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Documentation of Ornamental Flora of Balkumari College

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ABSTRACT

The practice of decorating home Garden, temples, public parks, hotels, college and other places by ornamental plants have been known from ancient time. These plants are advantageous as they are so applicable for aesthetic purpose in landscaping and also provide fresh air to breathe. The study was destined to document about the circumstances of ornamental plants of Balkumari College. Information's were collected by direct observation questionnaires, interview, and photographic collection. 54 ornamental plants were documented belonging to 38 families. Out of them, 26 plants belong to the herbs .13 plants were shrubs and 10 plants were documented as trees whereas 5 plants were climbers. As 22 plants had entire plants as ornamental values, 28 plants are documented as flowers, as ornamental parts 3 plants had leaves as ornamental part only one plant had fruit, as ornamental part. Out of 54 plants, 42 plants were reported as perennial and 12 plants as annual growing pattern out of all documented plants, 39 plants were available throughout the year 14 plants were cultivated in winter season and only one plant cultivated in the summer season

Key Words: Balkumari College ornamental plants, herb, climber, shrub tree

INTRODUCTION

Balkumari College is one of the leading ISO certified college importing education of university as well as +2 level Nepal. This college is located in the tropical region of inner Terai zone of the central part of Nepal. Geographically this college is situated between Chure and Mahabharat range in Chitwan District and about 410 meter in altitude. The Chitwan District is located between 83° 55" to 84° 48" W in latitude and 27° 21" to 27° 46" N in longitude (Bhujal et al 2007). The vegetation of Chitwan is described in relation to bio-climatic zone altitude longitude and rainfall pattern. The college premises are great depository of tropical weed flora. Besides these large varieties of ornamentals plants are also cultivated in this college in proper landscape. (Das. 2012). There are also rock gardens, potted plants and small pond that make paradise of plants. There are a large numbers of exotic ornamental plants that make college unique. The present paper deals with the enumeration and documentation of scientific name vernacular names, families habit, ornamental parts, growing pattern and availability or season of ornamental plants.

MATERIAL AND METHOD

The ornamental plants of Balkumari College were carefully enumerated in months of January, April and August in 2019 AD. These plants were identified by different literatures, books and websites. Herbaria were also prepared for the identification of plants. The visual assumption method and photography were adopted for data collection. Besides these the author was also concerned with gardener and proprietor of different nurseries for the identification of plants. (Fischer, 1990)

RESULT

The study area has abundant floral diversity. The ornamental plants play remarkable role in many ways. They help in decorating ceremonial places and also can provide employment to many people. As a whole 54 ornamental plants belonging to 38 families have been recorded in Balkumari College premises. A list of plants along with their botanical name, vernacular name, habit, ornamental parts, growing pattern and availability are mentioned in appendix I.

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Categorization of plants

Family: Among 54 plants were documented in the study area 38 families are recorded in which 7 plants belongs to Areaceae and 3 plants belong to Asteraceae and Asparasaceae 2 ornamental plants are recorded in families like Nyctaginaceae Verbenaceae, Apocyanaceae, Lamiaceae, Euphorbiaceae, Rubiaceae, and a plant of each family was represented as Asphodeaceae, Cycadaceae, Myrtaceae, Fabaceae, Caryophyllaceae, Rutaceae, Polygonaceae, Bignoniaceae, Clusiaceae, Auraciaceae, Cuperaceae, Geraniaceae, Araceae, Papaveraceae, Zamiaceae, Annonaceae, Crassuliaceae, Streliziaceae, Rosaceae, Pinaceae, Lythraceae, Cannaceae, Elaeocarpaceae, Amaranthaceae, Malvaceae, Convoulaceae, Poaceae, and Nephroliaceae. These families can be categorized as

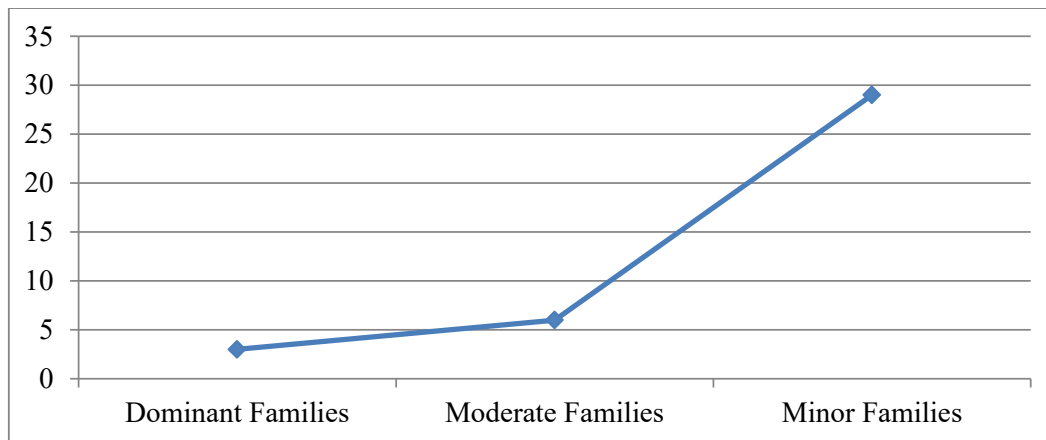


Figure No. 1

Habit: Out of 54 plants documented as ornamental plants, 26 plants are herbs 13 plants are shrubs and 10 plants are trees whereas 5 plants are climbers

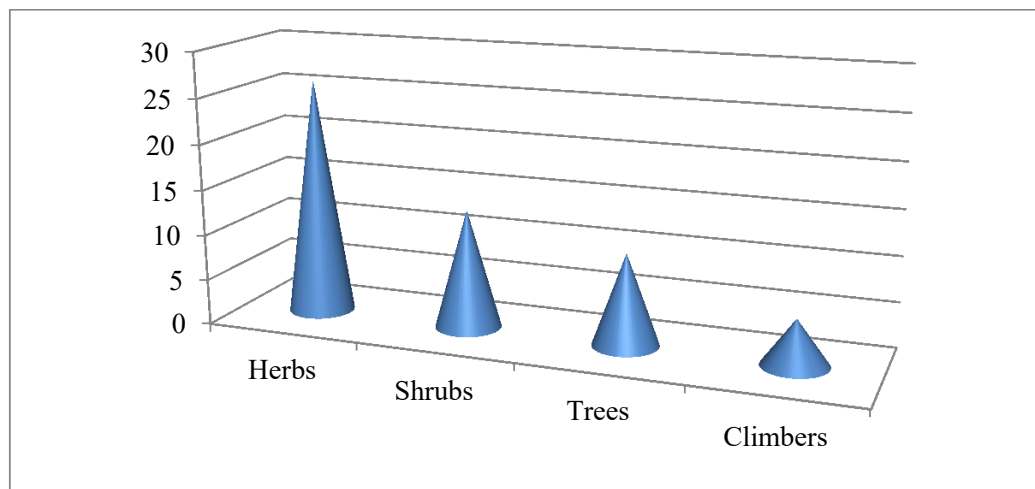


Figure No. 2

Ornamental parts of different plants: Different ornamental parts were documented where whole plants, flowers, leaves and fruits were the ornamental parts were identified. The predominate ornamental parts were flowers as it comprises 28 of them out of 54 plants that were documented, 22 plants consist of whole plant as ornamental value, here, whole plants generally mean to palms, cacti, succulent, some ornamental trees and some hedge because more than the leaves of the plants. The entire shapes of the plants thorns of cacti etc make them look attractive. In that sense the ornamental parts of some plants were considered as whole plants. Also 3 plants consist of leaves as ornamental parts. Only a plant like *Elaeocarpus ganitrus* (Rudarkha) had fruit as ornamental value.

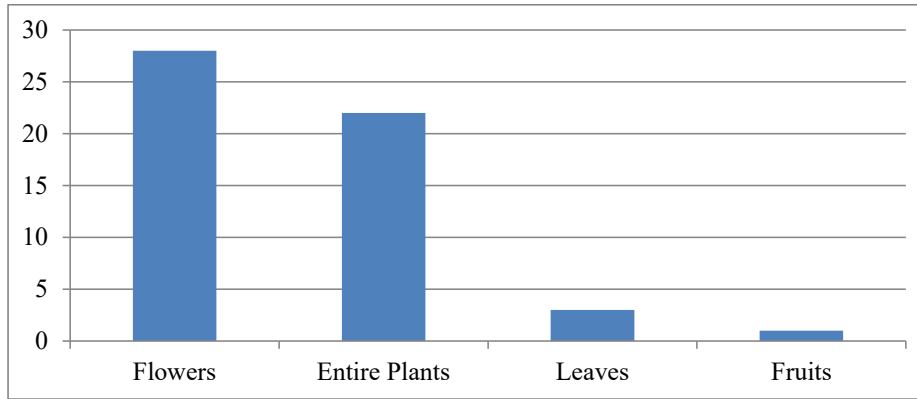


Figure No. 3

Growing pattern of ornamental plants: Among 54 documented ornamental plants, 42 plants are perennial whereas 12 plants are as annual.

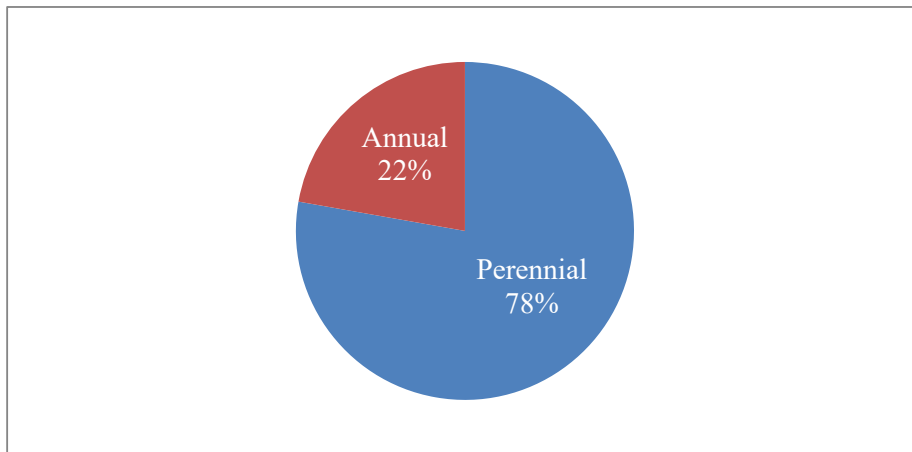


Figure No. 4

Availability: of ornamental plants: All documented plants of study area, 39 plants occur throughout the year 14 plants are cultivated in winter season as ornamental plants only a plant is cultivated in summer season

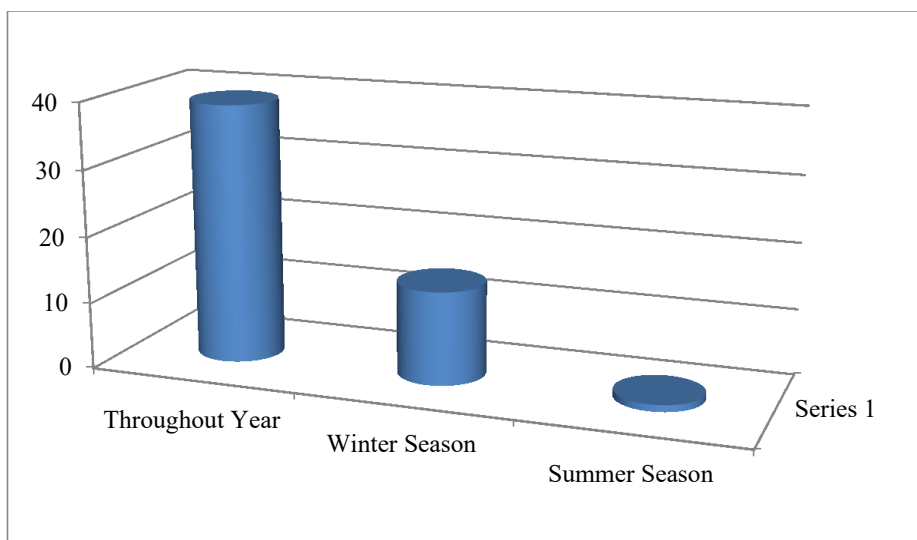


Figure No. 5

CONCLUSION

The current study contributes to the documentation of ornamental plants of Balkumari College premises. Out of 38 families, Araceae, Asteraceae, Asparagaceae, Nyctaginaceae Apocyanaceae, Rubiaceae, and Varbeniaceae have greater number of plants. As these families are most economically important families as well. Most of the ornamental plants are exogenous in origin. In recent time more than 50% ornamental plants are imported from India and also the demand of cut flowers in winter season is fulfilled by India.

There is no nursery in college premises, ornamental plants play significant role in decorating home garden and public places. It also makes the environment clean, fresh, healthy, colourful and beautiful. The administration of Balkumari College should develop essential and required infrastructure the proper cultivation method like soil management, splash irrigation method, proper management of manures, chemical fertilizers and pesticides should be followed.

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APPENDIX-I Documentation of ornamental plants

S. N.	Scientific name	Family	Vernacular name	Habit	Ornamental parts	Growing pattern	Availability
1	<i>Aloe vera</i>	Asphodelaceae	Gheu Kumari	Herb	Leaves	Perennial	TY
2	<i>Antirrhinum majus</i>	Verinaceae	Sarpdraygon	Herb	Flower	Annual	winter
3	<i>Bougainvillia glabra</i>	Nyctaginaceae	Kagaje phool	Climber	Flower	Perennial	TY
4	<i>Cateranthus roseus</i>	Apocyanaceae	Sadabahar	Herb	Flower	Perennial	TY
5	<i>Calendula affinalis</i>	Asteraceae	Calendula	Herb	Flower	Annual	Winter
6	<i>Cycas revoluta</i>	Cycadaceae	Cycas	Tree	Leaves	Perennial	TY
7	<i>Clistemon citritus</i>	Myrataceae	Bottlehersh tree	Tree	Flower	Perennial	TY
8	<i>Clitoria ternatea</i>	Fabeceae	Pigeon wings	Climber	Flower	Perennial	TY
9	<i>Dahlia pinnata</i>	Asteraceae	Lahure Phool	Herb	Flower	Annual	Winter
10	<i>Delphinium ajacis</i>	Caryophyllaceae	Carnation	Herb	Flower	Annual	Winter
11	<i>Plectranthus scutellaroidesh</i>	Haminaceae	Coleus	Herb	Hedge	Perennial	Ty
12	<i>Roystonea regia</i>	Areaceae	Bottle brush palm	Tree	Whole plant	Perennial	Ty
13	<i>Bismarkia noblis</i>	Areaceae	Fan palm	Tree	Whole plant	Perennial	Ty
14	<i>Rayenala medagascariensis</i>	Areaceae	Traveler palm	Tree	Whole plant	Perennial	Ty
15	<i>Murraya paniculata</i>	Rutaceae	Kamini	Shrub	Whole plant	Perennial	Ty
16	<i>Dracaena fragranus</i>	Asparagaceae	Dracaena	Shrub	Whole plant	Perennial	Ty
17	<i>Muehcbenkia axillaris</i>	Polygonaceae	Wire plant	Climber	Whole plant	Perennial	Ty
18	<i>Sensiveria trifasciata</i>	Asparagaceae	Snake plant	Herb	Whole plant	Perennial	Ty
19	<i>Codiaeum variegatum</i>	Euphorbiaceae	Croton	Shrub	Whole plant	Perennial	Ty
20	<i>Pyrostegia venusta</i>	Bignoniaceae	Flame vine	Climber	Flowers	Perennial	Ty
21	<i>Gracinia mangostana</i>	Clusiaceae	Mangosteen	Shrub	Whole plant	Perennial	Ty
22	<i>Tagetes patula</i>	Asteraceae	Saypatri	Herb	Flower	Annual	Winter

23	<i>Arucaria columnaris</i>	Arnascariaceae	Xmas tree	Tree	Whole plant	Perennial	Ty
24	<i>Thuja occidentalis</i>	Cuperessaceae	Dhoopi	Shrub	Whole plant	Perennial	Ty
25	<i>Zinnia elegans</i>	Asteraceae	Zinnia	Herb	Flower	Annual	Summer
26	<i>Asperagus officinalis</i>	Asperagaceae	Kurilo	Herb	Whole plant	Perennial	Ty
27	<i>Geranium cinereum</i>	Geraniaceae	Geranium	Herb	Whole plant	Annual	Winter
28	<i>Ixora coccinea</i>	Rubiaceae	Ixora	Shrub	Flower	Perennial	Ty
29	<i>Anthurium andraeanum</i>	Araceae	Flamingo flower	Herb	Whole plant	Perennial	Ty
30	<i>Lantana camara</i>	Verbnaceae	Banmasa	Shrub	Flower	Perennial	Ty
31	<i>Mussaenda pubescens</i>	Rubiaceae	Mussaenda	Shrub	Flower	Perennial	Ty
32	<i>Eschscholizia californica</i>	Papaveraceae	Poppy flower	Herb	Flower	Annual	Winter
33	<i>Gazania elegans</i>	Asteraceae	Gazania	Herb	Flower	Annual	Winter
34	<i>Chrysanthemum indicum</i>	Asteraceae	Godavari	Herb	Flower	Annual	Winter
35	<i>Zamia furfuraceae</i>	Zamiaceae	Zamia	Herb	Whole plant	Perennial	Ty
36	<i>Plumeria rubra</i>	Apocyanaceae	Galaincho	Shrub	Flower	Perennial	Ty
37	<i>Polyathia longifolia</i>	Annonaceae	Lahare Ashoka	Shrub	Whole plant	Perennial	Ty
38	<i>Bryophyllum pinnatum</i>	Crassuliaceae	Patharchata	Herb	Whole plant	Perennial	Ty
39	<i>Strelizia ragenae</i>	Streliziaceae	Bird's paradise	Herb	Flower	Perennial	Ty
40	<i>Rosa indica</i>	Rosaceae	Gulaf	Prickly shrub	Flower	Perennial	Winter
41	<i>Pinus roxburghi</i>	Pinaceae	Rani salla	Tree	Whole plant	Perennial	Ty
42	<i>Salvia officinalis</i>	Lamiaceae	Salvia	Herb	Flower	Annual	Winter
43	<i>Cascabela thevetia</i>	Apocyanaceae	Karbir	Shrub	Flower	Perennial	Ty
44	<i>Nyctanthes arbortristis</i>	Nyctanthaceae	Parijat	Tree	Flower	Perennial	Early winter
45	<i>Lawsonia inermis</i>	Lythraceae	Mehandi	Shrub	Leaves	Perennial	Ty
46	<i>Canna indica</i>	Cannaceae	Camera phool	Herb	Flower	Perennial	Ty
47	<i>Elaeocarpus ganitrus</i>	Elaeocarpaceae	Rudrakh	Tree	Fruit	Perennial	Ty
48	<i>Euphorbia milli</i>	Euphorbiaceae	Siudi	Prickly herb	Flower	Perennial	Winter
49	<i>Gomphrena globosa</i>	Amaranthaceae	Makhamali phool	Herb	Flower	Annual	Winter
50	<i>Hibiscus rosa sinensis</i>	Malvaceae	Ghanti phool	Shrub	Flower	Perennial	Ty
51	<i>Ipomea carica</i>	Convovulaceae	Railway creeper	Climber	Flower	Perennial	Ty
52	<i>Livistona chinensis</i>	Areaceae	Fan palm	Tree	Whole plant	Perennial	Ty
53	<i>Cyanodon dactylon</i>	Poaceae	Dubo	Herb	Whole plant	Perennial	Ty
54	<i>Nephrolepsis corolifolia</i>	Nephro lepidaceae	Pani amala	Herb	Whole plant	Perennial	Ty

*TY= Throughout Year