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“DEVELOPMENT OF *MESUA FERREA* L. SEED OIL BASED POLYURETHANE RESINS”

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INTRODUCTION:

Utilization of naturally renewable resources as the feed stocks for polymers is thriving all around in contemporary times. Vegetable oil is a renewable resource to be worth mentioned in this regard. These feed stocks are well accepted by the synthetic polymer chemists as well as industrialists due to assorted social, economical and environmental issues. Furthermore, there are many advantages of using vegetable oil as the feed stocks. Some of them to mention are (i) naturally renewable as can be grown wildly or agriculturally, (ii) environment friendly and bio-degradable as they are obtained from natural resources, (iii) cost effective, (iv) available in large quantities, (v) reduced risk for handling, storage and transportation due to physical and chemical stability, (vi) aptitude to facile chemical modification, (vii) possibility of recycling etc.

The vast forest resources and farm lands yield varieties of



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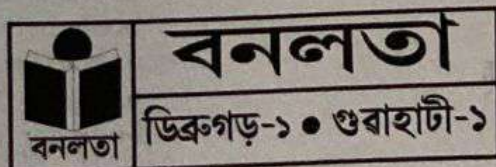
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Edited by

R.K. Bijeta ■ Vulli Dhanaraju

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DEB

DEBATING NORTHEAST INDIA

Mapping Ethnic Identity Formation

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Underdevelopment and Ethnic Identity Crisis: A Linkage Analysis with Special Reference to Assam

Tarun Gogoi

Colonial processes and socio-economic conditions have always created identity crisis by deepening divisive roots and dimensions of multifarious identities in a society. The legacies of a colonial economy were naturally adorned by the newly independent but centralised Indian state and this aggravated the already existing cultural and economic hiatus between different communities of different regions in the same country. Being trapped in the transitional phases of a decolonised economy, the Northeastern region and particularly Assam remained at the periphery of capitalist development; the crisis was profound in polity and socio-cultural life as well. The developmental fruits of an emerging economy have been poorly distributed, thus creating a sense and feeling of alienation amidst people of the peripheral region of the country. The region has always been at the receiving end of the modernisation process taking place in the entire country. Moreover, much of the regional economic underdevelopment has hitherto been believed to be caused by the intrusion of the outsiders and the control of the state's economy by the migrant and non-indigenous business communities. Particularly in Assam, such a cultural and economic hiatus has percolated down to different 'ethnies' and is now profound between the tribal peoples and the people of the plains.

A vibrant photograph of a tea plantation in Assam. In the foreground, a large, detailed tea leaf is shown. In the background, several workers are seen tending to the tea bushes, some wearing traditional hats. The scene is set in a lush, green environment with many trees.

Tea Industry & Society In Assam: Problems and Prospects



Editor:- Swapnajyoti Borah

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Tea and Centre-Assam Relations: An analysis

Dr. Tarun Gogoi

Abstract: In the post independent period the pace of development of Assam has been extremely slow and lethargic and the nature of Assam politics manifests a neo-colonial trend generated by the new group of elites which emerged in independent India. As a result of India's weak federal structure and capitalist path of development, Assam financially depends heavily on the Centre to discharge its responsibilities. Centre's failure to fulfill the local demand for adequate share of natural and economic resources led to perpetuation of anti-Centre feeling among the Assamese elite. Assam, it is said, is deprived of its fair share of benefits from the State's natural resources as Assam's large oil and natural gas industries are in the hands of enterprises owned by the Government of India, and the State's huge tea industry is in private sector. Assam is deprived of her legitimate share and benefits because of the practice of concealment of

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Ethnic Question in Northeast India

Tarun Gogoi

Asst. Prof., Dept. of Pol. Science

The northeastern region is the cultural mosaic of India often called 'miniature India' consisting of diverse tribal communities, linguistic, and ethnic identities. With an area of about 2.6 lakh square kilometer, it is a conglomeration of around 475 ethnic groups and subgroups, speaking over 400 languages (Bhaumik, 2009: 1). The region, connected to the mainland India with a narrow corridor measuring 28 km on its western side, consists of eight states and has international border with neighbouring countries, namely Bangladesh, Myanmar, Nepal, China, and Bhutan. It has been one of the very sensitive regions in the entire Indian sub-continent. The region has been seen as the 'problem child' since the very inception of the Indian republic because it has been facing the problems like insurgency and political violence; reorganization of political boundaries; continued migration from neighbouring countries; the issue of language, cultural identity, and intra-tribal relation; inter and intra ethnic conflict and violence and resultant human rights

Recent Advances in
MEDICINAL PLANTS RESEARCH
of North East India



Editor
Dr. Mousmi Saikia

Department of Herbal Science and Technology
Anandaram Dhekial Phookan College (A.D.P. College)
Nagaon, Assam, India



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Ethnobotanical study of the Mishing tribe living In Fringe villages of Kaziranga National Park of Assam, India

Anima Kutum and Apurba Saikia
Department of Botany, D.R. College
Golaghat-785621, Assam, India

Abstract:

The people of North-East India are rich in traditional knowledge of plants and plants products from ancient time. The Mishing tribe is traditionally dependent on forest resources to complete their livelihood. A total 75 plant species belong to 45 families has been recorded in the present study that used in various aspects of ethenobotanical importance by Mishing tribe of forest fringe villages of Kaziranga national park. Among the families recorded poaceae was the largest with altogether 6 species followed by Euphorbiaceae 2 species and Malvaceae, Caesalpinaceae, Rautaceae, Lamiaceae, Zinziberaceae with 3 species.

Key words: Traditional knowledge, Ethnobotany, Fringe village, Livelihood, Mishing tribe, Kaziranga National Park

Introduction:

Assam is a region of many culture and traditions, races and ethnic. The folk culture is still vital in this region. Most tribal communities still largely depend on non timber for their traditional system of medicine.

The Mishing or Mishong also called Miri. The missings are East Asian, or more specifically a Southeast Asian sub-race of the Mongoloid race. It is not known exactly where they migrated from, but it is popularly believed that they were dwellers of the hills of present day Arunachal Pradesh. According to available knowledge of history and folklores the mishong were the Adis who migrated to Assam. Legends say that they came into contact with more civilized communities living in plains of Assam as early as in 16th century. There is no any written history of missing about their migration from hills to the plains of assam. Though they belong to Tani group of tribes and they used to be hill dwellers, they started living on the banks of rivers in plains of assam.

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Traditional Rice-Beer Prepared By Mishing Tribes of Golaghat

Mrs. Anima Kutum
Asst. Prof. Dept. of Botany

Abstract :

The Mishing people of Assam use two types of apong- "nogin apong" and "po:ro apong". These differ slightly in colour, taste and method of preparation. The nogin apong is whitish and fermented from boiled rice while the po:ro apong has light green colour due to mixture ashes of paddy straw and husk. 25 different plant species are used for the preparation of starter culture. The starter is locally known as 'Opob' by the Mishing people. The present study aims to investigate the various raw materials in starter preparation and different starters in apong preparation by the Mishing people.

Keywords- *apong, starter, po:ro, nogin.*

Introduction :

Mishing is a tribal community belonged to Mongoloid group- a multitude of people that followed Austro-Asiatic races to India (Singh et al., 1996). The tribal people of Assam of the plains are generally fond of rice-beer. It has a characteristic smell and

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Getting to know Marginal Detectives

Mrs. Anindita Dey

Dept. of English

The paper intends to present a postcolonial reading of canonical detective texts like Conan Doyle's Sherlock Holmes adventures, as well as some marginalized detective texts written by two Bengali (Indian) writers – Sharadindu Bandyopadhyay (1899-1970), and Satyajit Ray (1921-1992). The paper proposes that in a postcolonial reading situation, the figure of Holmes problematizes the act of reading and also the act and discourse of inquiry. The fact that the Holmes adventures contribute to the hegemonic culture of "Eurocentricism" can be seen as a reinforcement of the racial superiority among the "colonized." Thus, the paper will examine some of the popular Bangla (Indian) detective texts where the writers are under the inevitable influence of the hegemonic superiority of the white detective (Holmes). Their detectives, Byomkesh Bakshi and Feluda (Pradosh Chandra Mitter) have been shaped in the silhouettes of Holmes.

The paper is a study of how any form of literary text is believed to function as a signifier of a particular national identity, and that it is also an indicator of the cultural construct of a state. In

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Studies on The Effect of Magnetic Field In Certain Problems of Blood Flow

Dr. B.C. Bhuyan
Associate Professor,
Dept. of Mathematics

The application of Magnetohydrodynamics principles has revolutionised the study of physiological fluid flow problems. It has been observed by many investigators that by the application of external magnetic field the biological systems are greatly affected. It is an established fact that blood is an electrically conducting fluid. The applied magnetic field reduces the shear stress parameter and changes the speed of blood. It is therefore not only important but also essential to study blood flow in circulatory system under the effect of magnetic field.

The flow of blood in human circulatory system can be controlled by applying appropriate magnetic field. Many works have been done in this field by Vardanyan[1], Rathod [2] and other researchers.

Mathematical analysis of arterial blood flow is currently receiving intensive study by both life scientists and engineers. It is observed that the fluid velocity, the wall shear stress and the pressure

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Assam-Nagaland Border Conflict and its consequences

Devojit Phukan
Associate Professor

Background of the Problem:

The Assam-Nagaland Border problem is one of the major problems of Assam. Government of Nagaland and the Naga People claim a huge portion of Assam's territory. As a matter of fact, the Naga refuse to accept the 430 km area as their border that Nagaland shares along the fringes of Sivasagar, Jorhat, Golaghat, Karbi Anglong and North Cachar districts of Assam. However, the Naga's have not provided any strong argument in support of their claim. After the formation of Naga Hills District in 1866, a portion was carved out of this district and joined with Sivasagar and Nagaon district. This is the only reason that the Naga have been citing in support of their claim. On the contrary when Dimapur, the erstwhile capital of the Kacharis of the Assam, was included with the Naga Hills district in 1913, the Nagas refused to return it to Assam later. The Naga have not only claimed land of Assam, but have also encroached thousand hectares of land illegally. The

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A Review on Role of Dietary Agents in Prevention and Treatment of Cancer

Tonmoi Sarmah*¹,
Dilip Hazarika²,

ABSTRACT

Hippocrates said 25 centuries ago, **let food be thy medicine and medicine be thy food**. It is now realized after so much of research that dietary components play a vital role in prevention and treatment of cancer. While fruits and vegetables are recommended for prevention of cancer and other diseases, their active ingredients and their mechanisms of action are less well understood. By 2020, the world population is expected to have increased to 7.5 billion; of this number, approximately 15 million new cancer cases will be diagnosed, and 12 million cancer patients will die [1]. Extensive research during the last half century has identified various molecular targets that can potentially be used not only for the prevention of cancer but also for treatment. In this article, we present evidence that numerous agents identified from fruits and vegetables can interfere with several cell signaling pathways and help in prevention and treatment of cancer.

¹Biotech Hub, D.R. College, Golaghat ²Dept of Botany, D.R. College,

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A STUDY OF BLUE-GREEN ALGAE IN THE PADDY FIELDS OF GOLAGHAT SUB-DIVISION OF DISTRICT JORHAT

Dr. Dilip Hazarika

Associate Professor,

Dept. of Botany

Abstract :

A research on the Blue-green algae available in the paddy fields of Golaghat sub division of the state of Assam was carried out. This investigation dealt with the occurrence and distribution of blue green algae in various habitats in general and in the paddy fields in particular. The study was carried out during 1983-1986 based on live specimens collected from different localities of Golaghat sub-division at different periods of the year.

Of all the reported genera of blue green algae reported from the area, *Oscillatoria* emerges to be the most dominant over the genera and is found to occur throughout the year. When all the available blue-green algae are taken into consideration, in relation to their growth and population, it is seen that all of them show a similar pattern of growth. However, when growth periodicity of the individual genus is concerned it is seen that depending upon

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Promoting Peace through Value Education: An overview

Dipti Dutta Bordoloi
Niranjan Thengal

India is a multi-lingual and multi-religious country. From time immemorial, people of India, belonging to various religious faiths, lived in harmony and peace. 'Unity in Diversity' was the motto of each and every individual. There were fundamental values and traditions in our culture that promoted integration among different communities. But in contemporary India, communalism is being promoted as per political interest which has adversely affected the national integration. This communalism has also developed feelings of hatred among individuals belonging to different communities. The people are so much busy in earning money that they are not able to give proper attention for inculcation of values in their children. Attitudes and thinking of all people have become materialistic and all of them are running behind money in this materialistic world. People are not giving proper attention to the menace of growth of social evils which may be very harmful and destructive for the coming generations. It is

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Reoccurrence of *Monoselenium tenerum* Griff. in Assam

Dr. J. Barukial,
Associate Prof., Dept. of Botany,

Abstract:

Phyletically the liverwort - *Monosolenium tenerum* Griff. has a great significant taxon which was first ever collected by Griffith (1849) during 1835–36 in his famous 'tea expedition' to the state of Assam, India. Interestingly, it could never be collected again from any of the locations of present territorial boundary of the state of Assam. It has remained a long lost taxon to the Indian bryology. However, during a survey of "Moss flora of Assam" during 2009 -2011, under the Scheme of "UGC Post Doctoral Research Award" to the author have chanced upon an altogether a new location of its occurrence at a hillock forest situated at the bank of mighty river Brahmaputra, near the Assam cooperative Jute Mill, Silghat, Nagaon district of Assam.

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(জন্ম শতবৰ্ষ উপলক্ষে)

ড° জ্যোতিময়ী ভট্টাচাৰ্য

অসমীয়া বিভাগ

অসমৰ সাহিত্য-সংস্কৃতি আৰু সামাজিক ক্ষেত্ৰ খনলৈ লক্ষ্যধৰ চৌধুৰীৰ অৱদানৰ কথা দোহৰা নিস্প্ৰয়োজন। এইজনা কথাশিল্পীৰ অসমীয়া সাহিত্যত এক বিশিষ্ট সংযোজন হৈছে 'মানুহ বিচাৰি' নামৰ ব্যতিক্ৰমধৰ্মী গ্ৰন্থখনি। মানুহক ভালপোৱা আৰু সঁচা অৰ্থতে সমাজবাদী এই মানুহজনৰ জীৱনৰ সঁচা অভিজ্ঞতাসমৃদ্ধ আৰু জীৱন যাত্ৰাত লগ পোৱা 'জীয়া মানুহ'ৰ উনৈশটা কাহিনী সম্বলিত গ্ৰন্থখনি প্ৰথম প্ৰকাশ হৈছিল ১৯৮৭ চনৰ জুন মাহত। শেহতীয়াকৈ অসম প্ৰকাশন পৰিষদে পুনৰ্মুদ্ৰণ কৰা গ্ৰন্থখনিত প্ৰকাশিত লেখকৰ মানুহ সম্বন্ধীয় দৃষ্টিভংগীয়ে মানুহ বিচাৰি ফুৰা মানুহজনৰ নিভাঁজ ছবি এখনি পাঠকৰ সন্মুখত তুলি ধৰে।

গ্ৰন্থখনিত সন্নিবিষ্ট কাহিনীসমূহ প্ৰথম প্ৰকাশিত হৈছিল 'প্ৰকাশ' নামৰ সাহিত্য আলোচনীত। 'প্ৰকাশ'ৰ তদকালীন সম্পাদক চন্দ্ৰপ্ৰসাদ শইকীয়াই ১৯৮০ চনৰ আগষ্ট মাহৰ এদিন চৌধুৰীৰ শিল্পীজীৱন সম্পৰ্কীয় লেখা এটি বিচাৰি লেখকৰ ওচৰ চাপোতে কথা প্ৰসঙ্গত তাৰ দহবছৰৰ আগতে ৰচনা কৰা এই কাহিনী সম্বলিত বহীখন চৌধুৰীয়ে চন্দ্ৰপ্ৰসাদ শইকীয়াৰ হাতত তুলি দিছিল। ৰচনাসমূহৰ প্ৰকৃত মূল্য সেইসময়তে উপলব্ধি কৰা চন্দ্ৰপ্ৰসাদ শইকীয়াই এই সঁচা কাহিনীসমূহক 'কাহিনী' শীৰ্ষকেৰেই 'প্ৰকাশ'ত ধাৰাবাহিকভাৱে প্ৰকাশ কৰিছিল। লেখকলৈ আৰু 'প্ৰকাশ'ৰ সম্পাদকলৈ সেই সময়তে অহা পাঠকৰ সপ্ৰশংস চিঠিসমূহে লেখকক অনুপ্রাণিত কৰাই নহয় এই সত্যও যেন প্ৰকাশ কৰিছিল – 'Truth is more interesting than fiction'। 'প্ৰকাশ'ৰ

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Reforms of Collegiate Education And Accountability of College Teacher

Ms. Manisha Chaliha

Dept. of Education

HRD Minister Smriti Irani said in FICCI Higher Education Summit (date 13.11.2014) that key regulators in the higher education sector, like UGC and AICTE, are being reviewed keeping in mind the challenges of the future. She wants to 'redefine India's destiny' through reforms in the education sector. The HRD Ministry has already set up a panel to restructure UGC, thus putting in motion an initiative for carrying out an overhaul of the higher education sector. We hope that the new reforms of UGC bring a challenge to collegiate education. As a college teacher I support and realised that collegiate education needs reforms as well as UGC.

Of course, a considerable growth is seen in Assam at the higher education sector. The State has about 20 Universities, including IIT, NIT and private Universities, and more than 500 colleges affiliated to three affiliating Universities. There are 94%

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Toxic Elements in the Environment

Dr. N K Boruah

Associate Professor

Dept. of Chemistry

The evolutionary processes have chosen 27 elements as essential to perform one or more of the physiological functions in our biological systems. Essential elements are defined as those in absence of which growth is inhibited, out of these 27 essential elements, 11 are considered major elements and the rest, trace elements.

Table 1 Essential elements in biological systems (%)

Major elements			Trace elements (Total 1%)		
O	(65)	Na (0.15)	Mn	Ni	I
C	(18)	K (0.35)	Fe	Cr	Si
H	(10)	Mg (0.01)	Co	Mo	Sn
N	(3)	Ca(0.31)	Cr	B	F
S	(0.25)	Cl(0.15)	Zn	Al	Se
			V		

Distribution of the essential elements is not in proportion to their abundance in the earth's crust. O, Si, Al and Fe are the four most abundant elements making about 88% of the earth's crust.

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Use Pattern of Animal Body Parts in Decoration of Headgear and Its Impact on Biodiversity in Arunachal Pradesh

Pavitra Chutia

Department of Zoology, D.R. College, Golaghat

ABSTRACT

Arunachal Pradesh is a part of Eastern Himalayas "Biodiversity Hot Spot" of India. The state is also equally rich in ethnic and cultural diversity. 26 major tribes of the state have their unique socio-cultural identity. The Indigenous people of the state bear headgear in their traditional customs and on religious occasions. The headgear is commonly used by various tribes. It is decorated with body parts of different wild animals. The people of Nyishi tribe utilize more animal body parts in headgear decoration followed by Adi, Nocte, Monpa, Wancho and Hill Miri. Various animal species were found to be utilized in headgear decoration by different tribal groups. Three species of hornbill, two each of primate and squirrel, one each of leopard, bear, wild boar, goat antelope

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Devojit Phukan
Hemanta Saikia



Emerging Issues of Agriculture in North East India



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Hemanta Saikia

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D R College
Golaghat, Assam

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বীতা চৌধুৰীৰ 'এই সময় সেই সময়' উপন্যাসত বিশ্বায়ন প্ৰভাৱিত সমাজ জীৱন

ধ্ৰুৱ কুমাৰ সৰ্দাৰ

বিশ্বায়ন শব্দটো মূলতঃ অৰ্থনীতিৰ লগত জড়িত। বিংশ শতিকাৰ শেষ দশকত বিশ্বজুৰি আৰম্ভ হোৱা বজাৰ সম্প্ৰসাৰণৰ সুনিৰ্দিষ্ট প্ৰক্ৰিয়াটোৱেই হ'ল বিশ্বায়ন। যাৰ মূল কথা হ'ল মুক্ত বাণিজ্য অৰ্থাৎ আন্তঃৰাষ্ট্ৰীয় বাণিজ্য, আন্তঃৰাষ্ট্ৰীয় বিনিয়োগ আৰু আন্তঃৰাষ্ট্ৰীয় বিত্তীয় ব্যৱস্থাৰ শিথিলতা আঁতৰাই মুক্ত ৰূপ দিয়া। দ্বিতীয় বিশ্বযুদ্ধৰ পৰৱৰ্তী সময়ত (১৯৮০) প্ৰথম বিশ্বৰ দেশবোৰে বিশ্বৰ অৰ্থনীতি নিয়ন্ত্ৰণ কৰিবৰ বাবে বিশ্বায়ন প্ৰক্ৰিয়াটোৰ সূচনা কৰে। বিশেষকৈ বিশ্বৰ সৰ্ব শক্তিমান ৰাজনৈতিক আৰু অৰ্থনৈতিক শক্তিবোৰৰ অনুকূলে উদ্ভাৱিত আৰু পৃথিৱীৰ কিছুমান উৎকৃষ্ট মস্তিষ্কৰ দ্বাৰা যৌথভাৱে পৰিচালিত এক জটিল তত্ত্ব বিশ্বায়ন আৰু তাৰ কৌশলী ৰূপটোৱে কম সময়তে সমগ্ৰ বিশ্বৰ অৰ্থনীতি, সমাজ, সংস্কৃতি আৰু আদৰ্শগত ক্ষেত্ৰখনত সবল প্ৰভাৱ বিস্তাৰ কৰিছে।

বিশ্বায়নক এক মতাদৰ্শৰ ৰূপত প্ৰতিষ্ঠাৰ প্ৰচেষ্টা ৰাজনৈতিক, বিদ্যায়তনিক ক্ষেত্ৰখনৰ লগতে প্ৰচাৰ মাধ্যমৰ যোগেদি অব্যাহত ৰখা হৈছে। মুক্ত বাণিজ্যৰ নামত ধনী-দুখীয়া সকলো দেশেই সুবিধা লাভ কৰাৰ কথা কোৱা হৈছে—য'ত দুখীয়া দেশে কম মূল্যত উৎপাদিত পণ্য ৰপ্তানি কৰিব পাৰিব আৰু পুঁজিহীন দেশৰ মানব সম্পদেৰে বহুজাতিক কোম্পানীয়ে গঢ়া উৎপাদনেৰে পুঁজিৰ সমতা ৰক্ষা কৰিব। ইয়াৰ বাবে মানব সম্পদ গঢ়াৰ কিছু নতুন ব্যৱস্থা তৈয়াৰৰ লগতে উৎপাদিত পণ্য বিক্ৰীৰ বাবে

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Microalgae biofuels : Potentials and Challenges

Dilip Tamang

Abstract:

The practice of exploration for the alternative energy source is very old. The shrinkage of the fossil fuel reserves, their high cost and the increasing pollution are the main causes for the development and production of biofuels from the non-food feedstocks, mainly from the microalgae. This article reviews the present status of microalgae for the production of biofuels for the upcoming days with severe energy crisis. The interesting potentials of the microalgae and the challenges prevailing during the biofuel production process are analysed. Moreover, there are many more opportunities regarding the scope of biofuel productions not only in National and International backgrounds but in Assam also, very rich in biodiversity possesses many wetlands where the culture of Microalgae can be done and thereby playing a major role in contributing to the sustainable utilization of biofuels.

Keywords: Alternative energy source, Fossil fuels, Microalgae, biofuel, sustainable utilization

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ড° জয়া কলিতা

০.০ প্ৰস্তাৱনা

অসম হ'ল বিভিন্ন জাতি-জনগোষ্ঠীৰ সমন্বয়ৰ ক্ষেত্ৰ। এই অসমলৈ আৰহমান কালৰ পৰা বিভিন্ন জাতি-জনগোষ্ঠীৰ প্ৰব্ৰজন ঘটিছিল। সেই অনুক্ৰমে আহোমসকলৰ ১২২৮ চনৰ ১৬ আঘোনত ছ্যুকাফাৰ নেতৃত্বত অসমত প্ৰৱেশ ঘটিছিল। দক্ষিণ-পূব এছিয়াৰ অন্যতম জাতি টাইসকলৰ এটি শাখা হ'ল আহোমসকল। যদিও একালত এই আহোমসকল মংগোলীয় আৰু চীনৰ একাংশত বাস কৰিছিল। সেয়েহে কালক্ৰমত টাই শানসকলে য়ুনান প্ৰদেশৰ মুঙৰি মুঙৰাম অঞ্চল বিয়পি পৰি সমগ্ৰ হুকং উপত্যকা অধিকাৰ কৰে। উল্লেখ্য যে, আহোমসকলে তেওঁলোকৰ পূৰ্ব বাসস্থান মুঙৰি মুঙৰাম বুলি বহুসময়ত দাবী কৰি আহিছে সেয়েহে ইয়াতেই তেওঁলোকৰ উপৰিপুৰুষ স্বৰ্গৰ ৰাজ্য লেঙডনৰ নাতিয়েক খনুলায়ে ৰাজ্য স্থাপন কৰিছিল। ইয়াৰে এটা সময়ত মুঙৰি-মুঙৰাম ৰাজ্যখনক দুভাগ বিভক্তি হৈ পৰাৰ পৰিপেক্ষিতত ইয়াৰ এখন মুঙৰি-মুঙৰাম নামেৰে আৰু আনখন ব্ৰহ্মদেশৰ প্ৰায় চিউলী নদী পৰ্যন্ত বিস্তৃত “মাওলুঙ” ৰাজ্য হ'ল। সেয়েহে ছ্যুকাফাৰ নেতৃত্বত থাওলুং ৰাজ্য পৰাই আহোমসকলৰ প্ৰৱেশ ঘটি চৰাইদেউত ৰাজ্য প্ৰতিষ্ঠা কৰে। ত্ৰয়োদশ শতিকাত আহোমৰ ছ্যুকাফাৰ নেতৃত্বতে অসমত প্ৰৱেশ কৰোঁতে তেওঁলোকৰ ভাষা, কৃষ্টি, ধৰ্মীয় বিশ্বাস, পৰম্পৰা সকলোবোৰ লগত লৈ আহিছিল। তেনে সংস্কৃতিৰ অংগ খাদ্যাভাসো টাই আহোমসকলৰ আচুটীয়া কৈ আছে। সেই পৰম্পৰাগত খাদ্যক এটা সময়লৈকে অক্ষুন্ন ৰাখিছিল যদিও বৰ্তমান বহুবোৰ কাৰণত সেই খাদ্যাভাস পৰিবৰ্তনে দেখা দিছে। এই প্ৰবন্ধটোত পৰম্পৰাগত খাদ্যৰ নাম উল্লেখ কৰি সেই খাদ্যসমূহৰ পৰিবৰ্তনৰ দিশসমূহ আলোকপাত কৰিবলৈ যত্ন কৰা হৈছে।

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Jinku Borkotoky

Clustering Approaches for Indian Stock Market Prediction - A Review

Jinku Borkotoky

INTRODUCTION:

As a part of the process of economic liberalization, the stock market has been assigned an important place in financing the Indian corporate sector. Besides enabling mobilizing resources for investment, directly from the investors, providing liquidity for the investors and monitoring and disciplining company managements are the principal functions of the stock markets. The main attraction of the stock markets is that they provide for entrepreneurs and governments a means of mobilizing resources directly from the investors, and to the investors they offer liquidity. It has also been suggested that liquid markets improve the allocation of resources and enhance prospects of long term economic growth. Stock markets are also expected to play a major role in disciplining company managements. In India, Equity market development received emphasis since the very first phase of liberalization in the early 'eighties. Additional emphasis followed after the liberalization process got deepened and widened in 1991 as development of capital markets was made an integral part of the restructuring strategy. Today, Indian markets conform to international standards both in terms of structure and in terms of operating efficiency.

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Problems and Prospects of Higher Education in North-east india with Special Reference to Assam

Leela Das

INTRODUCTION

Higher education is regarded as a facilitator for growth for any society. According to UNESCO Report in the 21st century "higher education is the mandate to bridge the knowledge gap between countries and communities enriching dialogues between people, culture, international living and networking of ideas, research and technologies." The institutions where post 10+2 education is provided are generally regarded as higher educational institutions. Ministry of Human Resource Development, University Grant Commission and statutory bodies for professional disciplines work as the collective control mechanisms for higher education in India. These are regarded as policy formulators as well as the regulatory bodies in regard to higher education. Higher Education in India has acquired special significance since independence. This is to be gauged in terms of what the society expects from it and the fulfillment of these expectations in terms of its requirements.

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Necessity of Choice Based Credit System(CBCS)in Semester System

Manisha Chaliha

Higher Education

In the history of mankind, education has formed a continuum and strong basis for the progress of human society as through development of attitudes, values and capabilities. Education provides strength to people for the changing situations, and enable them to contribute for social and national development. Higher and better quality of life is one of the outstanding, visible and explicit human expectations from education globally. Interest in higher education has greatly increased, all over the world, during the last fifty years. For the developing countries like India, higher education is the most important means of scientific, technological and industrial progress, and removal of poverty. There are two meanings of the term higher education. Firstly, higher education is critical learning which is above the memory level. It is reflective learning. In this sense higher education is taken as the higher level of learning which has both individual and social relevance. Secondly, higher education stands for college or university education which too, has both individual and social relevance.

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Groundwater Contamination Risk Mapping in Golaghat District, a region of Brahmaputra river basin in North East India: an Objective Approach

Dr. Mridul Chetia

Abstract:

Safe drinking water is a basic need of every human being despite of any socio-economic status. The identification and utilization of safe and pure water sources is a great concern nowadays in Golaghat district of Assam, India as the residents of the area have been chronically exposed to low to moderate levels of heavy metals toxicity like arsenic, iron etc. Thus the chemical quality assessment and management of groundwater sources are of utmost importance. To access the quality of groundwater seven key parameters viz. arsenic (As), Fluoride (F), Cadmium (Cd), lead (Pb), Iron (Fe), Manganese (Mn) and pH were examined from 258 number of groundwater samples. Out

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Fluorsis - The Bone Crusher

Dr. N. K. Baruah

Fluoride the anion with oxidation state -1 cause significant effect on human health through drinking water. Different forms of fluoride exposure are important & have shown to affect the body's fluoride content & thus increasing the risks of fluoride-prone diseases. The earth constitutes 0.06 - 0.09% of element fluoride. It is mainly found in the form of HF, NaF, fluorosilicic or hexafluorosilicic acid. Small amount of fluoride (<1 ppm) in diet helps in preventing dental caries & strengthening of bones but at higher levels shows cumulative toxic effects. Prolonged ingestion of fluoridated water or consuming high fluoride (>10mg/L) leads to dental fluorosis, skeletal & non skeletal fluosis. Fluoride also affects cells of soft tissues including renal, endolithial, gonadal & neural cells.

Sources of fluoride:

Contamination from geological sources such as leaching from agriculture, industrial & municipal solid waste polluted surface & ground water raising the level of fluoride. Use of phosphate fertilizers & waste from ceramic industries & burning of coal also

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Ethnozoology of the Nyishi Tribe of Arunachal Pradesh

Dr. Pavitra Chutia

Abstract

Connections between animals and humans date back thousands of years, and cultures all over the world have developed characteristic ways of interacting with the regional fauna over time. Human communities have accumulated a huge store of knowledge about animals through the centuries (passed from generation to generation, largely through oral traditions) that is closely integrated with many other cultural aspects, and this zoological knowledge is an important part of our human cultural heritage. The present communication deals with the ethnozoology of Nyishi tribe of Arunachal Pradesh. There are 18 animal species including birds, reptiles, and the mammals that are the major categories of animals whose various body parts are utilized by the Nyishi peoples as protein supplement in their diet, in preparation of traditional medicine and during different socio-cultural as well as magical and religious occasions. Larger cats, non-human primate, Himalayan black bear and sloth bear, Barking Deer, and Mithun are the main categories of animals utilized in different ethnic practices. The use values of all

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Effect of annealing temperature on Structural and Optical properties of SnO₂ nanoparticles

Dr. Pawan Chetri

Abstract:

SnO₂ nanoparticles are prepared using cost effective Sol-gel technique. The structural studies verified the formation of SnO₂ nanoparticles. These are annealed at different temperatures i.e. 400°C, 600°C and 800°C. The comparative study shows a well-known increase in crystallite sizes and decrease in band gap with increase in annealing temperature. Raman measurement investigates various mode of vibration within the system. The photoluminescence studies illustrate the effect of defects in the emission spectra of all the system.

1. Introduction:

It is well known that oxide semiconductors usually change their physical properties when they are heated to elevated temperatures far below the melting point. The heat treatment results in a reorganization of the structure leading to a state of order with a lower free energy and higher crystallinity. Tin oxide (SnO₂) is an n-type wide band gap ($E_g = 3.6$ eV at room temperature for bulk)

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Trends of Capital Formation in Indian Agriculture and it's Impact on Agricultural Growth

Sanjoy Saha

Abstract

Capital formation in agriculture is assumed to play a significant role in the agricultural growth of an economy. Using time series data the present study observes that capital formation in Indian agricultural is not up to the mark which can influence the agricultural growth significantly. Further, the regression analysis shows that rainfall is still major variable which affects the agricultural growth dominantly. Therefore, there is an urgent need to increase the level of investment for agricultural sector which will help in the overall growth of Indian economy particularly agricultural sector. It will also reduce the dependence of farmers on monsoon.

1. Introduction

In any society capital formation takes place when some part of the increased production is being directed for making capital goods instead of using the same for immediate consumption. In a

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Moulding Plastics for a Better Sustainable Future

Dr. Suvangshu Dutta

Abstract

More than half a century ago synthetic polymers started to substitute natural materials in almost every area and nowadays plastics have become an indispensable ingredient of our life. These are now rival metals in breadth of use and in severity of applications because of their flexibility, toughness, excellent barrier and other physical properties as well as the ease of fabrication. With time, stability and durability of plastics have been improved continuously, and hence this group of materials is now occupying a unique position in the field of materials. However, the major concern over such widespread use of plastic materials is their detrimental environmental effect. The accumulation of plastics in the environment is leading to long-term environment, economic and waste management problems. Burning of plastics, dumping of harmful waste has damaged the earth's atmosphere which has brought depletion in the ozone layer. Studies have proved that this depletion has brought drastic changes all over the world. Antarctica, the ice continent has is now losing its name as dangerous rays of sun had brought

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Indian Secularism Re-Examined

Dr. Tarun Gogoi

Secularism has been the topic of debate and discussion during the last few decades in Indian society, which generated so much heat and dust that it was impossible to understand the term clearly. Numerous communal riots such as Godhra incident in 2002 accompanied by events of arson, loot, and murder in urban and rural areas have tarnished the image of Indian secularism. The social climate is thoroughly vitiated and the atmosphere is surcharged with suspicion and hatred like the pre-partition days. What needed are a deep national introspection and a sense of balance and direction to avoid these kinds of vitiated social climate. It is the responsibility of those who are at the helm of affairs in government and in political and social life to provide these. However, it seems they are indulging in divisive politics and mutual recrimination oblivious of the national interest and the consequences of what they are doing. Keeping in view the above facts in mind, this paper is an attempt to study whether secularism is possible in India in the present context. It also endeavours to examine whether secularism is the only way of developments in a plural society like India.

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Neutrinos in cosmology

Dr. Amal Kr. Sarma

Abstract

We discuss the origin of relic neutrinos, and its role in the evolution of our universe, in a standard Big Bang model. Relic neutrinos could carry the information of the evolutionary state of the universe up to the age of 1 Sec.

1 Introduction

Neutrino, which was predicted [1] as a spin $1/2$ and mass less particle [2] to explain the β -decay curve, still maintain its elusive nature. The mixings and non-zero mass by oscillation experiments makes neutrino much more interesting. The neutrino oscillation experiments [3] are remain silent about the absolute neutrino mass and the nature of neutrinos: Dirac or Majorana. Neutrino less double beta decay experiment [4] would provide the absolute mass of neutrinos. These issues are equally relevant for cosmology; for neutrinos are involved in the cosmological evolution almost from the birth of our universe. Neutrinos, despite their weak interactions and small masses, can play significant role in cosmology. Cosmological data can be used to constrain neutrino properties such as its flavor, absolute neutrino mass etc., which may

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Study and Documentation of Tree Diversity in D.R College Campus, Golaghat, Assam

Anima Kutum

Introduction:

Tree diversity is usually measured using indexes which combine the number of species, called richness, with the abundance, importance of tree species. It is becoming clear there are advantages and disadvantages to tree diversity with great differences of opinion between ecological conscious of people and professional resource managers. One important fallacy is that diverse systems are inherently more stable than less diverse systems. A complex community ecosystem is made of many cells of simple systems which we tend to clump together into large tree management units.

Tree family diversity is another key component. Many stress guilds are focused at the tree family level while we shift planting between related genus and species within a family. A greater number of tree families planted, and prohibition against the most

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Environmental Philosophy and Sustainable World

Anjali Devi

The relation between man and nature constitutes the ultimate basis for all environmental issues. Human beings are not alone living on planet Earth. We live among a multitude of plants, animals and inanimate natural objects. All natural beings, whether they are plants, animals or humans are dependent on nature for their sustenance and survival. Thus, all natural beings are regarded as members belonging to one community, that is, a biotic community.

Every natural beings, whether it is tiny or huge, has its place, purpose and worth in the vast web of life. If one natural beings lives at the expense and sacrifice of other beings beyond certain limits, then the equilibrium or harmony in nature is disturbed, which may eventually lead to a variety of natural disaster.

Modern Science has provided us with a material prosperity unequalled in our history. However it has created unparalleled environmental threats to ourselves and to future generations. The spectacular developments in Science and technology have equipped humans with an enormous power to control and exploit nature not only to satisfy their needs, but also to quench their thirst for profit

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Indigenous Knowledge of Using Medicinal Plants in Treatment of Rheumatoid arthritis By the People of Kohora (KNP), Assam, India.

Apurba Saikia

Abstract:

Rheumatoid arthritis is an autoimmune disease; it is generally characterized by inflammation of different joints of internal tissues. Alongwith joint paints manyorgans are damaged by this disease of human being. In the modern synthetic drugs are available for cure the Rheumatic arthritis but due to different side effects modern synthetic drugs are not used by common people. Interestingly, there is still no effective known medicinal treatment which can cure rheumatoid arthritis. Now a day's herbal plants are used to relieve the pain and inflammation in the joints. In this paper we are trying to focus on the so many medicinal plants that have shown anti rheumatoid arthritis properties.

Key words:

Medicinal plant, Rheumatoid arthritis,
Kaziranga National Park.

EASTERN

Trends in Environment Responsive Chemical Processes



Editors

Suvanghu Dutta | Bedanta Kr. Borah



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a collection of research based articles by the eminent sci-
 ulty members, post doctorate fellows, PhD scholars and
 various educational and research institutes of India. The
 nificantly an insight to understand the fundamentals of sus-
 ethics, toxicity, ecotoxicity and design chemicals and
 processes for sustaining chemistry. A total of fourteen
 based on the focal theme of Trends in Environment Respon-
 cal Processes were selected for publication after peer re-
 e articles that were presented in the UGC sponsored
 nference RTERCP-2017 held in the Dept. of Chemistry, D.R.
 olaghat. The chapters involve new ideas as how we can
 duction through energy efficient route, without generat-
 ste or recycle every bit of waste like nature sustains pro-
 d reap the benefit of chemistry in terms of human health
 nent.



The Editors

Dr. Suvangshu Dutta (b. 1979), MSc (2002, Gauhati University), PhD (2010, Tezpur University) is an Selection Grade Assistant Professor in the Department of Chemistry, Debraj Roy College, Golaghat, Assam. He has twelve years of teaching and research experience. He was awarded CSIR-JRF in the year 2005. Dr. Dutta has published three books (two authored & one edited), sixteen research papers (many in indexed journals) and a number of book chapters. His research interests include polymers, nanocomposites, thin films, nanofibers and their modifications etc. He has two research projects and presented his research works in more than thirty national conferences around the globe till date. Dr. Dutta delivered a number of invited talks and acted as a potent reviewer of a number of referred journals of national and international repute.

Bedanta Kr Borah is presently Associate Prof & HOD in The Department of Chemistry, Debraj Roy College, Golaghat, Assam. Borah completed his M.Sc degree from Gauhati University in 1993 with specialization in Organic Chemistry. He then worked in NEIST (formerly known as RRL), Tocklai Tea Research Station, Waters India Pvt (Kolkata). Mr. Borah joined Dept. of Chemistry, Debraj Roy College in the year 2005 as Asst Prof. His research interests are synthesis of steroidal drug intermediates, pesticide residues in tea etc. Mr Borah has a patent in his name titled "An Improved Preparation of 20-Oxopregnane Compounds" N F No. 0180NF1998/IN Indian Patent No. 201505). He has publications in both National & International Journals. He is also the author of several chapters of reknown publishers. Mr. Borah delivered invited talks & presented research papers in various National and International Seminars/ Conferences.

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Parental Involvement and Academic Achievement of Children in Secondary Level

Dr. Chitra Devi

Abstract:

The present study aims to know the involvement of parents on academic achievement of their children. The study was descriptive in nature and survey method was applied to know the involvement of parents. Total 200 students from class-x who appeared and passed in class-x board examination in Bongaigaon district was selected as sample and their parents. For collecting data from respondents a self-constructed questionnaire was applied. The findings of the study revealed that there is a good relationship between parental involvement and academic achievement of their children in secondary level.

Key words- Parental Involvement, academic achievement.

Introduction:

Children are the future of any nation and the progress and prosperity of a nation depend upon the education of the children

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A Study on Agricultural Products in Early Assam

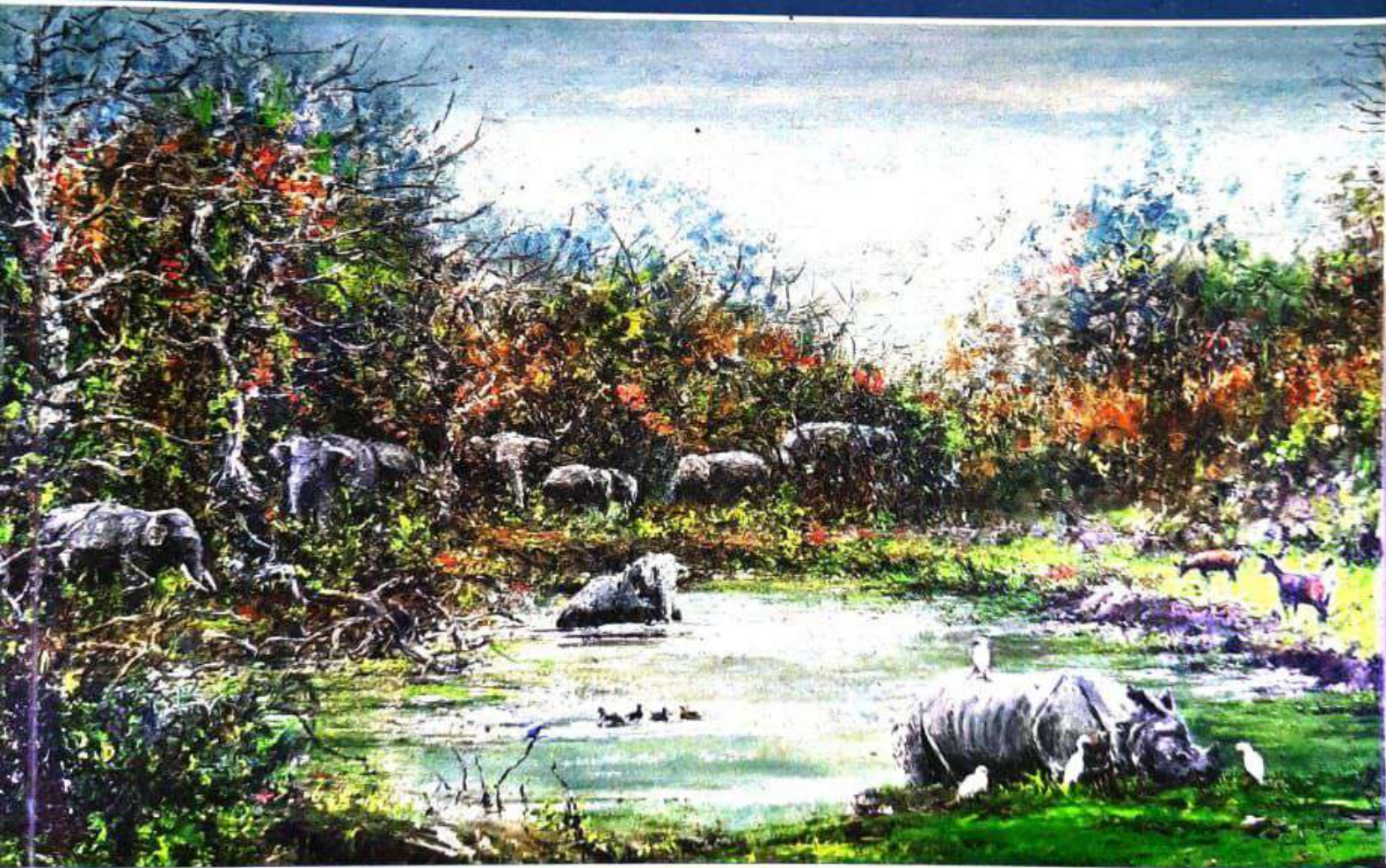
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The term 'early Assam' used here denotes the early state of *Pragjyotish-Kamarupa* which had four divisions, i.e. *Ratnapith*, *Kampith*, *Swarnapith* and *Saumarpith*, from prehistoric times which largely finds mention in the early literary and epigraphic records. The term 'agricultural products' denotes here the usual crops that the people cultivated in the State of Kamarupa which included – rice, pulses, banana, betel, coconut, brinjal, sugarcane, cucumber, gourd, pumpkin etc. Society in early Assam was mainly an agriculture based society. All the people irrespective of Aryanised or tribal habits took rice as their staple food as it is at the present time.¹ So people here cultivated rice in abundance since pre-historic times. Classical authors like Pliny and Strabo also mention that rice was the staple food of the people and accordingly it was the chief agricultural product. Alongwith rice, they also produced certain crops which supplied them their other edible items.

The paper is an attempt to study the varieties of the agricultural products that the people of early Assam produced, from a correct historical perspective. In the preparation of the paper both primary and secondary sources have been consulted and an analytical view has been persued.

BIODIVERSITY **and its** **CONSERVATION**

Issues and Cases from Assam



Editors
Dr. Rajeev Basumatary
Dr. Smarajit Ojah

Assam College Teachers' Association

BIODIVERSITY AND ITS CONSERVATION: Issues and Cases from Assam is a compilation of peer reviewed research papers by ACTA members from various colleges of Assam along with a few invited articles from renowned conservationists from the state.

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28TH AND 29TH JUNE 2019

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DEPARTMENT OF CHEMISTRY, ZOOLOGY AND BOTANY
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A STUDY ON THE PHYTOCHEMICAL PROPERTIES OF SARCOCHLAMYS PULCHERRIMA, A MEDICINAL PLANT OF MISHING COMMUNITY OF ASSAM

Anima kutum¹ and Mridul Chetia²

¹Assistant Professor, Deptt. of Boatny, D.R. College, Golaghat.

²Assistant Professor, Deptt. of Chemistry, D.R. College, Golaghat.

Abstract:

The use of the plant species *Sarcochlamys pulcherrima*, as a traditional medicine and food item is widely prevalent among the Mishing community of Assam. Mishing, the second largest community of Assam uses this plant species as an integral ingredient in the preparation of Apong (a kind of Rice Beer) during dobur Uie. The local status of the plant is reported as rare. The Mishing people make a special delicacy during the religious festivities from the tender leaves of the plant with pork. It is believed that its consumption with pork facilitates the digestion of fats. It has also been investigated that the leaves of the plant when boiled with pork damages the eggs of tape worm associated with pork. The present study deals with the phytochemicals like phenol, flavonoids, saponin present in the said species.

Key Words: *Sarcochlamys pulcherrima*, phytochemical, traditional medicine, Mishing,

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D. R. College, Golaghat, Assam

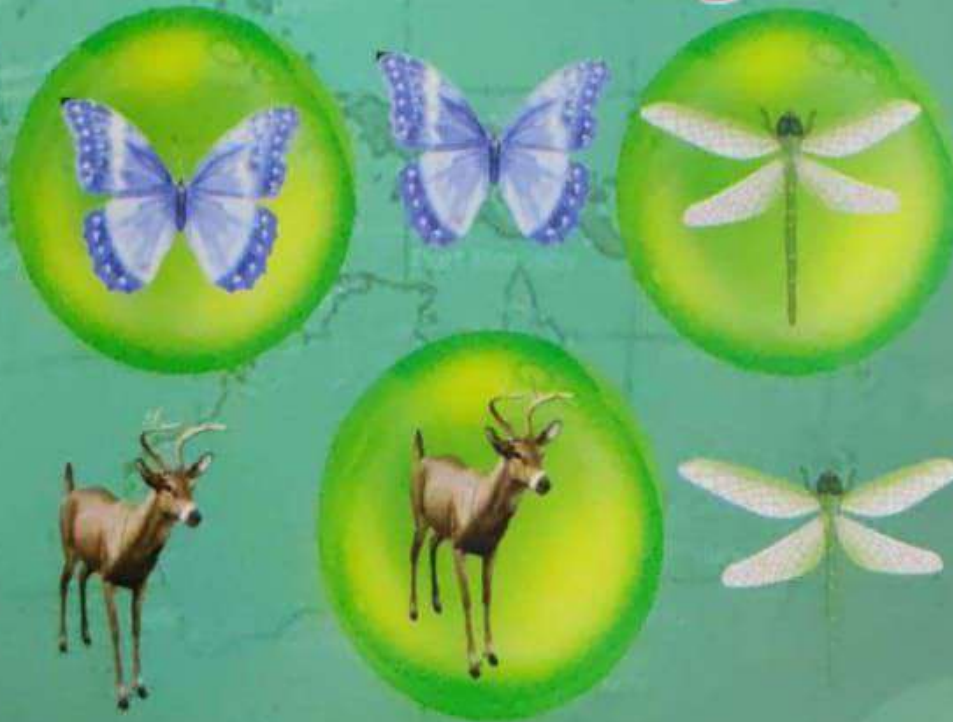
E. Mail: animakutum.drc@gmail.com,

Introduction

Mishing is a tribal community belonging to the Mongoloid group – a multitude of people that followed Austro-Asiatic races to India. It is a major ethnic group of North East India and second largest tribe in Assam. As per 2011 census of India the Mishing constitute 17.46% of the tribal population of Assam and the total number of Mishing population is 680424 (https://en.m.wikipedia.org/wiki/Mishing_people). They are one of the plain tribes of Assam and are



Sustainable Development In North-East Region



Edited by
Dr. B. K. Sarmah
Mr. M. K. Dutta





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Promotion of Sustainable Agriculture and Rural Development: Small Tea Growers Emerge as A New Panacea in Rural Assam

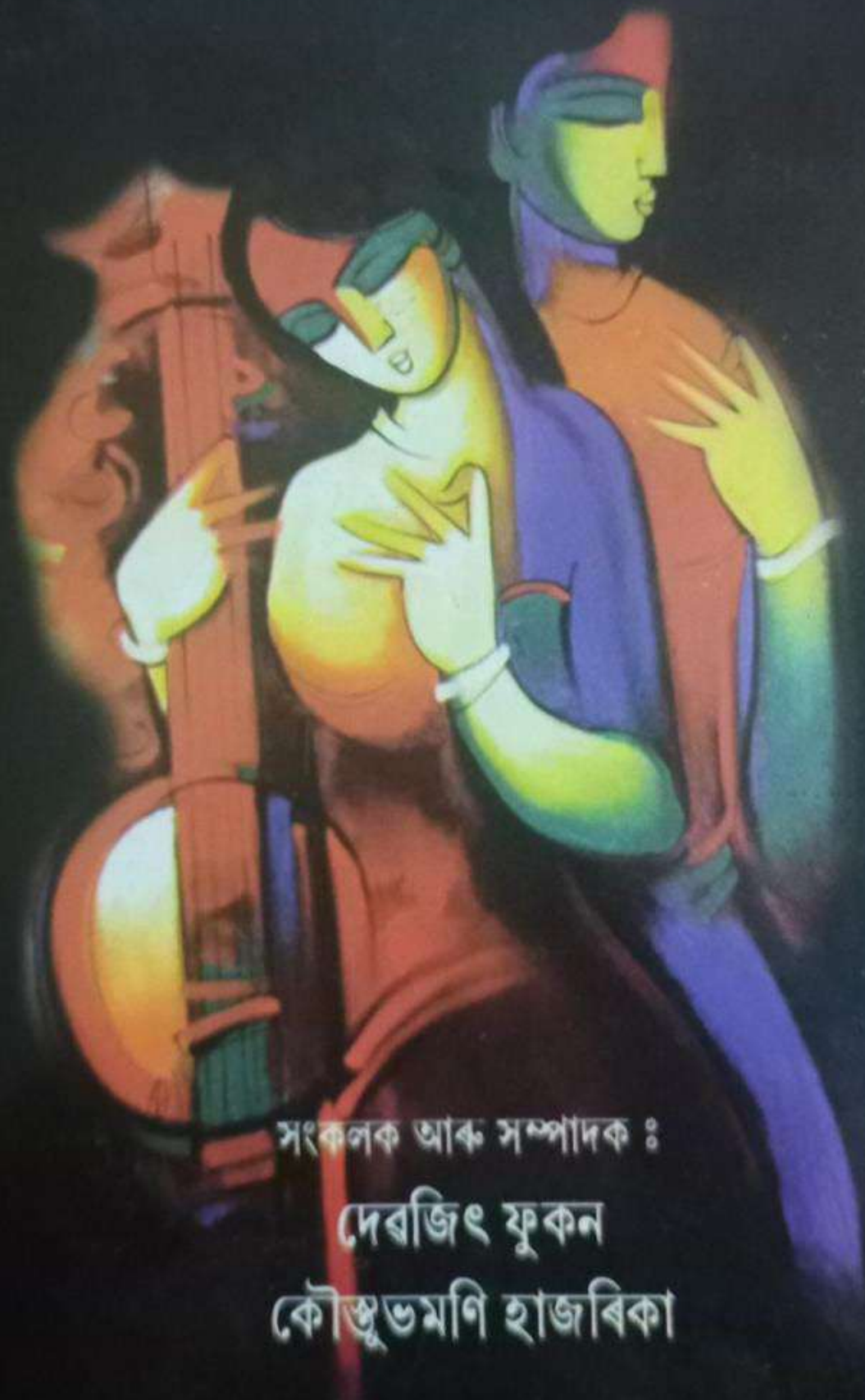
Mr. Jiban Jyoti Kakoti
Mr. Bedanta Bora

Introduction:

The concept of sustainable agriculture and rural development was introduced for the first time in 1991 at the Conference on Agriculture and the Environment in the Netherlands held by the Food and Agriculture Organization (FAO) of the United Nations at Hetrogenbosch (SD dimensions, FAO/Netherlands Conference on Agriculture and the Environment). Its basic principles are to increase food production for ensuring food security and eliminating famine, to improve current living standards by increasing peasants' income, to reserve sufficient amount of land for agricultural use both for the present and future generations, to ensure judicious use and protection of natural resources through the maintenance of agro- ecosystems, and to evolve eco- friendly mechanisms concordant with agriculture and economic development that will lead to a prosperous rural society (Schaller 1993).

Small tea growers in the country contribute to more than 30% of country's tea production. While 39% of the small tea gardens are in Assam, Tamil Nadu has 34% of the gardeners and North Bengal and Kerala has 24% and 10% of the gardeners respectively (Das S 2010).

গ্ৰন্থমেলাৰ গল্প



সংকলক আৰু সম্পাদক :

দেবজিৎ ফুকন

কৌস্তুভমণি হাজৰিকা

গ্ৰন্থমেলাৰ গল্প

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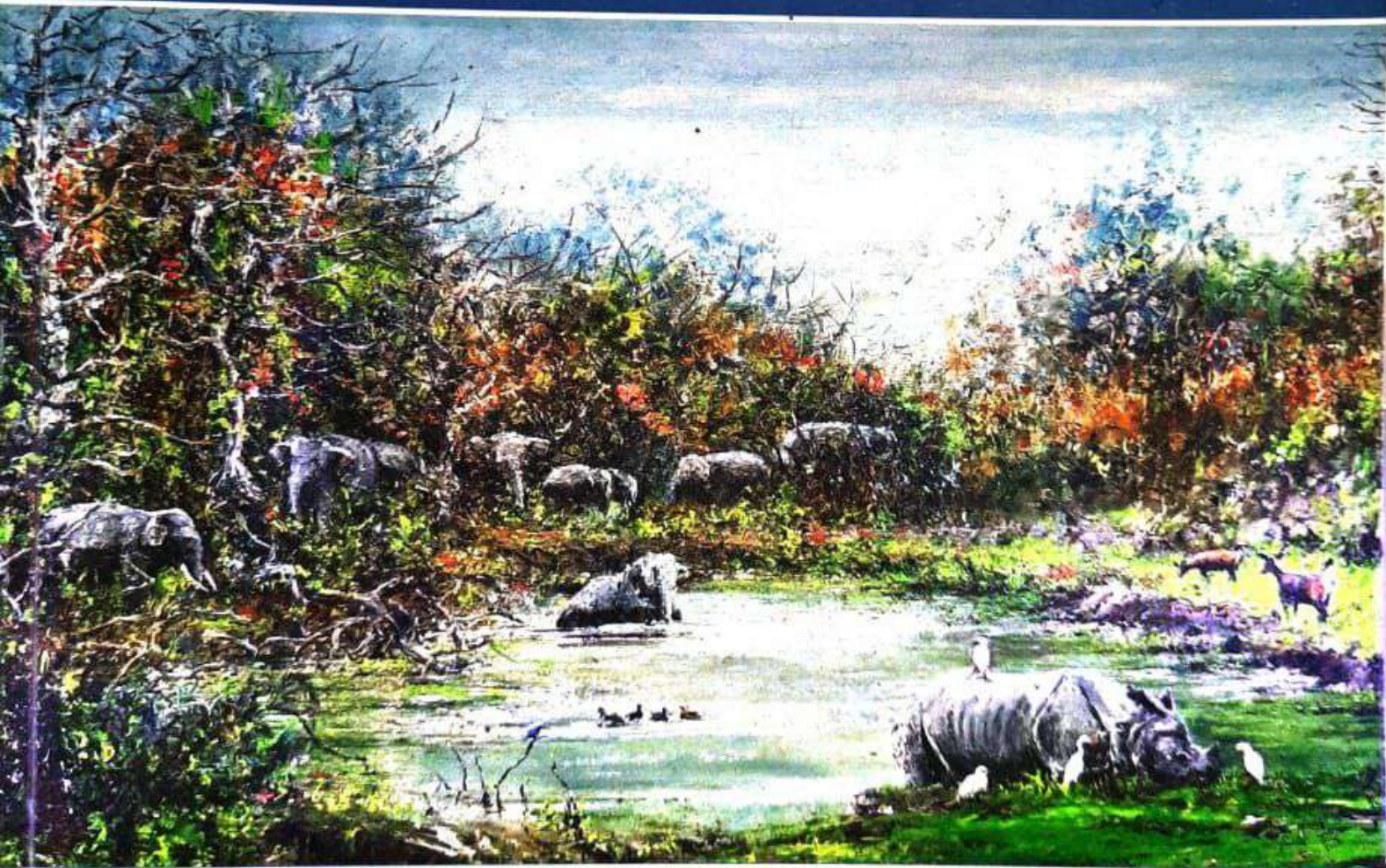
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গ্ৰন্থমেলাৰ গল্প : দেবজিৎ ফুকন আৰু কৌস্তুভমণি হাজৰিকাৰ দ্বাৰা সম্পাদিত
গল্প সংকলন। স্বেচ্ছাসেৱী অনুষ্ঠান ভল্ল পপুলীৰ দ্বাৰা প্ৰকাশিত আৰু
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BIODIVERSITY **and its** **CONSERVATION**

Issues and Cases from Assam



Editors
Dr. Rajeev Basumatary
Dr. Smarajit Ojah

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Fishery bycatch in Kaziranga national park: The understated issue of freshwater turtle conservation in Assam

Rajeev Basumatary

Introduction

Being in Indo-Malayan Biogeographical region, India is one of the richest turtle pocket in the world, ranking 6th among top 25 'Turtle Rich Countries' (van Dijk *et al.*, 2011), harbouring as many as 25 freshwater turtles (Trionychidae, Geoemydidae), 4 species of tortoises (Testudinidae) and marine turtles (Cheloniidae, Dermochelyidae) 5 species. Out of which 21 species are so far recorded from Northeastern region of India (Ahmed *et al.*, 2009) where majority of the species records are from Brahmaputra River system. Recently, the Ganges-Brahmaputra River drainage system of India and Bangladesh has been designated as World's Greatest Turtle Species Richness Area based on the co-occurrence of species in hydrologic unit compartments, and identified as one of the World's Top Priority Freshwater turtle Conservation Area (Bulhman *et al.*, 2009). The lower Ganges-Brahmaputra Basin is an exceptional turtle richness area harboring 18-19 species. However there are many evidences of accidental bycatch of turtles throughout the whole stretch of Brahmaputra in Assam and their killing and selling in local trade (Frazier and Das, 1994; Choudhury, 1995; Praschag and Gemel, 2002 and Ahmed and Das, 2009). But the commercial freshwater bycatch have hardly received any media or research attention throughout the world than marine fishery bycatch (Raby *et al.*, 2011).

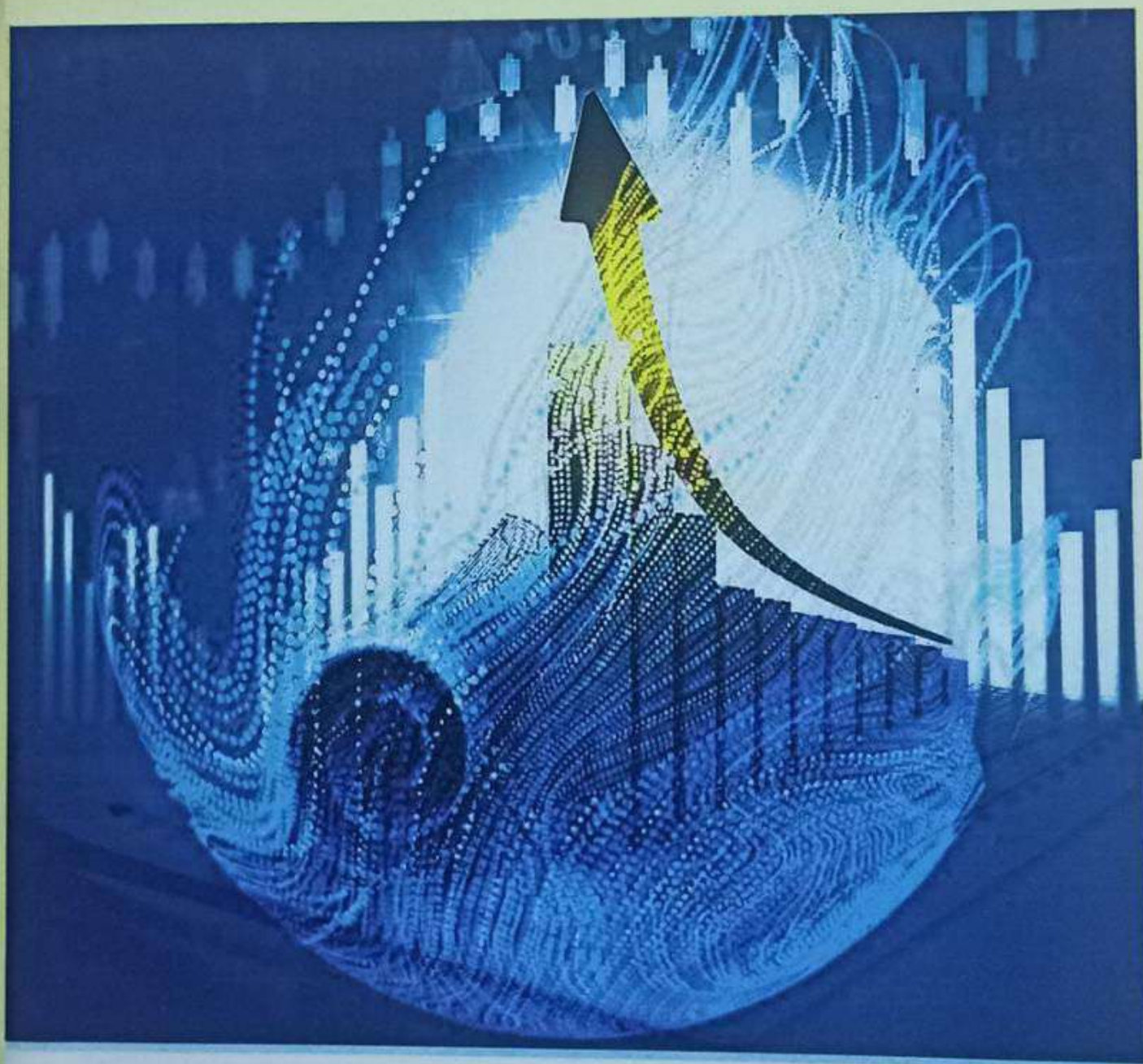
Materials and Methods

Study Area

The Diffolu River : The Mora Diffolu river is overexploited habitat as a result of fishing and log collection and it forms 2/3rd part of the southern boundary of the park.

Bishwanath Ghat : It is a fishing hub on the Northern boundary of the park, i.e. the Brahmaputra River (sixth addition area).

CONTEMPORARY INDIAN ECONOMY: ISSUES AND CHALLENGES



Devojit Phukan

Hemanta Saikia

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Edited by :

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**Department of Economics
Debraj Roy College, Golaghat**

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ETHNOVETERINARY PRACTICES IN SOME RURAL AREAS OF GOLAGHAT AND JORHAT DISTRICT, ASSAM

* Khirod Deori

** Rashmi Rekha Nath, Pranati Kalita,
Anisha Thapa, Samiron Borgohain, Rakhi Saikia

Abstract

The present study was carried out on ethnoveterinary medicines practiced by some rural inhabitants in Golaghat and Jorhat District, Assam. A total of 16 villages have been chosen as the study site. The survey was based on a semi-structured questionnaire, designed to collect information through interactive interviews on the use of ethnoveterinary medicines practiced by the local inhabitants. During our survey we have interviewed 100 respondents including 25 traditional practitioners comprising both males and females. Here, we are documenting a total of 20 plant species and their formulations that are being used to treat 20 different disease conditions by the inhabitants of the study areas. From the study it may be concluded that although modern drugs are available nowadays, the use of traditional medicines are still popular in rural areas which may depict a scenario of their strong belief on their formulations or may be due to inaccessibility, poor economic

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PROFESSIONAL ETHICS OF TEACHERS'

* Leela Das

1. Introduction:

A teacher is one who teaches. The word 'teach' has been derived from the Anglo Saxon word "Taecon" which means 'to impart', 'to instruct', 'to train' and 'to make aware of'. The teacher acts as pivot of any educational system for the transmission of intellectual and technical skills from one generation to next. The teacher is the key man on whom the future of children and mankind depends. He plays an important role in shaping and molding the personality of the individual. A successful teacher is one who is able to foster creative thinking, develop skills and instills a desire for lifelong learning among students. In any society a teacher has a very important and respectable place because teaching is a noble profession. Teaching as a profession is different from other professions because of its multitude of dimensions. Teachers are the largest professional group engaged in human development activities. As the teachers are torch bearer of a learning society, so they have to aware the learner to face the challenges in this era of Globalization, Privatization and Liberalization along with the technical

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ACADEMIC ACHIEVEMENT AND ATTITUDE OF STUDENTS TOWARDS SEMESTER SYSTEM IN GENERAL DEGREE COURSES

* Manisha Chaliha

ABSTRACT:

The students, teachers and administrators of the colleges received many academic freedoms under the semester system for which the whole education system moved in a dynamic way. In this flexible system, students studied from the beginning of the academic session and generally they wanted to get high marks in examination. In this paper the investigator studied academic achievement of students in semester system and its relation with attitude towards semester system. In total 1082 students were selected using purposive sampling for the study. The investigator used self-constructed attitude scale and the marks of six semester examination were considered for academic achievement. It was found that the students belonging to Arts, Science and Commerce stream at Undergraduate Level obtained high level of academic achievement in semester system. The correlation between academic achievement and attitude of students towards semester system was significantly positive. It indicated that attitude towards semester system had positive effect on the academic achievement of Undergraduate students in semester system.

KEYWORDS:

Academic, achievement, Attitude

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* মৌচুমী বৰুৱা

০.০ বিষয়ৰ পৰিচয় :

অসমৰ আধ্যাত্মিক, সাংস্কৃতিক আৰু বৌদ্ধিক জীৱনত সৰ্বাধিক চৰ্চিত ব্যক্তিগৰাকী হ'ল শ্ৰীমন্ত শঙ্কৰদেৱ। শ্ৰীমন্ত শঙ্কৰদেৱ আক্ষৰিক অৰ্থত্ৰেই সৰ্বগুণাকৰ। শঙ্কৰদেৱে সমকালীন নিৰক্ষৰ জনসাধাৰণক আগত ৰাখি তেওঁলোকক প্ৰচলিত চিন্তাভাৱনাৰ বিপৰীতে অমূৰ্ত ভগৱানৰ অস্তিত্ব উপলব্ধিৰে মানুহৰ মাজত বৈপ্লৱিক পৰিৱৰ্তন আনিছিল। এই পৰিৱৰ্তনৰ মূল মাধ্যম আছিল সাহিত্য। সেই সময়ৰ সৰহ সংখ্যক অসংস্কৃতলোকক সাংস্কৃতিকভাৱে সচেতন কৰাটো প্ৰত্যাহ্বানমূলক কাম আছিল। তেনেদৰেই, কোনোধৰণৰ প্ৰতিলিপিৰ সুবিধা নথকা, যথেষ্ট ব্যয়বহুল সাঁচিপাতত সাহিত্য সৃষ্টিৰে কাব্যৰ নান্দনিক সৌন্দৰ্য অটুট ৰাখি ধৰ্ম প্ৰচাৰৰ দৰে উদ্দেশ্য সচেতন ভাৱে ৰক্ষা কৰাটো শ্ৰীমন্ত শঙ্কৰদেৱৰ দৰে প্ৰতিভাধৰৰ বাবেহে সম্ভৱপৰ হ'ব পাৰে। কলা হিচাপে সাহিত্যৰ (কাব্যৰ) সকলো গুণ অক্ষুণ্ণ ৰাখি ধৰ্মৰ দৰে জটিল বিষয় - নিৰক্ষৰ, চহা মানুহৰ বোধগম্য, আয়ত্তাধীন কৰাত শঙ্কৰদেৱৰ বিচক্ষণতা গৱেষণাৰ বিষয় হ'ব পাৰে। প্ৰতিলিপিকৰণত থকা অসুবিধালৈ লক্ষ্য ৰাখি শঙ্কৰদেৱে তেওঁৰ আদৰ্শ কাব্যৰ মাধ্যমত প্ৰচাৰ কৰাহে সুচল বুলি ভাৱিছিল। পঠনযোগ্যতা আৰু শ্ৰৱণযোগ্যতাৰ বাবেই শঙ্কৰদেৱৰ কাব্যসমূহ দ্ৰুতগতিত গভীৰভাৱে মানুহৰ মাজত সোমাই পৰিছিল। চহা জনসাধাৰণ মাজত অতি সহজ প্ৰৱেশে তেওঁৰ কাব্যৰ শ্ৰুতিমধুৰতা, বক্তব্যৰ স্পষ্টতা, ভাষাৰ সৰলতা, চমুকৈ নান্দনিকতাই প্ৰকাশ কৰে। অৰ্থাৎ নন্দনতত্ত্বৰ সকলো উপাদানেৰে সমৃদ্ধ হৈ সকলো দিশেৰে শঙ্কৰদেৱৰ কাব্যসমূহ উত্তীৰ্ণ হৈছে।

ধৰ্ম আৰু সাহিত্যৰ সমযোজনা শ্ৰীমন্ত শঙ্কৰদেৱৰ বিশেষ কৃতিত্ব। শ্ৰীমন্ত শঙ্কৰদেৱৰ সাহিত্যই অসমীয়া সাহিত্যক সমৃদ্ধিশালী কৰাৰ লগতে একশ্ৰেণীৰ সাহিত্য

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AQUATIC PLANTS FOR ARSENIC UPTAKE FROM AQUEOUS MEDIUM

* Dr. Mridul Chetia

1. Introduction:

Arsenic (As) in drinking water and its health related issues is now considered as a biggest crisis in health and social sector in the modern world. Widespread distribution of As in the natural environment, and its emission due to human exploitation of As-bearing materials, use of agrochemicals, and an increased dependence on groundwater for drinking have resulted in severe As exposure for several millions of people worldwide (Das *et al.*, 2009; Smedley and Kinniburgh, 2002; Bhattacharya *et al.*, 2006; Mukherjee *et al.*, 2006; Acharyya and Shah, 2007, Nickson *et al.*, 2007). The anthropogenic activities and natural geochemical processes are found to be responsible for the high concentration of As in the environment of developed and developing countries respectively. Groundwater As contamination and its health related issues are a great concern nowadays to the whole community of the world. WHO working group defined arsenicosis as “a chronic condition arising from prolonged ingestion of arsenic above the safe dose for at least six months, usually manifested by characteristic skin lesions of melanosis and or keratosis with or without

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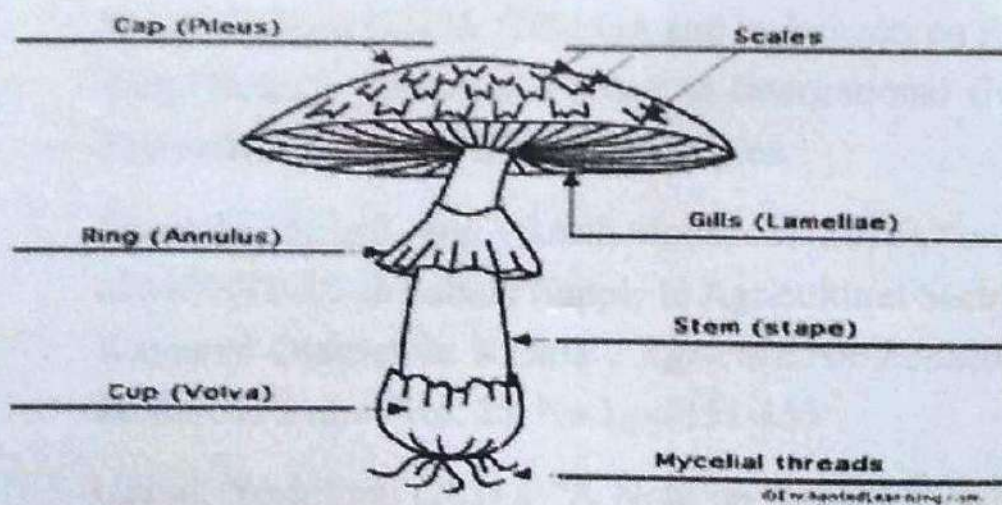
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MUSHROOM CULTIVATION: A WAY OF EARNING

* Dr. Rimen Bordoloi
¹Mr. Sajmir Azad
²Mr. Sajidur Rahman

Mushroom is an enlarged complex fleshy fruiting body of a fungus that arises from an underground mycelium and consists typically of a stem bearing a spore-bearing structure; especially : one that is edible. A mushroom typically consists of a stalk (stape) and a cap (pileus). As the mushroom develops from an underground mycelium and pushes upward, it is protected by a thin membrane which eventually ruptures, leaving fragments on the cap. Another membrane, attaching the cap to the stalk, also ruptures, allowing the cap to expand and leaving a remnant ring (annulus) on the stalk.



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BOOTSTRAP : A RESAMPLING PROCEDURE

• Dr. Rumees Rani Savapandit

Abstract:

This is an attempt to introduce one of the most recently developed resampling methods. There are different types of resampling methods, but bootstrap is one of the most effective methods as I have found from my study. Here, I have discussed about its applications in different fields, bootstrap procedure, advantages and disadvantages. Further, the different situations where we can use this method most preferably.

Key words: Resampling, Bootstrap.

1. Introduction:

Statistics is changing. Modern computers and softwares are making it possible to look at data graphically and numerically in ways previously inconceivable. They let us do more realistic, accurate, and informative analyses than can be done with pencil and paper. The bootstrap, permutation tests, and other resampling methods are part of this revolution. Resampling methods allow us to quantify uncertainty by calculating standard errors and confidence intervals and performing significance tests. They require fewer assumptions than traditional methods and generally give more

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MNREGA and Agricultural Wages in India: A Chronological Review

* Sanjoy Saha

Abstract

Implementation of MNREGA has generated several debates among the scholars and policy makers. The present study simply reviews the findings of the relevant work on the issue agricultural wages and implementation of MNREGA. Findings reveal that debate centering issue of impact of MNREGA has generated mixed response among the researchers. Although majority of scholars are of the view that implementation MNREGA has impacted agricultural wages positively. Some scholars also argued that it has benefited female agricultural labourers more the male agricultural labourers. Again, several researchers argue that unprecedented rise in agricultural wages in the recent past cannot be attributed solely to MNREGA. Several other factors, increase in labour productivity, overall growth, construction sector, labour marketing due to the withdrawal of female labourers from the market are equally responsible for the rise of agricultural wages

Introduction

A sizable portion of the total population is still dependent on agriculture for their livelihood in India. So, agriculture constitutes

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HUMAN TRAFFICKING, ILLEGAL IMMIGRATION, SLAVERY AND RESPONSIBILITIES OF MATHEMATICIANS: A SHORT DISCUSSION

* Dr. Santanu Acharjee

Abstract:

Human trafficking, slavery and illegal immigration are three major issues for the world. Every country is affected by them. In this short discussion, we will point out the needs of mathematicians' involvements in these three crucial issues for the betterment of human race.

1. Introduction

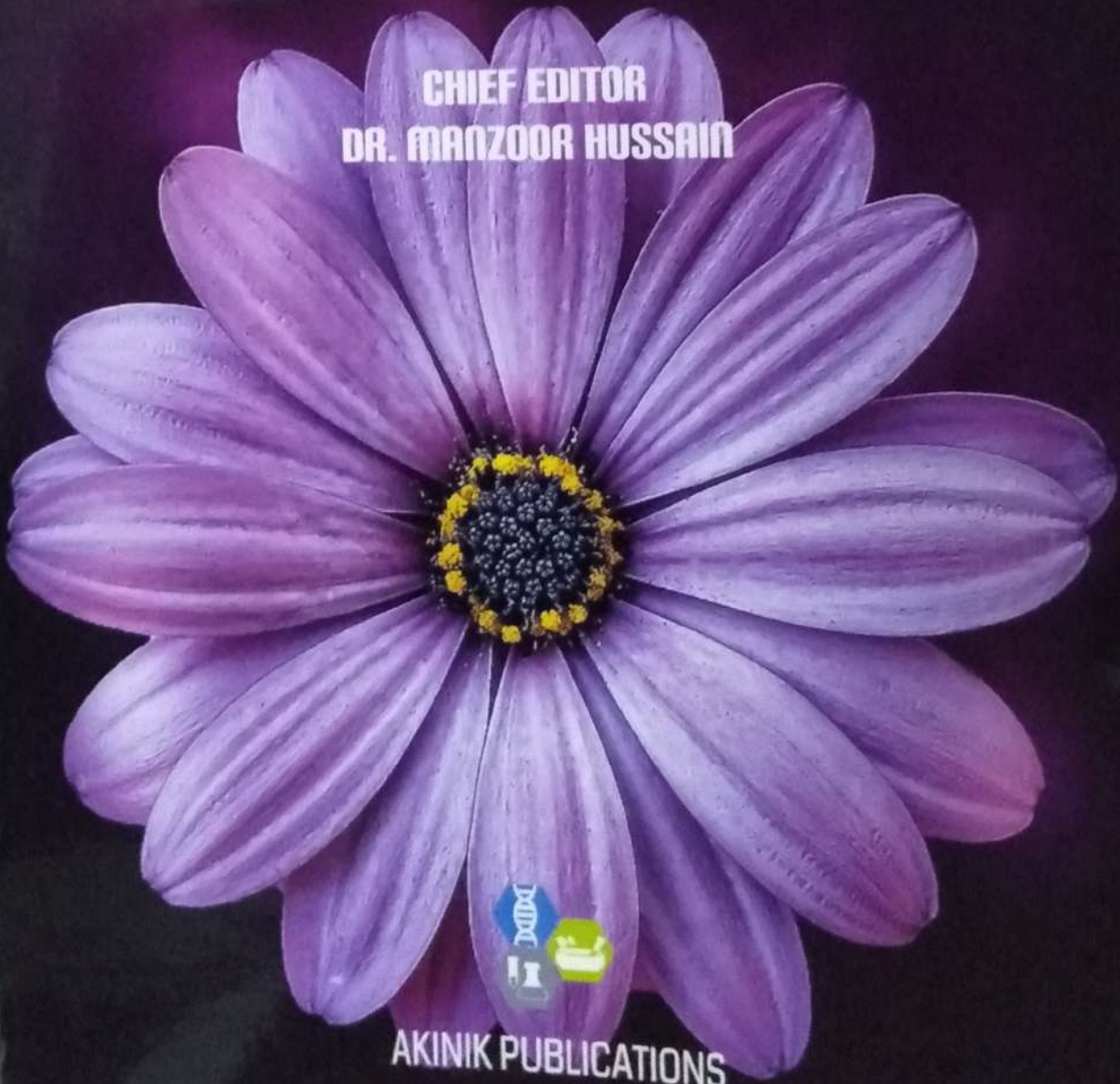
Day to day changes in climate and politics are leading human civilization to go through various uncertainties. Most of the positive changes in human civilization, since its beginning, are results of utilizations of human resources for the greatest benefits of the human race. On the other hand, remaining negativities are also due to the greedy nature of the human race. Renowned theoretical physicist Dr. J. Robert Oppenheimer once quoted "My childhood did not prepare me for the fact that the world is full of cruel and bitter things." This statement is absolutely true for a newborn baby. If the newborn baby is a girl child, then her future is full of uncertainties^{1,2,3}. This fact can be understood from the real stories

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***Cymbopogon khasianus* (Hack.) Stapf ex Bor:
Future Prospects for Commercial Cultivation of
a Medicinal Plant**

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Chapter - 5

Cymbopogon khasianus (Hack.) Stapf ex Bor: Future Prospects for Commercial Cultivation of a Medicinal Plant

Sukriti Dutta, Mohan Lal and Nilakshee Devi

Abstract

Medicinal plants have been playing a major role in human life since ancient time. *Cymbopogon khasianus* (Hack.) Stapf. ex Bor. is a medicinal, aromatic and economically important grass native to Bhutan, Bangladesh, India, Myanmar and Thailand and widely distributed in Northeast India. It has many ethno medicinal and pharmaceutical properties owing a great importance. It shows anticancer properties against several human cancer cell lines. Due to the presence of phytoconstituents in the essential oil of *C. khasianus* make the plant commercially viable. This grass is utilized mainly in perfumery, confectionary and non-alcoholic beverages also. Till now there three chemotypes have been identified viz., methyl eugenol-rich, geraniol-rich and elemicin-rich. Among these, two novel strains of *C. khasianus* named as Jor Lab L-9 and Jor Lab L-10 have been released by CSIR-NEIST, Jorhat, Assam. CSIR-CIMAP, Lucknow also released 'CIM-SUWARNA' of *C. khasianus* with high number of tillers and long leaves suitable for rainfed area. Since, it is a globally accepted medicinal and aromatic plant of wide range of industrial applications; therefore, mutation breeding can be suggested for development of superior plant varieties with high essential oil yield containing high value of elemicin as well as methyl eugenol content.

Keywords: *Cymbopogon khasianus*, Northeast India, chemotype, medicinal value, variety

Introduction

Knowledge of utilizing herbs in human welfare has been acquiring since Vedic time (Bown, 1995). The herbs are the best gift of nature for the synthesis of medicinal compounds (Mirghani *et al.*, 2012). Medicinal plants occupy a major role in human life care system. As per the report of World Health Organization, 80% of the rural population in developing Asian and African countries utilizes locally available medicinal plants for their primary

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LIVED EXPERIENCES OF WOMEN VERSUS FEMINIST DISCOURSES : A STUDY OF SELECT REPRESENTATION

* Supriya Hazarika

(I)

Theory today has become a sophisticated and problematic construct – it is a tool which is used as a praxis of Western hegemony, thereby initiating a gap between ‘the knows’ and ‘the know-not’s’. Consequently, it is inaccessible to the common and populist modes of understanding. Feminist discourse is also an offshoot of Western hegemony, when feminism is homogenized as a universal woman’s question, thereby detaching itself from the differences in lived experiences of Asian, African and South American woman. They also assume that the western model of feminism is the standard parameter to be followed by all. Chandra Talapade Mohanty in her essay ‘Under Western Eyes: Feminist Scholarship and Colonial Discourse’ argued against the homogenization of women from Asia, Africa and South America as a single category – as ‘one’ woman that stands in contrast to the white woman. It is generally assumed that women constitute a coherent group with identical characteristics – interests and desires, irrespective of clan, ethnic or racial

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BIOMEDIATED GREEN SYNTHESIS OF SILVER NANOPARTICLES (AGNPS) AND ITS APPLICATIONS

* Dr. Suvangshu Dutta

Introduction:

Silver nanoparticles (AgNPs) have long been attracted considerable attention as potential antibacterial agents owing to their inhibitory effect towards the growth of both Gram-positive and Gram-negative bacteria. AgNPs find myriad of applications in the field of electronic, optical, sensing, catalytic, cancer diagnosis, wound healing, medical textiles, water purification etc. The mechanism of antibacterial activity of silver ions (Ag^+) or its oxide (AgO), released by oxidation of AgNPs, is believed to involve disruption of DNA replication in bacteria by causing an increase in osmosis. The silver ions interact with the thiol ($-\text{SH}$) groups of enzymes and proteins, denatures ribosomes thereby prevents protein synthesis, lyses the bacterial cell membrane, and destroys bacterial peptidoglycan walls (Fig.1).

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USES OF *Alpinia Allughas* IN INDIGENOUS MISHING COMMUNITY, ASSAM

*Anima Kutum

INTRODUCTION:

Assam is very rich in plant biodiversity as well as in ethnic diversity and has a great traditional knowledge base in plant resources. It is inhabited by the largest number of tribes and they lead an intricate life totally dependent on forest plants. The Mishing is the major section and second largest tribal community of Assam and have a rich tradition of religion and culture. Their religious practices and beliefs are based on supernaturalism. The tribe uses different plants used in many ways including worshipping gods and goddesses for the protection and betterment of human life. *Alpinia allughas* commonly known as 'Tora' by Assamese people and 'Talang akam' by the Missing community is used by the tribe in different festivals like Ali-Aye-Ligang and Po-rag. The leaves of the plant are used as food wrappers(Purang) or dishes in every Mishing religious festival. The plant also has different medicinal values. The people regard the plant as sacred one. They preserve the plants by all means which are used in different rituals.

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THE LEGACY OF BENGALI DETECTIVES : AN OVERVIEW

* Dr. Anindita Dey

The genre of Detective fiction is quite different from fiction in general due to its plot that delineates a chase between the pursuer and the pursued. Very often, it is the threat to an individual's life generated by the nefarious activities of an unknown person, and the need to be rescued from the crisis or the hunt for the criminal brings the detective to the forefront. Though a detective story may look like a hunting adventure, it is different from it in many ways. One striking difference is that in a hunting activity, it is a chase between a mismatch, i.e., a human and an animal that narrates a one-sided story. A detective narrative provides the explicit detail of a hide-and-seek game of two intelligent humans, a carefully calculated move by the detective to arrest the villain, and an equally guileful evasion by the perpetrator of vile deeds. In any detective story, one can find two divergent flow of action—(i) the detective's thoughts and actions that are goal-oriented, resolute and composed; (ii) the criminal's sinister thoughts and actions that are eccentric and restless. Therefore, it may be said that there are two protagonists in detective fiction—both the criminal and the detective. The criminal may be considered the epicentre of the story, one who is responsible for all the confusion. The detective is neither an adversary nor an enemy of the villain, rather a malediction of the villainous acts, an agent

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অংশুমান বৰা

উপন্যাস সাহিত্যৰ ইতিহাসলৈ লক্ষ্য কৰিলে দেখা যায় যে ই উদ্ভৱকালৰে পৰা ইউৰোপীয় মানৱতাবাদী আন্দোলনৰ সৈতে একাত্ম হৈ পৰিছিল। প্ৰখ্যাত ঔপন্যাসিক তথা সমালোচক মিলান কুণ্ডোৰাই চাৰ্ভাণ্টেছৰ *ডন কিহোটে*ৰ আলম লৈ উপন্যাসক আধুনিক মানুহৰ অনুসন্ধিৎসু আৰু অন্বেষণকাৰী চৰিত্ৰৰ বীৰত্বপূৰ্ণ গাঁথা বুলি অভিহিত কৰিছে। কুণ্ডোৰাৰ মতে, মানুহৰ বীৰত্ব-গাঁথাৰ সৈতে ডেকাৰ্টৰ 'Cogito'ৰ সম্পৰ্ক পোনপটীয়া। অৰ্থাৎ, বৌদ্ধিক ক্ষমতাসম্পন্ন প্ৰাণী হিচাপে মানুহে কঢ়িয়াই ফুৰা অপাৰ সম্ভাৱনীয়তাৰ আদৰ্শবাদী দস্তাবেজেই হৈছে উপন্যাস (কুণ্ডোৰা, পৃঃ ৬-৭)। কুণ্ডোৰাৰ কথাষাৰ প্ৰতিপন্ন কৰিবলৈ পাশ্চাত্য উপন্যাসৰ আৰম্ভণি কালৰ কেইটিমান বিশেষ চৰিত্ৰ যেনে ডন কিহোটে অথবা ৰবিগ্নন ক্ৰুছেই প্ৰতিনিধিত্ব কৰা মানৱতাবাদৰ নজহা-নপমা ৰূপটোৰ উদাহৰণেই যথেষ্ট। সূক্ষ্মদৃষ্টিৰে চালে ধৰা নপৰাকৈ নাথাকে যে ইউৰোপে বিশ্বক চিনাকি কৰি দিয়া মানৱতাবাদ দৰাচলতে নৱজাগৰণ আৰু আলোকপ্ৰাপ্তিৰ সময়ছোৱাত ব্যাপ্তি লাভ কৰা সীমাহীন মানৱীয় কৰ্তৃত্ব আৰু বিশেষতঃ ইউৰোপীয় মানুহৰ শ্ৰেষ্ঠত্বৰ শ্ল'গানহে। এনে শ্ল'গানে ইউৰোপৰ বাহিৰৰ সমাজবোৰক দুখজনকভাৱে সামৰি নলয়।

সাম্প্ৰতিক কালৰ উত্তৰ-ঔপনিবেশবাদী সাহিত্যই এনে ইউৰোপকেন্দ্ৰীক মানৱতাবাদী চিন্তাক প্ৰত্যাহান জনাবলৈ সক্ষম হৈছে। দক্ষিণ এছীয় সাহিত্যই অতি সাম্প্ৰতিক কালত পশ্চিমীয়া মানৱতাবাদৰ একমাত্ৰিক ধাৰণাসমূহত বাস্তৱবাদী পৰম্পৰা আৰু তাৰ সমান্তৰালকৈ বিকাশ লাভ কৰা আধুনিকতাক মানৱতাবাদৰ বিকল্প ৰাজনীতিৰ জৰিয়তে অগ্ৰাহ্য কৰিবলৈ চেষ্টা কৰা পৰিলক্ষিত হয়। অনুৰাগ মহন্তৰ অসমীয়া উপন্যাস *আউলিঙৰ জুই* (২০০৭)এ এনে এক বৈকল্পিক মানৱতাবাদী বাগ্‌ধাৰাকে আগবঢ়াই দিছে যি উত্তৰ-ঔপনিবেশবাদী সাহিত্যৰ উত্তৰ-মানৱতাবাদী (Posthumanist) ধাৰাৰ প্ৰতিনিধিত্বকাৰী। এই লেখাৰ যোগেদি উপন্যাসখনক উত্তৰ-ঔপনিবেশবাদী

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EFFECT OF GREEN LIGHT ON COCOON PARAMETERS OF SILKWORM BOMBYX MORI

* Chayanika Chetia

ABSTRACT:

India is the 2nd largest producer of raw silk. In India, sericulture industry plays an important role in national economy, rural development, women empowerment and employment generation. Different strategies have been utilized to improve quality and quantity of silk such as fortification of mulberry leaves, hybrid production etc. Different wavelengths of lights have different effects on *Bombyx mori* larvae. A *Bombyx mori* larva possesses 6 larval ocelli (stemmata), each having 7 photoreceptor cells or retinular cells which spectrally differentiated into 3 types: UV, blue and green. *B. mori* larvae show maximum spectral sensitivity in blue-green region (350-510nm). Previous studies showed that UV light (100-380nm), blue light (450-495nm) and red light (620-750nm) have negative, positive and no effect on the cocoon quality of *Bombyx*

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SOCIO-ECONOMIC STATUS OF PARENTS AND ITS EFFECTS ON ACADEMIC ACHIEVEMENT OF STUDENTS OF CLASS-X BOARD EXAMINATION OF SIVASAGAR DISTRICT. ASSAM

*** Dr. Chitra Devi**

Introduction:

The progress and prosperity of any nation ultimately depends upon their educational system right from the primary to higher education. Education is the means through which the inborn qualities of the child are improved and unfolded to develop his personality fully. It helps the students to increase the knowledge, understanding, and to adjust properly with the environment he belongs. It also helps the students to face the challenges and competition created by the global socio- economic and cultural changes of 21st century.

The secondary education has been considered as the solid foundation for higher education of a country for which it is regarded as the pivot of all system of education. The education of secondary stage opens the path of higher education, so the performance of students in the students in the class-x Board examination obviously affects on the academic life of the students. Infact, every parents' desire that their children should climb the ladder of performance to

ড° সৰ্বপল্লী বাধাকৃষ্ণেন



দেবজিৎ ফুকন

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দেবজিৎ ফুকন

সবস্বতী প্রকাশন

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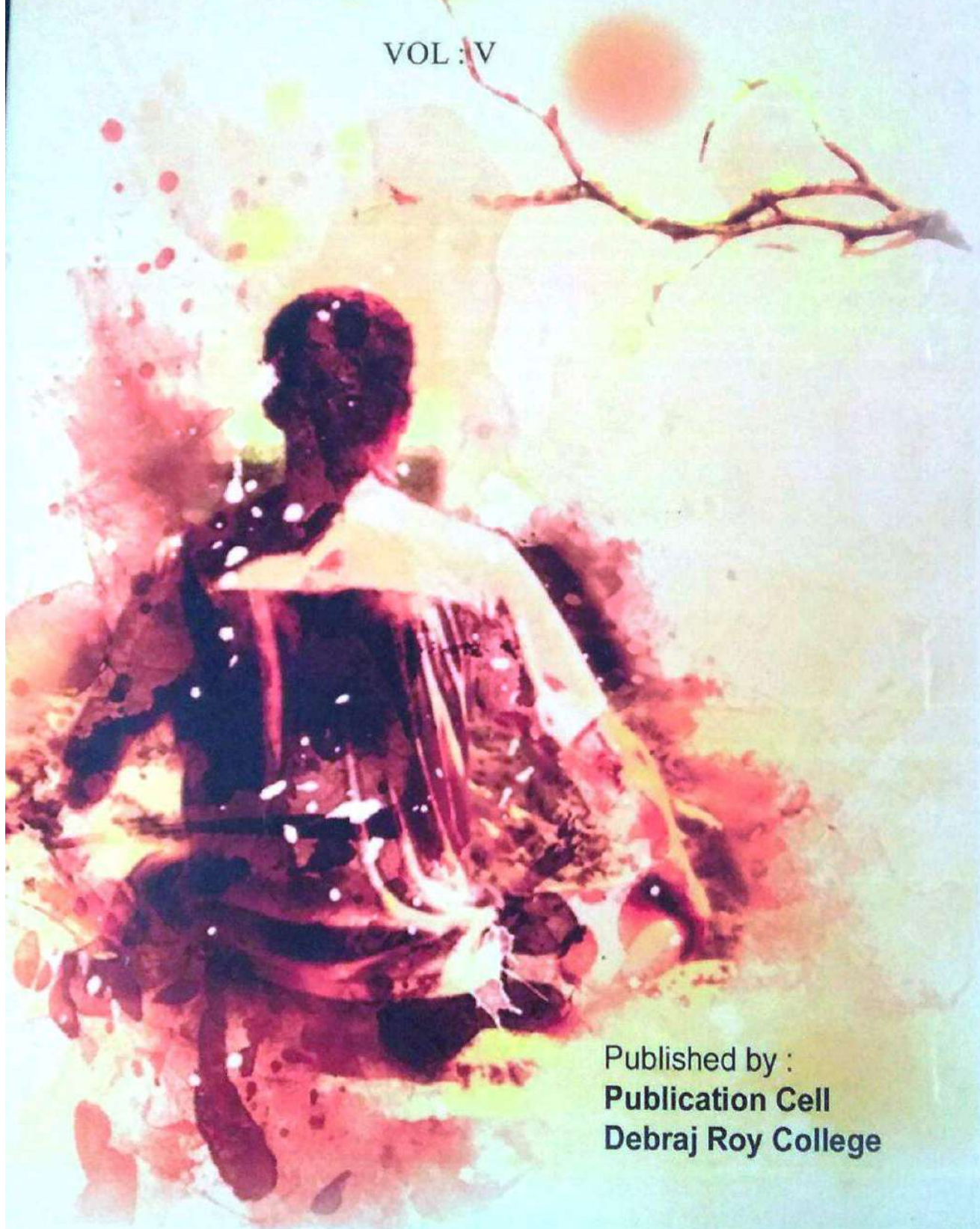
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Within Borders: Managing Ethnic Relations in India's Northeast

Biplob Gogoi

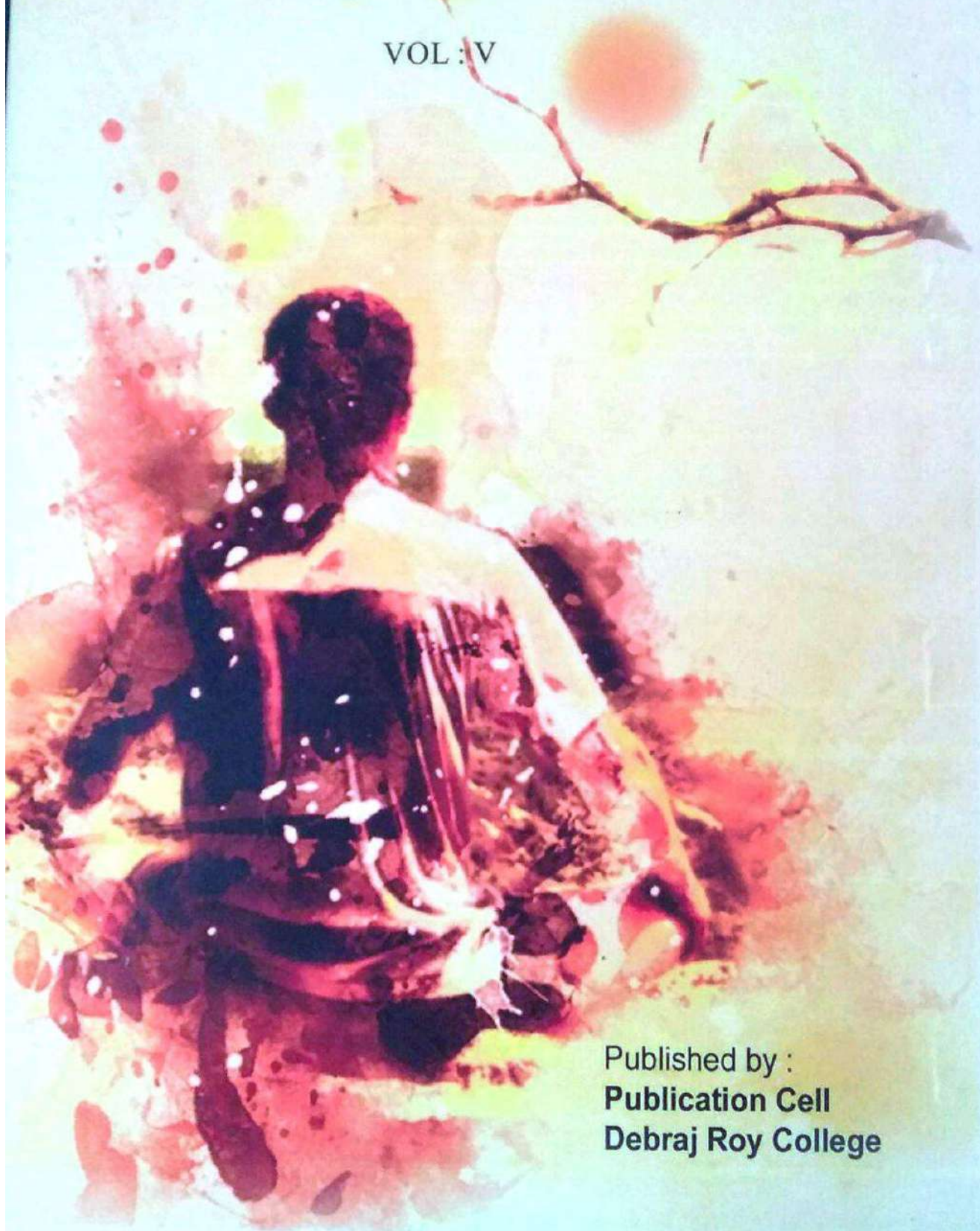
*Assistant Professor, Dept. of Political Science,
D.R.College, Golaghat, Assam*

Abstract:

Historically, Northeastern India has seen volatile ethnic relations embedded in inter-group tensions and separatist conflicts. The state and society have made attempts to assuage them but many of the violent movements refuse to wane with serious implications for the welfare of citizens. Besides separatist violence, inter-group ethnic clashes have been frequent and have taken a heavy toll of life and property in Assam, Tripura, and Manipur and of late, in Meghalaya and Arunachal Pradesh. The 'crisis' in the Northeast has invited response from the central government in a variety of ways: use of force against rebel groups; accommodation of aspirations of different communities through changes in institutional arrangements; and transferring large resources

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Cooperative Learning - An Introduction as a Learning Strategy

Dr. Chitra Devi

Asstt. Prof., Deptt. of Education

D.R.College, Golaghat, Assam

Introduction:

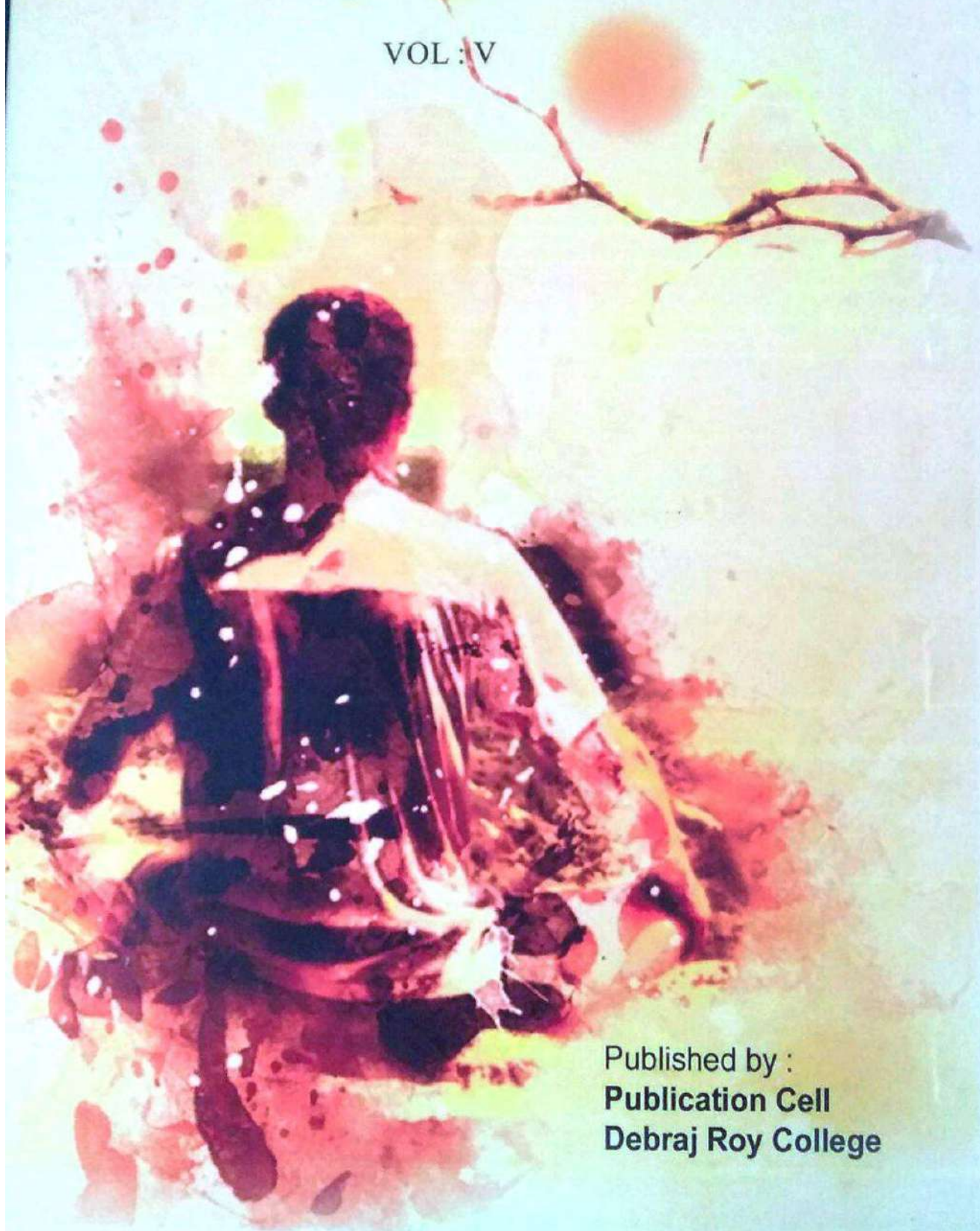
Without the cooperation of its members society cannot survive, and the society of man has survived because the cooperativeness of its members made survival possible.... It was not an advantageous individual here and there who did so, but the group. In human societies the individuals who are most likely to survive are those who are best enabled to do so by their group.

(Ashley Montagu, 1965)

To make the education more interesting and to make the students active in participating different activities related to their course cooperative learning is one of most applicable strategy where the teacher have to design the learning processes, environments and maximize the participation of students. Cooperative learning is a learning process, an

Reflection

VOL : V



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History through Orality : Karbi Migration Memories through the *Mosera Kihir* Tradition

Daisy Ingtipi

Assistant Professor

Dept. of English, D.R. College, Golaghat, Assam

Abstract :

The undiluted tribal imagination, oral history and literature offers a whole new dimension to literature. Since India accommodates varied and diversified racial cultures the literature of India should also reflect this diversity. However, the various tribal and oral traditions face extinction due to the reason that only written and documented facts were counted as being legitimate sources. So, a change of perspective is required over the idea of literature because if literature is only counted as something which is written alone then as Devy stated India would lose a "rich vein" in its cultural history. Thus, this paper specifically deals with the history of the Karbi migration through the *Mosera Kihir* oral verses by furnishing it with historical evidences.

Keywords : Oral history, migration, Karbi.

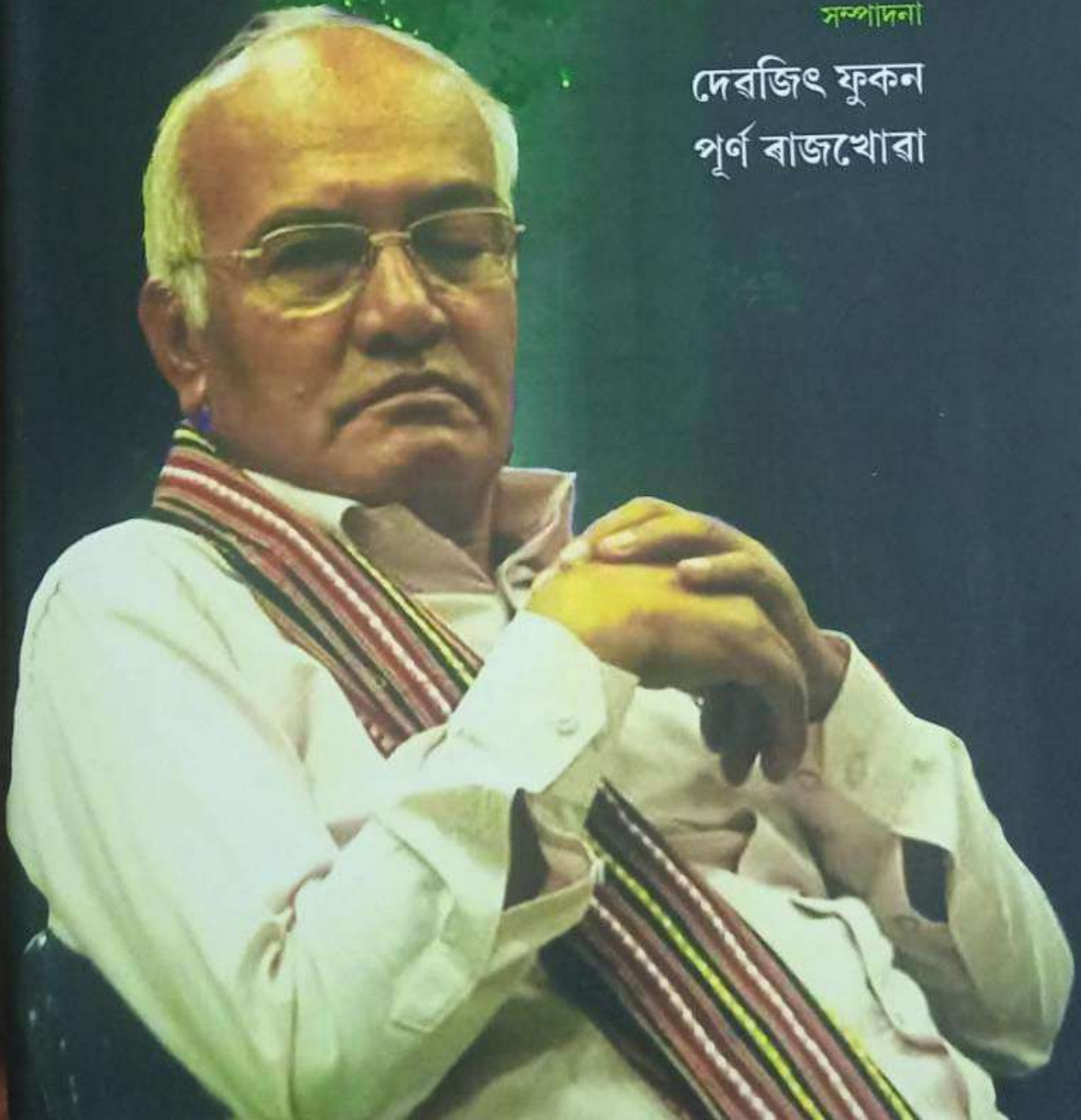
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পূৰ্ণ ৰাজখোৱা



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দেৱজিৎ ফুকন
পূৰ্ণ ৰাজখোৱা
(জনগোষ্ঠীয় সমন্বয় মঞ্চ, গোলাঘাট)



দেয়াং প্ৰকাশন
গোলাঘাট : অসম

DR. PADMESWAR GOGOI : JIVAN ARU KARMA. : A book on collection of articles on life and activity of Scientist, Educationist Dr. Padmeswar Gogoi and edited by Devojit Phukan & Purna Rajkhuwa, Golaghat and published by Doyang Publication, Golaghat on behalf of Janagosthiya Samannay Mancha.

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সম্পাদক : দেৱজিৎ ফুকন

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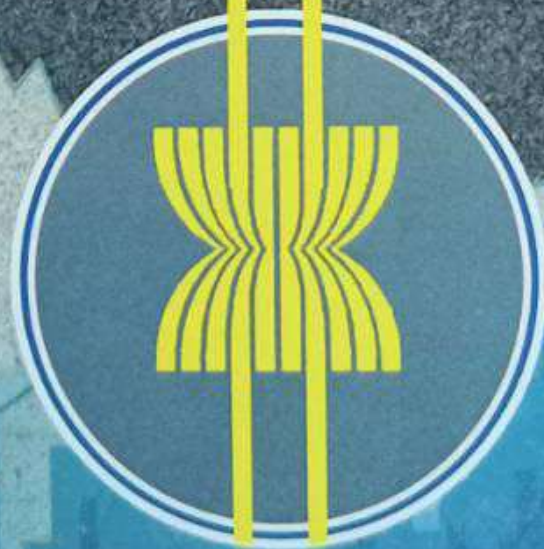
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মূল্য : তিনিশ টকা মাত্ৰ

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Exploring Engagement Possibilities with
ASEAN Countries



Editors

Devojit Phukan
Nihar Ranjan Kalita
Ananta Pegu



Assam College Teacher's Association

Act East Policy and North East India
Exploring Engagement Possibilities with
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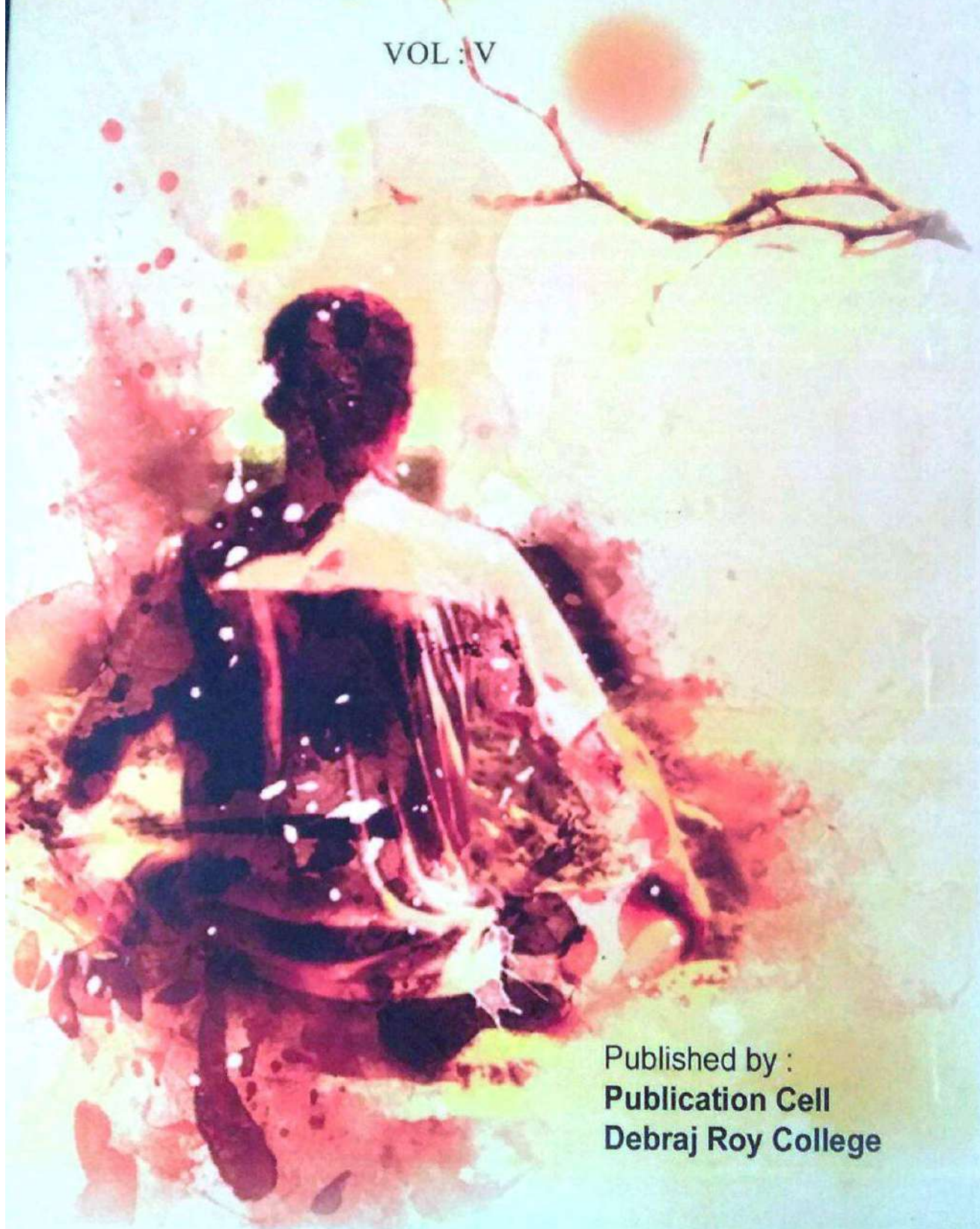
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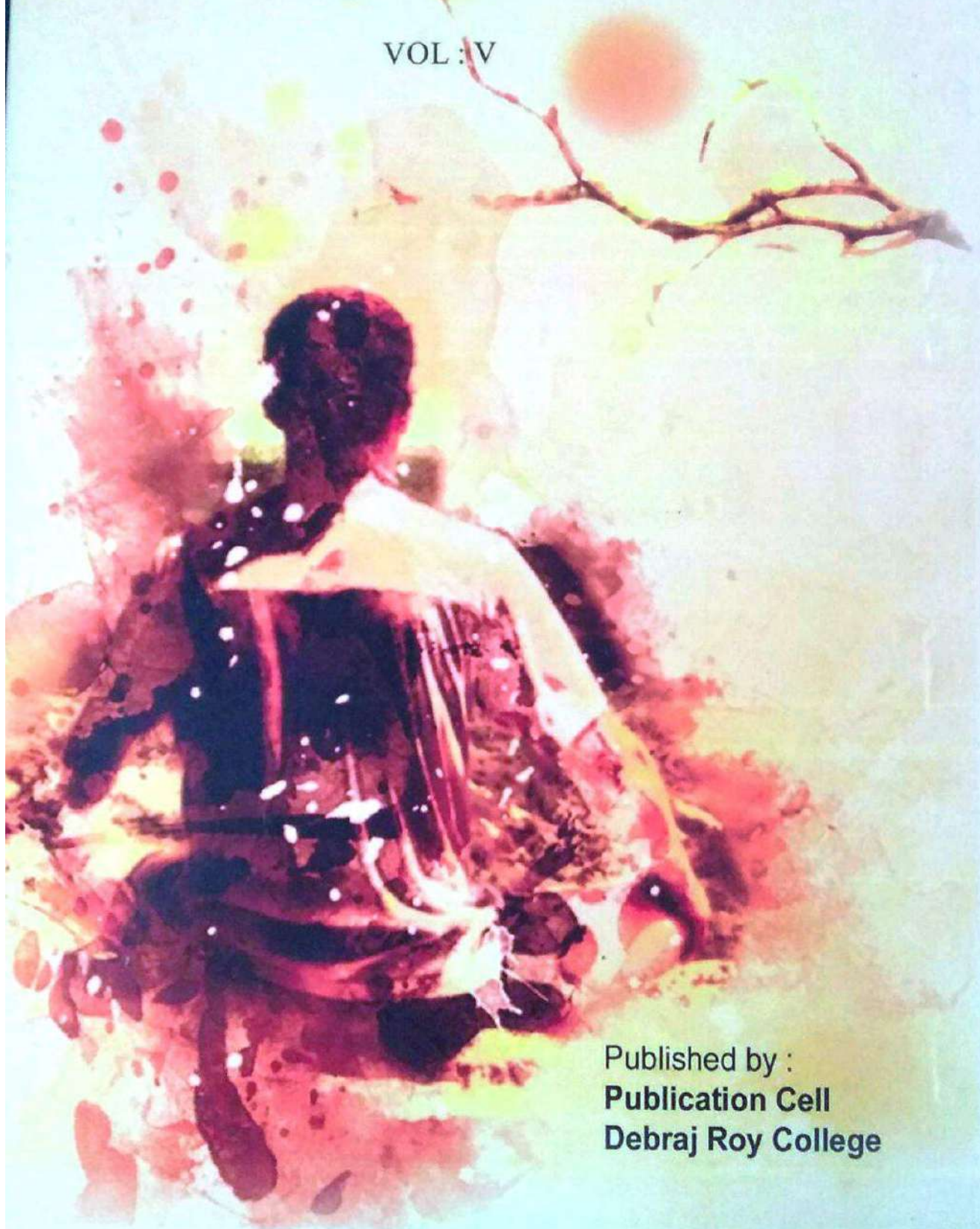
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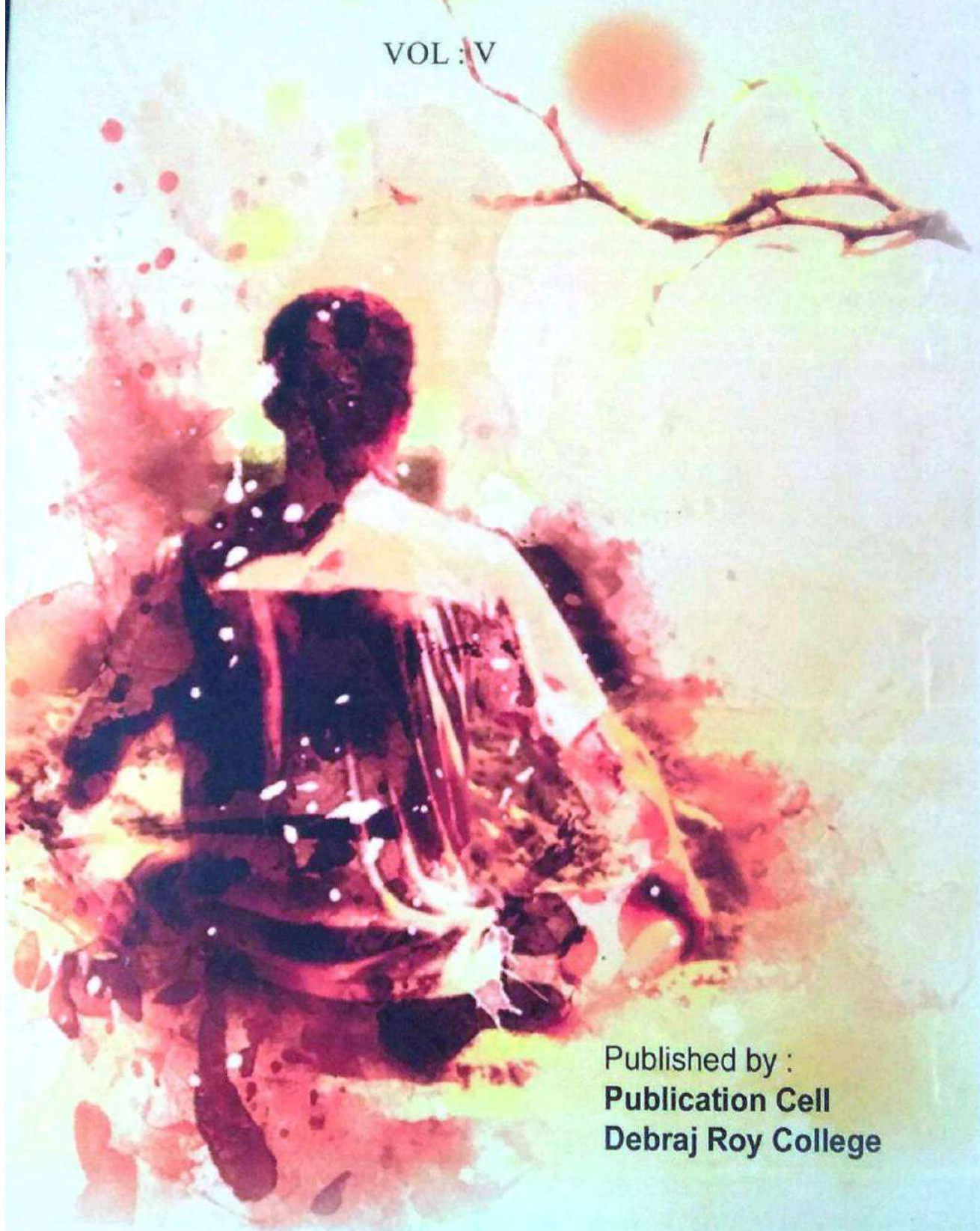
অৰ্থনীতি বিভাগ, দেৱৰাজ বয় কলেজ, গোলাঘাট

দূৰভাষ নং : ৯৪৩৫১৫১৪৬১

যিকোনো সংগীতৰ মূল ভেটি বুলি লোক সংগীত আৰু শাস্ত্ৰীয় সংগীতক জনা যায় যদিও দুইবিধৰে কিছুমান সীমাবদ্ধতা আছে। কাৰণ লোক-সংগীতবোৰৰ প্ৰচলন ভৌগোলিক আৰু জনগোষ্ঠীয় ভিত্তিত বেলেগ বেলেগ হয়। আনহাতে শাস্ত্ৰীয় সংগীত সমাজৰ বিশেষ শ্ৰেণীৰ মাজতহে প্ৰচলন হোৱাৰ উপৰি সংগীতৰ ব্যাকৰণ কঠোৰভাৱে মানি চলা হয়। কিন্তু আধুনিক গীতে উপৰোক্ত ধাৰা দুটাৰ সীমাবদ্ধতাসমূহ অতিক্ৰমি সমাজৰ সকলো শ্ৰেণীৰ মানুহৰ মাজত ব্যাপকভাৱে বিস্তাৰিত হোৱাই নহয়, অতিকৈ জনপ্ৰিয়ও। আধুনিক গীতৰ সৰ্বগ্ৰহণযোগ্য সংজ্ঞা আগবঢ়োৱাটো এটা দুৰূহ কাম। তথাপি সকলো দিশ চালি জাৰি চাই এটা কথাত উপনীত হ'ব পাৰোঁ যে সংগীতৰ যিটো ধাৰা এখন সমাজৰ সকলোবোৰ আবেগ-অনুভূতি, আৰ্থ-সামাজিক, সাংস্কৃতিক, ৰাজনৈতিক আদি বিষয়বোৰ গীতৰ মাজেৰে প্ৰকাশ কৰি লোক আৰু শাস্ত্ৰীয় সংগীত তথা প্ৰাচ্য-পাশ্চাত্য সংগীতৰ পৰিশোধিত আৰু পৰিমার্জিত সুৰৰ কাম্য সমযোজন কৰি সুৰাৰোপিত কৰা গীতবোৰেই হ'ল আধুনিক গীত, যিবোৰে জনমানসত প্ৰভুত্ব বিস্তাৰ কৰি সমাজৰ কাম্য পৰিৱৰ্তন সাধন কৰাৰ লগতে অনাবিল আনন্দ দিয়ে। আন কথাত ক'বলৈ হ'লে আধুনিক গীত সুখাদ্য মৌৰ দৰে। মৌ-মাখিয়ে যেনেদৰে বিভিন্ন ফুলৰ ৰস শুহি স্বাস্থ্যকৰ মৌৰ সৃষ্টি কৰে ঠিক তেনেদৰে এজন প্ৰকৃত শিল্পীয়ে সমাজত প্ৰচলিত লোক-সংগীতবোৰৰ সুৰ সংগ্ৰহ কৰি শাস্ত্ৰীয় সংগীত আৰু সমাজৰ প্ৰবহমান ঘটনাবলীৰ কথাৰ লগত কাম্য

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ড° জয়া কলিতা

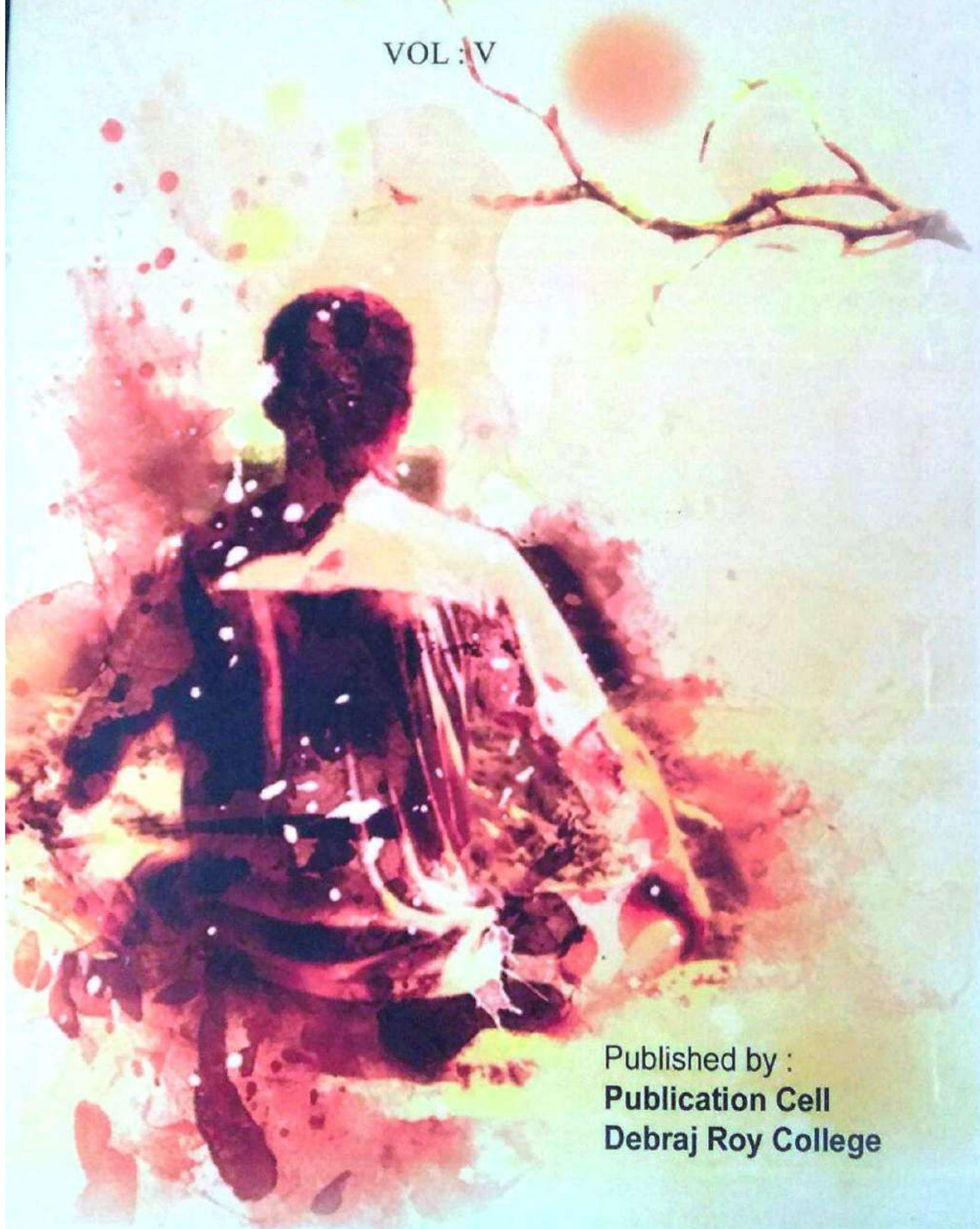
সহকারী অধ্যাপিকা, অসমীয়া বিভাগ,
नेवराज बर महविद्यालय, गोलाघाट।

०.० प्रस्तावना :

असमत वसवास कवा विभिन्न जनगोष्ठींर भित्तवत एति उल्लेखनीर जनगोष्ठी हैछे — टाई जनगोष्ठी। भाषातार्किक विचारत चीन-तिब्बतीय भाषा परिवाल आक नूतार्किक विचारत टाईसकल महोनीर गोष्ठींर अन्तर्भूक्त। थाईचीन शाखाव लोकसकलकेई असमत 'टाई' नामेरे अतिहित कवा हैछे। वर्तमान टाई जनगोष्ठींर लोकसकल चीनर गोवांरकि प्रदेशर परा आरन्त कवि गूवे भारतर टाईवान आक पश्चिमे उत्तर-पूव अक्षल पर्यन्त विरपि आहे। थाईलेण, कम्बोदिया, जापान, तियेट्नाम, लाओच, म्यानमारर वृजन संख्याक लोक वंशोद्भव। विभिन्न स्थानर परा असमले प्रव्रजन घटा टाईंर विभिन्न भाषा परिवालर भित्तवत आहोमसकल आटाईतके पूरपि। १२२८ ख्रिस्ताब्दते टाई आहोमसकलर असमले प्रव्रजन घटे। असमत १२२८ ख्रीः परा १८२७ ख्रीःलेके छशवह्वर असमत राजत्व कवा टाई आहोमसकल एक इतिहासर गवकी। तेणूलोके राज्य स्थापन कवा व्ह व्हवर पिछत प्राय अष्टादश शतिकांर शेषरफाले केईवांटाण टाई दले असमत प्रवेश कवे। टाई आहोमसकले त्रयोदश शतिकांर आरन्तनिते असमले प्रवेश घटि असमर विभिन्न स्थानत सिर्षति

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Formulation and Standardization of Semi-Synthetic Diet for Rearing of Muga Silkworm, *Antheraea assamensis* (Helfer)

**Rajkanya Borkakoty, Dr. Khirod Deori,
Dr. Pavitra Chutia**

P.G. Department of Life Sciences, Debraj Roy College, Golaghat

Email address: rajkanyaborkakoty@gmail.com

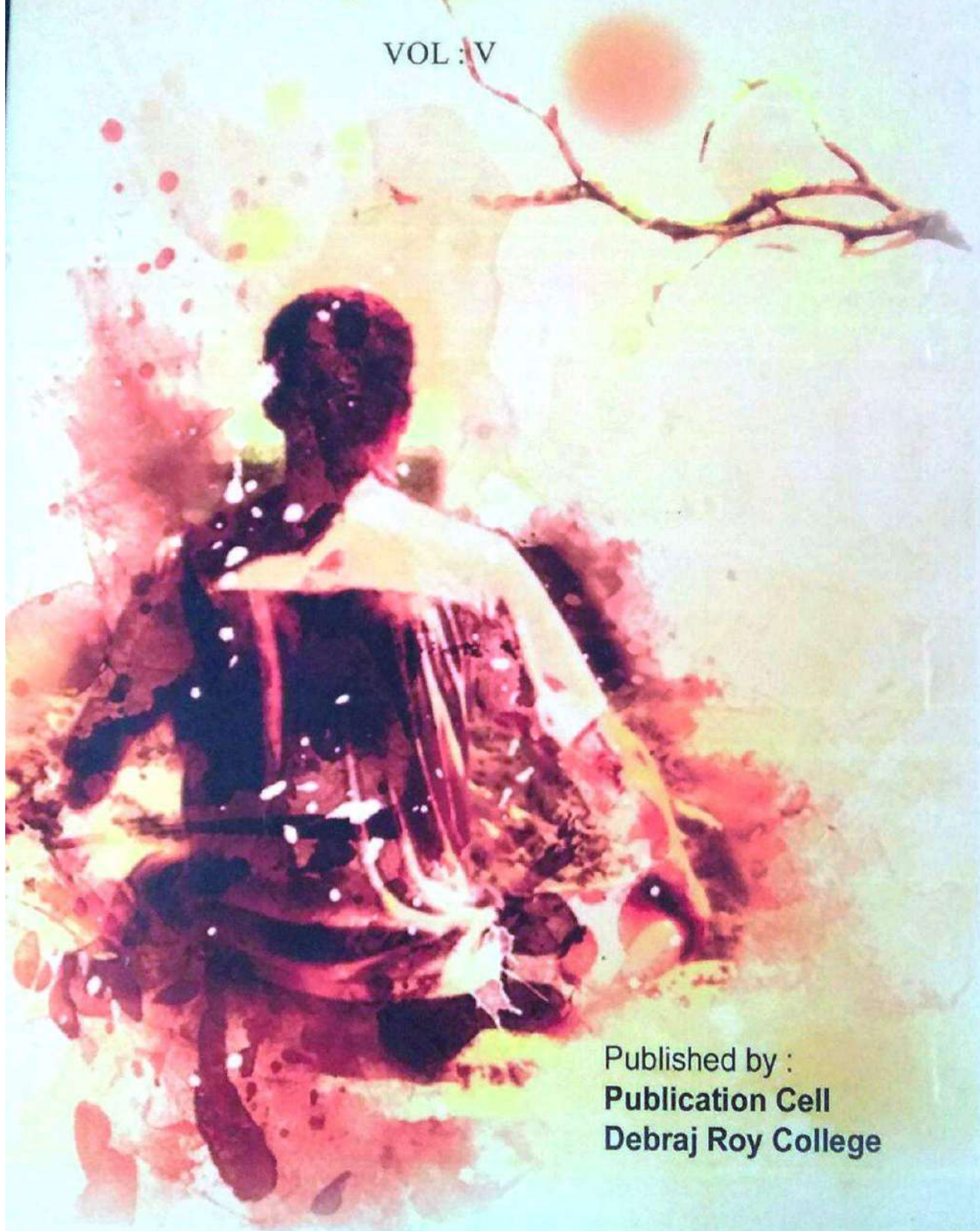
khiroddeori@gmail.com, pavitra.chutia@gmail.com

Abstract:

The Muga Silkworm, *Antheraea assamensis* can be reared upto the stage of 2nd instar larvae on semi synthetic diet which is composed of the leaf powder of its host plants along with several other nutrients. The composition of the present semi synthetic diet includes leaf powder, soyabean powder, sucrose, agar, cellulose powder, vitamin solution, propionic acid/acetic acid, beta-sitosterol, gallic acid, yeast powder, sodium dehydroacetate solution and distilled water in appropriate proportions. Among all the diets used in the present study, diet D10 performed better in terms of the larval

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মধুস্মিতা গগৈ

অসমীয়া বিভাগ, দেৱবাজ বয় মহাবিদ্যালয়, গোলাঘাট।

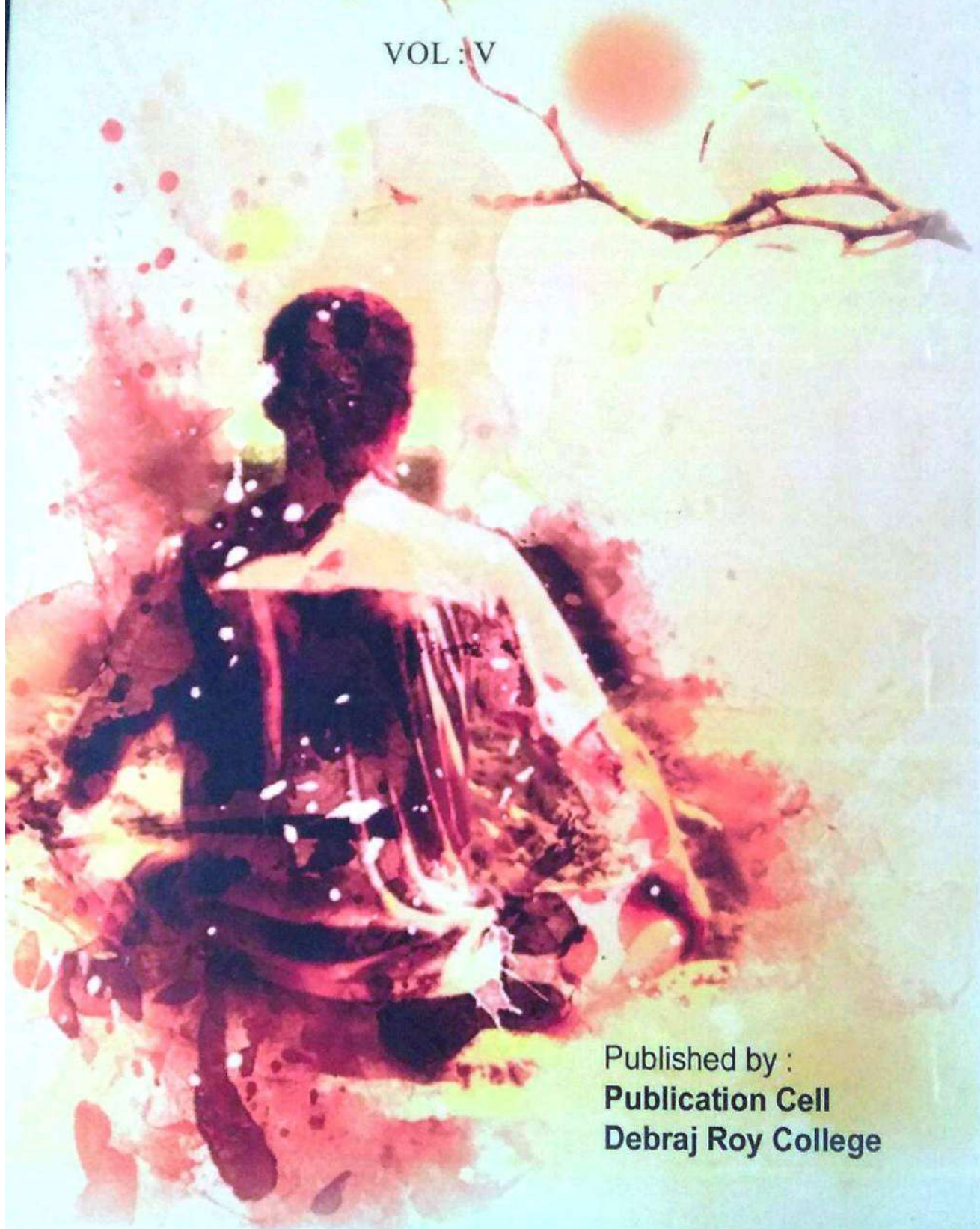
‘ভাষাৰ আহৰণ’ এনে এক পদ্ধতি যাৰ দ্বাৰা মানুহে ভাষা এটা বুজাৰ ক্ষমতা লাভ কৰাৰ লগতে নিজাকৈ ভাষাৰ উৎপাদন আৰু শব্দৰ ব্যৱহাৰ শিকি আন মানুহৰ সৈতে ভাৱ বিনিময় বা যোগাযোগ কৰিব পাৰে। ভাষা আহৰণ মনোবিজ্ঞানৰ এক প্ৰধান চৰ্চাৰ বিষয়। ১৯৬০ চনৰ পাছত এই বিষয়টোৰ চৰ্চা আৰু অধ্যয়নে জনপ্ৰিয়তা লাভ কৰে আৰু বৰ্তমান ই এক সুকীয়া বিষয় হিচাপে মৰ্যাদা লাভ কৰিছে।

ভাষা আহৰণত বিশেষভাৱে প্ৰভাৱ পেলাৱা এক কাৰক হ’ল পৰিৱেশ। পৰিৱৰ্তিত সময়ৰ লগে লগে ক্ৰমাৎ সলনি হৈ অহা পৰিৱেশ পৰিস্থিতিৰ প্ৰভাৱত মানুহৰ ভাষা আহৰণ প্ৰক্ৰিয়ালৈও কিছু পৰিৱৰ্তন আহিছে। সময়ৰ তাগিদাত কিছুমান ভাষাৰ গুৰুত্ব বঢ়াৰ বিপৰীতে আন কিছুমান ভাষাৰ গুৰুত্ব হ্রাস পাবলৈ ধৰিছে। আকৌ, কিছুমান ভাষা অৱহেলাৰ বাবে চিৰদিনলৈ পৃথিৱীৰ পৰা বিদায় মাগিছে। এনেবোৰ ভাষা নিঃচিহ্ন হৈ পৰাৰ এটা প্ৰধান কাৰণ হৈছে, ‘মাতৃভাষীসকলৰ ভাষাটোৰ প্ৰতি চূড়ান্ত অনীহা।’ ভাষা আহৰণকাৰীৰ বাবেহে এটা ভাষা জীয়াই থাকে। যেতিয়াই ভাষাটো কোৱা আৰু শুনাৰ পৰিৱেশ নোহোৱা হয় তেতিয়াই সেই ভাষা আহৰণকাৰীৰ সংখ্যাও নোহোৱা হয়। এনে পৰিৱেশে ভাষালৈ দুৰ্যোগ কঢ়িয়াই আনে।

ভাষা আহৰণ বুলি ক’লে আমি সহজ অৰ্থত প্ৰথম ভাষা আহৰণকেই

Reflection

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Curriculum Transaction in Semester System at the Undergraduate Level of Dibrugarh University:

Manisha Chaliha

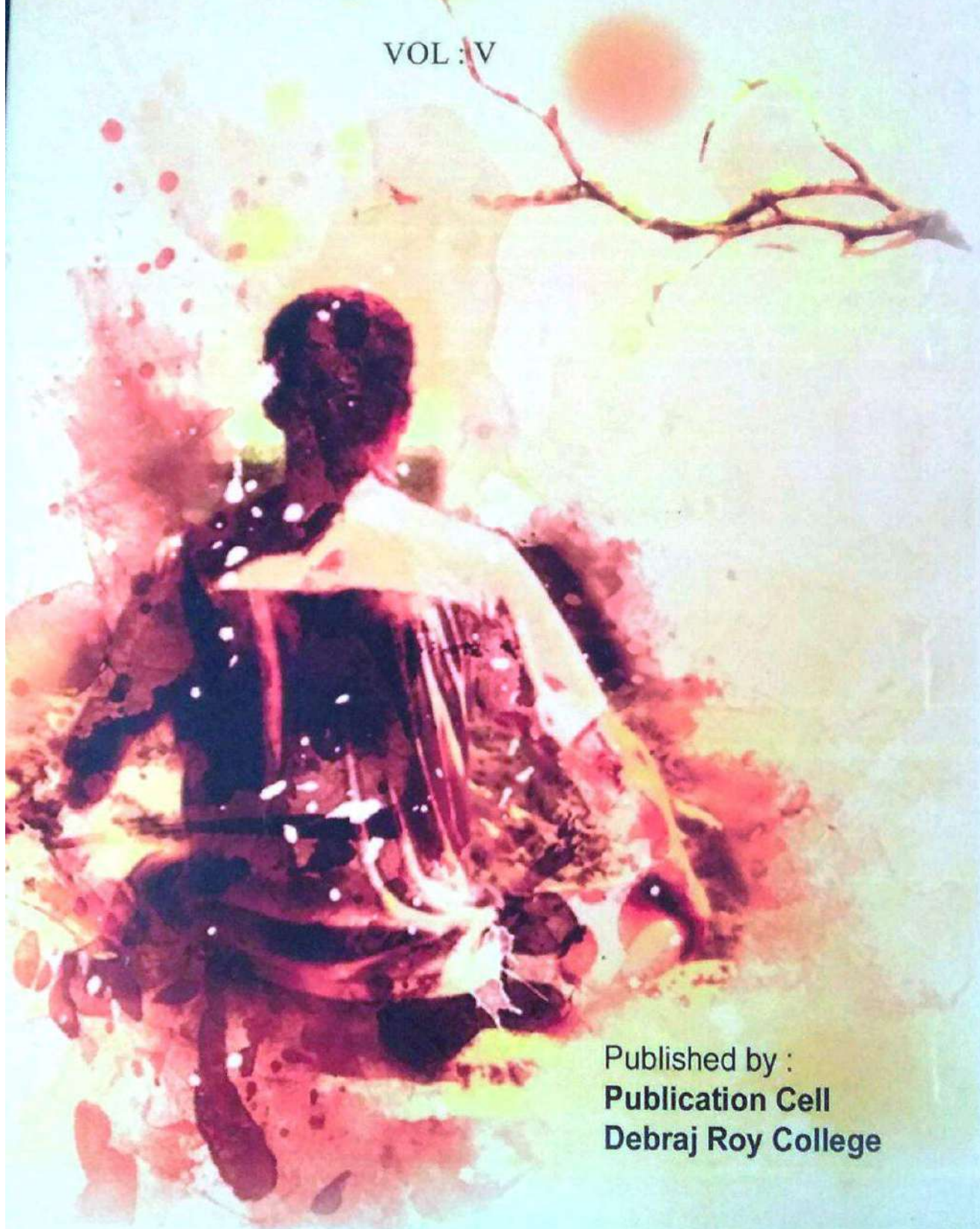
Deptt. of Education, D.R. College, Golaghat, Assam

Abstract:

For the smooth running of semester system, Dibrugarh University Regulations for the B.A./B.Sc./B.Com Programmes in the Semester System, 2010- was effected from the Under Graduate Academic Session, 2011-2012 and in the same year this University implemented semester system at the Undergraduate Level. The researcher aimed to study the Curriculum Transaction in semester system and used content analysis and Questionnaire to collect the data from the respondents. It was concluded from the present study that semester system was a suitable system for proper Curriculum Transaction. From the content analysis study it was established that by including choice based credit system (CBCS), semester system was modified in the year 2018 but the Curriculum Transaction was proceed in the same way from the beginning of the semester system.

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Insight on Captive Breeding of Indian Major Carps (IMC) for Economic Development

**Chandopal Saikia^{1*}, Seuj Dohutia¹,
Pavitra Chutia¹**

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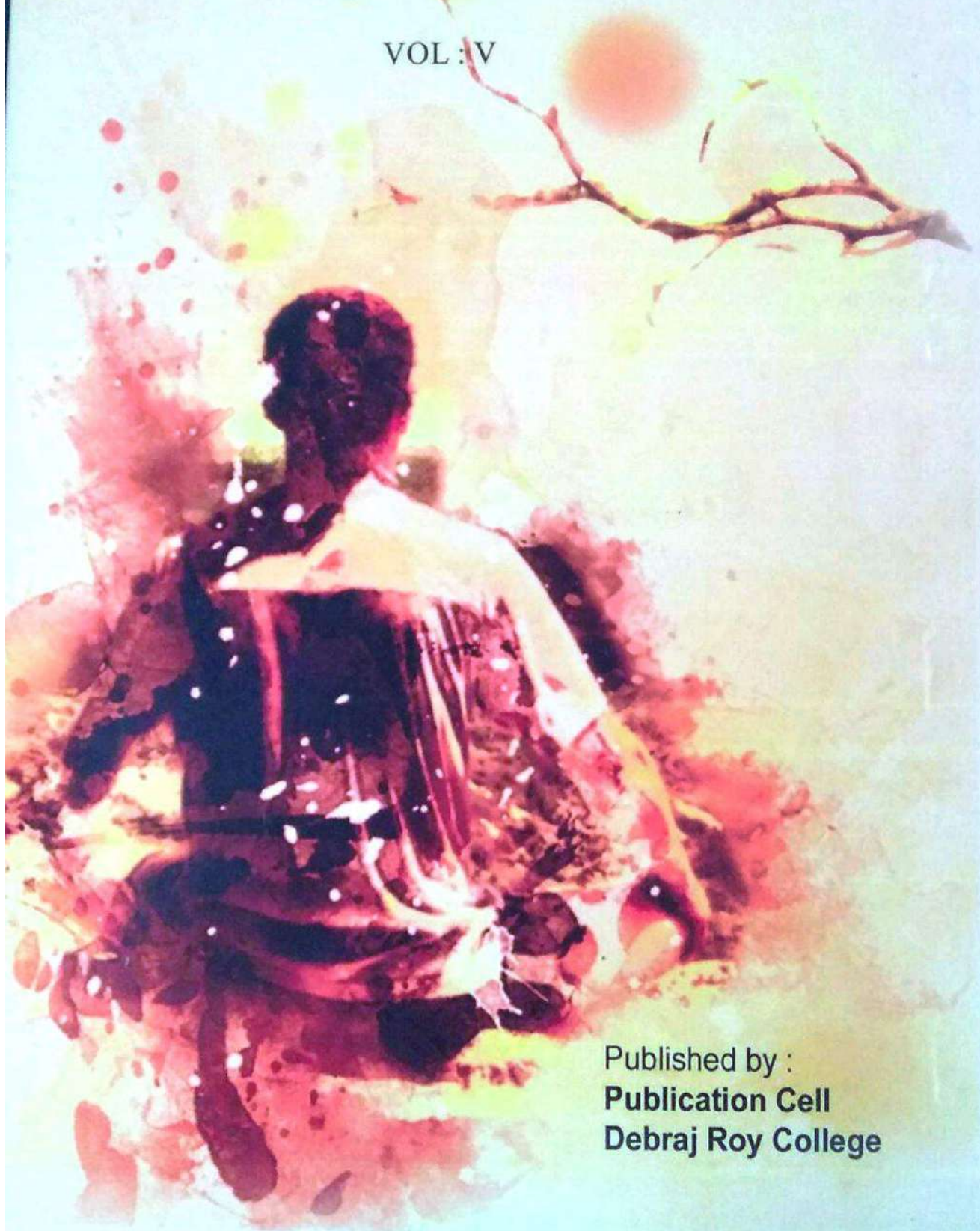
Abstract

Around 10 lacs families of Assam are directly or indirectly related to aquaculture. Approximately 95% population of Assam are fish eaters and consume variety of fish species available in the state. Due to increasing population, demand of fish is increasing daily leading to a shortfall of 1 lac kg of fish per day. To minimize the gap between supply and demand, the aquaculture technique is emerging out to be the most feasible alternative. Artificial propagation of Indian major carps was carried out with

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Diversity of Corticolous Mosses of Upper Assam

Porismita Hazarika* & Jayanta Barukial

*P G Department of Life Sciences, Debraj Roy College,
Golaghat, Assam, INDIA, PIN- 785 621*

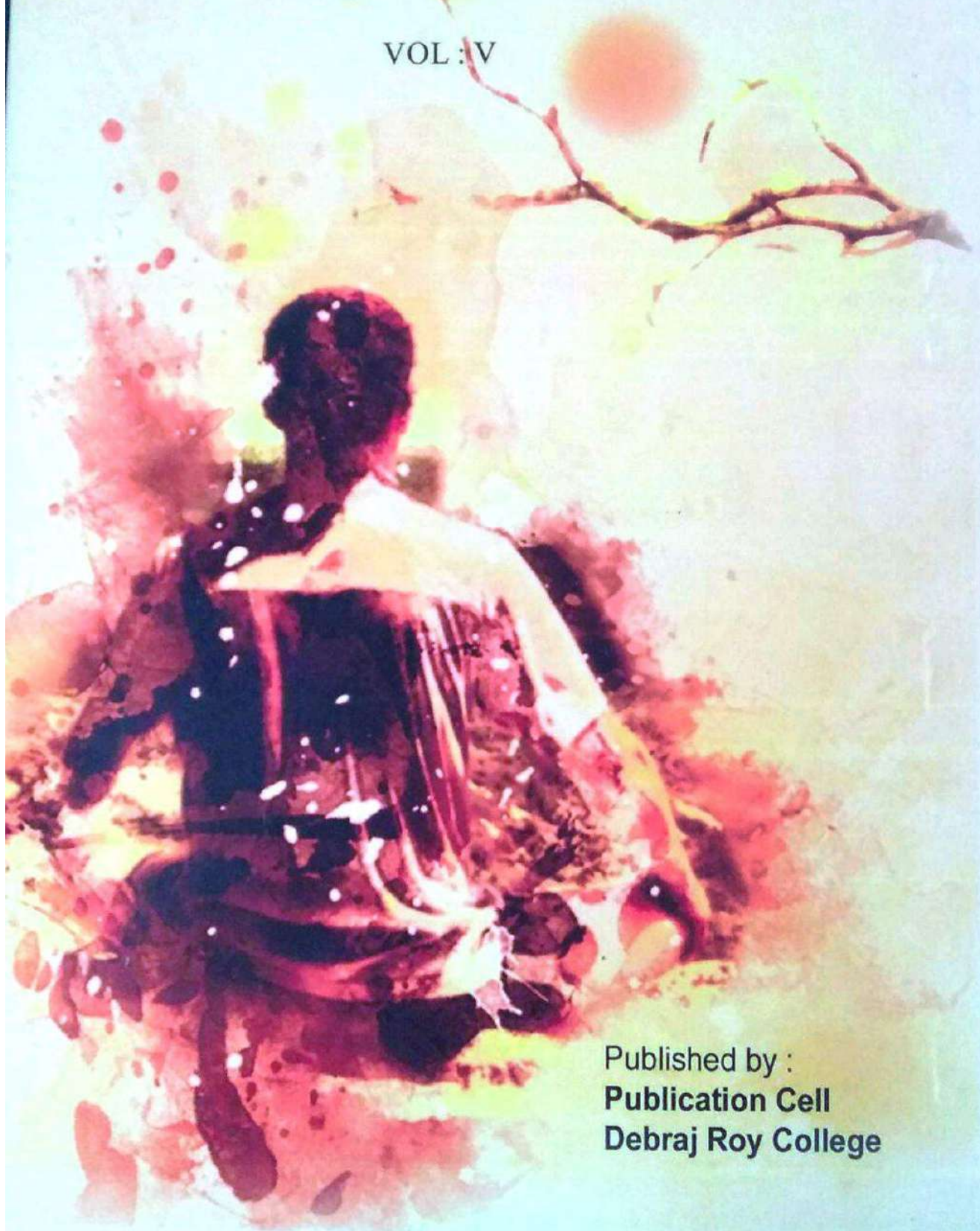
**Department of Life Sciences, Dibrugarh University, Dibrugarh
Corresponding Author's email: barukialjayanta@gmail.com*

Abstract :

The present study deals with the enumeration of 45 species of Corticolous Mosses under 30 genera belonging to 15 families from the Upper Assam, India. Among the taxa an anisoporous moss *i.e. Macromitrium moorcroftii* (Hook & Grev.) Schwagr recorded in this study which is to be considered as noteworthy contribution towards the evolutionary significance corresponding with heterospory in Pteridophytes. It is the first ever work from the upper Assam, India. In this investigation, it has been revealed that the order Hypnobryales consists of 25 species which is 55.55% of the total species recorded in this study. Taxonomically, the order Hypnobryales of Mosses is corresponded to the order Asterales of Dicotyledons of Angiosperms (Chopra, 1975). Considering

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Pertinence of Jaina Multi-valued Logic: A Mohantian analysis

Silpeesikha Pathak

Assistant Professor

Department of Philosophy, D.R. College, Golaghat, Assam

Abstract:

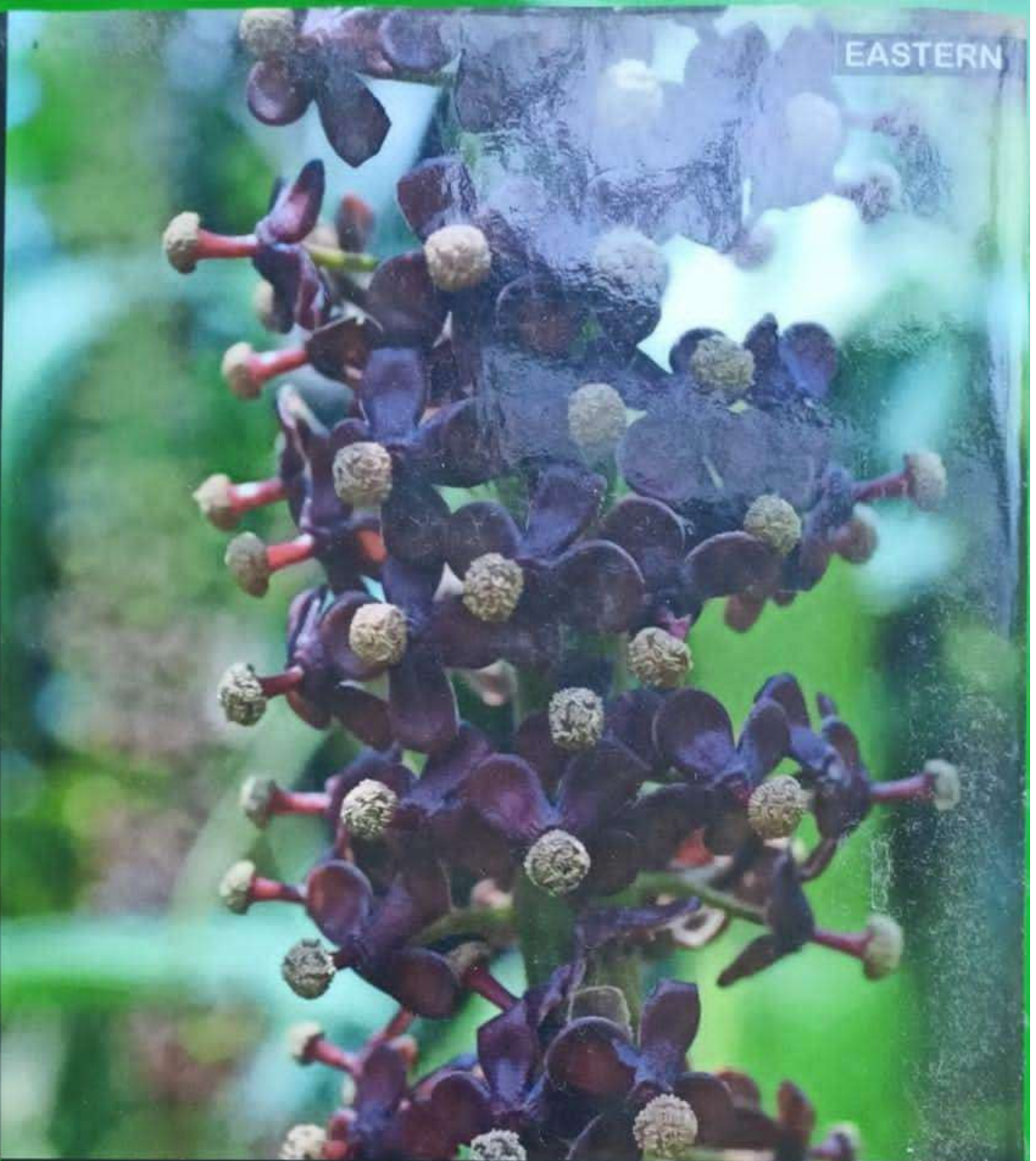
Jainism as a philosophical school offers us its unique epistemological and logical theory, *syādvāda* also known as *Saptabhangi-naya* which is a key to the Jaina Middle way metaphysics of *anekāntavāda*. Unlike the classical two-valued logic, Jainism accepts seven different types of truth value because of which it can be termed as multi-valued. Here an attempt has been made to find out the significance of Jaina logic, borrowing some of the ideas from the prominent contemporary Indian thinker philosopher Jitendra Nath Mohanty. It also looks over the relevance of the idea of non-injury applied to philosophical thinking to lessen the complexities of our thinking while trying to understand the other.

Key words:

Multi-valued, Idea of non-injury.

EASTERN

Annual Bioscience Communication
Vol-1, 2021



Biological Spectrum of Northeast India

Editor

Hemen Chandra Majumdar

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Chemical composition and therapeutic use of lemon grass: An overview

*Sukriti Dutta
Mohan Lala
Nilakshee Devi*

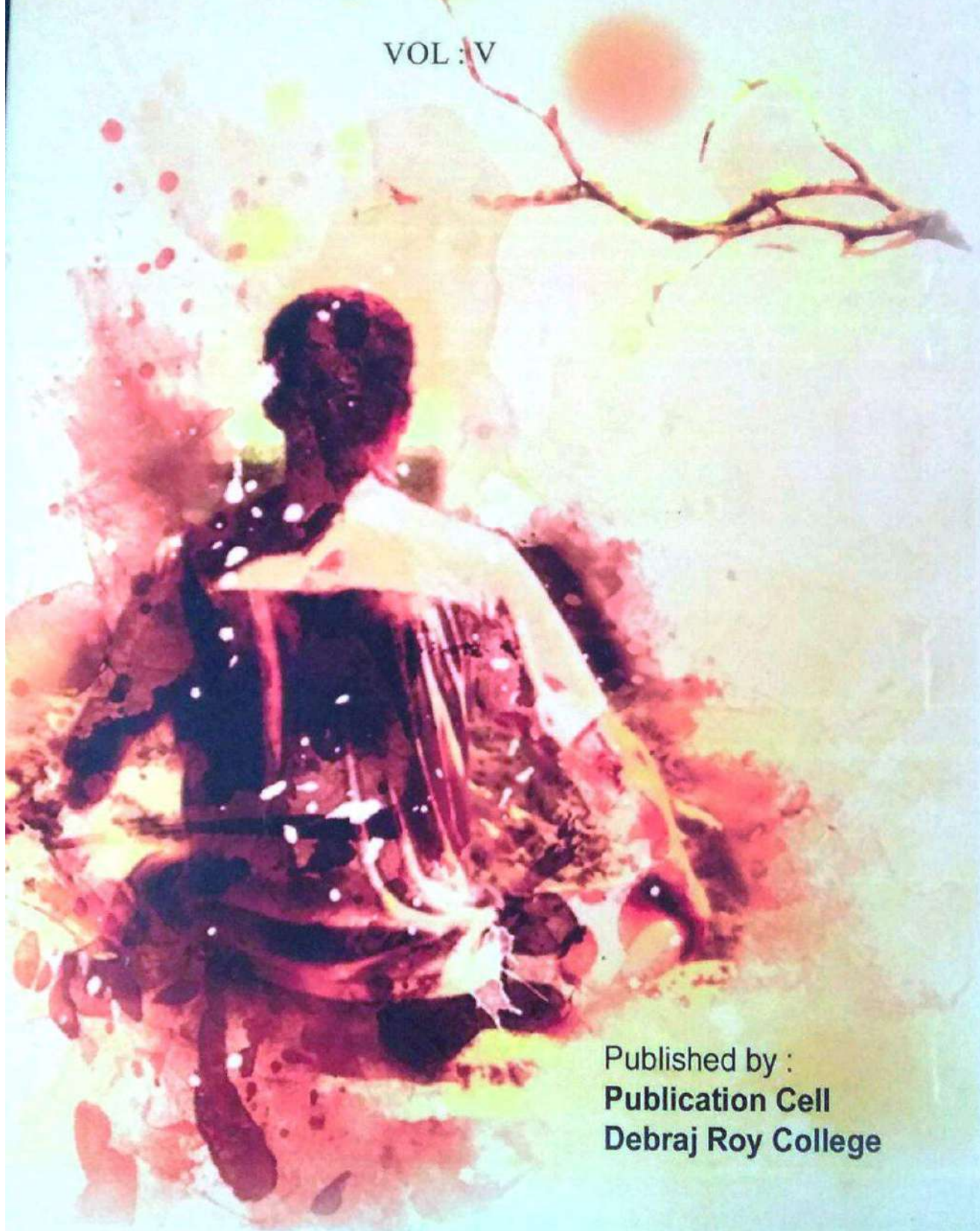
Abstract

Lemon grass is a globally accepted medicinal, aromatic and economic grass which has varied range of application. It has been considered as one of the components of herbal drugs since ancient time by the ethnic communities of India. Maximum number of people in developing countries of Asia and Africa adopts these medicinal and aromatic plants for their primary health care needs. Essential oil extracted from lemon grass possesses citral as a major constituent which is followed by the other minor phytoconstituents viz., linalool, d-limonene, myrcene, methyl eugenol, methyl isoeugenol, α -terpineol, neryl acetate, citronellol, geraniol, elemicin and geranyl acetate etc. Due to presence of citral, this grass is utilized mainly in perfumery, confectionary and beverages also. Citral containing essential oil of this grass shows various antimicrobial, anti-amoebic, anti-inflammatory properties. It has also many therapeutic activities also. Since, it is a commercially viable grass therefore; technology has been developed for its better oil and herb yield and transferred to the farmers for upliftment of the economy.

Keywords: *lemon grass, phytoconstituents, therapeutic use*

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Development of Pond Hyacinth Based Nanocellulose

Suvangshu Dutta

Associate Professor, Dept. of Chemistry, D.R. College,
Golaghat-785621, Assam, India

E-mail: suvangshu@rediffmail.com

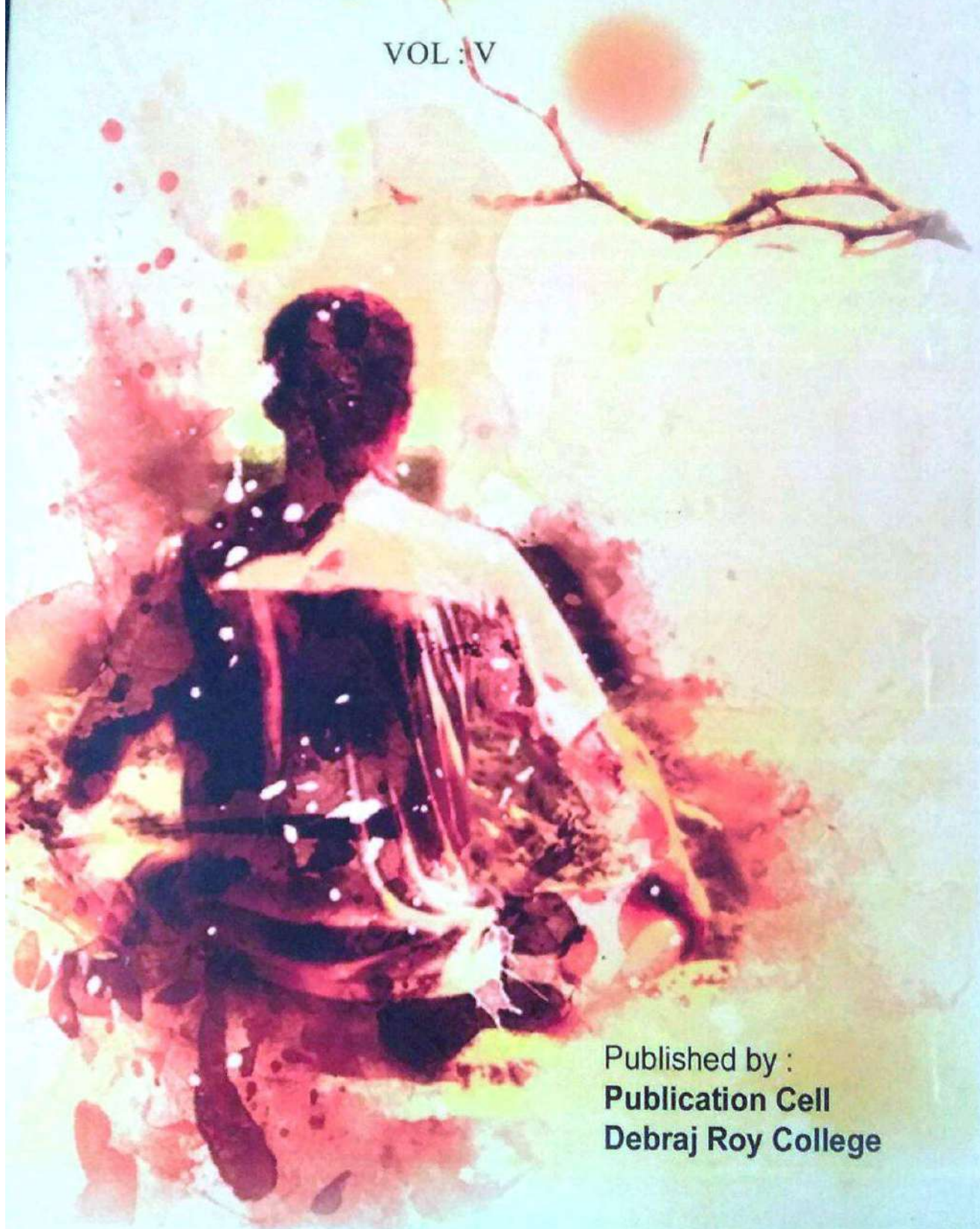
Abstract :

Pond Hyacinth is a plant largely available in North East India that becomes agro-waste most of the times and is of almost no use. Being inspired from its high cellulose content, the present paper reports the production of nanocellulose from this aquatic annually renewable plant. Nanocellulose was isolated from the uniformly sliced fibers of the hyacinth stems by alkali treatment technique at $80 \pm 5^\circ\text{C}$ followed by bleaching and finally sulfuric acid hydrolysis. Acid hydrolysis was performed at 45°C by using 65% sulfuric acid solution for durations of 1h, 1.5h & 2h under mechanical stirring conditions. The isolated nanocelluloses were characterized by crystallinity index determination, XRD, FTIR and TG analysis. Morphological evaluation was done by SEM

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Nuclear modification factor of heavy flavour decay mesons at relativistic heavy ion collisions

Dr. Begum Umme Jamil,

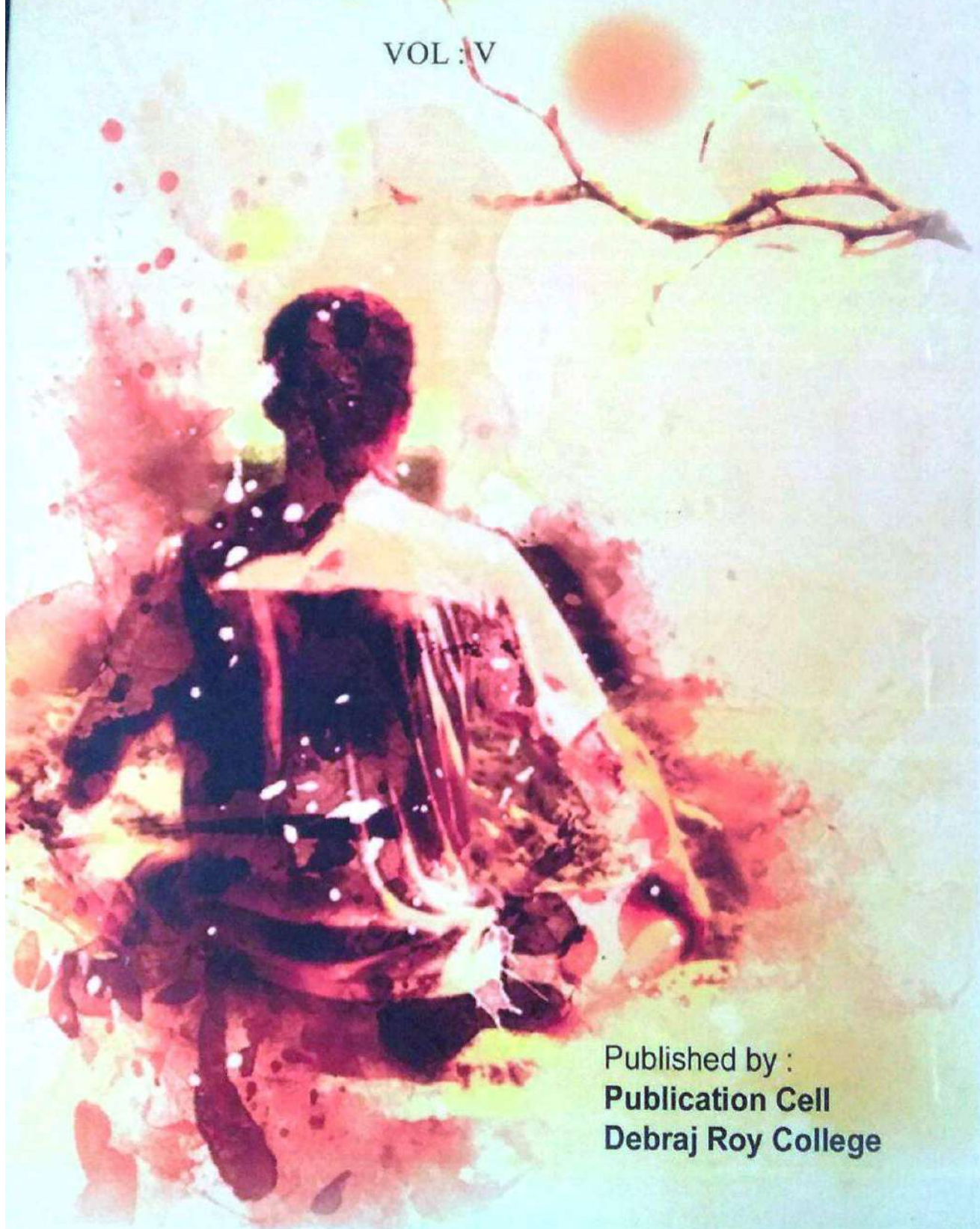
Assistant Professor, Dept. of Physics,
D. R. College, Golaghat

Introduction:

Heavy quarks are produced mainly from pre-thermal stage of interaction among partons when temperature is considerably high and while at the later times their production is limited owing to their large masses. Heavy quarks are mainly produced through gluon fusion ($gg \rightarrow QQ$) or quark-anti-quark annihilation ($q\bar{q} \rightarrow QQ$). Because of their large masses, they move slowly through the partonic wind, which consist mainly of gluons and lighter quarks and thus heavy quarks loose energy as well as momentum and also the direction of their motion may not change substantially from these interactions. This will make them a valuable probe for the reaction plane dependent properties of the quark-gluon-plasma (QGP). Since

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Are we alone in the Universe?

Amal Kumar Sarma

*Department of Physics,
Debraj Roy College, Assam.
E-mail : amalks71@gmail.com*

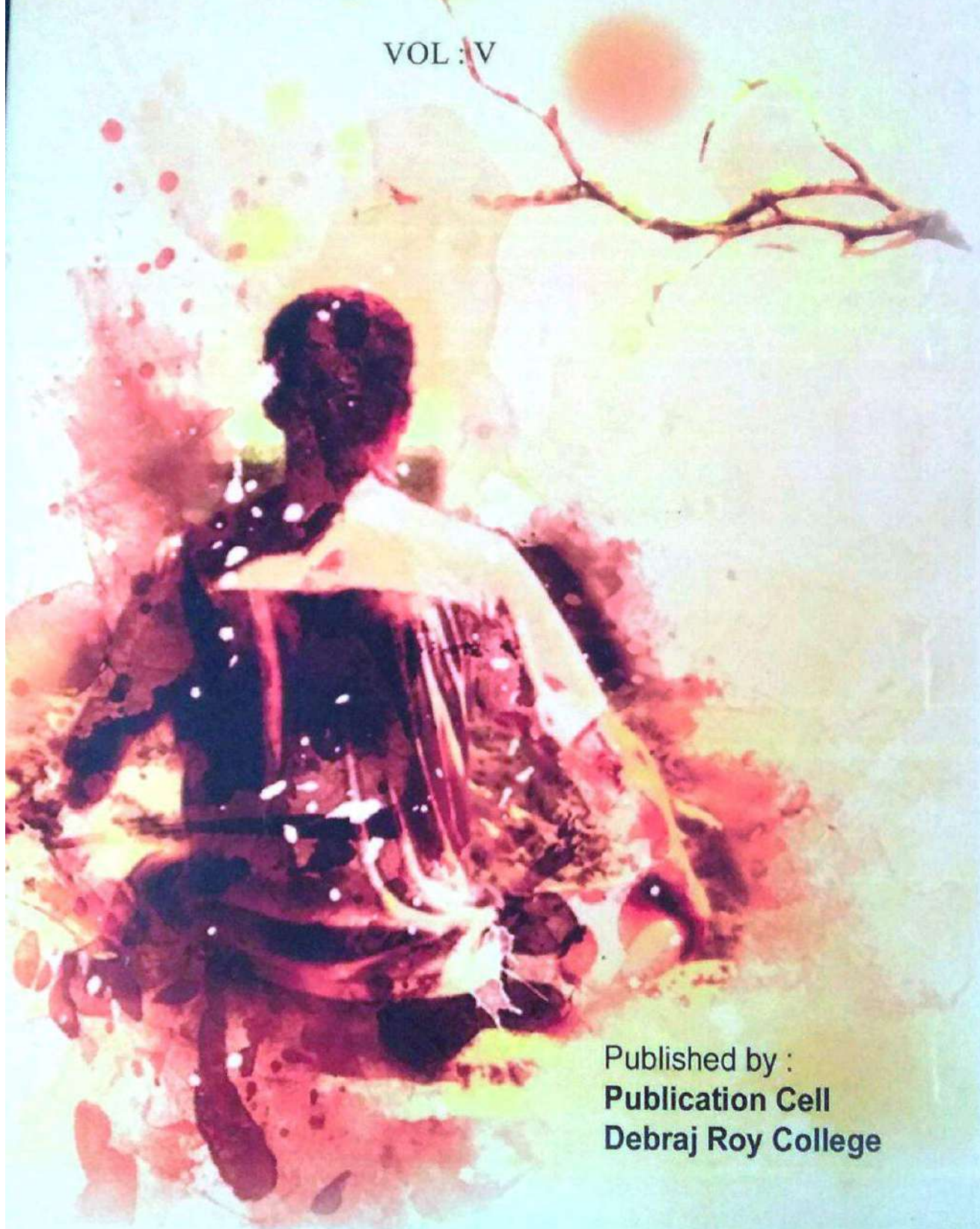
*'The absence of evidence is not the evidence
of absence' – Carl Sagan*

1 Introduction

Looking at the sky far beyond the extent of our solar system and Milky Way galaxy; at large scale, we observe uniform distribution of stars and galaxies. The observed universe is homogeneous and isotropic. Homogeneous means the uniform distribution of stars and galaxies and isotropic means that the universe looks same from any direction. Both the concepts require non local observation. There exist large number of solar systems just like ours and our earth simply represent a bigger set of earth like planets known as exoplanets. Interestingly, the number of exoplanet is also proliferating in tune with the advancement of observational technology. Exoplanet hunting is really a hunt for life

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**Role of an indigenous earthworm
Lampito mauritii (kinberg) in
bioconversion of pruning litter into
organic manure**

**Apurba Saikia^{1,2}, Pavitra Chutia²,
Satya Ranjan Sarmah³**

1. Department of Life Sciences, Dibrugarh University
2. P.G. Department of Life Sciences, D.R. College, Golaghat.
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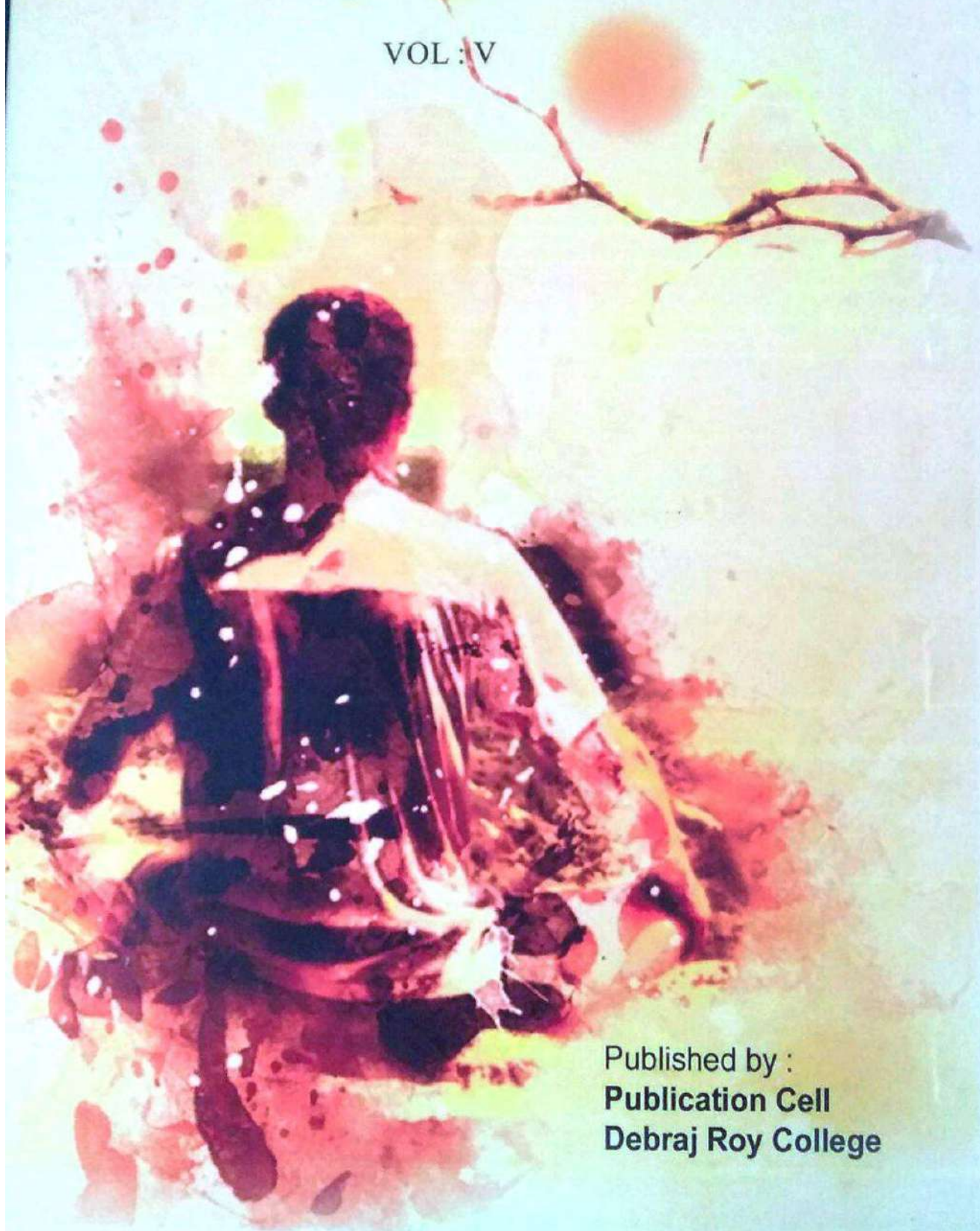
Corresponding author: Apurba30saikia@rediffmail.com

Abstract :

In world due to increase of industry, population, changes of living style , Agricultural field, waste materials are increase day by day. So, Solid waste management is very necessary to maintain environment. Vermicompost is the only way to control pollutions as well as environment. In tea garden a huge amount of waste material are produced every year. These waste materials can be converted into organic manure by using some indigenous earthworm *Lampito maruiti* kinberg

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Ethnomedicinal Plants used for Various Stomach Ailment by the Rural Peoples of Golaghat, Assam, India

Ekhani Saikia*, Glory Borah &
J. Barukial


*P.G. Department of Life Sciences,
Debraj Roy College, Golaghat, Assam, India*

**Corresponding Author's email: ekhani.saikia689@gmail.com*

Abstract :

The present study was conducted in Golaghat District, Assam, India to document the information related to the ethnomedicinal plants used by the people of the area. Intensive field work was carried out to obtain detailed information on the plants and plant parts used by the people inhabitant in the district against the remedy of various stomach ailments. In the present study a total of 72 plant species and their ethnomedicinal uses have been recorded.

Keyword: ethnobotany, medicinal plants, traditional knowledge, ethnic group, stomach ailments.



EASTERN

Recent Discoveries in Medicinal & Aromatic Plants in North East India

Editor - **Bapan Banik**



Bapan Banik

Recent Discoveries in Medicinal & Aromatic Plants in North East India

Editorial Advisor:

Dr. Surajit K. Bhagowati

Editorial Member:

Dr. Manas Bhowmik

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Preliminary Ethnozoological Survey of Animal-based Medicines used by Traditional Healers of South-East Area of Golaghat District, Assam

K. Deori
A. Ahmed
S. Bora
B. Konwar
S. Boruah
M. Borah

Abstract

The present study was carried out on an ethnozoological survey of animal-based medicines used by traditional healers of South-East area of Golaghat District, Assam. A total of 10 villages have been surveyed in the study area. The survey was based on a semi-structured questionnaire, designed to collect information through interactive interviews on the use of animal-based medicines by the local inhabitants. During our survey, we have interviewed 50 respondents including 14 traditional practitioners comprising both male and female. Here, we are documenting a total of 18 animal species and their formulations that are being used to treat 15 different disease conditions by the inhabitants of the South East region of Golaghat. It was also revealed that in most of the formulation/prescription mammals are found to be used very commonly where as, insects, leaves and amphibian species are found to be least preferred. From the study it may be concluded that although we are in an era of 21st century, the use of traditional medicines are still popular in rural areas which may depict a scenario of their strong belief on their formulations or may be due to inaccessibility, poor economy, lack of basic health care facilities of the people in availing modern medications.

Keywords: *Ethnozoology, Bhumilotakesu, traditional healer, Asthma, Golaghat*

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of
North East
India

Editor
Bapan Banik
Manas Bhowmik

Bapan Banik, Manas Bhowmik
The Herbal Wealth of North East India

Editorial Adisor

Dr. Surajit K. Bhagowati
Principal, ADP College

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In-vitro Antiurolithiatic Activity of *Withania somnifera* (L.) Dunal Root Extract

Mohua Kashyap
Rajkanya Borkakoti
Khirod Deori
Sajidur Rahman
Imen Bordoloi

Abstract

Background: *Withania somnifera* (L.) Dunal is a medicinal herb which is used to treat urolithiasis by some traditional medicine practitioner in Golaghat District, Assam. Considering its therapeutic importance for treating kidney stone problems the present study was designed to evaluate the antiurolithiatic activity of *W. somnifera* root extract *in vitro*. **Objectives:** To determine the *in vitro* antiurolithiatic efficacy of *W. somnifera* root extracts following standard scientific methods and compares its efficacy with the standard drug Cystone. **Materials and method:** Qualitative phytochemical analysis was carried out by employing both aqueous and methanolic crude extracts of *W. somnifera* by following standard methods. For *in vitro* antiurolithiatic efficacy testing, a homogenous precipitation method was used to prepare artificial stones of calcium oxalate (CaOx) and egg membranes were used as dissolution bags. Crude extracts (both aqueous and methanolic) were arranged in different doses at a concentration of 10, 20 and 30 mg/ml concentrations. Standard drug Cystone (positive control) was taken in a concentration of 10 mg/ml. To each concentration of doses, 1 mg/ml of CaOx were used in order to determine the dissolution efficacy and were incubated at 37°C for 6 hrs. The antiurolithiatic activity of the plant extract on the CaOx crystals was determined by the titrimetric method. **Result:** Phytochemical analysis of *W. somnifera* root extracts revealed the presence of