ORIGINAL RESEARCH PAPER

Volume-7 | Issue-1 | January-2018 | PRINT ISSN No 2277 - 8179

INTERNATIONAL JOURNAL OF SCIENTIFIC RESEARCH

EXOTIC FLORA OF TELANGANA UNIVERSITY MAIN CAMPUS, TELANGANA STATE, INDIA.

Botany

Vijigiri Dinesh Dept. of Botany, Shri Renukadevi Arts, Commerce and Scienc College, Mahur, Nanded, M. S.

M. Aruna Dept. of Botany, Telangana University, Dichpally, Nizamabad, T.S.

Devaraju Srinivas* Dept. of Botany, Telangana University, Dichpally, Nizamabad, T.S. *Corresponding Author

ABSTRACT

The Exotic flora of the campus of Telangana University, Telangana, India spreading over 577 acres of land area, was analyzed. A total of 89 exotic plant species were reported from the university campus represented by 76 genera and 44 families. The American origin dominates the exotic floristic composition of the university. The Asteraceae and Caesalpiniaceae are the dominant families of the exotic flora of the Telangana University campus.

KEYWORDS

Telangana University, exotic flora, Plant species.

INTRODUCTION

Flora refers to the botanical composition of a place where names of different species are taken into account. Flora is widely categorized into two type's i.e. native flora and exotic flora. Native floras are those which exist from pre-historic times in the country while exotic flora is those which are of foreign origin. Exotic plant species have become elements of the flora of most region of the world within last five centuries as a result of the tremendous species exchange between the continents (Nagar *et al.,* 2004). Exotic floras are either introduced intentionally or accidentally. Indo-Gangetic Plains and the Thar Desert regions of India are rich in exotic flora; however Himalayan and Peninsular regions are poor in exotic flora (Ahmad, 1999). Nearly 40% of the plant species found in India are exotic. Several studies have been conducted to explore the exotic floristic composition of a particular region in India (Nagar *et al.,* 2004; Tomar *et al.,* 2008; Singh, 2011). Almost 80% of the invasive alien plant species were introduced from Neotropics. The invasive alien species are ready colonizers in disturbed areas and cause considerable ecological damage to India's natural areas (Reddy, 2008). Therefore, the main objective of the present investigation was to explore the exotic flora of the Telangana University Main Campus of Telangana State which falls in Deccan Physiographic division of India.

METERIAL AND METHODS

Site Description

Telangana University is established in 2006 and the location of University campus is picturesque with natural greenery and ideal landmark for peaceful environment that encourages the spirit of education among the students. The main campus is located close to NH-44, Dichpally, Nizamabad district.

Field Survey

An extensive field survey was conducted from 2015 to record and collect the various plant species growing in the University Campus. The survey was completed by the 2016. During the survey, visits were made to every nook and corner of the University Campus in search of plant species. The identity of the plant species were confirmed through various sources (Pullaih and Rao 1995; Cooke 1958; Naik 1998; Sharma et.al. 1984; Singh and Kartikeyan 2000; Singh et.al. 2001.) Classification was followed for arranging the taxa to Families.

Table I Exotic flora of Telangana University:

Sr. No	Botanical name	Family	Local name	Country
1.	*Abelmoschus esculentus* (L.) Moench.	Malvaceae	Benda kaya	Trop. Africa
2.	*Acacia farnesiana* (L.) Willd.	Mimosaceae	Kasturi tumma	Trop. South America
3.	*Acacia nilotica* (L.) Willd. ex Del.	Mimosaceae	Nalla tumma	North Africa
4.	*Agave americana* L.	Agavaceae	Saganara, Kittanara	America
5.	*Ageratum conyzoides* L.	Asteraceae	Pokabanti	America
6.	*Allium cepa* L.	Liliaceae	Ulligadda, Neerulli	Western Asia
7.	*Allium sativum* L.	Liliaceae	Elligadda, Velluli	Western Asia
8.	*Aloe vera* (L.) Burm. f.	Liliaceae	Kalabanda	Mediterranean region
9.	*Amaranthus spinosus* L.	Amaranthaceae	Mulla thotakura	America
10.	*Annona reticulata* L.	Annonaceae	Ramapalamu	Trop. America
11.	*Annona squamosa* L.	Annonaceae	Seethapalam	Trop. America
12.	*Argemone mexicana* L.	Papaveraceae	Munipucha	West Indies
13.	*Asparagus racemosus* Willd.	Liliaceae	Satavari	Sri Lanka
14.	*Azadirachta indica* A. Juss.	Miliaceae	Vepa chattu, vemu	Persia & Asia
15.	*Bauhinia purpurea* L.	Caesalpiniaceae	Devakanchanam	West Indies
16.	*Blumea lacera* (Burm. F.) DC.	Asteraceae	Kucca pogaku	Trop. America
17.	*Bougainvillea spectabilis* Willd	Nyctaginaceae	Kagitampula chettu	Brazil
18.	*Borassus flabellifer* L.	Arecaceae	Tati chattu, Tadi	Trop. Africa
19.	*Brassica compestris* L.	Brassicaceae	Avalu	Mediterranean region
20.	*Calotropis gigantea* (L.) Ait.	Asclepiadaceae	Jilledu, Tellagilledu	Trop. Africa
21.	*Calotropis procera* (Ait.) R Br.	Asclepiadaceae	Nall Jilladu	Trop. Africa
22.	*Canna indica* L.	Cannaceae	Matta tamara	Africa
23.	*Carica papaya* L.	Caricaceae	Boppay	West indies
24.	*Cassia absus* L.	Caesalpiniaceae	Chanubala	Trop. America

25.	*Cassia occidentalis* L.	Caesalpiniaceae	Paddachanangi	South America
26.	*Cassia siamea* Lam.	Caesalpiniaceae	Seema tangeedu	Myanmar
27.	*Cassia tora* L.	Caesalpiniaceae	Tilasu, Tagirisa	America
28.	*Cassia uniflora* Mill.	Caesalpiniaceae	Tagirisa	Trop. South America
29.	*Casuarina equisetifolia* L.	Casuarinaceae	Sarugudu	Australia, Malaya & Pacific Island.
30.	*Catharanthus roseus* (L.) G. Don	Apocynaceae	Chakram pullu	West Indies
31.	*Cleome gynandra* L.	Capparaceae	Tella vaminta	Trop. America
32.	*Cleome viscosa* L.	Capparaceae	Kukka-avalu	Trop. America
33.	*Clitoria ternatea* L.	Fabaceae	Sanku pulu	Trop. America
34.	*Coriandrum sativum* L.	Apiaceae	Kothimire	Mediteranean region.
35.	*Cuscuta reflexa* Roxb.	Cuscutaceae	Pachi teega	Mediteranean region.
36.	*Cynodon dactylon* (L.) Pers.	Poaceae	Garika gaddi	Trop. America
37.	*Cyperus rotundus* L.	Cyperaceae	Tungamusthalu	Eurasia.
38.	*Delonix regia* (Boj. ex. Hook) Raf.	Caesalpiniaceae	Pedda Turayi	Medagascar
39.	*Echinops echinatus* Roxb.	Asteraceae	Brahmadandi	Afghanistan
40.	*Eclipta prostrata* (L.) L.	Asteraceae	Guntagalagara	South America
41.	*Eucalyptus globulus* Labill.	Myrtaceae	Nilagiri	Australia
42.	*Euphorbia hirta* L.	Euphorbiaceae	Reddyvarinanubalu	Trop. America
43.	*Euphorbia thymifolia* L.	Euphorbiaceae	Chinna chukkabotla alamu	Trop. America
44.	*Ficus carica* L.	Moraceae	Angera	Middle east
45.	*Foeniculum vulgare* Mill.	Apiaceae	Sopu	Europe
46.	*Gomphrena serrata* L.	Amaranthaceae	Nala gunugu	Trop. Amarica
47.	*Heliotropium indicum* L.	Boraginaceae	Talu mani	South America
48.	*Hibiscus rosa-sinensis* L.	Malvaceae	Mandara	China
49.	*Hibiscus sabdariffa* L.	Malvaceae	Pullakura	America
50.	*Hyptis suaveolens* (L.) Poit.	Lamiaceae	Gandu thulasi	Trop. America
51.	*Ipomoea carnea* Jacq.	Convolvulaceae	Thutikura	America
52.	*Ipomoea hederifolia* L.	Convolvulaceae	Erra pula Teega	Trop. America
53.	*Ipomoea obscura* (L.)Kar-Gawl.	Convolvulaceae	Golla giddu aku	Trop. Africa
54.	*Jatropha gossipifolia* L.	Euphorbiaceae	Nala amudamu	Trop. America
55.	*Kalanchoe pinnata* (Lam.) Pres	Crassulaceae	Ranapala	Trop. Africa
56.	*Lantana camara* L.	Verbenaceae	Akshantapulu	Trop. America
57.	*Lawsonia inermis* L.	Lythraceae	Maidaaku	North Africa
58.	*Lycopersicon lycopercicum* (L.) Karsten.	Solanaceae	Tamata	Trop. America
59.	*Manikara zapota* (L.) van Royen	Sapotaceae	Sapota	South America
60.	*Martynia annua* L.	Martyniaceae	Telukondi	Mexico & brazil
61.	*Melia azedarach* L.	Miliaceae	Turuka vapa	Iran
62.	*Merremia gangetica* (L.) Cufod.	Convolvulaceae	Eluka chavula kura	Trop. Africa
63.	*Millingtonia hortensis* L. f.	Bignoniaceae	Sadaka malli	Malaya
64.	*Mimosa pudica* L.	Mimosaceae	Attipatti	Brazil
65.	*Nerium indicum* Mill.	Apocynaceae	Ganneru	China
66.	*Ocimum americanum* L.	Lamiaceae	Kukka tulasi	Trop. America
67.	*Oxalis corniculata* L.	Oxalidaceae	Pulichanta	South Europe
68.	*Parthenium hysterophorus* L.	Asteraceae	Kangress grass	America
69.	*Passiflora foetida* L.	Passifloraceae	Gaju tiga	Trop. America
70.	*Pedilanthus tithymaloides* (L.) Poir.	Euphorbiaceae	Gadda garuguduaku	Florida to Venezuela
71.	*Peristrophe paniculata* (Forssk.) Brummitt	Acanthaceae	Valamasandi	Trop. America
72.	*Phoenix sylvestris* (L.) Roxb.	Arecaceae	Etta	West Asia
73.	*Plumaria rubra* L.	Apocynaceae	Deva Gannaru	South Amarica
74.	*Plumaria alba* L.	Apocynaceae	Deva Gannaru	West Indies
75.	*Polyalthia longifolia* (Sonn.) Thw.	Annonaceae	Ashoka	Sri Lanka
76.	*Prosopis juliflora* (Swartz) DC.	Mimosaceae	Sarkar Bobbili	Trop. America
77.	*Psidium guajava* L.	Myrtaceae	Jama chattu	Trop. America
78.	*Punica granatum* L.	Punicaceae	Dannima	China
79.	*Ricinus communis* L.	Euphorbiaceae	Amudamu.	South Africa
80.	*Sesamum orientale* L.	Pedaliaceae	Nuvvulu	Africa
81.	*Sida acuta* Burm. f. F1	Malvaceae	Vishaboddi, Bala.	Trop. America
82.	*Sphaeranthus indicus* L.	Asteraceae	Bodatalamu	Africa
83.	*Tagetes erecta* L.	Asteraceae	Banti	Mexico
84.	*Tamarindus indica* L.	Caesalpiniaceae	Chinta chattu	Central Africa
85.	*Tecoma stans* (L.) H. B & K.	Bignociaceae	Ganta Pula chattu	South America
86.	*Tribulus terrestris* L.	Zygophyllaceae	Pallaru	Trop. America
87.	*Tridax procumbens* L.	Asteraceae	Gaddi chamanti	South America
88.	*Xanthium indicum* Koen.	Asteraceae	Pallaru	Europe
89.	*Ziziphus mauritiana* Lam.	Rhamnaceae	Ragu chattu	China

RESULT AND DISCUSSION

A total of 89 species distributed in 76 genera and 44 families were recorded as exotic flora in Telangana University Main campus, Nizamabad, Telangana State, India. A total of 31 different geographic regions in terms of nativity are recorded in the present study. Among these about 89 are contributed by 31 major geographical regions in terms of nativity are recorded in the present study vise Tropical America (23 species), South America, America and Tropical Africa each (07 species). Majority of Exotic plants belonged to Tropical America which comprises 23 out of the total plants of Telangana Univeristy.Major families are Asteraceae(09 species) & Caesalpiniaceae, (08 species) of Exotic flora of Telangana University.

REFERENCES

1. Ahmad A, 1999. India: A General Geography, NCERT Publications, New Delhi, India, 66-76.
2. Cooke T, 1958. The Flora of the Presidency of Bombay, Vols 1-3 Reprinted edition, Government of India.
3. Nagar, P. S., Pathak, S. J and S. M. Pandya, 2004. The alian flora of the Barda hills and its surroundings in Gujarat, India. Indian J. for., 27(1):25-38.
4. Naik, V. N. (1998). Flora of Marathwada(2 Vol.), Amrut Prakashan, Aurangabad, India.
5. Pullaiah T and Ravi Prasad Rao B, 1995. Flora of Nizamabad, Andhra Pradesh India, Bhisensingh Mahendrapalsingh, Dehradun, India.
6. Reddy C. S. (2008). Catalogue of invasive alien flora of India. Life Science Journal., 5(2):84-89.
7. Sharma, B. D., Kartikeyan, S & N. P. Singh (Ed). 1996. Flora of Maharashtra state Monocotyledones, Botanical Survay of India.
8. Sharma B. D. 1984. "Exotic Flora of Allahabad," Botanical Survey of India, Dehra Dun.
9. Singh A. (2011). Exotic flora of the Banaras Hindu University main campus, India. Journal of Ecology and the Natural Environment 3(10) 337-343.
10. Singh, N. P & S. Karthikeyan (Ed.). 2000. Flora of Maharashtra State Dicotiledones Vol (1).Botanical Survey of India.
11. Singh, N. P., Laxminarasimhan, P., Karthikeyan, S & P. V. Prasanna (Ed.). 2001. Flora of Maharashtra State Dicotiledones Vol (2).Botanical Survay of India.
12. Tomar A, H Singh and V Singh. 2008. Exotic elements in the flora of Baghpat district, Uttar Pradesh. Indian Journal of Forestry 31(3) 463-471.