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3.3.1 Number of research papers published per teacher in the Journals notified on UGC CARE list during the last five years

As per DVV query for criterion 3.3.1, the clarification is as follows:-

HEI Input:

| Calendar Year | 2022 | 2021 | 2020 | 2019 | 2018 |
|---------------------|------|------|------|------|------|
| No. of publications | 10 | 3 | 1 | 1 | 0 |

HEI Response to DVV after revision:

| Calendar Year | 2022 | 2021 | 2020 | 2019 | 2018 |
|---------------------|------|------|------|------|------|
| No. of publications | 8 | 2 | 2 | 1 | 0 |

Note: List of Research Papers with web-links to the Journal websites, Research Papers and UGC Care List along with relevant screenshots of the papers are enclosed.

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3.3.1 Number of research papers published per teacher in the Journals notified on UGC CARE list during the last five years

| Title of paper | Name of the author/s | Department of the teacher | Name of journal | Calendar Year of publication | ISSN number | Link to the recognition in UGC enlistment of the Journal/Digital Object Identifier (doi) | | |
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| Tribal Livelihood, Poverty and Climate Change: Study with Special Reference of Bankura, West Bengal | Dr. Kishor Naskar | Economics | The Indian Economic Journal | 2022 | 0019-4662 | https://indianeconomicassociation1917.com/journals.php | https://wbbudgebudgecollege.org/uploads/dvv/484173.3-1-Journal%20Articles%20sign.pdf | https://ugccare.unipune.ac.in/Apps1/User/WebA/ViewDetails?JournalId=101003031&flag=Search |

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Additions of Four Lesser-Known Species to the Flora of Arunachal Pradesh, India

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Abstract

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Keywords

New additions, Tawang District, Arunachal Pradesh, India

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Epitypification of *Stachyurus himalaicus* (Stachyuraceae)

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Abstract

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First record of the Himalayan endemic species *Ainsliaea fulvipes* (Asteraceae) from India

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STUDY OF η -EINSTEIN SOLITON ON $(LCS)_n$ -MANIFOLD

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Abstract: The object of the present paper is to study η -Einstein soliton on $(LCS)_n$ -manifold. We have also studied $(LCS)_n$ -manifold admitting η -Einstein soliton where the Ricci tensors are cyclic parallel.

2010 Mathematics Subject Classification (AMS) : 53B30, 53C15, 53C25, 53C21.

Keywords: η -Einstein soliton, η -Einstein manifold, $(LCS)_n$ -manifold.

1. Introduction

The notion of Lorentzian concircular structure manifolds (briefly, $(LCS)_n$ -manifolds) was first introduced in 2003 by Shaikh [18] with an example that generalizes the notion of LP-Sasakian manifolds which was introduced by Matsumoto [11] and also by Mihai and Rosca [12]. In 2005 and 2006, the application of $(LCS)_n$ -manifolds to the general theory of relativity and cosmology was investigated by Shaikh and Baishya [21], [22]. Later many other authors like Atceken ([1], [2]), Hui ([8], [9], [10]), Narain [13], Yadav ([23], [24]), Roy, Dey, Bhattacharyya [17], Shaikh ([19], [20]) also studied the $(LCS)_n$ -manifold.

In 2016, Catino and Mazzieri [4] introduced the notion of Einstein soliton which can be viewed as a self-similar solution to the Einstein flow

$$\frac{\partial g}{\partial t} = -2\left(S - \frac{r}{2}g\right)$$

where g is the Riemannian metric, S is the Ricci tensor and r is the scalar curvature. The Einstein soliton plays an important role in solving many physical and geometrical problems. The Einstein soliton is analogue to the Ricci soliton which is also generated by a self-similar solution to the very famous geometric revolution equation Ricci flow which was used by Perelman([15], [16]) to prove Poincare conjecture. A slight deviation of the Einstein soliton, called the η -Einstein soliton is defined by the following mathematical expression,



$$\mathcal{L}_\xi g + 2S + (2\lambda - r)g + 2\mu\eta \otimes \eta = 0 \quad (1)$$

where \mathcal{L}_ξ denotes the Lie derivative along the direction of the vector field ξ , S is the Ricci tensor, r is the scalar curvature and λ, μ are real constants. The η -Einstein soliton is called

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Abstract

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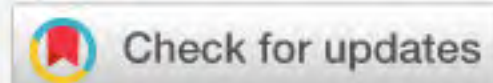
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Treatability study of Carcinogenic Waste and its Assessment of Environmental Risk

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Dimensions



Abstract

Carcinogenic as well as chemotherapeutic waste is potential hazard to the environment because it is a type of toxic waste according by EPA (Environmental Protection Agency). The procedure of disposal of carcinogenic waste inside hospital, chemical industry and pharmaceutical industry is important concern for our society. The contribution from the Indian Judiciary in its own way to bring effective legal control of these hazardous substances and waste. Moreover, the problems related to judicial issues in tackling the technical issues and the executive inaction make it inevitable to have a separate system of administration of environmental justice and

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Tribal Livelihood, Poverty and Climate Change: Study with special references of Bankura, West Bengal

**Sourav Kumar Das
Kishor Naskar**

ABSTRACT

Tribes have a government-stipulated right for attachment to specific places and resources, challenging tribes' mobility and flexibility to go elsewhere in response to future changes. Change in Climate and vulnerability of environment makes tribal jeopardy for their intimate connection with the natural for their culture, health, and livelihoods especially in Poverty. The climatic deterioration raises the question of the tribal sustainability. In this context, the paper attempts to measure tribal livelihood index based on their perception of climate change and deforestation index that have impacted on tribal livelihood index, from which poverty scenario has been evaluated. We have documented the linkages between tribal livelihoods and climate changes with their sustainable development in the Bankura district of West Bengal based on a primary field survey of the tribal community of Ranibandh block of Bankura district of West Bengal in 2015 and 2020. Deforestation and climate change have a significant impact on changing tribal livelihood and poverty scenario. The climate change and deforestation tribal livelihood have been forced to shifting their occupation to labour wage especially as migrated labour and/or labour on government programs.

Keywords: Tribal Livelihoods, Climate Change, Environmental Vulnerability, Poverty Scenario, Sustainable Development

1. INTRODUCTION

For last few decades the world is experiencing a dramatic environmental and socio-economic changes due to environmental degradation and climate changes. Climate change is one of the major threats to sustainable development because of its effects on health, infrastructure, agriculture, food security, and forest ecosystems (IPCC 2007a). India's economy is largely dependent on climate sensitive sectors such as agriculture, water resources and coastal zones, biodiversity and forestry (INCCA, 2010). In India 700 million rural populations directly depend on climate-sensitive sectors like agriculture, forest, and fisheries. Forest ecosystems provide a wide range of economic and social benefits, such as employment, forest products, and protection of cultural values (FAO 2006). Forest-dependent people comprise a significant proportion of the communities most vulnerable to the impacts of climate change on forests.

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Quantitative assessment of vegetation layers in tropical evergreen forests of Arunachal Pradesh, Eastern Himalaya, India

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The present study deals with first-hand information on quantitative assessments of different vegetation layers (viz. trees, saplings, seedlings, shrubs and herbs) collected from 57 permanent plots (size 400 m²), established for long-term monitoring of biodiversity and study of functional aspects in Namdapha National Park (NPP), Arunachal Pradesh, Eastern Himalaya, India during 2017. We grouped all the plots into six clusters as study sites. A total of 60 taxa of trees, 67 shrubs and 81 herbs were recorded within 57 plots during the study. The average species richness per site for trees was 20.83 ± 1.62 , saplings 16.0 ± 1.15 , seedlings 15.83 ± 1.35 , shrubs 23.83 ± 1.58 and herbs 32.67 ± 0.92 . Total stem density varied from 117.5 to 181 ha⁻¹ (152.58 ± 10.04 ha⁻¹) for trees (circumference ≥ 31.5 cm), 881 to 3000 ha⁻¹ (1652.17 ± 317.61 ha⁻¹) for shrubs and from 76750 to 98545 ha⁻¹ (92032.17 ± 3246.60 ha⁻¹) for herbs. Tree regeneration status at all the six study sites was 'good' (i.e. density of seedlings > saplings > trees). The distribution of tree stems (circumference ≥ 31.5 cm) into different size classes showed highest relative density in the lowest stem size class (10–20 cm diameter) which also indicates good tree regeneration in the study area. *Dipterocarpus retusus* Blume was the most dominant tree species in the core zone area of NNP with 'good' regeneration status.

Keywords: Biodiversity, *Dipterocarpus retusus*, regeneration status, tropical evergreen forests, vegetation layers.

Introduction

QUANTIFIABLE analysis of community composition is a prerequisite for the precise evaluation of biodiversity, and it plays a central role in conservation biology^{1–4}. Quantification of the contemporary composition of Himalayan forests is crucial in order to assess the role of climate

change on future species coexistence and to provide baseline data for the long-term monitoring processes and species shift in the Himalayan ranges^{5,6}. There is a dearth of studies reporting floristic composition and community structure in tropical evergreen forests of Eastern Himalaya, India. Therefore, a detailed ecological study in these forests is necessary to generate baseline data to assess the different ecological consequences of ongoing and future climate change⁶.

A comprehensive floristic account of the Namdapha National Park (NPP), Arunachal Pradesh was made by Chauhan *et al.*⁷. This was later supplemented by some notable discoveries, i.e. *Sapria himalayana*, *Begonia tessaricarpa*, *Ceropegia lucida* and *Bretschneidera sinensis*^{8–11}. Nath *et al.*¹² analysed the vegetation and tree population structure in a few selected sites of NNP, while Deb and Sundriya^{13,14} observed the tree species gap phase performance, tree regeneration and seedling survival pattern, especially in the buffer zone of the Park. Barbhuiya *et al.*¹⁵ studied the leaf litter decomposition of dominant tree species in NPP. Sarmah *et al.*^{16,17} documented the ethno-botanical knowledge and natural resource utilization pattern of the tribal living in and around NNP. Besides, plant community structure and tree regeneration from different districts of Arunachal Pradesh were studied by several researchers^{18–25}. The aim of this study was to evaluate the species composition, richness, density, basal area and dominance of trees, saplings, seedlings, shrubs and herbs in the western part of NNP.

Materials and methods

Study area

The experimental site is situated in the western part of Arunachal Pradesh near the international border of India and Myanmar. The Park occupies an area of 1985 km² and lies between 27°23'–27°39'N lat. and 96°15'–96°58'E long. with altitude ranging from 200 to

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A survey of nutritional and health status of elderly farmers in north 24 parganas, (WB)

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Abstract

This cross-sectional study was conducted on 396 elderly (192 males and 204 females) farmers, of North 24 Parganas (W.B.), age varying from 60 years to 80 years to find out the morbidity and nutritional status. Each respondent in the study was interviewed and clinically examined individually. The information was collected on a pretested Pro-forma. Based on the present findings it may be concluded that aged farmers are mostly affected by low back pain, osteoarthritis, and upper back pain. While comparing the elderly males aged between 60–70 years and above 70 years, there is a significant deficiency of most of the micronutrients except protein. The same is also true with the elderly women of 60–70 years and above 70 years. With the advancement in the age in both males and females above 70 years of age, calcium deficiency is evident. Moreover, they also have micronutrient deficiency-related disorders especially Vitamin A deficiency which was significant among men and women.

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FULL LENGTH ARTICLE

Antibacterial activity of some unifloral honeys from Eastern India

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Antibacterial activity of five natural unifloral honey samples from two districts of Eastern India was investigated by *in vitro* agar cup assay. After a part of each sample was acetolysed for pollen identification unifloral *Coriandrum sativum*, *Terminalia arjuna*, *Schleichera oleosa*, *Eucalyptus globulus* and *Aegle marmelos* honeys were assayed for their antibacterial activity against the Gram +ve isolate *Staphylococcus aureus* (ATCC 25923) and Gram -ve *Escherichia coli* (ATCC 8739) and compared with that of the antibiotic ciprofloxacin. At 50% (v/v) dilution *Eucalyptus globulus* and *Aegle marmelos* honeys produced inhibition zones broader than that produced by ciprofloxacin at 5 µg ml⁻¹ concentration against the *S. aureus* isolate with the diameter of inhibition zone measuring 41±0 mm and 34±1 mm respectively. *Coriandrum sativum* and *Terminalia arjuna* honeys produced broader inhibition zones measuring 41.3±1.5 and 37±1.5 mm respectively against the *E. coli* and 37.3±2.5 and 34±0.5 mm respectively against the *S. aureus* isolate. The findings recommend that the bee-keepers of this economically backward study area have the opportunity to share the profitable market of traditional honey based medicines to benefit the apiary industry and the rural health care improving the socio-economy of the local inhabitants.

Key words: Traditional antibacterial, honey, pollen acetolysis, agar cup assay, *Staphylococcus*

INTRODUCTION

Honey has been in use as a specific antimicrobial since prehistoric ages. Although an ancient topical treatment for wounds, honeys from all the continents of the world have been re-accepted into conventional medicine as a licensed medical device because honey's high osmolarity, low pH, hydrogen peroxide (H₂O₂), methylglyoxal and other phytochemical components derived from various floral sources confer it

antibacterial activity and honey is promoted currently as a natural healing product against various wounds and burns (White *et al.*, 1963; Molan, *et al.*, 1988b; Molan, 1992; Willix *et al.*, 1999; Allen *et al.*, 2000; Taormina *et al.*, 2001; Cooper, 2002; Bang *et al.*, 2003; Mundo *et al.*, 2004; Henriques *et al.*, 2005; Cabrera *et al.*, 2006; Maeda *et al.*, 2008; Blair *et al.*, 2009; Irish *et al.*, 2011; Mandal and Mandal, 2011; Alnaimat *et al.*, 2012). Allen *et al.* (1991) and Upadhyay *et al.* (2014) showed that the flowers serving as the source of the nectar and pollen component of honeys may determine the nature of antibacterial activity of the honey. Drug resistance presents an ever-increasing

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