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CHECK LIST OF THE CAMPUS FLORA OF ST. ANDREW'S COLLEGE GORAKHPUR, UTTAR PRADESH

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ABSTRACT

St. Andrew's college is a 115 years old institution situated in the Gorakhpur district & it lies between the Nepal terai in the north and river Ghaghara in the south. The western boundary is Basti and on the east is Deoria. The present work enumerates the vegetation in the campus. The floristic survey was done from winter 2012 to spring 2014.

KEYWORDS: Angiosperm Flora, Biodiversity, St. Andrew's College, Gorakhpur, Uttar Pradesh.



INTRODUCTION

The flora of India is one of the richest of the world due to a wide range of climate, topology and environments in the country. It is thought there are over 15000 species of flowering plants in India, which account for 6 percent of the total plant species in the world. Due to the wide range of climatic conditions, India holds rich variety of flora that no other country can boast of. India covers more than 45,000 species of flora, out of which there are several species that are not found anywhere else. Since ancient times, use of plants as a source of medicines has been the inherent part of life in India. There are more than 3000 officially documented plants in India that holds great medicinal potential. India comprises seven percent of world's flora. India is divided into main eight floristic regions namely - Western Himalayas, Eastern Himalayas, Assam, Indus plain, Ganga plain, the Deccan, the Malabar and the Andamans. India is one of the 17 mega diverse countries in the world with four biodiversity hotspots.

Study area

Gorakhpur is a city along the banks of Rapti river in the eastern part of the state of Uttar Pradesh in India, near the Nepal border

(Fig. 1). It is the administrative headquarter of Gorakhpur District and Gorakhpur Division.

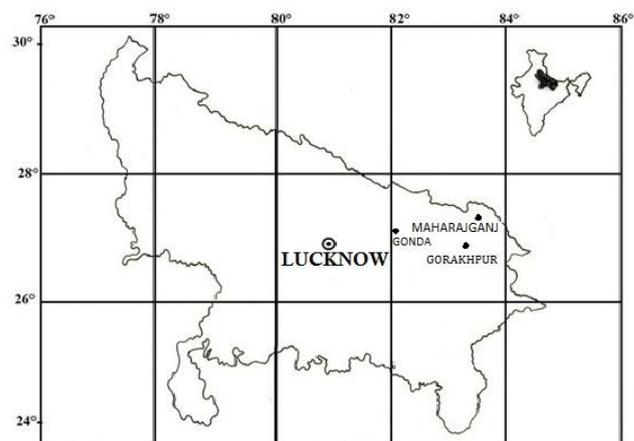


Fig.1 Study site

The district of Gorakhpur lies between Lat. 26°13'N and 27°29'N and Long. 83°05'E and 83°56'E. The district occupies the north-eastern corner of the state along with the district of Deoria, and comprises a large stretch of land lying to the north of the river Rapti, which forms the southern boundary with the Azamgarh district. Ambedkar Nagar district on the west Basti and east adjoins Deoria and



the Chhoti Gandak Nadi and further south the Jharna Nala forms the dividing line. To the north it meets with Maharajganj, Padrauna and Nepal.

MATERIAL AND METHODS

The present data is outcome of field work carried out in different place of St.

Andrew's College campus. Identification of plants in the field was made with the help of "Flora Gorakhpurensis" (T.N.Srivastava 1976). All the specimens were collected in duplicate and they are deposited in Centre for Plant Species Biology, Department of Botany, St. Andrew's College Gorakhpur, Uttar Pradesh (Table 1.).

Table 1. List of Plants

S.No.	PLANTS NAME	FAMIY
1	<i>Acalypha indica</i> L.	Euphorbiaceae
2	<i>Acorus calamus</i> L.	Araceae
3	<i>Achyranthes aspera</i> L.	Amaranthaceae
4	<i>Adhatoda vasica</i> Nees.	Acanthaceae
5	<i>Adiantum peruvianum</i> KL.	Adiantaceae
6	<i>Aegle marmelos</i> (L.) Correa	Rutaceae
7	<i>Ageratum conyzoides</i> L.	Asteraceae
8	<i>Ageratum houstoniaum</i> Mill.	Asteraceae
9	<i>Agave americana</i> Linn.	Asparagaceae
10	<i>Alternanthera philoxeroides</i> (Mart). Griseb.	Amaranthaceae
11	<i>Alternanthera sessilis</i> (L.) DC.	Amaranthaceae
12	<i>Aloe barbadensis</i> L.	Liliaceae
13	<i>Amaranthus viridis</i> Linn.	Amaranthaceae
14	<i>Amaranthus spinosus</i> Linn.	Amaranthaceae
15	<i>Ampelopteris prolifera</i> (Retz.)	Thelypteridaceae
16	<i>Antigonon leptopus</i> Hk. & Arn.	Polygonaceae
17	<i>Annona squamosa</i> Linn.	Annonaceae
18	<i>Anagalis arvensis</i> L.	Primulaceae



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19	<i>Andrographis paniculata</i> L.	Acanthaceae
20	<i>Artocarpus heterophyllus</i> Lamk.	Moraceae
21	<i>Argemone mexicana</i> L.	Papaveraceae
22	<i>Araucaria araucana</i> (Molina)K. Koch	Araucariaceae
23	<i>Aster amellus</i> L.	Asteraceae
24	<i>Asparagus racemosus</i> Willd.	Asparagaceae
25	<i>Asparagus adsendance</i> Roxb.	Asparagaceae
26	<i>Azadirachta indica</i> A. Juss	Meliaceae
27	<i>Bacopa monnieri</i> (Linn.) Pennell	Plantaginaceae
28	<i>Bauhinia variegata</i> Linn.	Caesalpinioideae
29	<i>Blumea mollis</i> (D. Don.) Merr.	Asteraceae
30	<i>Boerhavia diffusa</i> Linn.	Nyctaginaceae
31	<i>Bougainvillea glabra</i> Choisy	Nyctaginaceae
32	<i>Bryophyllum pinnatum</i> (Lam.) Oken	Crassulaceae
33	<i>Brassica compestris</i> Linn,	Brassicaceae
34	<i>Butea monosperma</i> (lamk.) Taub.	Fabaceae
35	<i>Callistemon lanceolatus</i> DC.	Myrtaceae
36	<i>Calotropis procera</i> (Ait.) R.Br.	Asclepiadaceae
37	<i>Cannabis sativa</i> Linn.	Canabinaceae
38	<i>Canna indica</i> L.	Cannaceae
39	<i>Carica papaya</i> Linn.	Caricaceae
40	<i>Carissa carandus</i> Linn.	Apocynaceae
41	<i>Caryota urens</i> Linn.	Arecaceae
42	<i>Catharanthus roseus</i> (Linn.) G. Don.	Apocynaceae
43	<i>Calendula arvensis</i> L.	Asteraceae
44	<i>Celsia coromandeliana</i> Vahl.	Scrophulariaceae
45	<i>Chenopodium album</i> Linn.	Chenopodiaceae
46	<i>Chlorophytum borivilianum</i> L.	Asparagaceae
47	<i>Citrus medica</i> Linn.	Rutaceae



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48	<i>Cissus quadrangularis</i> Linn.	Vitaceae
49	<i>Cleome viscosa</i> Linn.	Capparidaceae
50	<i>Clerodendron infortunatum</i> Auct.	Verbenaceae
51	<i>Comiphora mukul</i> (Stocks) Hook.	Burseraceae
52	<i>Coleus aromaticus</i> Benth.	Labiatae
53	<i>Coleus speciosus</i> Baker. f.	Labiatae
54	<i>Codiaeum variegatum</i> (L.) A. Juss.	Euphorbiaceae
55	<i>Crataeva religiosa</i> auct. (non Forst.)	Capparidaceae
56	<i>Croton boplandianum</i> Baill.	Euphorbiaceae
57	<i>Cynodon dactylon</i> (Linn.) Pers.	Poaceae
58	<i>Cyperus rotundus</i> Linn.	Cyperaceae
59	<i>Cyperus triceps</i> (Rottb.) Endl.	Cyperaceae
60	<i>Cyperus scariosus</i> R.Br.	Cyperaceae
61	<i>Cymbopogon citratus</i> (DC.) Stapf	Poaceae
62	<i>Cycas revoluta</i> Thunb.	Cycadaceae
63	<i>Dalbergia sissoo</i> Roxb.	Fabaceae
64	<i>Datura metel</i> Linn.	Solanaceae
65	<i>Delphinium ajacis</i> L.	Ranunculaceae
66	<i>Dendranthema grandiflorum</i> (Ramat.) Kitam	Asteraceae
67	<i>Delonix regia</i> (Boj.) Raf.	Fabaceae
68	<i>Desmodium gangeticum</i> (L.) Dc.	Fabaceae
69	<i>Dieffenbachia</i> sp. Schott	Araceae
70	<i>Dichanthium annulatum</i> (Forsk) Stapf	Poaceae
71	<i>Digitaria fimbriata</i> Link.	Poaceae
72	<i>Dolichos lablab</i> Linn.	Fabaceae
73	<i>Dracaena</i> sp. Vand. ex L.	Asparagaceae
74	<i>Duranta repens</i> Linn.	Verbenaceae
75	<i>Dyopsis lutescens</i> (H. Wendl.) Beentje & J. Dransf.	Arecaceae
76	<i>Eclipta prostrata</i> (Linn.)	Asteraceae



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77	<i>Eicchornia crassipes</i> (Mert.)	Pontederiaceae
78	<i>Eleusine coracana</i> (L.) Gaertn.	Poaceae
79	<i>Embllica officinalis</i> Gaertn.	Euphorbiaceae
80	<i>Epipremnum aureum</i> (Linden & Andre) G.S. Bunting	Araceae
81	<i>Equisetum ramosissimum</i> Desf.	Equisetaceae
82	<i>Eragrostis pilosa</i> Beauv.	Poaceae
83	<i>Euphorbia hirta</i> Linn.	Euphorbiaceae
84	<i>Euphorbia pulcherrima</i> Willd.	Euphorbiaceae
85	<i>Euphorbia milii</i> Des Moul.	Euphorbiaceae
86	<i>Euphorbia parviflora</i> Linn.	Euphorbiaceae
87	<i>Evolvulus sp.</i>	Convolvulaceae
88	<i>Ficus benghalensis</i> Linn.	Moraceae
89	<i>Ficus religiosa</i> Linn.	Moraceae
90	<i>Ficus elastica</i> Roxb.	Moraceae
91	<i>Foeniculum vulgare</i> Mill	Apiaceae
92	<i>Fumaria parviflora</i> W & A	Fumariaceae
93	<i>Gnaphalium indicum</i> Linn.	Asteraceae
94	<i>Gomphrena celosioides</i> Mart.	Amaranthaceae
95	<i>Gymnema sylvestre</i> R.Br.	Apocynaceae
96	<i>Hamelia patens</i> Jacq.	Rubiaceae
97	<i>Heliotropium indicum</i> Linn.	Boraginaceae
98	<i>Heliconia rostrata</i> Ruiz & Pavon	Heliconiaceae
99	<i>Hibiscus rosa-sinensis</i> Linn.	Malvaceae
100	<i>Hydrilla verticillata</i> (L.f.) Royle	Hydrocharitaceae
101	<i>Iberis amara</i> Linn.	Brassicaceae
102	<i>Ixora coccinea</i> L.	Rubiaceae
103	<i>Ixora parviflora</i> Vahl	Rubiaceae
104	<i>Impatiens balsamina</i> Linn.	Balsaminaceae
105	<i>Jacaranda jasminoides</i> Auct.	Bignoniaceae



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106	<i>Jatropha podigera</i> Hook.	Euphorbiaceae
107	<i>Kyllinga triceps</i> Rottb.	Cyperaceae
108	<i>Lagerstroemia indica</i> Linn.	Lythraceae
109	<i>Lantana indica</i> Roxb.	Verbenaceae
110	<i>Lathyrus aphaca</i> Linn.	Fabaceae
111	<i>Launaea asplenifolia</i> Hk.f.	Asteraceae
112	<i>Lawsonia inermis</i> Linn.	Lythraceae
113	<i>Lippia alba</i> (Mill)	Verbenaceae
114	<i>Litchi chinensis</i> Sonn.	Sapindaceae
115	<i>Lycopersicon esculentum</i> Mill.	Solanaceae
116	<i>Manihot esculanta</i> Crantz.	Euphorbiaceae
117	<i>Mangifera indica</i> Linn.	Anacardiaceae
118	<i>Mazus japonicus</i> (Thunb.) Ktze	Scrophulariaceae
119	<i>Melia azedarach</i> Linn.	Meliaceae
120	<i>Melilotus indica</i> All.	Fabaceae
121	<i>Mentha spicata</i> Linn.	Labiatae
122	<i>Michelia champaca</i> Linn.	Magnoliaceae
123	<i>Mirabilis jalapa</i> L.	Nyctaginaceae
124	<i>Mecardonia procumbence</i> (Mill.) Small.	Scrophulariaceae
125	<i>Moringa oleifera</i> Lamk.	Moringaceae
126	<i>Morus alba</i> Linn.	Moraceae
127	<i>Murraya koenigii</i> (L.) Spreng	Rutaceae
128	<i>Musa paradisiacal</i> Linn.	Musaceae
129	<i>Mussaenda luteola</i> Linn.	Rubiaceae
130	<i>Nephrolepis exaltata</i> (L.)Scott.	Oleandraceae
131	<i>Nephrolepis exaltata</i> Var. <i>Duffi</i> (L.)Scott.	Oleandraceae
132	<i>Nelumbo nucifera</i> Geertn.	Nymphaeaceae
33	<i>Nerium indicum</i> Mill.	Apocynaceae
134	<i>Nicotiana plumbiginifolia</i> Viv.	Solanaceae



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Journal home page: www.ijreb.org

135	<i>Nyctanthes arbor-tristis</i> Linn.	Oleaceae
136	<i>Ocimum basilicum</i> Linn.	Labiatae
137	<i>Ocimum sanctum</i> Linn.	Labiatae
138	<i>Oldenlandia gracilis</i> Hk.f.	Rubiaceae
139	<i>Oplismenus burmanii</i> (Retz.) Beauv.	Poaceae
140	<i>Oxalis corniculata</i> Linn.	Oxalidaceae
141	<i>Opuntia</i> sp.	Cactaceae
142	<i>Parthenium hysterophorus</i> L.	Asteraceae
143	<i>Peristrophe bicalyculata</i> (Retz.) Nees	Acanthaceae
144	<i>Phalaris minor</i> Retz.	Poaceae
145	<i>Phyllanthus niruri</i> auct. Non Linn.	Euphorbiaceae
146	<i>Physalis peruviana</i> Linn.	Solanaceae
147	<i>Piper longum</i> Linn.	Piperaceae
148	<i>Polyalthia longifolia</i> (Sonner) Thw.	Annonaceae
149	<i>Portulaca oleracea</i> Linn.	Portulacaceae
150	<i>Pouzolzia zeylanica</i> (Linn.) Benwv.	Urticaceae
151	<i>Psidium guajava</i> Linn.	Myrtaceae
152	<i>Prosopis</i> sp.	Mimosoideae
153	<i>Pteris vittata</i> L.	Pteridaceae
154	<i>Punica granatum</i> Linn.	Lythraceae
155	<i>Putranjiva roxburghii</i> Wall.	Putranjivaceae
156	<i>Quisqualis indica</i> Linn.	Combretaceae
157	<i>Ranunculus scellaratus</i> Linn.	Ranunculaceae
158	<i>Rauvolfia serpentine</i> (Linn.) Bth. ex Kurz.	Apocynaceae
159	<i>Rhoeo discolor</i> Sw.	Commelinaceae
160	<i>Ricinus communis</i> Linn.	Euphorbiaceae
161	<i>Rosa indica</i> Linn.	Rasaceae
162	<i>Rumex dentatus</i> Linn.	Polygonaceae
163	<i>Rungia pictinata</i> (Linn.) Nees.	Acanthaceae



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164	<i>Riccia sp.</i>	Ricciaceae
165	<i>Salvia sp.</i>	Labiatae
166	<i>Saraca indica</i> Linn.	Caesalpinioideae
167	<i>Scoparia dulcis</i> L.	Scrophulariaceae
168	<i>Sensevieria hyacinthodes</i> Thunb.	Asparagaceae
169	<i>Sida acuta</i> Burm. f.	Malvaceae
170	<i>Sida cordifolia</i> L.	Malvaceae
171	<i>Sida rhombifolia</i> L.	Malvaceae
172	<i>Sonchus oleraceus</i> L.	Asteraceae
173	<i>Solanum nigrum</i> L.	Solanaceae
174	<i>Stevia sp.</i>	Asteraceae
175	<i>Syzygium cumini</i> (L.) Skeels	Myrtaceae
176	<i>Tagetes indica</i> L.	Asteraceae
177	<i>Thuja occidentalis</i> L.	Cupressaceae
178	<i>Tectona grandis</i> Linn. f.	Verbenaceae
179	<i>Tephrosia purpurea</i> (L.) Pers.	Fabaceae
180	<i>Tinospora cordifolia</i> (Willd.) Miers	Menispermaceae
181	<i>Trachycarpus fortune</i> (Hook.) H. Wendl.	Arecaceae
182	<i>Tradescantia pallida</i> (Rose) D.R.Hunt	Commelinaceae
183	<i>Tridax procumbens</i> L.	Asteraceae
184	<i>Verbena sp.</i>	Verbenaceae
185	<i>Vernonia cinerea</i> (L.) Less.	Asteraceae
186	<i>Vetiveria zizanioides</i> (L.) Nash	Poaceae
187	<i>Vicia faba</i> Linn.	Fabaceae
188	<i>Withania somnifera</i> (Linn.) Dunal.	Solanaceae
189	<i>Zizyphus marutiana</i> Lamk	Rhamnaceae

**RESULT AND DISCUSSION**

A total number of 189 species belonging to 78 families were recorded from the campus area with Asteraceae- 15 species, Euphorbiaceae- 12 species, Fabaceae- 09 species, Poaceae-09 species, Araceae-03 species, Amaranthaceae -06 species, Acanthaceae- 04 species, Adiantaceae – 01 species, Rutaceae-03 species, Asparagaceae -06 species, Liliaceae – 01 species, Thelypteridaceae – 01 species, Polygonaceae- 02 species , Annonaceae- 02 species , Primulaceae- 01species , Moraceae – 05 species, Papaveraceae- 01 species, Araucariaceae -01 species, Meliaceae -02 species, Plantaginaceae- 01species, Caesalpinoideae- 02 species, Nyctaginaceae- 03 species, Crassulaceae – 01 species, Brassicaceae-02 species, Myrtaceae- 03 species, Asclepiadaceae- 01 species, Canabinaceae-01 species, Cannaceae – 01 species, Caricaceae- 01 species, Apocynaceae- 05 species, Arecaceae- 03 species, Chenopodiaceae-01 species, Vitaceae -01 species, Capparidaceae- 02 species, Verbenaceae-06 species, Burseraceae- 01 species, Labiatae-06 species, Cyperaceae-04 species, Cycadaceae-01species, Solanaceae- 06 species, Ranunculaceae- 02 species,

Pontederiaceae- 01 species, Equisetaceae-01 species, Convolvulaceae-01 species, Apiaceae- 01 species, Fumariaceae-01 species, Rubiaceae- 05 species, Boraginaceae-01 species, Heliconiaceae-01 species, Malvaceae-04 species, Hydrocharitaceae- 01 species, Balsaminaceae- 01 species, Bignoniaceae-01 species, Lythraceae- 03 species, Sapindaceae-01 species, Anacardiaceae- 01 species, Scrophulariaceae-04 species, Magnoliaceae- 01 species, Moringaceae- 01 species, Musaceae- 01 species, Oleandraceae-02 species, Nymphaeaceae- 01 species, Oleaceae-01 species, Oxalidaceae-01species, Cactaceae- 01species, Piperaceae-01 species, Portulcaceae- 01species,Urticaceae-01species, Mimosoideae- 01 species, Pteridaceae-01 species, Putranjivaceae-01 species, Combretaceae-01 species, Commelinaceae-02 species, Rosaceae- 01 species, Ricciaceae- 01 species, Cupressaceae-01 species, Menispermaceae-01 species, Rhamnaceae-01 species. 4 species of Pteridophytes were also recorded.

The following plates were the recorded flora of the campus.



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Mazus japonicus (Thumb.) Ktze



Iberis amara Linn.



Solanum nigrum L.



Gnaphalium indicum Linn



Hamelia patens Jacq.



Parthenium hysterophorus L



Vicia faba Linn.



Ageratum houstonianum Mill.



Chenopodium album Linn



Oxalis corniculata Linn



Anagalis arvensis L.



Fumaria parviflora W & A



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Argemone mexicana L.



Butea monosperma (lamk.) Taub.



Saraca indica Linn.



Oldenlandia gracilis Hk.f.

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