

## CONSERVATION OF PLANTS AROUND GURUDAS COLLEGE BASED ON RELIGIOUS PRACTICES

<sup>1</sup>Sayantika Chakraborty,<sup>1</sup> Bristhi Dey,<sup>1</sup>Chinmoy Shyam, and <sup>2\*</sup>Mitu De

<sup>1</sup> Undergraduate Student, Department of Botany, Gurudas College, Kol-54

<sup>2</sup>Associate Professor, Department of Botany, Gurudas College, Kolkata 54.

\*Corresponding author: Email: mitu.botany@gurudas.education

### Abstract

In the days of rapid urbanization, it has been seen that sacred sites or culturally protected sites are emerging as a form of conservation. These sacred sites provide the inextricable link between present society to the past in terms of biodiversity, culture, religious and ethnic heritage. This study is part of a student research project to document the sacred sites around Gurudas College that are protected based on the religious belief of the local community.

**Keywords :** biodiversity, conservation, ethnic heritage, local survey

### Introduction:

Religious beliefs and rituals are very much inter-linked and intimately related to management of the ecosystems<sup>1</sup>. It has been seen that approaches to conserving biodiversity that are based on cultural and religious values are often much more sustainable than those based only on legislation or regulation<sup>2</sup>. In the days of rapid urbanization it has been seen that sacred sites or culturally protected sites are emerging as a form of conservation<sup>3</sup>.

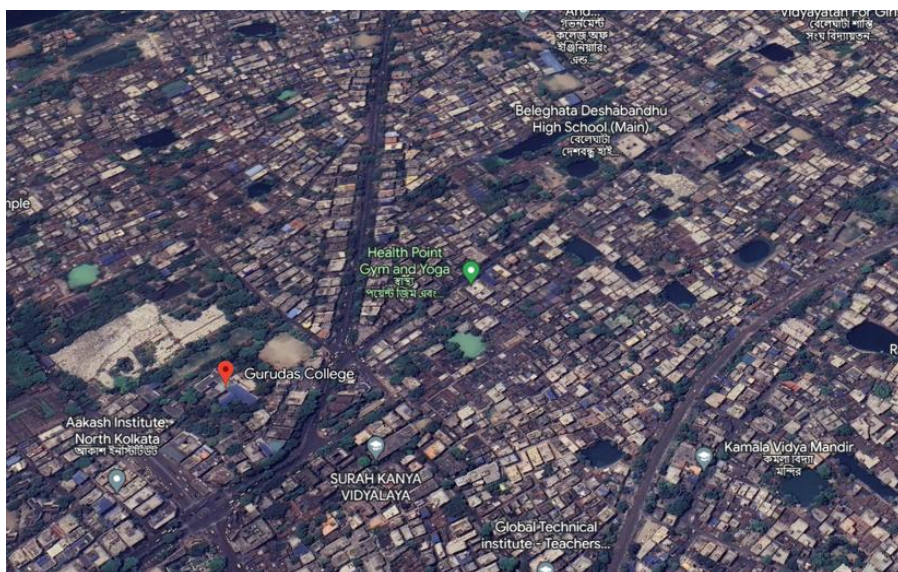
The inclusion of the cultural and spiritual significance of nature in the governance and management of protected and conserved areas was given a broader platform through the mandate of the IUCN WCPA Specialist Group on Cultural and Spiritual Values of Protected Areas (CSVPA) which was founded in 1998.

Sacred groves include natural areas recognized as sacred by indigenous and traditional peoples as well as natural areas recognized by institutionalized religions or faiths as places for worship and remembrance<sup>4</sup>. Sacred Groves (SGs) provide the inextricable link between present society to the past in terms of biodiversity, culture, religious and ethnic heritage<sup>5</sup>. This study is part of a student research project to document the sacred sites around Gurudas College that are protected based on the religious belief of the local community. This group of students, during semester IV had made surveys in rural and urban areas that resulted in a publication<sup>6</sup>.

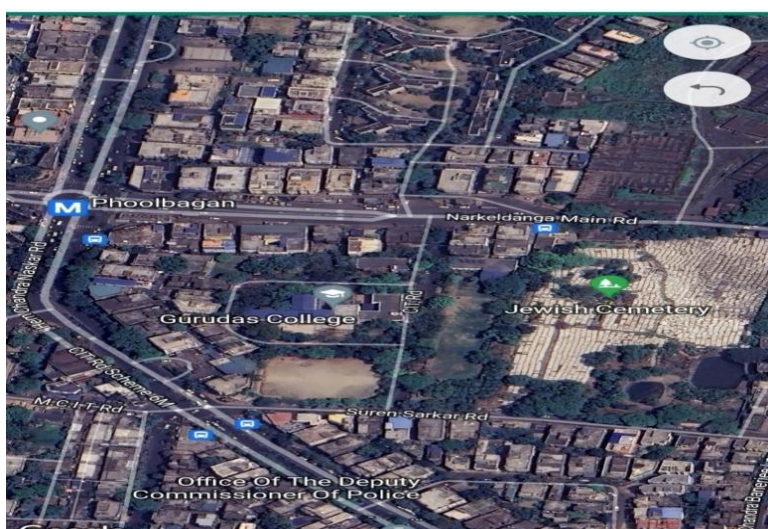
### Materials and Methods

## Study design

**Study site:** Gurudas College, Kolkata- 700054, West Bengal, India. The college is located centrally and is flanked by Belegghata, Kadapara, Kankurgachi, Rajabazar areas. Gurudas College is located in an urban. At present Gurudas College has a campus of total area of 2.33 acres (142 kathas). The coordinates of the college are 22.5712° N, 88.3905° E. Gurudas College had three buildings constructed on three plots intersected by public roads. They are named as Main building, Commerce Building and the Library/Golden Jubilee Building. The location map of the college using Google Earth image is presented as Fig.1. A Google Earth close up view of Gurudas College is presented as Fig. 2.



**Fig. 1** Google Earth view of Gurudas College, Kol-54 and adjoining areas.



**Fig. 2** Google Earth close up view of Gurudas College

**Objective:** The purpose of this student project was to survey the surroundings of Gurudas College campus and document any plants that are conserved as sacred plants.

## Methodology

The students working on this project took geo-tagged photographs of the plants around the college campus that were conserved as sacred plants. The plant that was conserved was identified. Identification of the plant and confirmation of the scientific name was done by the teacher guide. The local name of the plant, the deity worshipped there, the frequency of worship, name of the locality were noted down by the students.

## Results and Discussion

From the survey it was found that six different plants were conserved based on religious beliefs. The scientific names, family, local names of the plants and type of area where conserved are presented in a tabular form as Table I.

**Table I.** Details of the plants conserved

Sl. No.	Plant name	Family	Local name (Bengali)	Locality	Frequency of worship
1	<i>Ocimum tenuiflorum</i> L.	Lamiaceae	Tulsi	PhoolBagan	Daily
2	<i>Ficus benghalensis</i> L. and <i>Ficus religiosa</i> L.	Moraceae	Both (Banyan) and Ashaswata (Peepal)	Beleghata,	Daily
3	<i>Ficus benghalensis</i> L.	Moraceae	Both (Banyan)	PhoolBagan	Daily & During Special Occasions
4	<i>Musa paradisiaca</i>	Musaceae	Kala (Banana)	PhoolBagan	Daily

The pictures of these six plants are given as Fig.3-6. Some deities were part of the daily worship ritual among the local people. Different Hindu deities were worshipped at different times of the year.



**Fig. 3 Beleghata area**

Common name- Banyan & Sacred Fig

Scientific name- *Ficus benghalensis* & *Ficus religiosa* , Family: Moraceae

Goddess- Ma Kali, Locality- Beleghata.

At this sacred site the worship was done here on a regular basis.



**Fig. 4 Phoolbagan area**

Common name- Holy basil/ Tulsi

Scientific name- *Ocimum tenuiflorum*, Family: Lamiaceae

Goddess- Ma Tulsi. Locality- Phoolbagan, Beleghata

At this sacred site the worship was done here on a regular basis.





**Fig. 5 Phoolbagan area**

Common name- Banana tree

Scientific name- *Musa paradisiaca*, Family- Musaceae

Diety- Lord Vishnu, Locality-Phoolbagan, Belehata.

The worship done here is on a regular basis, special worship done here on Thursday which is known as "Kadali puja". Many people also believe if they worship this tree every Thursday then Lord Vishnu will protect, preserve and sustains life on our planet.



**Fig. 6 Phoolbagan area**

Common name- Banyan

Scientific name- *Ficus benghalensis*, Family- Moraceae

Diety: Parts of the tree were dedicated to different deities. Locality- Phoolbagan, Belehata

Different parts of the plant are considered to represent different Hindu dieties viz. the bark of the tree considered to be Lord Vishnu;. The roots of the tree considered to be Lord Brahma.

The branches of the tree considered to Lord Shiva. The leaf of the tree considered to be Lord Krishna's resting place. Many people also practised a ritual of tying thread in this plant for fulfilling their innermost desires.

### **Conclusion**

Conservation policies should incorporate intangible cultural heritage or symbolic cultural values into their conceptualization of local cultural valuation, along with better known tangible cultural heritage or utilitarian cultural value. These sacred sites provide a means of safeguarding of cultural diversity which is essential to remind us of our identities. Around Gurudas College the students were able to document four different ares in the vicinity of the college.

### **Conflicts of Interest**

The authors declare that there are no conflicts of interest regarding the publication of this work.

### **Acknowledgement**

The authors, who are part of the student research project would like to thank the Botany Department, Gurudas College for providing the opportunity to explore, analyse and work on the topic of their interest.

### **References**

1. Negi, Chandra Singh. (2005). Religion and biodiversity conservation: not a mere analogy. *International Journal of Biodiversity and Management* 1, 85–96 pp.
2. McNeely JA. Social and cultural factors. In Levin SA(ed), *Encyclopedia of Biodiversity*. London: Academic Press; 2001:285–94..
3. Gopal, Divya & Lippe, Moritz & Kowarik, Ingo. (2019). Sacred sites, biodiversity and urbanization in an Indian megacity. *Urban Ecosystems*. 22. 161–172.
4. Oviedo G, Jeanrenaud S, Otegui M. 2005. *Protecting Sacred Natural Sites of Indigenous and Traditional Peoples: An IUCN Perspective*. Gland, Switzerland.
5. Khan, M. L., Khumbongmayum, ashalata Devi and Tripathi, R. S. (2008). The Sacred Groves and Their Significance in Conserving Biodiversity: An Overview. *International Journal of Ecology and Environmental Sciences* 34 (3): 277-291
6. Dey, Bristhi, Shyam, Chinmoy, Chakraborty, Sayantika and De Mitu. 2022. Documentation of single trees conserved as culturally protected sites: Findings of a students' research project. *International Journal of Advancement in Life Sciences Research*, Online (ISSN: 2581-4877).Volume 5 (2) 20- 29.