

BIODIVERSITY REGISTER 2023



**GALSI MAHAVIDYALAYA,
GALSI,
PURBA BARDHAMAN**



Prepared by:

**College Environment Committee
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CAMPUS BIODIVERSITY REGISTER

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INTRODUCTION

Biodiversity Register (BR) is a document which contains comprehensive information on locally available Bio-resources of a particular area. Bio-resources mean plants, animals and micro-organisms or parts thereof, their genetic material with actual or potential use or value. Its preparation requires survey and sampling, seasonal variation and species availability, Collection of specimen/photograph etc. BRs is not a mere documentation exercise but be used to develop an agenda for conservation action. These serve as Biodiversity impact assessment tool for developmental activities. BR emphasizes on sustainable management of bio resources and ways to accrue benefits to the community.

In a whole sense we need to conserve the biodiversity of the campus on par with the development of the campus. It is home for thousands of organisms which are rare. The present study is an effort to document the maximum number of species found in the campus. Some species may yet to be explored or will migrate in to the campus from time to time which can be added to this register in the coming years. This documentation is based on a survey conducted during the period 2022-23. The survey documented 70 species of plants, 19 species of arthropods (mainly comprising butterflies and dragon flies) and vertebrates including 9 reptiles, 27 birds and 8 mammals. The Biodiversity Register encompasses the Campus flora followed by the fauna. All the organisms are listed in order based on their binomial names. Each plant species is provided with common names, scientific names, family, etc. Animal species are provided with a scientific name, local names- and family to which they belong.

Water bodies are important hotspots for biodiversity. Collectively, they support more species, and more scarce species, than any other freshwater habitat. They provide drinking water during dry weather, a supply of insect and plant-based food, such as zooplankton and phytoplankton for other aquatic organisms, shelter among the emergent and surrounding plants and trees and provide a much-needed refuge for birds, mammals, amphibians, reptiles, and flying insects. The beneficial effects of ponds would be far reaching, improving water quality, reducing water and soil loss from fields, and providing generations to come with places to explore the wonder of nature. Despite this, very little research has been conducted on ponds and their ecological value. Following are the lists of Flora & Fauna that were observed during the survey: -

CAMPUS FLORA

| <u>SL. NO</u> | <u>NAME</u> | <u>SC. NAME</u> | <u>TYPE OF PLANTATION</u> | <u>NO. OF SPECIES</u> |
|---------------|----------------------------|---------------------------|---------------------------|-----------------------|
| <u>1.</u> | Fig | Ficus racemosa | INDEGENOUS | <u>48</u> |
| <u>2.</u> | Guava | Psidium guajava | INDEGENOUS | <u>50</u> |
| <u>3.</u> | Banyan | Ficus benghalensis | INDEGENOUS | <u>03</u> |
| <u>4.</u> | Jackfruit | Artocarpus heterophyllus | INDEGENOUS | <u>12</u> |
| <u>5.</u> | Indian gooseberry (Amloki) | Phyllanthus emblica | INDEGENOUS | <u>01</u> |
| <u>6.</u> | <u>Ashvattha</u> | Ficus religiosa | INDEGENOUS | <u>06</u> |
| <u>7.</u> | Kadam | Neolamarckiacadamba | INDEGENOUS | <u>70</u> |
| <u>8.</u> | Java Plum(Jamun) | Syzygium cumini | INDEGENOUS | <u>08</u> |
| <u>9.</u> | Amra fruit | Spondias mombin | INDEGENOUS | <u>02</u> |
| <u>10.</u> | Banana | Musa | INDEGENOUS | 53 |
| <u>11.</u> | Indian Jujube (Kul) | Ziziphus mauritiana | INDEGENOUS | <u>12</u> |
| <u>12.</u> | Mango | Mangifera indica | INDEGENOUS | <u>19</u> |
| <u>13.</u> | Coconut | Cocos nucifera | INDEGENOUS | <u>56</u> |
| <u>14.</u> | Shirisha | Albizia lebbeck | INDEGENOUS | <u>49</u> |
| <u>15.</u> | Hibiscus (Jaba) | Hibiscus rosa-sinensis | ORNAMENTAL | <u>04</u> |
| <u>16.</u> | Papaya | Carica papaya | INDEGENOUS | <u>09</u> |
| <u>17.</u> | Mustard | Brassica juncea | INDEGENOUS | Many |
| <u>18.</u> | Sal | Shorea robusta | INDEGENOUS | <u>09</u> |
| <u>19.</u> | Date Palm | Phoenix dactylifera | INDEGENOUS | <u>06</u> |
| <u>20.</u> | Wood apple | Limonia acidissima | INDEGENOUS | <u>01</u> |
| <u>21.</u> | Teak (Shegun) | Tectona grandis | INDEGENOUS | <u>65</u> |
| <u>22.</u> | Mahogany | Swietenia macrophylla | INDEGENOUS | <u>06</u> |
| <u>23.</u> | Shisham | Dalbergia sissoo | INDEGENOUS | <u>01</u> |
| <u>24.</u> | Neem tree | Azadirachta indica | INDEGENOUS | <u>109</u> |
| <u>25.</u> | Spanish Cherry (Bakul) | Mimusops elengi | INDEGENOUS | <u>04</u> |
| <u>26.</u> | Moringa (Drumstick tree) | Moringa oleifera | INDEGENOUS | <u>02</u> |
| <u>27.</u> | Acacia nilotica (Babla) | Vachellia nilotica | INDEGENOUS | <u>01</u> |
| <u>28.</u> | Goomar | Gmelina arborea | INDEGENOUS | <u>01</u> |
| <u>29.</u> | Patabahar | Codiaeum variegatum | ORNAMENTAL | <u>Plenty</u> |
| <u>30.</u> | Tagor | Tabernaemontana coronaria | ORNAMENTAL | <u>02</u> |
| <u>31.</u> | Cycus | Cycas circinalis | ORNAMENTAL | <u>04</u> |
| <u>32.</u> | Furcaria | Furcraea foetida | ORNAMENTAL | <u>Plenty</u> |
| <u>33.</u> | Golden Duranta | Duranta erecta | ORNAMENTAL | <u>DO</u> |
| <u>34.</u> | Peruvian lily (Inca) | Alstroemeria aurea | ORNAMENTAL | <u>DO</u> |
| <u>35.</u> | Chandramallika | Chrysanthemum | ORNAMENTAL | <u>Plenty</u> |

| | | | | |
|-------------------|------------------------------|--------------------------------|------------|------------------|
| <u>36.</u> | Transvaal daisy | Gerbera | ORNAMENTAL | <u>DO</u> |
| <u>37.</u> | Common sage | Salvia officinalis | ORNAMENTAL | <u>DO</u> |
| <u>38.</u> | Begonia | Begonia spp. | ORNAMENTAL | <u>DO</u> |
| <u>39.</u> | Common garden pitunia | Atkinsiana Surfinia | ORNAMENTAL | <u>DO</u> |
| <u>40.</u> | Garden Pansy | Viola wittrockiana | ORNAMENTAL | <u>DO</u> |
| <u>41.</u> | Dahlia | Dahlia pinnata | ORNAMENTAL | <u>DO</u> |
| <u>42.</u> | Nayantara | Catharanthus roseus | ORNAMENTAL | <u>DO</u> |
| <u>43.</u> | Night Jasmine (Raganigandha) | Nyctanthes arbortristis | ORNAMENTAL | <u>DO</u> |
| <u>44.</u> | Sunflower | Helianthus doricoides | ORNAMENTAL | <u>DO</u> |
| <u>45.</u> | Sword Lily | Gladiolus dalenii / natalensis | ORNAMENTAL | <u>DO</u> |
| <u>46.</u> | Rose | Rosa rubiginosa | ORNAMENTAL | <u>DO</u> |
| <u>47.</u> | Dianthus | Dianthus chinensis | ORNAMENTAL | <u>DO</u> |
| <u>48.</u> | Cosmos | Cosmos bipinnatus | ORNAMENTAL | <u>DO</u> |
| <u>49.</u> | Gazania | Gazania rigens | ORNAMENTAL | <u>DO</u> |
| <u>50.</u> | Holyhock | Althea rosea | ORNAMENTAL | <u>DO</u> |
| <u>51.</u> | Phlox | Phlox paniculata | ORNAMENTAL | <u>DO</u> |

LIST OF MEDICINAL PLANTS

| Sl No. | Name of the place | Area | Type of plantation | Species name & Scientific Name | Name of the Family | Total no. of species |
|--------|-------------------|--------------------------|--------------------|------------------------------------|--------------------|----------------------|
| 1. | | North of pond | MEDICINAL | Kulekhara (Hygrophila auriculata) | Acanthaceae | 01 |
| 2. | | South of Admin. building | DO | Aloevera (Asphodelaceae) | Liliaceae | 01 |
| 3. | | Do | DO | Tulsi (Ocimum sanctum) | Lamiaceae | 01 |
| 4. | | Do | DO | Nagdonga (Artemisia nilagirica) | Asteraceae | 01 |
| 5. | | North of pond | DO | Brahmi (Bacopa monnieri) | Scrophulariaceae | 01 |
| 6. | | Do | DO | Pudina (Mentha piperita) | Lamiaceae | 01 |
| 7. | | Do | DO | Ashwagandha (Withaniasomnifera) | Solanaceae | 01 |
| 8. | | Do | DO | Kalmegh (Andrographis paniculata) | Acanthaceae | 01 |
| 9. | | Do | DO | Shatomull (Asparagus racemosus) | Asparagaceae | 01 |
| 10. | | Do | DO | Shibjata (Acalypha hispida) | Fabaceae | 01 |
| 11. | | Do | DO | Thankuni(Centella asiatica) | Apiaceae | 01 |
| 12. | | Do | DO | Azwan (Trachyspermumammi) | Apiaceae | 01 |
| 13. | | Do | DO | Pathorkuchi (Bryophyllumcalycinum) | Crassulaceae | 01 |
| 14. | | Do | DO | Neem (Azadirachta indica) | Meliaceae | 01 |
| 15. | | South of Admin. building | DO | Boncharal (Codariocalyx motorius) | Fabaceae | 01 |
| 16. | | North of pond | DO | Jasthimadhu (Glycyrrhiza glabra) | Fabaceae | 01 |
| 17. | | Do | DO | Lajjaboti (Mimosa Pudica) | Mimosaceae | 01 |
| 18. | | Do | DO | Gurmar (Gymnema sylvestre) | Ascclpiadaceae | 01 |
| 19. | | Do | DO | Bhringoraj (Eclipta alba) | Asteraceae | 01 |

CAMPUS FAUNA

Phylum Arthropoda

Butterflies

| SL.NO. | COMMON NAME | SCIENTIFIC NAME | FAMILY |
|--------|----------------------|----------------------------|--------------|
| 1. | Tawny coster | <i>Acraea terpsicore</i> | Nymphalidae |
| 2. | Common emigrant | <i>Catopsilia pomona</i> | Pieridae |
| 3. | Plain tiger | <i>Danaus chrysippus</i> | Nymphalidae |
| 4. | Common egg fly | <i>Hypolimnas bolina</i> | Nymphalidae |
| 5. | Common cerulean | <i>Jamides celeno</i> | Lycaenidae |
| 6. | Chocolate pansy | <i>Junonia iphita</i> | Nymphalidae |
| 7. | Common evening brown | <i>Melanitis leda</i> | Nymphalidae |
| 8. | Common four ring | <i>Ypthima huebneri</i> | Nymphalidae |
| 9. | Blue tiger | <i>Tirumala limniace</i> | Nymphalidae |
| 10. | Blue mormon | <i>Papilio polymnestor</i> | Papilionidae |

Dragon flies

| SL.NO. | COMMON NAME | SCIENTIFIC NAME | FAMILY |
|--------|--------------------------|-----------------------------------|----------------|
| 1. | Indian white dartlet | <i>Agriocnemis pieris</i> | Coenagrionidae |
| 2. | Pygmy dartlet, | <i>Agriocnemis pygmaea</i> | Coenagrionidae |
| 3. | Orange tailed marsh dart | <i>Ceriagrion cerinorubellum</i> | Coenagrionidae |
| 4. | Yellow wax tail | <i>Ceriagrion coromandelianum</i> | Libellulidae |
| 5. | Scarlet skimmer | <i>Crocothemis servilia</i> | Libellulidae |
| 6. | Chalky percher | <i>Diplacodes trivialis</i> | Libellulidae |
| 7. | Spine-tufted skimmer | <i>Orthetrum chrysis</i> | Libellulidae |
| 8. | Green Marsh | <i>Orthetrum sabina</i> | Libellulidae |
| 9. | The globe skimmer | <i>Pantala flavescens</i> | Libellulidae |

The following bird species are observed inside the college campus:

| SL. NO. | LOCAL NAME | ENGLISH NAME | SCIENTIFIC NAME |
|---------|---------------|---------------------------|-------------------------------|
| 1 | Haryal | Yellow leged green pigeon | <i>Treron phoenicoptera</i> |
| 2 | Tile ghughu | Spotted dove | <i>Streptopelia chinensis</i> |
| 3 | Papiya | Common hawk cuckoo | <i>Cuculus varius</i> |
| 4 | Kokil | Koel | <i>Eudynamys scolopacea</i> |
| 5 | Nilgala | Bluethroated barbet | <i>Megalaima asiatica</i> |
| 6 | Chil | Pariah Kite | <i>Milvus migrans</i> |
| 7 | Tia Lakkhi | Rose ringed parakeet | <i>Psittacula krameri</i> |
| 8 | Pencha | Barn owl | <i>Tyto alba</i> |
| 9 | Batasi | House swift | <i>Apus affinis</i> |
| 10 | Bauri | Coppersmith Barbet | <i>Megalaima haemacephala</i> |
| 11 | Bene bau | Black headed Oriole | <i>Oriolus xanthomus</i> |
| 12 | Kubo | Pheasant or Coucal | <i>Centropus sinensis</i> |
| 13 | Phinge | Black Drongo | <i>Dierurus adsimilis</i> |
| 14 | Go Salik | Pied Myna | <i>Sturnus contra</i> |
| 15 | Salik | Common Myna | <i>Acridotheres tristis</i> |
| 16 | Jhunt Salik | Jungle Myna | <i>Acridotheres fuscus</i> |
| 17 | Handichacha | Indian Tree pie | <i>Dendrocitta vagabunda</i> |
| 18 | Kak | House Crow | <i>Corvus splendens</i> |
| 19 | Danr Kak | Jungle Crow | <i>Corvus macrorhynchos</i> |
| 20 | Sipahi Bulbul | Red Whiskered Bulbul | <i>Pycononotus jacosus</i> |
| 21 | Bulbuli | Red Vented Bulbul | <i>Pycononotus cafer</i> |
| 22 | Chatare | Jungle Babbler | <i>Turdoides striatus</i> |
| 23 | Tuntuni | Tailor Bird | <i>Orthotomus sutorins</i> |
| 24 | Doyel Sada | Magpie Robin | <i>Copsychus saularis</i> |
| 25 | Khanjan Durga | White Wagtail | <i>Motacilla alba</i> |
| 26 | Tuntuni | Purple Sunbird | <i>Nectarinia asiatica</i> |
| 27 | Moutusi | Purple Rumped Sunbird | <i>Nectarinia zeylonica</i> |

The following mammals are observed inside the college campus:

| SL NO | LOCAL NAME | ENGLISH NAME | SCIENTIFIC NAME |
|-------|--------------|---------------------------|-----------------------------------|
| 1 | Chhuncho | Grey Musk Shrew | Suncus murinus |
| 2 | Badur | Indian Flying Fox | Pteropus giganteus |
| 3 | Chamchika | Indian pipistrelle | Pipistrellus coromandra |
| 4 | Bham | Common Plam Civet | Paradoxurus hermaphroditus |
| 5 | Neyul | Common Mongoose | Herpestes edwardsi |
| 6 | Kathbirali | Fivestriped Plam Squirrel | Funombulus pennant |
| 7 | Indur | Lesser Bandicoot Rat | Bandicota bengalensis |
| 8 | Nengti Indur | House Mouse | Mus musculus |

Phylum Chordata

Reptiles

| SL.NO. | COMMON NAME | SCIENTIFIC NAME | FAMILY |
|--------|----------------------------------|--------------------------|------------|
| 1. | Tree vine snake(Laudaga) | Ahaetulla nasuta | Colubridae |
| 2. | Striped keelback(Halhale) | Amphiesma stolatum | Colubridae |
| 3. | Common Krait(Kalach) | Bungarus caeruleus | Elapidae |
| 4. | Common Trinket Snake (Jwaldhora) | Coelognathus helena | Colubridae |
| 5. | Russell's Viper(Chandrabora) | Daboia russelii | Viperidae |
| 6. | Spectacled Cobra(Khorish) | Naja naja | Elapidae |
| 7. | Oriental rat snake(Darash) | Ptyas mucosa | Colubridae |
| 8. | Roux's forest lizard | Calotes rouxii | Agamidae |
| 9. | Dussumier's forest skink | Sphenomorphus dussumieri | Scincidae |

FISHES

| <u>SL.NO.</u> | <u>COMMON NAME</u> | <u>SCIENTIFIC NAME</u> | <u>FAMILY</u> |
|---------------|--------------------|-----------------------------|------------------|
| 1. | Mrigel | Cirrhinus mrigala | Aplocheilidae |
| 2. | Phesa | Setipinna phasa | Aplocheilidae |
| 3. | Grass carp | Ctenopharyngodon idellus | Aplocheilidae |
| 4. | Common carp | Cyprinus carpio | Aplocheilidae |
| 5. | Catla | Catla catla | Aplocheilidae |
| 6. | Silver carp | Hypophthalmichthys molitrix | Aplocheilidae |
| 7. | Bata | Labeo bata | Aplocheilidae |
| 8. | Kalbose | Labeo calbasu | Aplocheilidae |
| 9. | Rui | Labeo rohita | Aplocheilidae |
| 10. | Punti | Pethia phutunio | Aplocheilidae |
| 11. | Swarna Punti | Systemus sarana | Aplocheilidae |
| 12. | Koi | Anabas testudineus | Badidae |
| 13. | Chang | Channa bleheri | Chichlidae |
| 14. | Lata | Channa punctata | Chichlidae |
| 15. | Sol | Channa striata | Chichlidae |
| 16. | Tilapia | Oreochromis mossambicus | Datnioididae |
| 17. | Nilotica | Oreochromis niloticus | Datnioididae |
| 18. | Bele | Glossogobius giuris | Nandidae |
| 19. | Khoira | Trichogaster lalius | Amblycipitidae |
| 20. | Magur | Clarias batrachus | Heteropneustidae |
| 21. | Singi | Heteropneustes fossilis | Loricariidae |
| 22. | Pangus | Pangasius pangasius | Plotosidae |

CRABS

| <u>SL.NO.</u> | <u>COMMON NAME</u> | <u>SCIENTIFIC NAME</u> | <u>FAMILY</u> |
|---------------|--------------------|--------------------------|----------------|
| 1. | Mud crab | Scylla serrata | Panopeidae |
| 2. | Chiti kakra | Barytelphusa cunicularis | Gecarcinucidae |

PHOTOGRAPHS OF SOME OF THE FLORA & FAUNA

BUTTERFLY GARDEN



MUSTARD PLANTATION



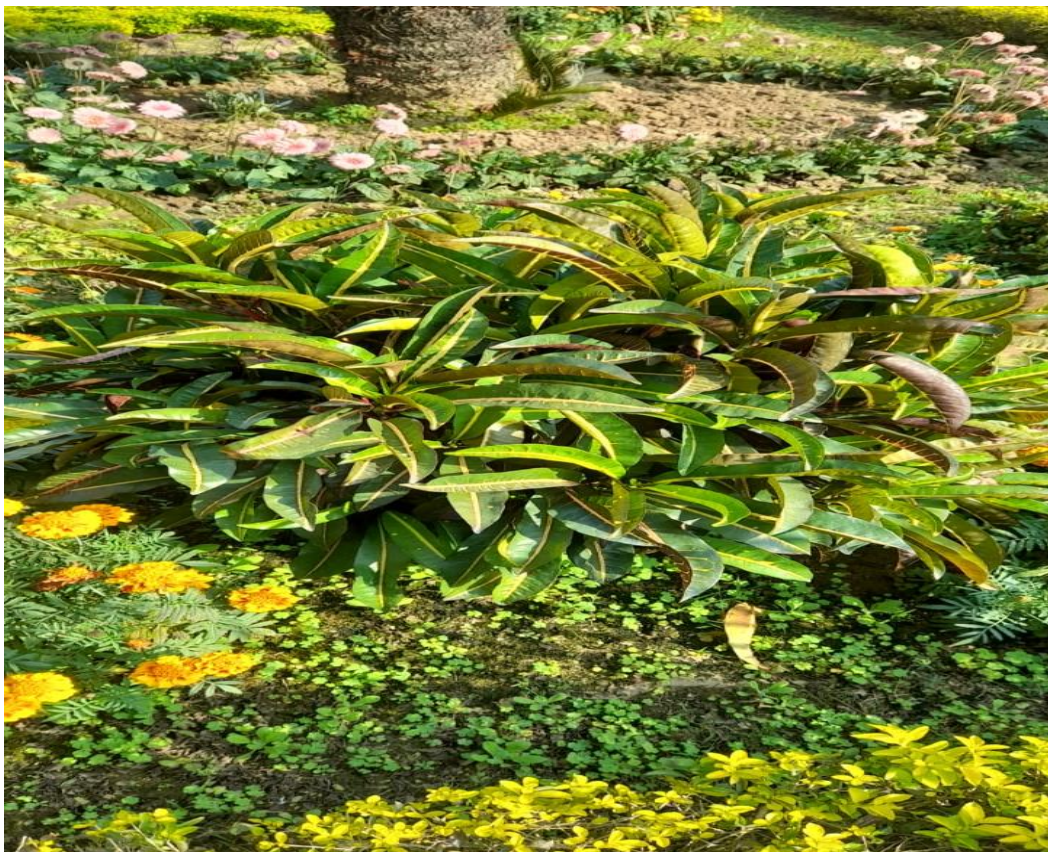
INDEGENOUS PLANT



INDEGENOUS PLANT



ORNAMENTAL PLANTS



MEDICINAL PLANTS



SNAKES

RUSSEL'S VIPER



COMMON KRAIT



BUTTERFLY



DRAGONFLY



SQUIRREL



MOUSE



FISHES



Common carp (*Cyprinus carpio*)



Silver carp (*Hypophthalmichthys molitrix*)



Nilotica (*Oreochromis niloticus*)



Grass carp (*Ctenopharyngodon idella*). (Hill, 2018)

RUI



SAR PUTI



CRAB

CHITI KAKRA (COMMON CRAB)



BELE KAKRA (MUD CRAB)



BIRDS

CHORUI



SHALIK

