–4.32% was recorded in tolerant cultivars. Whereas, the relative Al uptake in sensitive cultivars ranged from 1.90- to 3.5-fold higher than the control, whereas it was 1.58- to 1.9-fold higher in tolerant cultivars. High root distortion in root was observed in sensitive cultivars, whereas it was less in tolerant cultivars. In addition, hematoxylin and Evan's blue staining showed high intensity of stain in the tips of sensitive cultivars as compared to tolerant cultivars, indicating a higher effect of</p>	<p><a href="https://link.springer.com/article/10.1007/s11738-022-03509-0">https://link.springer.com/article/10.1007/s11738-022-03509-0</a></p>
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5 Botany

Barnali Das



<https://doi.org/10.11609/jott.7751.14.11.22179-22183>



## The new addition of Blue Pimpernel of Primulaceae to the state flora of Assam, India

Subodh Khatun<sup>1</sup>, Saral Das<sup>1</sup> & Samita Deb<sup>1</sup>

<sup>1</sup>Department of Botany, Gauhati University, Gauhati, Assam, India. Email: subodh.khatun@gu.ac.in, saraldas@gu.ac.in, samitadeb@gu.ac.in

**Abstract** *Sparganium erectum* var. *erectum* (L.) Forst. & Bergstr., a genus belonging to the family Primulaceae, is reported to new in the state flora of Assam, northeastern India. The authors presented the specimen along with some of Assam's first record of *Sparganium*. The morphological description, taxonomy and herbarium sheets along with a color photograph of the specimen.

**Keywords:** Assam, *Sparganium erectum*, *Sparganium erectum* var. *erectum*, new addition, taxonomy.

The genus *Sparganium* Forst., ex L., of Primulaceae, has approximately 100 species of plants with an almost cosmopolitan distribution (De & Das, 1996; Liu et al., 2024). Assam, also known as the Florida gateway of northeastern India, consists of two species of this genus. Earlier floristic works have been done on the rich biodiversity of Assam, among which contributions of Kundu et al. (1980, 1982), Sengupta (1985), and Dasgupta & Ahmed (2014) are noteworthy.

During a floristic survey of Kamrup (K) District of Assam in 2018-2021, a distinct plant population was observed. All the parts of the flowers were covered with marginal lips and some bright blue to cobalt blue referring to taxonomic characters and critically investigating and examining of herbarium samples, a

variety, *Sparganium erectum* var. *erectum* (L.) Forst. & Bergstr., was identified as new addition to the flora of Assam. For easy identification of the species, detailed taxonomic description and other pertinent information along with color photographs have been provided here. Additionally, polytypical data have also been incorporated along with scanning electron microscope (SEM) images of pollen grains to assist in future phylogenetic research.

### Materials and Methods

#### Study Area

Kamrup is one of Assam's oldest districts, with a 1,000-year history dating back to the ancient age. It is a one-of-a-kind administrative unit, with jurisdiction on both sides of the great Brahmaputra. The district is presently an administrative district in western Assam, with its headquarters in Arunachal. According to 2011 Census of India report, the district covers a total geographical area of 1,135 sq. km and is situated between 26.00-26.29°N and 91.00-91.20°E (Figure 1).

#### Methods

Several field visits were conducted throughout the

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Subodh Khatun, S. & Das S. (2024). The new addition of Blue Pimpernel of Primulaceae to the state flora of Assam, India. Journal of Tropical Plant & Geobotany (Advancing), 8(1), 1-11. doi:10.1515/jtpr-2024-0011

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6	Botany	Barnali Das	<p><b>BIODIVERSITAS</b> Volume 24, Number 6, June 2023 Pages: 3169-3182</p> <p style="text-align: right;">ISSN: E-ISSN: DOI: 10.13057/biod</p> <p style="text-align: center;"><b>Quantitative ethnobotany of medicinal plants used by the Bodo Community of Baksa District, Assam, India</b></p> <p style="text-align: center;">MIJING BORO<sup>1</sup>, BARNALI DAS<sup>2</sup>, KRISHINA KUMAR BORO<sup>1</sup>, MADHUSMITA NATH<sup>1</sup>, PRIYAKSHI BURAGOHAIN<sup>1</sup>, SHILPA ROY<sup>1</sup>, PARAG JYOTI SARMA<sup>1</sup>, SUSHMITA KALITA NAMITA NATH<sup>1*</sup></p> <p style="text-align: center;"><sup>1</sup>Department of Botany, Gauhati University, Gauhati University Road, Gauhati 781014, Assam, India, Tel.: +91-361-2570539 <sup>*</sup>email: nathnamita1@gauhati.ac.in <sup>2</sup>Department of Botany, Pragjyotsh College, Santipur Main Road, Gauhati 781009, Assam, India</p> <p style="text-align: center;">Manuscript received: 8 December 2022; Revision accepted: 11 June 2023.</p> <p><b>Abstract.</b> Boro M, Das B, Boro KK, Nath M, Buragohain P, Roy S, Sarma PJ, Kalita S, Nath M. 2023. Quantitative ethnobotany of medicinal plants used by the Bodo Community of Baksa District, Assam, India. <i>Biodiversitas</i> 24: 3169-3182. Plants are the religious and cultural aspects of various ethnic communities of the world. Assam is a homeland of diverse ethnic tribes of Mongolian origin. The Bodo Community is one of the oldest communities and they are rich in their traditional healthcare system. The current study aimed to record the data on medicinal plants used by the Bodo Community in Baksa District, Assam. Statistical analysis was done by following established formula to find Use Value (UV), Relative Frequency of Citation (RFC), Agreement Ratio (IAR) and Informant Consensus (F<sub>c</sub>). A total of 129 medicinal plant species were recorded, used in 3 ailment categories by the Bodo people. <i>Kalanchoe pinnatifida</i> (Lam.) Pers. was the most used plant by the informants (use value also had the highest RFC (0.60). In present survey, the IAR range was from 0-1. The highest F<sub>c</sub> value was recorded in category of Renal and hepatic disorder. The present work provides rich data, as this work, besides documenting the medicines used by the community, also gives proper scientific evaluation of the ethnobotanical data. The work will be helpful for researchers, academicians and stakeholders to carry out research work in this diverse scientific field of ethnobotany. From conservation point of view, there is an urgent need to involve local people for the conservation of medicinal plants for the future.</p>	<p><a href="https://doi.org/10.13057/biodiv/d240610">https://doi.org/10.13057/biodiv/d240610</a></p>
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7	Botany	Barnali Das	 <p>Indian Journal of Traditional Knowledge Vol 22(3), July 2022, pp 576-586 DOI: 10.56042/ijtk.v22i3.5744</p> <p>Study on folk remedies using medicinal plants by Karbi tribe of West Karbi Anglong District, Assam, India</p> <p>Barnali Das<sup>1,2*</sup>, Gulqin Taseep<sup>1</sup>, Nilakshee Devi<sup>3</sup> &amp; Namita Nath<sup>4</sup></p> <p><sup>1</sup>Department of Botany, Gauhati University, Gopinath Boudoko Nagar, Jaldhara, Guwahati, Assam 781 005, India <sup>2</sup>Department of Botany, Pragjyotish College, Guwahati 781 009, India <sup>3</sup>E-mail: barnalidas48@gmail.com</p> <p>Received 16 July 2020; revised 06 January 2022; accepted 24 March 2022</p> <p>The present study was conducted to document the indigenous knowledge on folk medicines of the Karbi remote villages of West Karbi Anglong district, Assam. A total of 80 ethnomedicinal plants recorded were used for 51 different ailments. Data were collected through restructured questionnaire and quantitative analysis. Herbaceous plants occupied the maximum numbers and leaves were the most used plant part among the other parts. The use value (UV) ranged from 0.76-1, and the use value (UV) ranged from 0.02-1.2. <i>Andropogon squarrosus</i> was found to have the highest UV. The study has revealed the pattern of people-plant interactions in the region and the importance of medicinal plants playing a vital role in the health care practices and survival of the forest dwellers. There is a need to document the ethnomedicinal practices of Karbi tribe as they are passing these knowledge generations only by means of practical utilizations without proper pharmacopoeia.</p> <p><b>Keywords:</b> Assam, Ethnobotany, Folk, Herbal, Karbi, North East <b>IPC Code:</b> Int. Cl. <sup>11</sup>: A61K 36/00, A61K 45/00</p>	<p><a href="https://doi.org/10.56042/ijtk.v22i3.38226">10.56042/ijtk.v22i3.38226</a></p>
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8 Chemistry

Dr.Priyakshre  
e Borthakur

### Porous Nitrogen-Doped Crumpled Graphene Nanoparticles: A Metal-Free Nanozyme for Selective Detection of Dopamine in Aqueous Medium and Human Serum

Purna K. Boroah,<sup>1</sup> Priyakshre Borthakur,<sup>1</sup> Garatri Neog,<sup>1</sup> Benjamin Le Ouy,<sup>1</sup> Nazim Uddin Akil,<sup>1</sup> Prasenjit Mallick,<sup>1</sup> and Manish K. Dhar<sup>2</sup>

ACS Nano, 2023, 17, 1047–1057

ACCESS |

**ABSTRACT:** Accurate detection of trace analytes in biological samples is essential for medical diagnostics but usually requires complex and expensive instruments. Nanozymes, a series of nanoparticle enzymes with a catalytic activity mimicking that of proteinase enzymes, offer a useful alternative for the design of sensing devices. In this article, we describe the synthesis of porous 3D nitrogen-doped crumpled graphene nanoparticles (CNGNs) and their use as a platform for the sensitive detection of dopamine (DA) in complex biological media such as blood serum. CNGNs were prepared by doping graphene oxide (GO) using ammonia hydroxide in a hydrothermal treatment. This procedure leads to the crumpling of GO sheets into porous spherical nanoparticles, with a diameter of 34 ± 10 nm. These nanoparticles with high surface area and improved electronic properties proved very active for the oxidation of the neurotransmitter 3,4-dihydroxyphenylethylamine (DA). The sensing device relied on the monitoring of hydroxyl radicals by DA resulting in a 5-fold effect in the DA oxidation. The system selectively detected DA with a limit of detection of 1.15 nM and linearly range of 1 to 20 μM. The system also possessed good selectivity for DA in the presence of various interfering species, as well as in human blood serum.

**KEYWORDS:** Nitrogen-doped crumpled graphene, nanozyme, catalytic, dopamine, blood serum

#### INTRODUCTION

Dopamine (DA), a catecholamine neurotransmitter, is an important biomolecule that plays an essential role in the regulation of several behavioral aspects, from memory and learning to attention, mood regulation, and more.<sup>1</sup> More recently, in recent years, medical research has demonstrated the involvement of abnormal DA metabolism in various neurological disorders, such as Parkinson's disease and schizophrenia.<sup>2–4</sup> Therefore, selective, rapid, and sensitive detection techniques for DA would greatly improve diagnostic capacity, notably at the early stage of the disease, allowing more efficient treatment. Various analytical methods have been developed in this regard, which include electrochemical analysis,<sup>5–11</sup> HPLC,<sup>12</sup> capillary electrophoresis,<sup>13–15</sup> immunoassays,<sup>16–18</sup> fluorescence,<sup>19–21</sup> etc. However, none of these techniques provide a practically convenient and reliable solution for the *in situ* detection of DA levels in physiological fluids. Electrochemical methods, while offering high sensitivity and accuracy and being economically viable, greatly suffer from the presence of numerous interfering analytes. Chromatographic methods require expensive specialized instruments and

highly trained technical staff and are time-consuming. Immunoassay methods involve the synthesis of complex fluorescent probes to afford specific affinity for the targeted analyte only. These, continuous efforts are essential for the development of efficient methods for DA detection that require detection and quantification. In this regard, colorimetric methods have generated special attention due to their remarkable advantages of easy operation, naked-eye detection, and low cost, so much so that they can be performed without requiring equipment (i.e., at least, a smartphone image-analysis spectrophotometer).<sup>22–25</sup>

When choosing optical sensing devices, peroxidase-type enzymes (and, notably, horseradish peroxidase (HRP)) are commonly used. These enzymes are suitable for the colorimetric

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9 Economics

Dr. Ira Das



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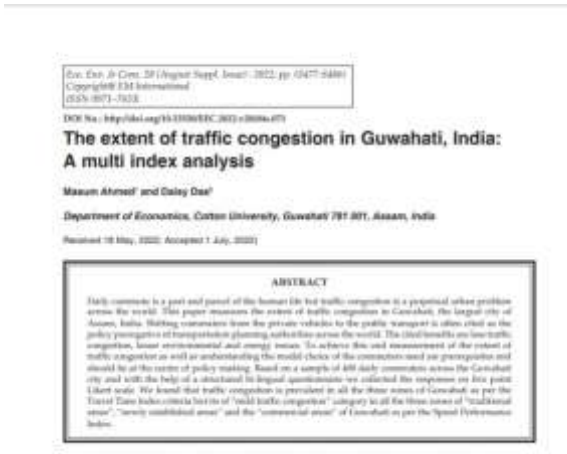
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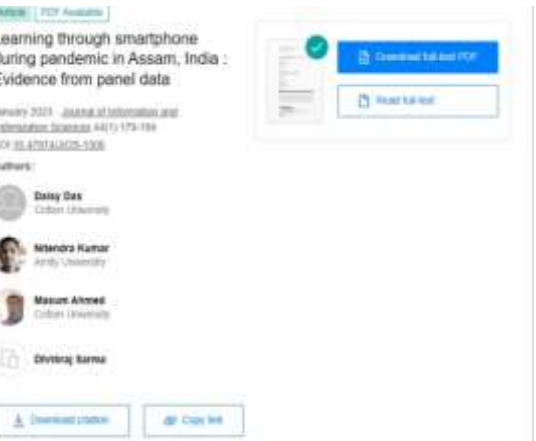
ASSESSMENT OF INTER-DISTRICT INEQUITY IN MATERNAL AND CHILD HEALTH IN SIAM: EVIDENCE FROM THE NATIONAL FAMILY HEALTH SURVEY (NFHS-3) 2005

Dr. Ira Das

ABSTRACT: Maternal and child health is a key indicator of a nation's development. It is the right of every woman and child to have access to quality maternal and child health services. However, there is a significant inter-district inequality in the availability of maternal and child health services in India. This paper examines the inter-district inequality in maternal and child health services in India using data from the National Family Health Survey (NFHS-3) 2005. The results show that there is a significant inter-district inequality in maternal and child health services in India. The inequality is more pronounced in the case of maternal health services than in the case of child health services. The inequality is also more pronounced in the case of rural areas than in the case of urban areas. The results suggest that there is a need to improve the availability of maternal and child health services in India, particularly in rural areas and in the case of maternal health services.

<https://ugccare.unipune.ac.in/Apps1/Use r/WebA/SearchList>

1 0	Economics	Masum Ahmed	 <p>The screenshot shows the Sage Journals website interface. At the top, there is a search bar and navigation links. Below the search bar, the article title "Students' perceptions of smartphone use: Institutional policies in Assam, India" is displayed. The author's name, Masum Ahmed, is listed below the title. The abstract text is visible, starting with "Many educational institutions lack well-defined, targeted policies to address problems relating to student smartphone use on campus. In this study, we analyze the patterns of student smartphone use on academic campuses and propose a range of policy measures to address the problems arising from such use. Our research, which draws on primary data collected through a field survey in Assam, India, is one of very few studies in the field to focus on northeast India, specifically the literature review, which revealed empirical findings on student smartphone use behaviour, we create and evaluate four policy alternatives: a complete".</p>	<a href="https://journals.sagepub.com/doi/abs/10.1177/20427530231156170">https://journals.sagepub.com/doi/abs/10.1177/20427530231156170</a>
1 1	Economics	Masum Ahmed	 <p>The screenshot shows the title page of an article. The title is "The extent of traffic congestion in Guwahati, India: A multi index analysis". The authors are Masum Ahmed and Daisy Das. The affiliation is the Department of Economics, Cotton University, Guwahati 781 031, Assam, India. The abstract text is visible, starting with "Daily commutes is a part and parcel of the human life but traffic congestion is a perennial urban problem across the world. This paper examines the extent of traffic congestion in Guwahati, the largest city of Assam, India. Working commutes from the private vehicles to the public transport is often cited as the policy perspective of transportation planning, and it also across the world. The objectives are to study traffic congestion, assess environmental and energy issues. To achieve this and measurement of the extent of traffic congestion as well as understanding the modal choice of the commuters used in Guwahati and should be at the centre of policy making. Based on a sample of 481 daily commuters across the Guwahati city and with the help of a structured in-depth questionnaire, collected the responses on five-point Likert scale. We found that traffic congestion is prevalent in all the three zones of Guwahati as per the Turner Time Index criteria for the of 'total traffic congestion' category in all the three zones of 'traditional area', 'newly established area' and the 'commercial zone' of Guwahati as per the Speed Performance Index.</p>	<a href="http://www.envirobiotechjournals.com/EE/EC/augsuppl2022/EE-C-73.pdf">http://www.envirobiotechjournals.com/EE/EC/augsuppl2022/EE-C-73.pdf</a>

1 2	Economics	Masum Ahmed	 <p>Indian Journal of Transport Research Vol. 12 - Issue 10 (October - 2022) ISSN: 2642-8076 (print) ISSN: 2642-8084 (online) <b>RESEARCH ARTICLE</b></p> <p><b>Modal Choice Determinants in an Urban Set up for the Daily Commute</b> Masum Ahmed<sup>1</sup> and Ekim Yur<sup>2</sup></p> <p><sup>1</sup>Yasar Sancar Research Fellow, Department of Transportation, Çukurova University, Tarsus, Adana, Turkey <sup>2</sup>Assistant Professor, Department of Transportation Systems Engineering, Galatasaray University, Istanbul, Turkey Received: 25 May 2022      Revised: 26 July 2022      Accepted: 20 Aug 2022</p> <p><b>Abstract</b> - Urban transportation system development under the stress of the COVID-19 pandemic demands a re-evaluation of the existing urban transportation system. This study aims to investigate the factors which affect the modal choice of the urban commuters during the period of the COVID-19 pandemic. The study uses the data from the National Household Travel Survey (NHTS) to analyze the modal choice of the urban commuters during the period of the COVID-19 pandemic. The study uses the multinomial logit model to analyze the modal choice of the urban commuters during the period of the COVID-19 pandemic. The study finds that the modal choice of the urban commuters during the period of the COVID-19 pandemic is significantly affected by the COVID-19 pandemic. The study also finds that the modal choice of the urban commuters during the period of the COVID-19 pandemic is significantly affected by the COVID-19 pandemic.</p> <p><b>KEYWORDS</b> - Modal Choice, Urban Transportation, COVID-19, Multinomial Logit Model, National Household Travel Survey (NHTS)</p>	<a href="https://tnsroindia.org.in/JOURNAL/issue74/ISSUE%2074%20OCTOBER%202022%20-%20FULL%20TEXT%20PART%20%2002.pdf">https://tnsroindia.org.in/JOURNAL/issue74/ISSUE%2074%20OCTOBER%202022%20-%20FULL%20TEXT%20PART%20%2002.pdf</a>
1 3	Economics	Masum Ahmed	 <p>Learning through smartphone during pandemic in Assam, India : Evidence from panel data</p> <p>January 2023 - Journal of Information and Communication Science 44(1) 173-186 DOI: 10.47744/JICS-2023</p> <p><b>Authors:</b></p> <ul style="list-style-type: none"> <li><b>Daisy Das</b> Cotton University</li> <li><b>Narendra Kumar</b> Arya University</li> <li><b>Masum Ahmed</b> Cotton University</li> </ul> <p><b>Dividing terms</b></p> <p>Download citation    Copy link</p>	<a href="https://www.researchgate.net/publication/370308318_Learning_through_smartphone_during_pandemic_in_Assam_India_Evidence_from_panel_data">https://www.researchgate.net/publication/370308318_Learning_through_smartphone_during_pandemic_in_Assam_India_Evidence_from_panel_data</a>


			<p>Journal of Information &amp; Optimization Sciences ISSN 1548-7717, ISSN 1548-7725 Vol. 14, No. 1, pp. 17-24 DOI: 10.1080/15487717.2013.821111</p> <p><b>Learning through smartphones during pandemic in Assam, India: Evidence from panel data</b></p> <p>Debay Das<sup>a</sup> Department of Commerce Cotton University Guwahati India</p> <p>Sandeep Kumar<sup>b</sup> Department of Applied Science and Pharmaceutics Assam Institute of Management and Technology Greater Noida Uttar Pradesh India</p> <p>Muskan Akhter<sup>c</sup> Economic Science I Department of Economics Cotton University Guwahati India</p> <p>Abstract</p>	
1 4	Economics	Bhanushree Baishya	<p><i>Ekshobhani International Interdisciplinary Research Journal (Special Issue)</i> <b>ISSN 2510-4979</b></p> <p><b>FEMALE WORK PARTICIPATION RATE AND CHILD MORBIDITY IN DHUBRI DISTRICT OF ASSAM</b></p> <p><b>B. Baishya</b> Department Of Economics Gauhati University, Assam.</p> <p><b>ABSTRACT</b></p> <p>Survival of infant and child mortality in Assam has been a big problem. With poor educational facilities and inadequate health services infant and child mortality/morbidity has been a cause for Assam. Among all the states in Assam, Dhubri district recorded the highest number of infant and child mortality over the last few decades. However, one of the basic strategies that have changed in the history of Assam is growing number of women in the labor force. From the empirical studies, it has been stated that there exist a positive relationship between female work participation rate and child morbidity/mortality. This may be because of less attention and less care for the mother in their child which ultimately leads to lower survival rate. Thus it is necessary to analyze the impact of the relationship between female work participation rate and child morbidity. This paper aims to re-examine the relationship between female work participation rate and child/mortality in Dhubri district of Assam, where the highest number of infant and child mortality prevail.</p> <p><b>Key words:</b> female work participation rate, infant mortality, child mortality, child morbidity, child care.</p> <p><b>Introduction</b></p> <p>Traditionally women are always associated with household activities, where they are expected to cook for the family, look after their children, caring the sick and elderly people along with other household activities. All these services confined to the care sector are often unpaid. Women, working in the household farm often work without remuneration. Similarly in urban areas, women who work for home based activities tend to get a very low remuneration or often remain unpaid. In a patriarchal society like India, women are generally responsible for domestic and reproductive work. Mother's role in the development of the child is very important than any other person in the family because mother usually spend much more time with her child. Hence for the overall and all round development of the child, mother's role plays a key role in the family because it is the mother who provides all the basic necessities in her children.</p> <p>With urbanization, industrialization, globalization and other related developments, many employment opportunities for females have been created. As a result, the female work participation rate has increased over the past decades in various populations. The Census of India has shown that FWPR has increased from 12.13% in 1971 Census to 22.27% in 1991 Census and further it increased to 28.8% in 2011 Census.</p> <p>However, it is observed that working mother who are involved in income generating activities is a mixed blessing because it not only increases the income of the family but also reduces the amount of time available for child care at the same time. Therefore, increasing female work participation rate over the decades brings attention to the questions associated with the relationship between women's employment and child/mortality rate as women's employment status has potential implications for various aspects of child's growth and development including health and nutrition.</p> <p>However, no doubt the maternal employment improves the household accessibility to income, it may have some negative effects on the health and survivability of their children. The reason for this is the limited amount of time for child care by the working mothers. Because of the wide range of responsibilities both within and outside the home, it is generally difficult for an employed mother to fulfill the role of providing adequate care to their children. Hence because of this the employed mothers have to depend upon others in order to take care of their children. Moreover the quality of care and supervision provided by the substitute caretakers may not be adequate enough for the child. Also, it may not be possible for the low paid employed</p>	<p><a href="https://www.viirj.org/specialissues/2021/SP2110/Part%2014.pdf">https://www.viirj.org/specialissues/2021/SP2110/Part%2014.pdf</a></p>




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1 6	Geography	Pradip Chandra Kalita	 <p>ISSN: 0974-4546</p> <p>शोध-प्रभा A REFEREED &amp; PEER-REVIEWED QUARTERLY RESEARCH JOURNAL</p> <p>Volume 11, Issue 1, 2021</p> <p>Editor: Dr. Pradip Chandra Kalita</p> <p>Editorial Board: Dr. Pradip Chandra Kalita</p> <p>Editorial Board: Dr. Pradip Chandra Kalita</p> <p>Editorial Board: Dr. Pradip Chandra Kalita</p>	
1 7	Geography	Pradip Chandra Kalita		

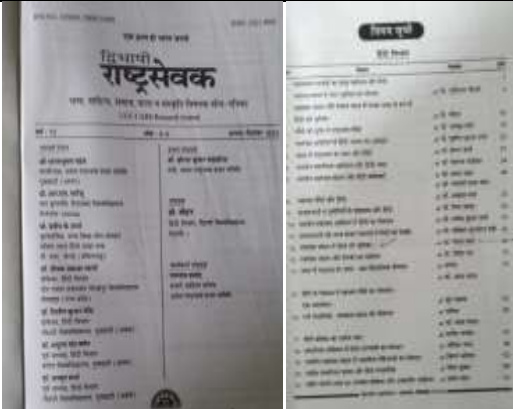
1 8	Geography	Dr. Jyotiprasad Das	 	<a href="http://xisdxjsu.asia/">http://xisdxjsu.asia/</a>
1 9	Geography	Dr. Jyotiprasad Das		<a href="https://ymerdigital.com/">https://ymerdigital.com/</a>



20	Geography	Dr. Chandra Kant Pawe		<a href="https://www.tandfonline.com/doi/full/10.1080/00167223.2022.2157853">https://www.tandfonline.com/doi/full/10.1080/00167223.2022.2157853</a>
21	Geography	Dr. Krishna Das		<a href="https://northeasterngeographer.co.in/vol-42-2022-23/">https://northeasterngeographer.co.in/vol-42-2022-23/</a>

			<p>ISSN 0973-0915</p> <p><b>NORTH EASTERN GEOGRAPHER</b></p> <p>Volume 42 Number 1 &amp; 2 2022-2023</p> <hr/> <p>21 Impact Assessment and the Relevance of the Ganga Water Treaty 1996 Ravindra C. Jayaram and Rohini M. Lod</p> <p>18 Spatio-Temporal Analysis of Air Quality Index (2011-2020): A Case of Delhi Mihir Gera, Anurag, Neha R. Anand and Anam Parvika</p> <p>34 Multi-Ty Area Mapping in a Part of Brahmaputra Valley of Assam Using Open Source Geospatial Data Krishna Das, Deepankar Borah and Anish Kumar Borah</p> <p>46 Spatial Accessibility to Rural Information Facilities in Singuadi District, Madhya Pradesh, PFC, Madhya and Chhatisgarh P. C. Mishra and Kalyan Chandra</p> <p>61 Social Impacts and Adaptation to Flood and overbank Sedimentation of Godavari River in Durgam District, Andhra Pradesh Akshay Bhatnagar and Dibyajyoti Sahoo</p> <p>78 Crop Productivity Zones in Assam: A Geospatial Analysis Mishu Datta and Subir Choudhary</p> <p>91 Post-monsoon and Post-monsoon Geomorphological Quality Analysis of Tripura Using Multicriteria Technique Santosh Debbarma and Nibedita Das (Fau)</p> <p>104 Living with Elephants: A Comparative Case Study of Two Human-Elephant Conflict affected Villages in Nagpur District of Assam Chandana Bhartiya, Chiranjiv Borah and Madhusudan Das</p> <p>118 Population Dynamics of the Ecologically Challenged Krivine Islands in the Brahmaputra River of Assam: A Case Study of Chirapongsa Char Abul Fazl Muzaima Akmal and Faraj Bhatnagar</p> <p>132 Land Use/Land Cover Change Dynamics in Jorhat District, Assam with Reference to Soil Types Anil Kumar Sharma and Nityanjan Choudhary</p> <p>142 Geography of Professor Saradita Nath Bhattacharya Biswajit Bar</p>	
2 2	Geography	Dr. Das Krishna	<p>nature   scientific data   data in context   article</p> <p>Data Descriptor   <a href="#">Open access</a>   Published: 21 April 2022</p> <p><b>Drivers of tropical forest loss between 2008 and 2019</b></p> <p>Juan Carlos Lazo Bayar  Linda San-Juan, Georgia Emily Schwaninger, Olga Serey, Marjorie Olave, Lindsay Beck, David Hofford, Roman Zedler, Mark Mahon, Ramesh, Daniel Silva, Jagdish Magesh, Katherine Binkley, Wolfram Binkley, Anand Hari, Chandra Kant, Yuan-Feng, Si Manjula, Ahmed, Kiran, Peng, Debasish, Mihir, Chika, Vaidyan, Roman, Vaidyan, Anil, Bhowmik, Bikas, - <a href="#">Article info</a>   <a href="#">Share article</a></p> <p>Scientific Data   Article number: 144 (2022)   <a href="#">View this article</a></p> <p>4819 Access   8 Citations   76 Views   <a href="#">Metrics</a></p>	<p><a href="https://doi.org/10.1038/s41597-022-01227-3">https://doi.org/10.1038/s41597-022-01227-3</a></p>

2 3	Geology	Suman Saikia	<p>Original Article   Published: 08 October 2022</p> <p><b>Flow Control Drained River Sedimentation in Brahmaputra River, Majuli, Assam, India</b></p> <p>Suman Saikia<sup>1*</sup>   ssuman.sai@iitg.ac.in Journal of the Geological Society of India, 96(4): 1947–1952 (2022) © The Author(s), 2022</p> <p><b>Abstract</b></p> <p>The Brahmaputra River in Assam exhibits a typical braided pattern and is characterized by a sediment load comprising of sand and silt. The river contains channel bars of varied types and dimensions and exhibits the world's largest river island – Majuli, which is poised to study the effect of various bank erosion along its southern margin. The objective of this study is to measure the characteristics of fluvial sedimentation prevailing along the southern margin of the Majuli bar. Bank channel as well as bank sediments were analyzed to understand the mechanism of incision, aggradation process and hydrodynamic behavior. Both channel and bank sediments consist of very fine to medium sand with sub-angular amount of silt and mud. Majority of the sediments exhibit well to very well sorting and positive skewness. The probability curves of grain size distribution indicate transportation of sediments dominantly by saltation mode with minor amount of suspension and surface creep mode. The high negative kurtosis in the grain size curves is related with sedimentary sorting and surface incision process by means of negative skewness. The channel incision is characterized by planar cross stratification followed by horizontal stratification, trough cross stratification, ripple laminated layers and massive sand. The bank sediments in the bar channel exhibit a general fluvial graded sequence which ends up with the deposition of a sand layer. The hydrologic responses of the study area show prevalence of both base as well as upper flow regime along with flow exhibiting braided bars of varying conditions during post-monsoon sedimentation.</p>	 <p><a href="https://link.springer.com/article/10.1007/s12594-022-2189-5">https://link.springer.com/article/10.1007/s12594-022-2189-5</a></p>
2 4	Hindi	Dr. Chandana Sarma		

				
2 5	History	Dr. Gargee Sarma	