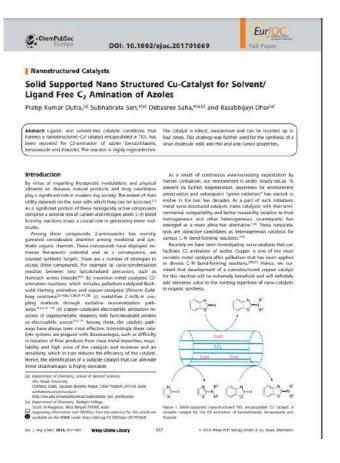
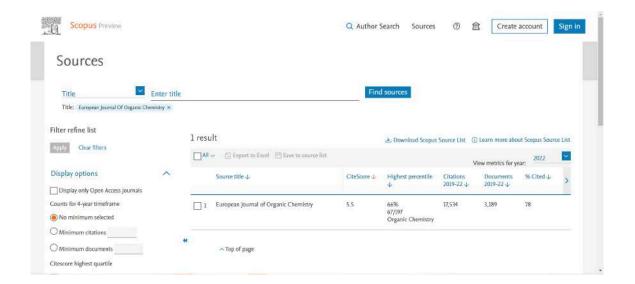
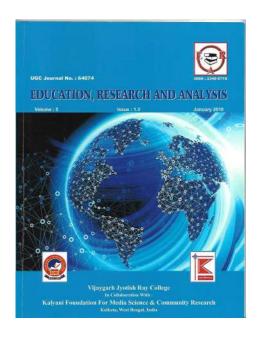
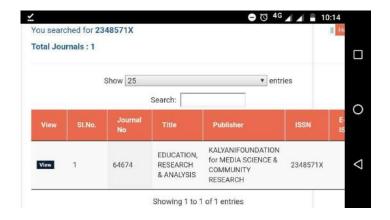
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#### Pratidhwani the Echo

A Peer-Reviewed International Journal of Humanities & Social Science ISSN: 2278-5264 (Online) 2321-9319 (Print)

Impact Factor: 6.28 (Index Copernicus International)

Volume-VI, Issue-IV, April 2018, Page No.298-306 UGC Approved Journal Serial No. 47694/48666

Published by Dept. of Bengali, Karimganj College, Karimganj, Assam, India Website: http://www.thecho.in

## Identification of Contextual Problems of Land Utilization and its Planning Through Land Capability Classification on Purba Medinipur District, W.B.

Binod Kumar Sardar Assistant Professor, Dept. of Geography. Y.S. Palpara Mahavidyalaya. Midnapore (E)

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Research Scholar, Department of Geography, Ranchi University, Ranchi, Jharkhand Sudipta Das

Govt. Approved PTT, Dept. of Geography, Y.S. Palpara Mahavidyalaya, Midnapore (E) Abstract

"Land as a geographical space that utilized for the satisfaction, which the farm population derives from the type of agricultural developed, provision for future production and socio economic development" (J.L.Buck, 1951). That way land uses are the most significant and functional variable for socio-economic development of a geographical space Purba Medinipur district. Comparatively population growth and unscientific land utilization process are most prominent indicators for land degradation with reducing agricultural productivity of this region over the day by day. In consequently, to needs the study with land capability classification for proper land use planning in different regional sector of study area. That way "Land capability classification is an exercise for interpretative grouping area. That way Land capability classification is an exercise for interpretative grouping and grading of soil according to their potentialities and limitations, it helps to organize significant soil factors for conservation" (Stallings, 1975). To promote optimim agricultural growth, carryout the bakance of regional development and also land utilized related sustainable development are the fundamental objective and planning of that study. Key words: Land Utilization. Agricultural Productivity, Land Capability Index (LIC), Optimum Agricultural Growth, Sustainable Development.

Introduction: Land is a complex and dynamic combination factors of geology, topography, hydrology, soil, micro-climates, communities of plants and animals with also vital interacting by peoples activities (Shaxson, T.F., Hudson, N.W., Sanders, D.W., Roose, E., Moldenhauer, W.C., 1989). Land use means the use of land in a certain area. Land use

Volume- VI, Issue-IV April 2018

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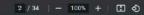
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## **ECONOMIC BOTANY**

A pilot study of honey samples from different mangrove plants of Sundarban forest: Making a case for Aegiceras corniculatum (khalsi) honey as a potential therapeutic agent

Assistant Professor, Department of Microbiology, Raidighi College, Raidighi, South 24 Parganas, Pin 743383, West Bengal, India.

Email: mou.aru@gmail.com

Citation: Biswas Arunima. A pilot study of honey Citation: DISWAS Arunima. A pitot Study of honey samples from different mangrove plants of Sundarban forest: Making a case for Aegiceras corniculatum (khalsi) honey as a potential therapeutic agent. Ela Journal of Forestry and Wildlife 11(2): 1244-1251

Date of Publication: 30 June 2022

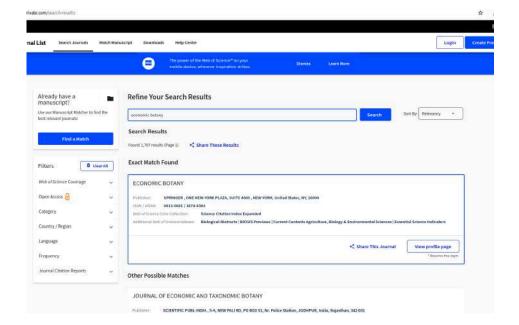
ISSN 2319-4361



Keywords: Sundarban, mangrove; honey; therapeutic; antioxidant, antimicrobial

#### Abstract

Abstract
West Bengal has a unique ecosystem which is rich in bio-diversity and natural resources. Prominent features include a part of the world's largest ecosystem including the Sundarban mangrove forests. Although many reports have emphasized the immense value of this reports have emphasized the immense value of this mangrove ecosystem, many of its natural products, like the 'Sundarban Honey', have not been characterized systematically and scientifically. Commercially available 'Sundarban honey' is not a single source product, but usually a blended sample. This pilot work presents preliminary results obtained from four mangrove floral sources that show significant anti-oxidant potential based on standard tests like estimation of their polyphenol and flavonoid content, FRAP value, DPPH assay. The average total polyphenol content of uni-floral honey samples varied from  $26.5\pm1.0$  mg (for khalsi) to  $15.2\pm1.2$  mg (for gewa) while that of blended khalas) to  $15.2\pm 1.2$  mg (for gewa) while that of blended multi-floral honey was around  $18\pm 3$  mg of gallic acid equivalent. Flavonoid content of uni-floral honey ranged from  $18.55\pm 0.79$  mg (for khalas) to  $9.6\pm 1.05$  mg (for gewa) while that of blended multi-floral honey was around 13-14 mg of quercetin per 100 g of honey. FRAP (ferric reducing ability of plasma) values ranged from 375 to 475  $\mu$ M Fe (II) which is highly significant



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# International Journal of Engineering, Science and Mathematics (IJMRA Publications)Peer Reviewed Refereed Journal



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Date of Publication: 30-Nov-0001

The autosomal ribosomopathy SBDS with inherited bone marrow failure is regulated by essential 60S Ribosome Biogenesis Factor eIF6

Author: ARUNIMA BISWAS?

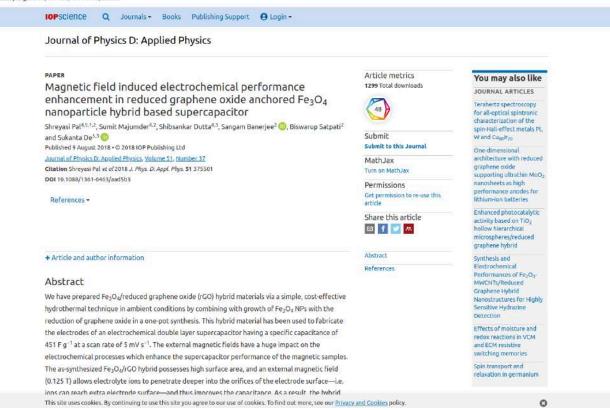
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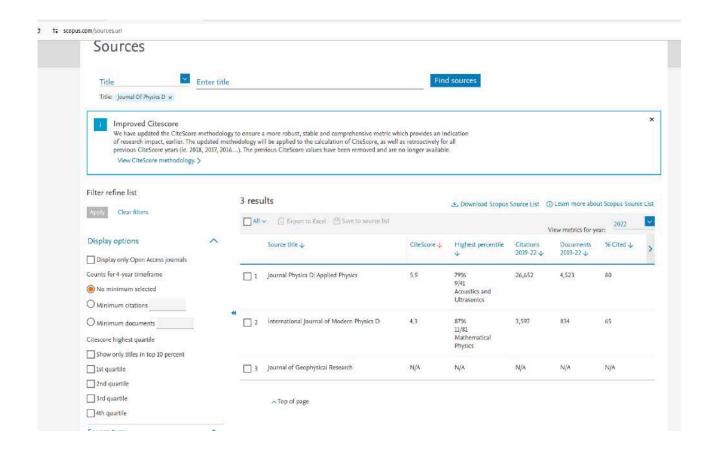
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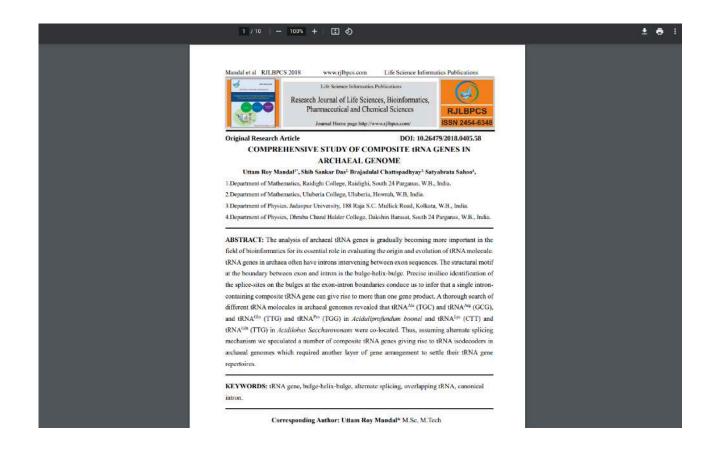
Abstract:

Recently, a number of congenital diseases, resulting from defects in ribosome biogenesis and maturation, have been discovered. Shwachman-Bodiam-Diamond syndrome (SBDS) is one such ribosomopathy, caused by deficiency of the highly conserved SBDS protein involved in 60S ribosome biogenesis. Characteristic clinical features include execurine pancreataic insufficiency, neuro-cogginitive dysfunction, bone marrow dysfunction and failure, leukemia predisposition. Studies in yeast show evidence of genetic interaction between the yeast SBDS protein (called \$601p) and enkaryotic Initiation Factor 6 (eIF6). eIF6 is an essential, conserved 60S ribosome biogenesis factor, required for pre-rRNA processing in the nucleus. It also escorts pre-60S particles from nucleus to cytoplasm for final maturation. \$601p, with the cytoplasmic GTPase elongation factor-like 1 protein, facilitates the release of yeast eIF6, from the pre-60S ribosomes in the cytoplasm which is crucial for final maturation of 60S subunits and for recycling of eIF6 to the nucleus. Nucleo-cytoplasmic shuttling of eIF6 is also regulated by its phosphorylation and dephosphorylation, mediated by casein kinase 1 and Ca++ dependent calcineurin phosphatase, respectively. Thus, eIF6 release and recycling seem to be due to concerted actions of SBDS protein and eIF6 phosphorylation-dephosphorylation events. Inhibition of this process leads to defects in ribosome biogenesis and maturation and associated pathophysiology.

Keywords: Shwachman-Bodian-Diamond syndrome; ribosomopathy; eukaryotic Initiation Factor 6; Nucleo-cytoplasmic shuttling; phosphorylation-dephosphorylation.

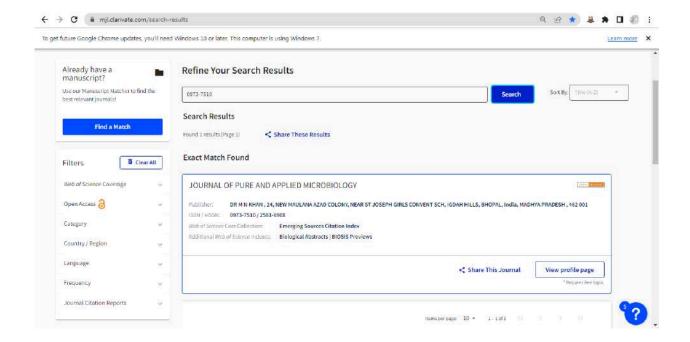






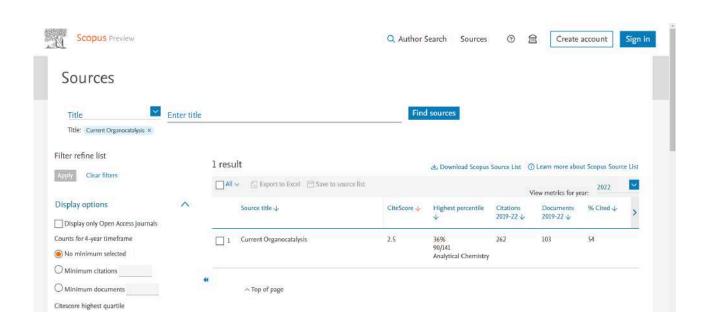






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	Carrent Organicatal	ysls, 2019, 6, 79-91	79		
REVIEW ARTICLE					
	ticles: An Efficient Talization via C-H Activ	Fool for Heterocycles S vation	ynthesis and		
Debasree Saha <sup>8</sup> and C	hhanda Mukhopadhyay <sup>h,*</sup>				
	, Raidight College, 24 Parganas (Sou Kolkata 700009, West Benzal, India	th), West Bengel 743383, India; <sup>1</sup> Departs	rent of Chemis-		
	molecules during the last few decade fonts involving C-H functionalisation derivativation of organic malecules, it autoparticles catalyzed C-H activation	articles have been extensively used in the syn s especially due to their high catalytic activity s are very much in demand as they privide a host rasking the process economical. In the co- t macritors have led to the design of useful mol- ore structure of drugs and trus have high biolo- ter structure of drugs and trus have high biolo-	ty. Organic reac- direct method of cent years, metal locales especially		
ARTICLE HISTORY		a collection of reactions where metal nanopa- ization of heterocycles via C-H activation. Th			
Received August 97, 2018 Bernall October 92, 2018 Accepted October 27, 2018	of three units namely, Nano-copper of	ization of neterocycles via C-FI activation. In stalysed C-B activation neactions, nano-pallad metals catalysed C-H activation reactions.			
2009 18.2174(221)35°26666(18)2N(3074)	Results: The discussion reflects the acope of mine-motals as effective estalysts for the synthesis and functionalization of hemocycles as well as the efficiency of nano-motals sowards entalysing economics and extraordinality viable reaction protocols.				
	C-H activation, each of which in itself	is to correlate nanometal catalysis, belerocyc forms an integral part of modern day chemica e need for fature development and research in words fulfilling that goal.	il research. Thus,		
Keywords: Heterocycles,	C-H activation, ranometals, catalysis	, organometallie, recycle.			
1. INTRODUCTION		restricts their use. Heterogeneous catal			
occupies a significant po- calls for special attention gical and biological active of C-H bonds is one of it synthesis of heterocycles factor [2]. This results it	functionalization of heterocycles sition in synthetic chemistry asis owing to the important physiolo- ties of heterocycles [1]. Activation he most desired reactions towards due to its potential economical in the introduction of useful and tionalities into carbon framework, of useful notifs.	provides an alternative to homogenous the above disadvantages. However, the lysts often have low seactivity due to I true eties! have loading to the applien conditions. Namometal catalysis brid homogenous and heterogenous cat- semi-heterogeneous platfaran. In the seea the consergence of namometal cata of useful organic motifs [3].	the helerogeneous cata- imated number of 'ac- tion of harsh reaction iges the gap between alysis by providing a last decade we have alysis for the synthesis		
chemists developing stra catalysts with minimum i ligands. Homogeneous of turnover numbers. Howev contamination in the prod	oament gradually led to cynthosic togies involving use of reunable motvement of toxe: additives and atalysis have high reactivity and or serious diradvantages like menal uct and lack of catalyst reusability	Nanoparticle is defined as a small a whole unit and is sized between 1 Scheme 1 shows the TEM (Transmissory) image of a typical pulludium Usually the mean ranoparticles can chemical reduction of a metal salt (ii) cat, or sonochemical decomposition o (iii) hydrogenation of a coordinating	and 100 nanometers, isson electron micro- nanoparticle system, be generated by (i) thermal, photochemi- f a metal (0) complex		
University of Calcutta, 92, Az	s author at the Department of Chemistry, harya Frafula Chandra Road, Kolkata – 33019610; E-mail: crushrp@yahoo.co.m	electrochemical reduction of higher metal and (v) vapour phase deposition.	valent species of the		
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## সাগরদ্বীপের ভূগোল ও ভূগোলের সাগরদ্বীপ সনংকুমার পুরকাইত

## ভূমিকা

'সব তীর্থ বারবার/গঙ্গালাগর একবার' এই প্রবাদ প্রকান বাংলা ব্যাকরণ ছাড়িরে
দেশ কাল পাত্রের সীমানাকে ছুঁরে ফেলেছে। কেন্টবা বাকে পৌরাধিক বিক থোক
গঙ্গালাগরের মাহাছা বিচার করে একথার প্রচালন আবার কেন্ট বা বকে তীর্থান্তীলের
কটের পরিমাণ মাখায় রোখে এই কথা ছড়িয়ে পেত্রা হয়েছে। নামের মখা বিন্ধা
কটের পরিমাণ মাখায় রোখে এই কথা ছড়িয়ে পেত্রা হয়েছে। নামের মখা বিন্ধা
বাবার মাছার যে এখানে সাগর ও পালা অর্থাই নদীর সাথে সমুছে। মোলবারনাহা
একটি নদীর মাহানার ব্যেকম অহিলতা থাকা স্বাভাবিক বিশেষ করে ভারতীয়
উপস্থোলেশের কোন মনী যান্দন দিকল বিনক কোন সাথারে পিরা মেশে তার
অপ্রতিক একটি নির্মিত্র প্রকৃতিক হয়ে থাকে। তাই আমরা যারা সমাজবিজ্ঞানের
চর্টা করে থাকি তীলের কাছে অবলা ভৌগোলিত প্রতিবন্ধকতাই প্রধান করণ বালে
বারে বেন। আসমুদ্ধ হিমানল বিস্তৃত এই ভারতবার্থার বিভিন্ন জারগার ভূপ্রত্তি
বিভিন্ন বকম। হিমানোর বন্ধুরভার সাথাে সাথে শীপাঞ্জালন যোগায়েশেল বাহুল্যা
আলব একটা সমা মানুবার প্রক্রান্তর আছল আবার বিভিন্ন প্রতিক্র শাক্ষা
মাথে সভ্যভার বিকাশ ও যোগায়েশে বাহুল্যা আমুল পরিক্রকন এই হারানার পরিক্রক
ঘটিয়াছে। যে সাগরে সন্তান বিস্কর্জনে কর্বা আমুল পরিক্রক। বিশ্বর স্থান্তর বিশ্বর প্রত্তর করাল ভবনে আছা ইতিভাগের জানে জানা পেন্সেই।
বাহুলার বিবাদি তার এই বারাল প্রবন্ধন আছা ইতিভাগের আমাল ক্রকবার নয়, এখন
বারবার যাজে পুণাভোয়া বাছামাণ্যারে ক্রিলিয়ার সাহনস্থলে।

## ভৌগোলিক অবস্থান

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## Extended centromere and chromosomal mosaicism in some varieties of grass pea, Lathyrus sativus L.

Original Article | Published: 08 October 2018

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Kalyan Kumar De 🤂, Tuhin Pal, Animesh Mondal, Madhumita Majumder & Animesh Ghorai

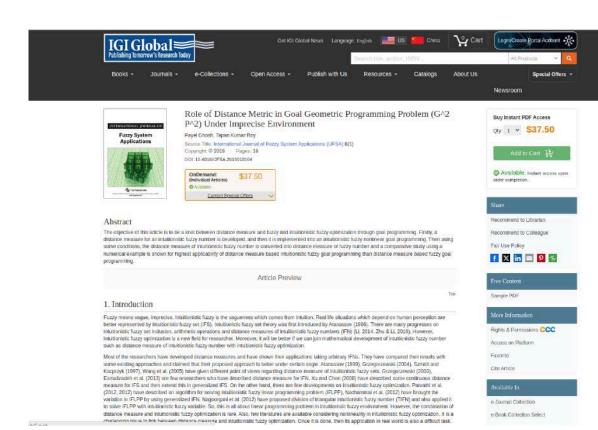
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## Abstract

An abnormal mitotic behavior revealing chromosomal mosaicism was observed in two among the three studied cultivars (cv. Nirmal, cv. Prateek and cv. Ratan) of Lathyrus sativus. Several numerical variants of chromosome complement were detected in the different cells coexisted with normal diploid cells in the somatic tissue of the same root-tip. Somatic chromosome number 2n = 14 were found with the greatest frequency (67%); however, a spectrum of quite low percentage of discordant and variable chromosome numbers especially of an euploidy mode, ranging from 2n = 11 (9.6%), 2n = 12 (8.7%), 2n = 13 (4.7%) and 2n = 15 (10.3%) in Nirmal cultivar were observed. In Prateek cultivar, the most

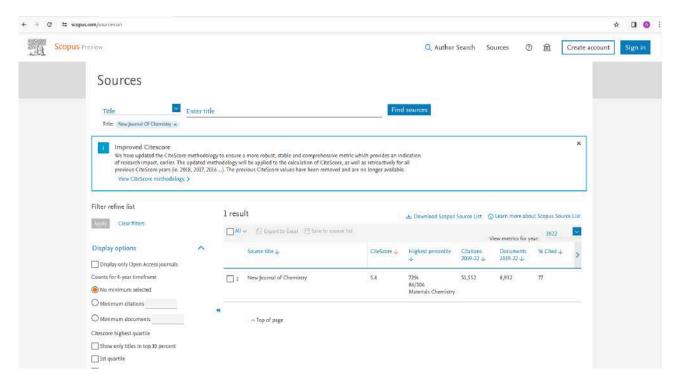


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International Journal of Current Research and Review DOI: http://dx.doi.org/10.31782/IJCRR.2020.12083

Research Article



## Quantitative Analysis of Nutrients in the Gum Exudates of *Acacia nilotica*

## Rukshana Irani<sup>1</sup>, Kazi Layla Khaled<sup>2</sup>

'Assistant Professor, Department of Food & Nutrition, Raidighi College, Raidighi, West Bengal, India and Research Scholar, Department of Home Science, University of Calcutta; 'Assistant Professor, Department of Home Science, University of Calcutta, Kolkata-700027 (West Bengal), India.

## ABSTRACT

Acacia nilotica is an evergreen tree found throughout Indiaand it belongs to the leguminosae family. The gum of this tree has been used in some parts of the country for its salutary therapeutic benefits. The gum was obtained from Acacia nilotica trees of West Bengal, India and was investigated for macronutrients and micro nutrients. The results of the present study showed that some essential minerals like calcium, iron, sodium, potassium, phosphorus were present in significant quantities which were 366.37, 254.1, 11.91, 124.87, 2.98 mg per 100 gram of pulverised gum respectively. The quantity of minerals like chromium, zho, selenium, coppor, magnesium, manganese was 0.67, 10.28, 0.54, 0.68, 22.61, 5.73 mg/kg gum respectively. It was found to be an energy dense gum containing 87.05 per cent of carbohydrate with substantially low fat, protein and vitamin content. The outcome of proximate analysis and high mineral content may account for the wide spectrum of medicinal and pharmaceutical properties of gum of Acacia nilotica which has been claimed in the pertinent literature.

Key Words: Acacia nilotica, Minerals, Nutrients, Vitamins, Medicinal, Properties

#### INTRODUCTION

Plants have been a major source of medicines in all cultures since the beginning of human civilisation. In the traditional system, various indigenous plants are used in the diagnosis, prevention and treatment of many ailments. In this modern era, there is a growing demand of plant based medicines, health products, pharmaceuticals, food supplements, cosmetics etc. Acacia inlotica is a pioneer species, relatively high in bioactive secondary compounds and can exert a variety of functions [12]

### Plant Details:

Table 1: Taxonomical classification<sup>hl</sup>

Kingdom	Plantae
Subkingdom	Tracheobionta
Super division	Spermatophyta
Division	Magnoliophyta
Class	Magnoliopsida
Subclass	Rosidae

Kingdom Plantae
Order Fabales
Family Fabaceae
Subfamily Mimosoideae
Genus Acacia
Species Nilotica

The plant parts of Acacia nilotica has been reported to have therapeutic uses arising from its wide spread folkloric and customary uses<sup>33</sup>. Ethnobotanical studies suggested the usage of Acacia nilotica gum for the treatment of skin irritation and smoothening of the inflamed membranes of the pharynx, alimentary canal and genito-urinary tracts <sup>143</sup>. The bark or gum of the plant Acacia nilotica is used in West Africa to treat cancers and tumours of ear, eye or testicles<sup>33</sup>. The gum of the babul (Acacia nilotica) has also been used by the Bhils of Rajasthan to fill the dental cavities and to maintain oral health<sup>33</sup>. The beneficial role Acacia nilotica Gum for promoting health of women after parturition has been revealed in a project titled Biomedical Studies and IPR (intellectual Property Rights) where medicinal plants which were used in the

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International Journal of Current Research and Review DOI: http://dx.doi.org/10.31782/IJCRR.2020.12083

Research Article



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Super division	Spermatophyta	
Division	Magnoliophyta	
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Subclass	Rosidae	

 Kingdom
 Plantae

 Order
 Fabales

 Family
 Fabaceae

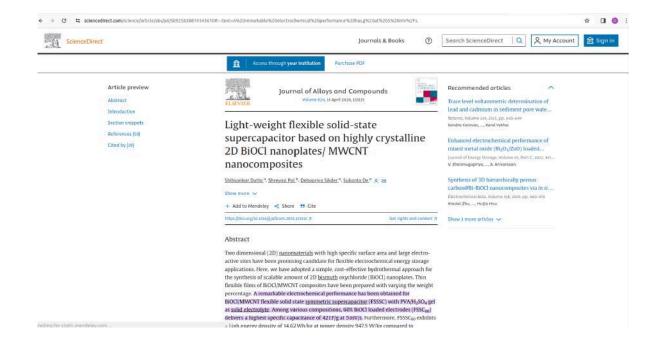
 Subfamily
 Mimosoideae

 Genus
 Acucia

 Species
 Nilotica

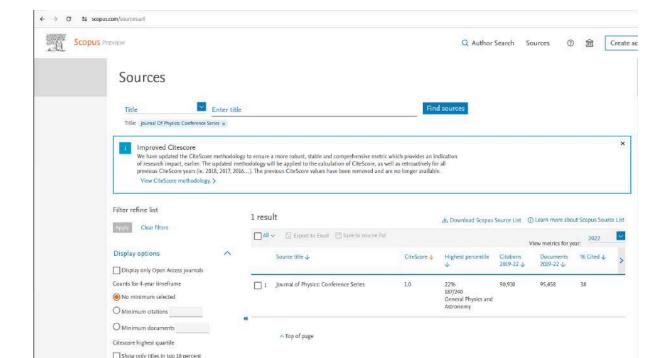
The plant parts of Acacia nilotica has been reported to have therapeutic uses arising from its wide spread folkloric and customary uses? Ethnobotanical studies suggested the usage of Acacia nilotica gum for the treatment of skin irritation and smoothening of the inflamed membranes of the pharynx, alimentary canal and genito-urinary tracts [45]. The bark or gum of the plant Acacia nilotica is used in West Africa to treat cancers and tumours of ear, eye or testicles? The gum of the babul (Acacia nilotica) has also been used by the Bhils of Rajasthan to fill the dental cavities and to maintain oral health? The beneficial role Acacia nilotica Gum for promoting health of women after parturition has been revealed in a project titled Biomedical Studies and IPR (Intellectual Property Rights) where medicinal plants which were used in the

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#### 1. Introduction

Magnesium alloys have become one of the most promising materials in automotive industries due to its high specific strength (158 kN-m/kg), biodegradability, and abundance [1]. Currently further use of Mg-alloys in structural applications is restricted due to various metallurgical issues including strength, formability, limited ducility at room temperature, corrosion, creep resistance and fatigue fracture [2, 3, 4]. It is well known that the deformation mechanism of hexagonal closed pack (hep) Mg is fundamentally different from that of their fee (face centered cubic) counterparts, because of their asystetropyness in different sip systems [5, 6]. Strengthening of Mg-alloys are typically done either by solute hardening or precipitate hardening [7, 8]. Within the traditional physical metallurgical

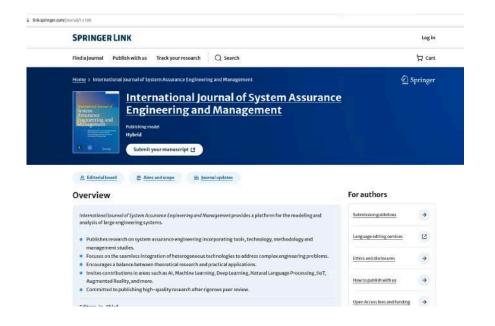


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# Facets of Developments and their Impact on the Agrarian Economies of the Canning Sub-Division, Sundarbans, West Bengal, India since 2001 Sanat Kumar Purkait

#### Abstract

Sundarbans is well known to the world for its richest biodiversity within a fragile ecosystem. The area has its international importance for its locational extent and natural role to the developed societies of the modern civilization. The area is inhabited by more than five million people right now, even with the worst impact of natural calamities on their socia-economic activities. The indigenous people of this area are intensively dependent on primitive primary sectors of the economic development. The Study area and the retarded Sundarban. That's why, the area has a nature of dichotomy in respect of economic development. The southern part of the region is going to opt the secondary or tertiary sectors when the southern part is completely busy with their primary activities. The present paper tries to find out the impact of the continuous development on its agrarian economy. The multidimensional facets of the regions adopt the different economic sectors with the time. Since the time of Hamilton, the Sundarban is inhabited and cultivated by the deprived and exploited people of far away districts. The economy of whole Sundarban was agrarian and this economy gives support to the existence of the developed society.

### Keywords: Sundarbans, Agriculture, Development, Economy

## INTRODUCTION

The Sundarban Deltaic region has an important role to the developmental economy for its large scale intensive agricultural activities. The geographical location and all other favorable components for the growth and development of the agrarian economy of the study area are the triggering factors to develop the agricultural activities in this remote part of the then Sundarban. The study area includes both the developing census town area and the transitional zone of Sundarban Tiger Reserve Forests. Therefore, there is a gradual developmental scenario by interrupting the natural mangroves and its components. With the reclamation of the land the people began to stay there, cultivated the arable land since the period of Sir Daniel Hamilton, who is one of the pioneers of the agricultural system in the Sundarbans. But with the advancement of civilization, different types of developments took place in that agrarian society and that creates the dichotomy in the thought of agricultural and industrial economy. In course of time the agricultural system was implemented and partially well placed in the said block but the natural calamities like cyclones, floods, saline water intrusion in the agricultural fields and lack of fresh water irrigation are the major problems of this block. So, the people of the study area are continuously struggle in their daily life to earn money, to cultivate, to exist in the lap of the nature and to cope up with the man exter of this land of eighteen tides.

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সনং কমার পরকাইত

सर्विषद्भाव : तुम्तरंग विश्वत्र पृथ्वत्र सामदास्य वाता एका गर्नेन महिनाद्वित विभावत्रा विद्यावदास्य पृथ्व वर्षि द्वाव्यानाद्वेत्र स्थानाद्वेत्र स्थानाद्य स्थानाद्वेत्र स्थानाद्वेत्र स्थानाद्वेत्र स्थानाद्वेत्र स्थानाद्वेत्र स्थानाद्वेत्र स्थानाद्वेत्र स्थानाद्य स्थानाद्वेत्र स्थानाद्वेत्र स्थानाद्य स्थानाद्वेत्र स्थानाद्वेत्र स्थानाद्य स्थानाद्वेत्र स्थानाद्य स्थानाद

ভূমিকা : সুপদবনের প্রশাসনিক ব্যবস্থার আদিকর্থ কামিক হয়ে, মান্তর হয়ে, বাগাবী হয়ে, মান্তর হয়ে, বাগাবী হয়ে, মান্তর হয়ে, বাগাবী হয়ে, মান্তর কাম্যান করে করে কাম্যান করে কাম্যান করে কাম্যান করে কাম্যান করে কাম্যান করে করে কাম্যান করে কাম্যান করে কাম্যান করে কাম্যান করে কাম্যান করে করে কাম্যান করে করে কাম্যান করে কাম্যান করে কাম্যান করে কাম্যান করে কাম্যান করে করে কাম্যান করে কাম্যান করে কাম্যান করে কাম্যান করে কাম্যান করে করে কাম্যান করে কাম্যান করে কাম্যান করে কাম্যান করে কাম্যান করে করে কাম্যান করে কাম্যান করে কাম্যান করে কাম্যান করে কাম্যান করে ক বার কো থেন আবাদিকানের জনা নিষ্টির নোট ৫৫১৯ ১৮৯২ সাল থেকে রোগ নোগাবোদ স্বাচন্তিত বারার বর্ণমিত্রিল অবত সুন্তবনের মধ্যে মার ৭৮২ বর্গনিহিল অবলা ব্যক্তিশ করা গিরেছে। ইংক্তেম্বের সুন্তবনে নীতির করে দেখা থেকা আধানিকবালে জন্ম নির্মিষ্ট নোটি এ০.১৯
কামিনিক অবন্ধ সুম্পান্তব্যালক সংখ্যা কর্মানিক কর্মানিক অবন্ধ জালিকে একটি আকালিক কর্মানিক ক্রমানিক ক্রমা

সমরের সাথে সাথে অনেক পরিবর্তন এসেছে; স্বর্থীনতার পর নিরস্তর উল্লয়ন বা প্রাকৃতিক প্রতিক্ষকতা গটিয়ে মানুষ আর অরপ্যের পারস্পরিক সহারস্থানের যে क्वाधा मान्य कार कारणाव नावण्यातक महाक्यात्मक हर वाघडी ठामात्म शताय तमात्म मर्गाक्वत वेटक्षं करहे मान्दरत कार्य कतमा यूपितगाय वृद्धिकाक व क्वाका श नगीरक कार्य महावादक करनीहिं। ५२३ क्वाब्रहाति; ১৯৫৪ সালে অমিনারী রবন্ধার অধানের কর রিটিনরা করাপের মধ্য দিয়ে আরা উপস্থান করতে পারি যে দেন এসেইদেন রাজধ থেকে মূনান্য করতে, তেমনি উল্লয়নর ধারাবাহিক করকাপনার বার্ত্ত্বে স্থানিয় মনুবের বাংলার বিভিন্ন প্রাক্ত থেকে মানুধ এখানে মুটে এসেছিকেন মতামত না নেওয়ায় কিবল সেই উল্লয়নয়তে স্থানীয়

ব শহর ও শহরক্ষীর সাথে রেল ও সভুক যোগারোগ কৃষির গাশাগাশি অনা অনেকরকম কাম্লে নিযুক্ত হয়ে অছ আনে বেশি আর করতে পারাক্রে কিংবা তাঁগের সারাক্ষরের আনে খেশ আর করতে পারকো কবের তামের সারাবছরের আরোর একটা নিশিতত ও নিশিক্ত উৎস গুঁজে পেয়েছেন। মাতলা বা হোগাল লেডু নির্মাণের গরে কেই আকস্থা বাসভী ব্রকের জন্য উপুত্ত হলেও সঠিক বিপধন ব্যবস্থা ও দুবছের কারণে তাঁরা আশানুরূপ ফল পাননি। পর্তমান রবন্দের মধ্য দিয়ে আমরা উপস্থাপন করতে পারি মে উন্নয়নের ধরাবাহিক ক্রকথাপনার বাস্তবে স্থানীয় মানুদের

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Ebang Mushavera

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## Introduction of Digital Education can make the Sundarbans a part of the Digital India- A Geographical Appraisal

#### Sanat Kumar Purkait

Assistant Professor, Department of Geography, Raidighi College (University of Calcutta), South 24 Parganas, West Bengal

# ABSTRACT

Sundarbans is one of the most familiar part of the country located at the southern part of the vast deltaic tract of the Ganga in West Bengal which is full of rich biodiversity with the largest mangrove tidal forest. The forest was mainly the abode of the man-eater, but most of the area is occupied by the human civilization right now. It is well known for its natural beauty. Presently the Sundarbans is inhabited by more than five million people. Sundarban has an interesting lifestyle with its primitive agrarian economy and collective economic practices. The indigenous people of this area are continuously trying to do their best for the upgradation of their lifestyle and future generation. But due to lack of sufficient physical infrastructure and mismanagement in the development of communication and telecom development in the study area. The situation of long-time lockdown in this pandemic situation due to sudden outbreak of Covid-19, the world faced a terrific problematic situation in the regular daily lifestyle of the human being. But the education is an ongoing process. After a certain interval the Govi decided to continue the education system through the online platform. The covid-19 did not affected so much in Sundarban but the universal decision is also applicable for the entire country. That's why, Sundarbans is compelled to adopt the online education and it is all of a sudden introduction in the backward Sundarbans. The present paper tries to identify the exact impact of online education in the under developed part of rural Bengal including Sundarbans. To get a thoughtful output throughout the analytical study of the ground reality, a pilot survey is done among more than 250 samples (students, teachers, guardians and academicians of different sections of this area). Now it is to be highlighted whether the introduction ofdigital education can make the Sundarbans a part of the Digital India or not.

Key Words: Digital Education, Sundarban, Communication, Development, Pandemic.

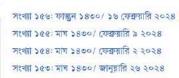
## I. INTRODUCTION

Sudden outbreak of Covid-19 has changed the whole world. The developed country lost their motion and the under developed nations are fixing economic crisis with several types of new circulars as published by the Govt. time to time. The economy is locked down but the education cannot be stopped for a long time. So, the alternative mode of teaching learning changed the previous education systems. Now, Pathsala became e-Pathsala by the pandemic situation of Covid-19 outbreak throughout the world. Before the introduction new technology, online communication was not life. From that time, the teaching learning processes were executed through physical interaction between teacher and learners. Brahmacharya of Changrashrama was the period of taking lessons from their Guru. Then, the institutional framework like pathsala, school, college and university were introduced in the educational system. The great poet Rabindramath Tagore has started to teach his students with nature. In the latest past, the world has adopted the computer literacy including the Information and Communication Technology (ICT) in the teaching learning processes and the teachers used to use the digital platform rarely. But, the pandemic situation after the outbreak of COVID-19, everything got changes.

The world faced three to five phases lock down and after certain period of lock down, the govt decided to continue the ongoing processes of education through digital platform. Both the teachers and students started to be adopted with the system. But the ground reality of rural India is quite different from the urban one. The rural Bengal is still in the dark from the light of Digital India. Some of the private institutes used online education before the lock down, they are habituated. But most of the rural institutes have no minimum physical infrastructure. There the concept of online education is far away from the implementation. It has the good output with some of the limitations. Sundarbans being the part of primary sectors of economy, most of the part of the study area are in the dark of the telecom and communication development. With these barriers, the Sundarbans have adopted online education and are trying to be habituated with the systems.

## বাদল সরকারের থার্ড থিয়েটার





সংখ্যা

সংখ্যা ১৫২: মাঘ ১৪৩০/ জানুরারি ১৯ ২০২৪ সংখ্যা ১৫১: পৌব ১৪৩০/ জানুরারি ১২ ২০২৪ সংখ্যা ১৫০: পৌব ১৪৩০/ জানুরারি ৫ ২০২৪

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দল সরকারের তৃতীয় থিয়েটারের গড়ে ওঠা ছিল আর পাঁচটা মঞ্চনটিকের চাইতে একেবারে আলাদা — এই কথা বাঙালি হওয়ার সুবাদে শেষ ৫০ বছর ধরে আনবা কম শুনিনি। কিন্তু তারপর, সেই



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# International Journal of Life science and Pharma Research ISSN 2250-0480

Research Article

Allied Sciences



## Antioxidant Activity and Anti-Nutritional Factors in Acacia Nilotica Gum

#### Kazi Layla Khalediand Rukshana Iranii

Amarciate Professor, Department of Home Science, Linhershy of Calcute, Kolkete-700027, West Bengd, India

<sup>12</sup> Consupanding Author, Austrian Professor, Department of food & Nutrition, Radign College Affiliated under University of Colcutes, Radigh, West Bengd, India & PriO Scholar, Department of Home Science, University of Colcutes

Fabricact: The rapidly growing civilization and economy need the judeious usage of floral and faunal heritage. Acada allotea (Family: Fabricace) is a beneficial plant species and each part of it exhibits numerous biological and pharmacological effects. The gum exudates of Acade allotea trees are underutilized plant products that can be explored for their potential as a therapeutic and currative agent. Its mutrificial composition, interaction with anti-nutrional factors and antioxidants can determine its utility as a food. The present investigation was almed to estimate the anti-nutritional factors and antioxidant scrivity of Acade allotic gum. It also focused on establishing a relationship of the obtained data with the estimomedicinal and pharmacological properties claimed in the literature. The analysis was carried out using standard methods and protocols involving spectrophotometric and gravimetric principles. The anti-nutritional components like teannit, tryptin inhibitor, physicae, oxalate, total saponin, staleaided content of Acade nileitos gum was found to be 0.2369±0.0354 g tannic acid equivalent/g 0.0705±0.01 gm dosgenin equivalent allocid content of Acade nileitos gum was found to be 0.2369±0.0354 g tannic acid equivalent/g 0.0705±0.01 gm dosgenin equivalent go.1.333±0.0777 g/10.0 g respectively. The amounts of total phenois and flavoncids was determined to be 8.00338±2.7211 gm of gallic acid equivalent/g sample. 0.458±0.0186 gm querceted nequivalent/g sample, outside the properties. The presence of phenoi, flavonoids and DPPH activity in the gum indicates the results indicate that the quantity of anti-nutritional factors in gum is within the range of the concerns of anti-nutritional factors found in commonly consumed foods. The substantial presence of phenoi, flavonoids and DPPH activity in the gum indicates the presence of high and individuals properties. The presence of anti-nutritional factors and antioxidants in favourable levels can impart diverse physiological responses. The presence of anti-nut

Keywords: Antinutrients, Antioxidants, Gum, Acada nilatica, nutrients.

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Received On 12 August, 2021 Revised On 2 November, 2021

Revised On 2 November, 2021 Accepted On 8 November, 2021

Published On 26 November, 2021

Funding This research did not receive any specific grant from any funding agencies in the public, commercial or not for profit sectors.

Ciration
Kari Layla Khaled and Rukshana Irani , Antioxolant Activity and Anti-Nutritional Factors in Acada Nelotica Gum (2021) Int. J. Life Sci. Pharma Res. 11(6), L42-51 http://dx.doi.org/10.22378/ljpbs/jpr.2021.11.6.L42-51

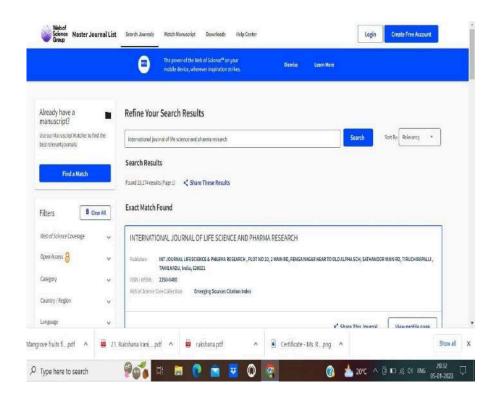
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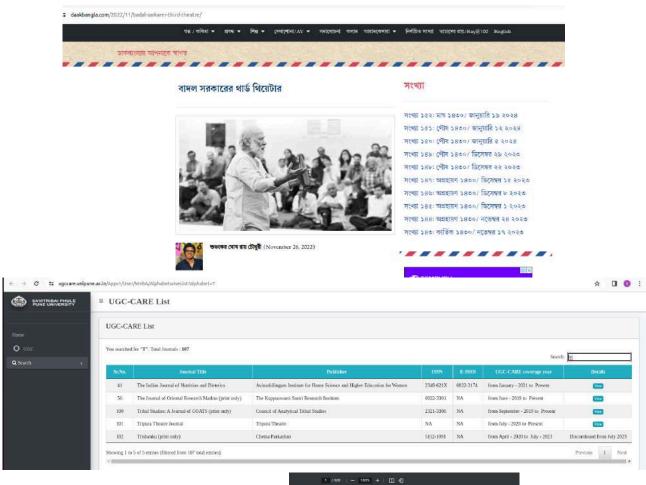
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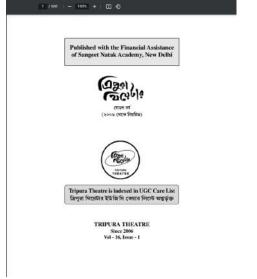
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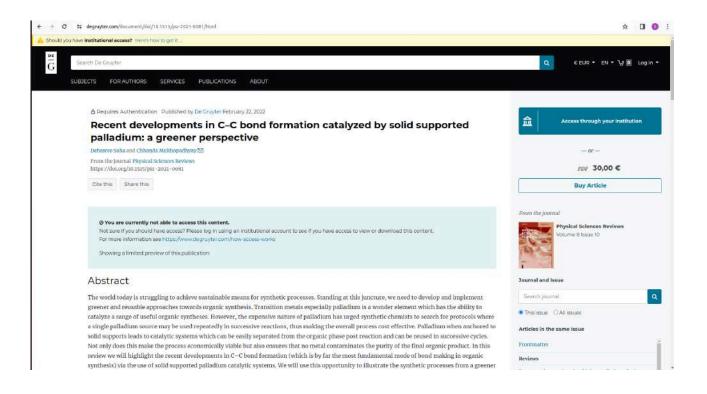
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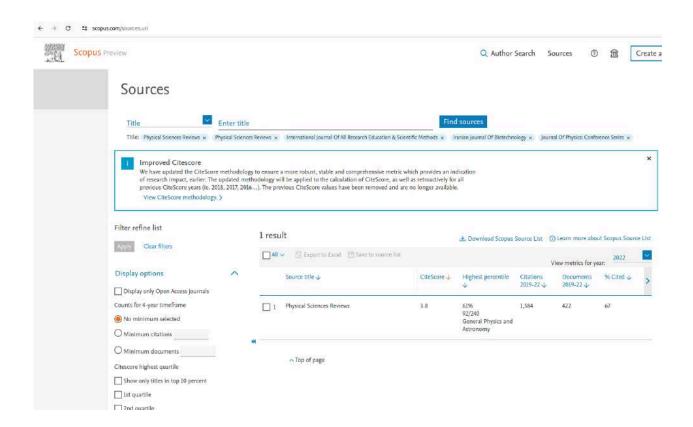


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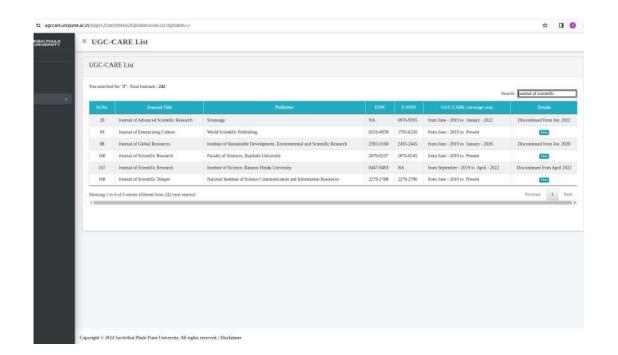


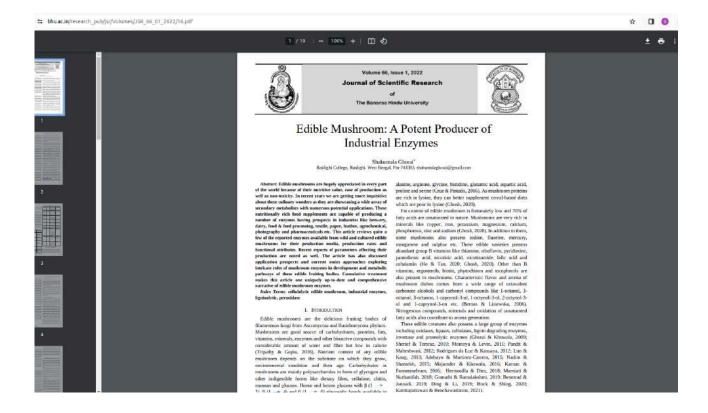


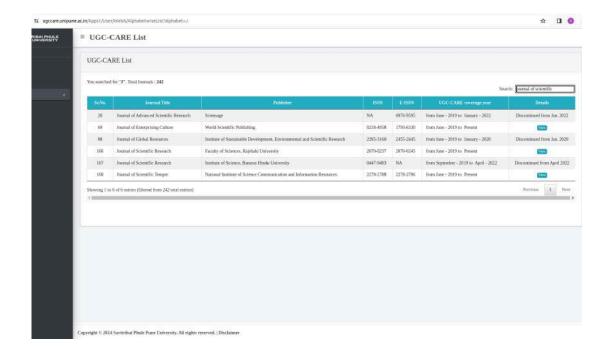


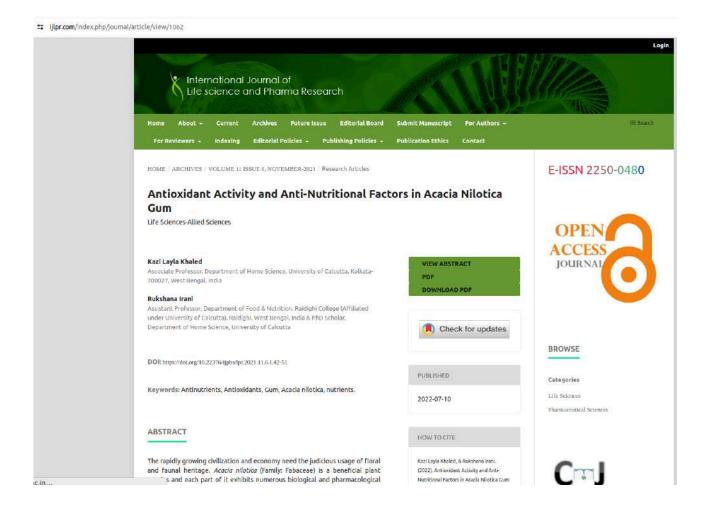


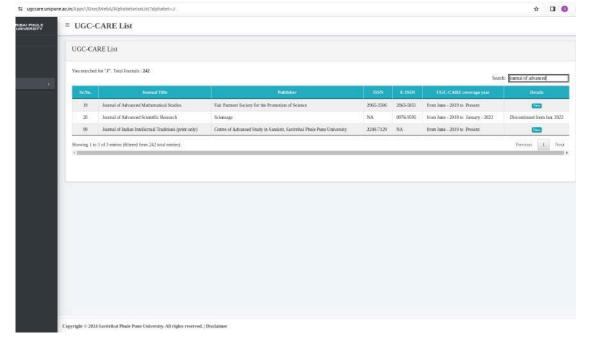


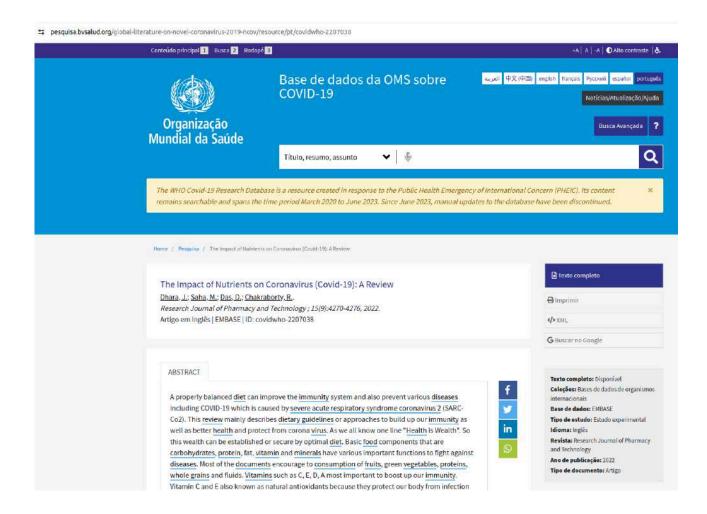












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Betelvine (Piper betle L.): A comprehensive insight into its ethnopharmacology, phytochemistry, and pharmacological, biomedical and therapeutic attributes

Protha Biswas, Ultpal Anand, Suchismita Chatterjee Saha, Nishi Kant, Tulika Mishra, Harison Masih, Ananya Bar, Devendra Kumar Pandey, Niraj Kumar Jha, Madhumita Majumder ... See all authors 🎐

First published: 02 May 2022 | https://doi.org/10.1111/jcmm.17323 | Citations: 18

#### Funding information

This research was funded by projects APOGEO (Cooperation Program INTERREG-MAC 2014–2020, with European Funds for Regional Development-FEDER, 'Agencia Canaria de investigación, Innovación y Sociedad de la información (ACIISI) del Gobierno de Canarias' (project ProlD2020010134), and CajaCanarias (project 2019SP43).

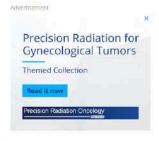
Protha Biswas and Uttpal Anand contributed equally to this study and are the first authors.

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## Abstract

Piper betle L. (synonym: Piper betel Blanco), or betel vine, an economically and medicinally important cash crop, belongs to the family Piperaceae, often known as the green gold. The plant can be found all over the world and is cultivated primarily in South East Asian countries for its beautiful glossy heart-shaped leaves, which are chewed or consumed as betelguidand widely used in Chinese and Indian folk medicine, as carminative. stimulant astringent, against parasitic worms, conjunctivitis, rheumatism, wound, etc.,

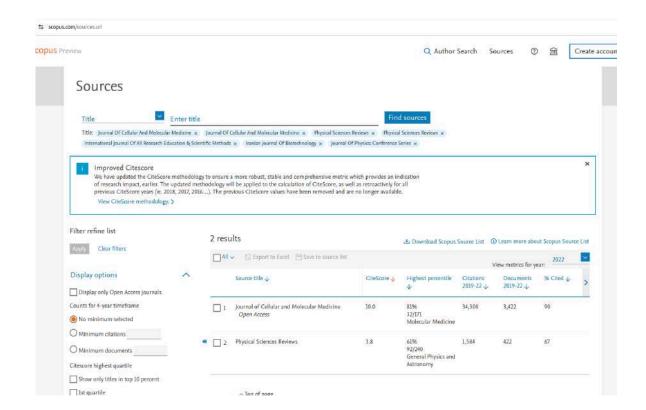


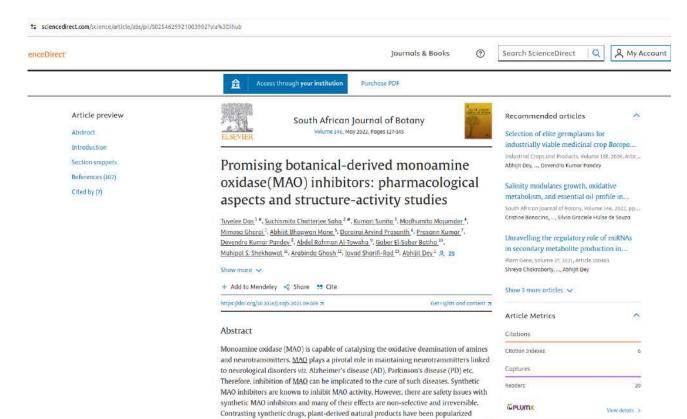


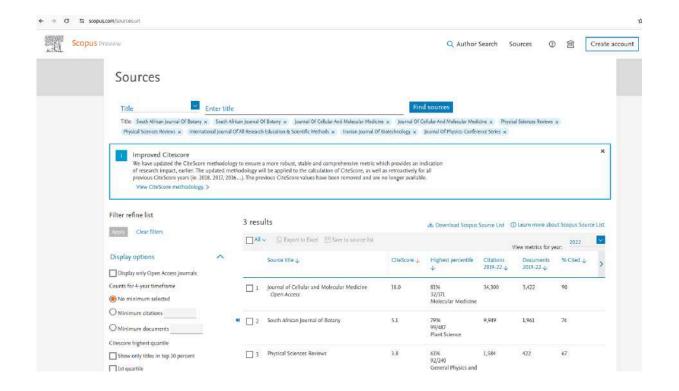


## Therapeutic potential of Rhizoma Alismatis: a review on ethnomedicinal application, phytochemistry, pharmacology, and toxicology

Le-Le Zhang, Wen Xu, Yu-Lian Xu,

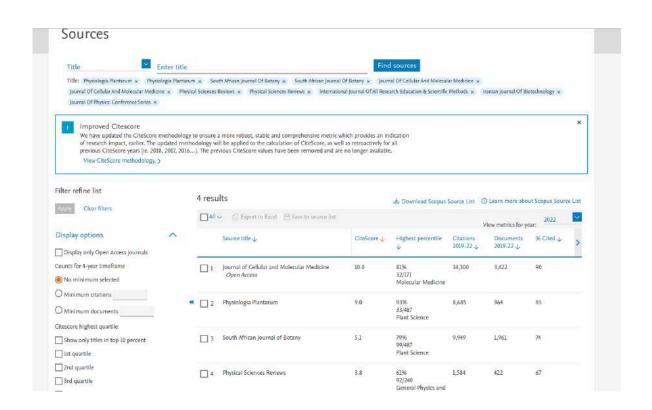


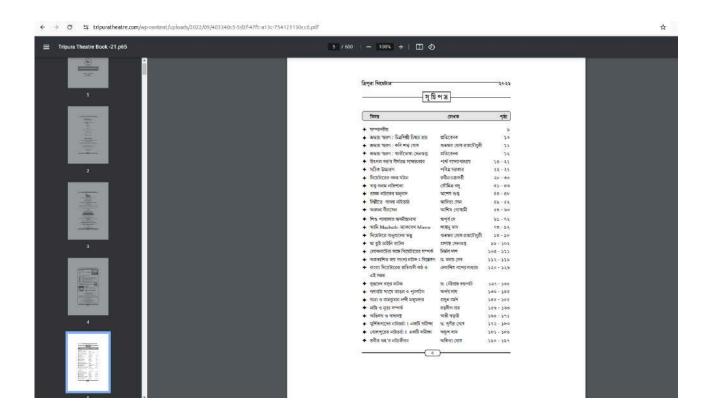




globally owing to their extensive acceptability and applicability, therapeutic potency and











## Human-Tiger Conflicts: Geo-ecological Challenges of the Sundarbans

Sisir Chatterjee\*

Abstract: Since the early days of British East India Company, 1781, immigrating human population and consequential habitat destruction had contributed to the threatening of the ecosystem of wildlife, most particularly tiger in Sundarbans, the only mangrove forest of the world with tiger habitation. Human-tiger conflicts and associated casualties has existed here from the early years of human settlement when the mangroves brimming with wild animals were cut down for the expansion of agricultural opportunities and expansion of human habitation (Mallick, 2018). Today overcrowded human density on the forest fringes results in extremely high biotic pressures such as illicit deforestation, fishing and crab collection. Sundarbans is one of the vulnerable physiographic, climatological, ecological and cultural region of the world where a part of islands and their ecological and cultural resources disappear every year due to tidal nature of associated rivers, climatic hazards like tropical cyclones and related floods, decimated forest through bridled extractive practices (Sen, 2019). Village people living in the enclosure of Sundarbans Tiger Reserve are now aware of such issues but they have no other alternative in their unskilled, uneducated economic life except the collection and utilization of forest resources. There are various academic as well as administrative study and research to trace the nature of human-tiger conflicts and its causes in Sundarbans but the traditional knowledge base understanding of the experienced local people is an integral part of this study because their perceptional realization and associated practices are the real guidelines for a sustainable solution in Sundarbans geo-ecological challenges. This paper will analyze the nature and pattern of human-tiger conflicts as both the species suffer terribly due to the alarming susceptibility in present Sundarbans.

Key Words: Mangrove ecosystem, man-tiger conflicts, cyclones, geo-ecological changes, environmental sustainability

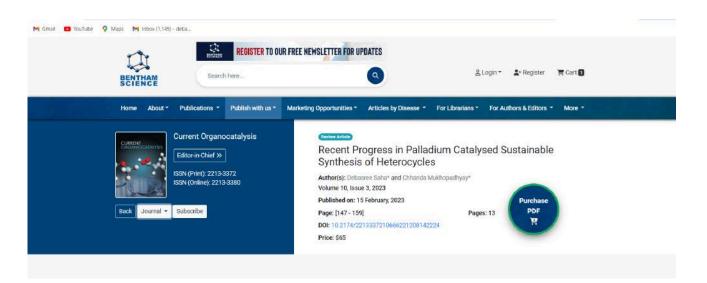
## Introduction

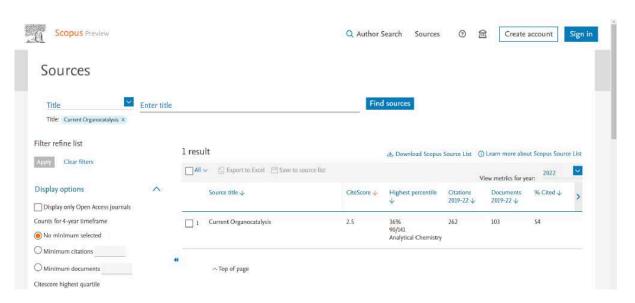
The Sundarbans, considered as to be a world heritage site (UNESCO-1987) accounts for the largest mangrove ecosystem in India (https://whc.unesco.org>list). Morph dynamics of fragile mangrove ecosystem is very unique in the perspective of human society and marine as well as coastal environment. It is also unique that Sundarbans ecosystem is the habitat of famous as well as endangered Royal Bengal Tiger (Panthera tigris tigris) which stands at the apex of the terrestrial

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Rising trend of man-tiger conflict at mannature interface of Indian Sundarbans: study towards traditional understanding and challenging livelihood of Sundarbans people



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## **Abstract**

Sundarbans region has its own unique physiographical, ecological, economical and sociocultural individuality. As a home of nearly nine million people the entire Sundarbans area has emerged as one of the poorest and malnourished region of the South-east Asia. Man $tiger\ conflict\ or\ tiger\ attacks\ in\ riverside\ settlements\ around\ the\ Sundarbans\ Reserve$ Forest in West Bengal, India are a continuous matter of concern. The principal objective of this research is to identify the reasons behind the increasing human-tiger conflict in

Indian Supergrams. Landsat - 8 satellite image (path = 138, row = 45, 30 m spatial resolution inger.com/journal/42797/aims-and-scope

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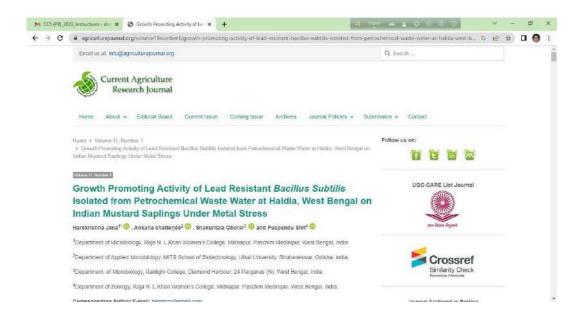
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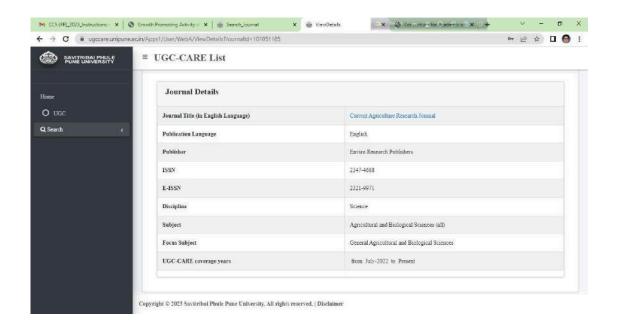
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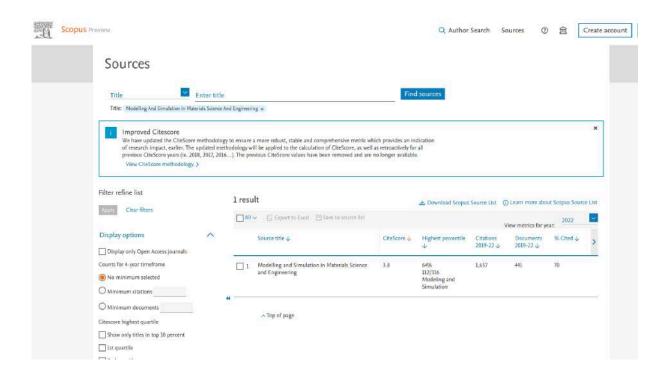






Molecular dynamics simulations are used to investigate the thermal stability of Al-Ni core-shell nanoparticles (NP) with different core sizes and shell thicknesses. Our study reveals that a distinct two-stage melting occurs during the continuous heating of bimetallic NPs. Unlike previous studies for single NP, where melting start from the outer surface and gradually encompass the core of the material, our result clearly indicates the interface dominated melting phenomena. It is evidenced in our analysis through microstructure, coordination number, and Lindemann index, that this interface dominated phenomena does not alter with decreased shell thickness. We estimate that the interfacial misfit, and bond energy orders (Ni-Al, Al-Al, and Al-Al) are the sources of such premelting phenomena to be nucleated at the interface. This study provides a  $fun{\color{red}damental perspective on the} \, \underline{melting} \, \underline{behavior} \, of \, \underline{bimetallic} \, \underline{nanoparticles} \, \underline{and} \, \underline{can} \, \underline{be} \, \underline{behavior} \, \underline{beha$ extended towards multimetallic NPs at the atomic level.





Applied Microbiology and Biotechnology (202 https://doi.org/10.1007/s00253-023-12511-6 ogy (2023) 107:4119-4132

#### MINI-REVIEW



## Approaches for in vitro propagation and production of plumbagin in Plumbago spp.

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Received: 10 December 2022 / Revised: 29 March 2023 / Accepted: 31 March 2023 / Published online: 18 May 2023 © The Author(s), under exclusive licence to Springer Verlag GmbH Germany, part of Springer Nature 2023

The genus Plumbago (family Plumbaginaceae), commonly known as leadwort, is a sub-tropical shrub that produces second-The genus Plumbago (family Plumbaginaceae), commonly known as leadwort, is a sub-tropical shrub that produces secondary metabolite plumbagin, which is employed by pharmaceurical companies and in clinical research. Plumbagin is a potent pharmaceutical because of its anti-microbial, anti-malarial, antifungal, anti-inflammatory, anti-carcinogenic, anti-fertility, anti-plasmodium, antioxidant, anti-diabetic, and other effects. This review documents the biotechnological innovations used to produce plumbagin. The use of modern biotechnological techniques can lead to a variety of benefits, including better yield, increased extraction efficiency, mass production of plantlets, genetic stability, increased biomass, and more. Largescale in vitro propagation is necessary to minimize over-exploitation of the natural population and allow the of various biotechnological techniques to improve the plant species and secondary metabolite production. During in vitro culture, optimum conditions are requisities for explant inoculation and plant regeneration. In this review, we provide information on various aspects of plumbagin, depicting its structure, biosynthesis, and biotechnological aspects (both conventional and advanced) along with the future prospects.

- Critical assessment on in vitro biotechnology in Plumbago species

  In vitro propagation of Plumbago and elicitation of plumbagin

  Biosynthesis and sustainable production of plumbagin
- Keywords Plumbagin · Plumbago · Micropropagation · Elicitation · In vitro propagation

