



EX. SITU CONSERVATION OF CACTI AND SUCCULENTS OF ARTS, SCIENCE AND COMMERCE COLLEGE, RAHURI, BOTANIC GARDEN, RAHURI TEHSHIL DISTRICT - AHMEDNAGAR (M.S.)

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ABSTRACT Arts, Science and Commerce College, Rahuri (Ganesh Tekadi) of Rahuri tehsil encompass the geographical area (19.3927° N, 74.6488° E) of North-East Maharashtra, India. It represents a rare mixture of plants with various varieties. Entire area comes under region have deciduous forests with some invasive species. The present investigation is focused on planting and conserving the various cacti and succulents of this region. The study area is not favorable for plant growth because of very hard strata, This is an opportunity taken into consideration and college has developed large number of cacti and succulents and conserve them. The Ex. situ conservation of cacti and succulents have been conducted into different parts of world by various workers, 20,9,7,12,1,4,5,14,18,15,16. About 300 species of cactus and succulents were planted conserved and identified on the basis of there morphotaxonomy. In the present study total 184 species of cacti and 116 species of succulents belonging to 88 genera and 16 families were recorded. Thus efforts are made to increase and conserve the number of cacti and succulents in the present study area.

KEYWORDS : Cacti, succulents, conservation , decideousforest.

Introduction :

About 10000 species of succulent plants ranging from tiny annuales to huge tree, belonging to over 30 families¹² Among these families cactaceae is largest with over 1400 species^{9,13}.

Cacti are conspicuous elements of the Western hemisphere. They have long attracted attention due to their peculiar biology and have maintained close relationship with local settlers. Cacti require less water small space and minimum attention. They are not only cultivated for beautiful flower but also for economic purposes. Cacti and succulents with their unique shape produces beautiful colours white, pink, purple, yellow, crimson and deep red are sought after for ornamental uses with the ever increasing demand in the horticultural markets.¹⁵Cacti are tougher than most plants adopted to extreme conditions able to survive in areas were nothing else will grow and are used as food, fodder, medicinal and ornamental plants, and as a source of wood. Mexico is the country with highest diversity of cactus in the American continent. Recent taxonomical and ecological studies have confirmed that more than 600 species are found in Mexico. Followed by Brazil, Argentina, Boliria and Peru.¹⁴ These countries are also the richest in endemic species. The underlying factors affecting diversity patterns are varied and include temperature, rainfall and geological history. Cacti are threatened by loss and degradation of habitat, and illegal collection. Many cactus species are currently threatened /endangered^{9,11,17,10}

More than 60 species are listed in the Red Data Book of International Union for the Conservation of Nature¹⁰ Likewise, over 200 species have been included in red lists of the Mexican environmental agency¹⁷ Due to the high number of threatened and endangered species, it has been suggested that it is crucial to obtain information on different biological and ecological aspects of Cacti, Such as their geographical distribution patterns, levels of endemism and endangerment, which could contribute to adequate management and conservation at a regional level¹⁴ Due to the growing impact of human activities on biodiversity it is necessary to increase conservation action to preserve this interesting group of plants.

Study of Ex-situ conservation of cacti and succulents are undertaken by many researchers world wide in different level. Thus an extensive survey has been conducted for the study of cacti and succulents planted and conserved in Rahuri College botanic garden. Therefore an attempt is being made with following aims and objectives.

1. Conservation of cacti and succulents
2. Survey of cacti and succulents flora within study area
3. Protection of environments

Material and Methods :

Crowing of cacti and succulents in botanic gardens provides them

protection and can help ensure survival¹¹.The cactus and succulent polyhouse at Rahuri college Botanic Garden, is one of the main plant house in Ahmednagar district (M.S.) which holds a germ plasm collections of cacti and succulents from different arid regions.

A :

1. Erection of Quonest type poly house having an area 90 sqm. With centre height 5.8 meters and side height 3.6 meter.
2. Beds size (14.4 m ×1.2 m ×1 m) × 3 Beds
3. Bed Filling²
4. Plantation : By Vegetative propagation – i) Cutting ii) Suckers and iii) Grafting
5. Irrigation : Once in a week
6. Maintainance :
 - a) Maintain high temperature all round year with an average of 31-32°C
 - b) If temperature inside the poly house get above the 32°C, plants inside make sure that it is well ventilated during summer.
 - c) Cacti should receive full sunlight
 - d) Soil has completely dried out after a day or two.
 - e) Weeding done frequently.

7. Transplantation : transplantation done twice in a year during October/November and February/March

B: All the cacti and succulents species available in the study area were documented, labeled, and photographs was taken.

C: List of plants found in the study area were recorded with the help of published work on cactus^{3,8,19}

D: All Identified plant specimens were labeled and conserved in situ.

E: Total 300 species of cacti and were succulents were listed from study area are serially

arranged as per their alphabetical botanical names, common names family and status In Table number 1 and 2.

Result and Discussion :

Plantation and conservation were started since 2012 till date. It was done with the involvement of the students of nursery development and management, students of botany department and the students of earn and learn scheme.

In the present study, total 300 cacti and succulents species belonging to 88 genera and 16 families were recorded in table 1 and 2. Among 300 species of cacti and succulents 184 species of cacti (25 endangered, 01 threatened and 158 least concerned) and 116 species of succulents belonging to 88 genera of 16 families were found in study area.

Table 1. Cacti in the ASCC Rahuri Baotanic Garden and their status :

Sr.No.	Botanical Name	Common Name	Family	Status
1.	<i>Acanthocalycium violaceum</i>	Spiny lilac	Cactaceae	Least Concern
2.	<i>Aporocactus flagelliformis</i>	Rattail Cactus	Cactaceae	Least Concern
3.	<i>Ariocarpus fissuratus</i>	False peyota	Cactaceae	Endangered
4.	<i>Ariocarpus retusus</i>	Peyote Cimarrón	Cactaceae	Endangered
5.	<i>Astrophytum asterias</i>	Star Cactus/ sand dollar cactus	Cactaceae	Endangered
6.	<i>Astrophytum capricorne ' crassispinum'</i>	Goat's horn cactus	Cactaceae	Least Concern
7.	<i>Astrophytum myriostigma</i>	bishop's hat cactus	Cactaceae	Least Concern
8.	<i>Astrophytum myriostigma 'Potosina Nudum'</i>	Bishop's cap	Cactaceae	Least Concern
9.	<i>Astrophytum myriostigma ' Quadricostata'</i>	Bishop's cap	Cactaceae	Least Concern
10.	<i>Astrophytum ornatum</i>	Monk's Hood	Cactaceae	Endangered
11.	<i>Aztekium retteri</i>	Peyotillo	Cactaceae	Least Concern
12.	<i>Blossfeldia liliputano</i>	Blossfeldia	Cactaceae	Least Concern
13.	<i>Borzicactus madisoniorum</i>	<i>Borzicactus madisoniorum</i> ,	Cactaceae	Least Concern
14.	<i>Borzicactus samaipatanus</i>	<i>Borzicactus samaipatanus</i>	Cactaceae	Least Concern
15.	<i>Buiningia brevicylindrica</i>	<i>Buiningia aurea</i>	Cactaceae	Least Concern
16.	<i>Carnegia gigantea</i>	Saguaro	Cactaceae	Least Concern
17.	<i>Cephalocereus senilis</i>)	old man cactus	Cactaceae	Least Concern
18.	<i>Cephalocereus palmeri</i>	old man cactus	Cactaceae	Least Concern
19.	<i>Cereus haageanus</i>	<i>Cereus haageanus</i>	Cactaceae	Endangered
20.	<i>Chamaecereus silvestrii ' Lutea'</i>	Peanut Cactus	Cactaceae	Least Concern
21.	<i>Cleistocactus winteri</i>	golden rat tail	Cactaceae	Least Concern
22.	<i>Cleistocactus baumannii</i>	<i>Cleistocactus baumannii</i>	Cactaceae	Endangered
23.	<i>Cleistocactus ritteri</i>	silver torch or wooly torch	Cactaceae	Least Concern
24.	<i>Cleistocactus strausii 'Jujuyensis'</i>	<i>Cleistocactus strausii</i>	Cactaceae	Least Concern
25.	<i>Copiapoa Montana</i>	<i>Copiapoaesmeraldana</i>	Cactaceae	Least Concern
26.	<i>Copiapoa mollicul</i>	Liten randkaktus	Cactaceae	Least Concern
27.	<i>Copiapoa tenuissima</i>	<i>Copiapoa</i>	Cactaceae	Least Concern
28.	<i>Coryphantha bumamma</i>	Pincushion cacti	Cactaceae	Least Concern
29.	<i>Coryphantha pallida</i> ,	-----	Cactaceae	Least Concern
30.	<i>Coryphantha cornifera</i>	Sea-urchin cactus	Cactaceae	Least Concern
31.	<i>Coryphantha elephantidens</i>	Elephant's Tooth	Cactaceae	Least Concern
32.	<i>Coryphantha maiz-tablasensis</i>	<i>Coryphantha maiz-tablasensis</i>	Cactaceae	Endangered
33.	<i>Coryphantha radians</i>	Starry Ball	Cactaceae	Least Concern
34.	<i>Coryphantha ramillosa</i>	cory cactus and whiskerbush	Cactaceae	Endangered
35.	<i>Coryphantha robustispina</i>	Pima pineapple	Cactaceae	Endangered
36.	<i>Discocactus araneispinus</i>	spider shapedspines	Cactaceae	Least Concern
37.	<i>Discocactus flagelliformis</i>	rattail cactus	Cactaceae	Near Threatened
38.	<i>Discocactus Martianus</i>	Thumps up	Cactaceae	Least Concern
39.	<i>Discocactus horstii</i>	woutersianus. D. horstii	Cactaceae	Least Concern
40.	<i>Dolichothele longimamma</i>	Nipple Cactus	Cactaceae	Least Concern
41.	<i>Echinocactus grusonii</i>	Golden Barrel	Cactaceae	Endangered
42.	<i>Echinocactus ingens</i>	giant barrel	Cactaceae	Least Concern
43.	<i>Echinocactus platyacanthus</i>	giant viznaga	Cactaceae	Least Concern
44.	<i>Eichinocereus fitchii</i>	lace or hedgehog	Cactaceae	Least Concern
45.	<i>Eichinocereus knippelianus</i>	Peyote Verde	Cactaceae	Least Concern
46.	<i>Eichinocereus pectinatus</i>	Rainbow Cactus	Cactaceae	Least Concern
47.	<i>Eichinocereus pectinatus, Rigidissimus</i>	Rainbow Cactus	Cactaceae	Least Concern
48.	<i>Eichinocereus triglochidiatus 'Melanacanthus – Cristata'</i>	kingcup cactus	Cactaceae	Endangered
49.	<i>Echinomastus erectocentras</i>	redspine butterfly	Cactaceae	Endangered
50.	<i>Echinopsis aurea ' Leucomalla'</i>	Golden Easter Lily	Cactaceae	Least Concern
51.	<i>Echinopsis calorubra</i>	Red Easter Lily	Cactaceae	Least Concern
52.	<i>Echinopsis hybrid – cristata</i>	Easter lily	Cactaceae	Least Concern
53.	<i>Echinopsis multiplex 'yellow'</i>	Hedgehog cacti	Cactaceae	Least Concern
54.	<i>Echinopsis hybrid – variegata</i>	Echinopsis	Cactaceae	Least Concern
55.	<i>Encephalocarpus strobiliformis</i>	Pinecone Cactus	Cactaceae	Least Concern
56.	<i>Escobaria minima</i>	birdfoot cactus	Cactaceae	Endangered
57.	<i>Espositoa guentherl</i>	Cola de zona	Cactaceae	Least Concern
58.	<i>Espositoa lanata</i>	snowball old man	Cactaceae	Least Concern
59.	<i>Espositoa lanata –cristata</i>	cotton ball cactus	Cactaceae	Least Concern
60.	<i>Espositoa melanostele</i>	Peruvian old lady	Cactaceae	Least Concern
61.	<i>Espositoa senilis</i>	old Peruvian man	Cactaceae	Least Concern
62.	<i>Ferocactus cylindraceus</i>	California Barrel	Cactaceae	Least Concern
63.	<i>Ferocactus echidne</i>	Sonora barrel	Cactaceae	Least Concern
64.	<i>Feroactus horridus</i>	Cliff Barrel	Cactaceae	Least Concern
65.	<i>Feroactus pilosus</i>	Mexican lime	Cactaceae	Least Concern

66.	Gymnocalycium asterium	Blue Barrel Cactus	Cactaceae	Least Concern
67.	Gymnocalycium bruchii	chin cactus	Cactaceae	Least Concern
68.	Gymnocalycium denudatum	Spider cactus	Cactaceae	Least Concern
69.	Gymnocalycium horstii 'Bueneckeri'	Spider Cactus	Cactaceae	Least Concern
70.	Gymnocalycium mihanovichii	Plain chin cactus	Cactaceae	Least Concern
71.	Gymnocalycium mihanovichii 'Friedrichii'	Moon Cactus	Cactaceae	Least Concern
72.	Gymnocalycium mihanovichii 'Friedrichii'-orange	Moon Cactus (Orange)	Cactaceae	Least Concern
73.	Gymnocalycium mihanovichii 'Friedrichii'-pink	Moon Cactus(pink)	Cactaceae	Least Concern
74.	Gymnocalycium mihanovichii 'Friedrichii'-Red	Moon Cactus(red)	Cactaceae	Least Concern
75.	Gymnocalycium saglionis	-----	Cactaceae	Least Concern
76.	Haageocereus versicolor	Haageocereus.	Cactaceae	Least Concern
77.	Hamatocactus hamatocanthus	Turk's-Head Barrel	Cactaceae	Least Concern
78.	Hamatocactus setispinus	Twisted Rib Cactus	Cactaceae	Least Concern
79.	Harrisia fragrans	Fragrant Woolly	Cactaceae	Least Concern
80.	Hildewintera aureispina	Golden Rat Tail	Cactaceae	Least Concern
81.	Lemaireocereus prinosus	Cereus roridus	Cactaceae	Least Concern
82.	Lobivia famatimensis	Orange cob	Cactaceae	Least Concern
83.	Lobivia hybrid	Lobivia	Cactaceae	Least Concern
84.	Lobivia pentlandii 'Rosea'	Trichopsis pachaniesii	Cactaceae	Least Concern
85.	Lobivia rubescens.	Orange cactus	Cactaceae	Least Concern
86.	Lophophora williamsii	Peyote/whisky	Cactaceae	Least Concern
87.	Liphophora ziegleri	false peyote,	Cactaceae	Least Concern
88.	Machaerocereus eruca	Creeping Devil Cactus, Caterpillar Cactus	Cactaceae	Least Concern
89.	Mammillaria albiflora	Biznaguita/pincushion	Cactaceae	Least Concern
90.	Mammillaria bocasana	Powder puff	Cactaceae	Least Concern
91.	Mammillaria bocasana 'Cristata'	Powder Puff Cactus snowball cactus	Cactaceae	Least Concern
92.	Mammillaria boolii	globe cactus, nipple cactus	Cactaceae	Least Concern
93.	Mammillaria bombycina	pincushion cactus	Cactaceae	Least Concern
94.	Mammillaria candida	Snow ball	Cactaceae	Least Concern
95.	Mammillaria celsiana	Showy pincushion	Cactaceae	Least Concern
96.	Mammillaria chionocephala	-----	Cactaceae	Least Concern
97.	Mammillaria compressa	Mother of hundred	Cactaceae	Least Concern
98.	Mammillaria compressa cristata	Golden Lace Cactus	Cactaceae	Least Concern
99.	Mammillaria elegans	Elegant Nipple Cactus	Cactaceae	Least Concern
100.	Mammillaria elongata	Golden Stars	Cactaceae	Least Concern
101.	Mammillaria elangota 'Rufocrocea'	Golden lace	Cactaceae	Least Concern
102.	Mammillaria gemnispina	twin spined cactus	Cactaceae	Least Concern
103.	Mammillaria glassii	Cabeza blanca	Cactaceae	Least Concern
104.	Mammillaria glassii Cristata	nipple cactus	Cactaceae	Least Concern
105.	Mammillaria hahniana	old lady cactus	Cactaceae	Least Concern
106.	Mammillaria hahniana Giselana	Birthday Cake Cactus	Cactaceae	Least Concern
107.	Mammillaria herrerae	Golf ball	Cactaceae	Endangered
108.	Mammillaria humboldtii	pincushion cactus	Cactaceae	Critically
109.	Mammillaria microcarpa	Lizard Catcher	Cactaceae	Least Concern
110.	Mammillaria plumose	feather cactus	Cactaceae	Least Concern
111.	Mammillaria prolifera	Texas nipple cactus.	Cactaceae	Least Concern
112.	Mammillaria rodantna	Golden Lace	Cactaceae	Least Concern
113.	Mammillaria rodantina Sulphurea	-----	Cactaceae	Least Concern
114.	Mammillaria schiedeana	globe cactus	Cactaceae	Endangered
115.	Mammillaria spinosissima	Red-Headed Irishman	Cactaceae	Least Concern
116.	Mammillaria spinosissima form	Bristle Brush	Cactaceae	Least Concern
117.	Mammillaria theresae	Biznaga de Coneto	Cactaceae	Least Concern
118.	Mammillaria zeilmanniana	Rose Pincushion Cactus	Cactaceae	Least Concern
119.	Matucana paucicostus	Borzicactus paucicostatus	Cactaceae	Least Concern
120.	Matucana aureiflora	---	Cactaceae	Least Concern
121.	Melocactus bahiensis	Turk's Head	Cactaceae	Least Concern
122.	Melocactus deinacanthus	may vary across regions	Cactaceae	Endangered
123.	Melocactus saxicola	Turk's Cap Cactus	Cactaceae	Endangered
124.	Melocactus schatzeli ' cristata'	Flying Saucer Cactus	Cactaceae	Least Concern
125.	Melocactus glaucescenus	Melocactus paucispinus	Cactaceae	Endangered
126.	Monstrous' rodantha	-----	Cactaceae	Least Concern
127.	Notocactus graessneri	Scarlet Ball	Cactaceae	Least Concern
128.	Notocactus haselbergii ' cristata'	Crested Scarlet Ball	Cactaceae	Least Concern
129.	Notocactus leninghausii	Yellow Tower.	Cactaceae	Least Concern

130.	<i>Notocactus magnificus</i>	Balloon Cactus	Cactaceae	Least Concern
131.	<i>Notocactus magnificus</i> 'yellow'	Green Ball	Cactaceae	Least Concern
132.	<i>Notocactus mammulosus</i>	Lemon Ball	Cactaceae	Least Concern
133.	<i>Notocactus scopa</i>	Silver Ball	Cactaceae	Least Concern
134.	<i>Notocactus scopa</i> ' <i>cristata</i> '	Silver Ball	Cactaceae	Least Concern
135.	<i>Notocactus scopa</i> ' <i>Ruberrima</i> '	Silver Ball	Cactaceae	Least Concern
136.	<i>Notocactus scopa</i> ' <i>Ruberrima-cristata</i> '	Silver Ball	Cactaceae	Least Concern
137.	<i>Notocactus tubularis</i> ' <i>Cristata</i> '	Golden Ball	Cactaceae	Least Concern
138.	<i>Opuntia cylindrica</i>	Emerald Idol	Cactaceae	Least Concern
139.	<i>Opuntia diademata</i>	Paper Spine	Cactaceae	Least Concern
140.	<i>Opuntia falcata</i>	Saguaro Opuntia	Cactaceae	Least Concern
141.	<i>Opuntia Ficus-indica</i>	Indian fig	Cactaceae	Least Concern
142.	<i>Opuntia linguiformis</i> ' <i>Maverick</i> '	Eltham Indian Fig	Cactaceae	Least Concern
143.	<i>Opuntia microdasys</i> .	<i>Opuntia microdasys</i>	Cactaceae	Least Concern
144.	<i>Opuntia microdasys</i> ' <i>Albispina</i> '	Polka-dot	Cactaceae	Least Concern
145.	<i>Opuntia microdasys</i> <i>Monstrosa</i>	angel's wings	Cactaceae	Least Concern
146.	<i>Opuntia rufida</i>	Cinnamon cactus	Cactaceae	Least Concern
147.	<i>Opuntia tunicata</i>	Sheathed Cholla	Cactaceae	Least Concern
148.	<i>Oreocereus celsianus</i> 'form'	Old man of the mountain	Cactaceae	Least Concern
149.	<i>Pachycereus pringlei</i> ,	Elephant Cactus	Cactaceae	Least Concern
150.	<i>Parodia mairanana</i>	Red Tom Thumb	Cactaceae	Least Concern
151.	<i>Pediocactus bradyi</i>	Marble Canyon	Cactaceae	Endangered
152.	<i>Pediocactus knowltonii</i>	Knowlton's miniature	Cactaceae	Endangered
153.	<i>Peireskiopsis velutiana</i>	Velvety Miliusa	Cactaceae	Least Concern
154.	<i>Pelecypora asseliformis</i>	Woodlouse	Cactaceae	Least Concern
155.	<i>Pseudopilocereus nobilis</i>	-----	Cactaceae	Least Concern
156.	<i>Rebutia heliosa</i>	-----	Cactaceae	Least Concern
157.	<i>Rebutia arenacea</i> ,	Sandy Rebutia	Cactaceae	Least Concern
158.	<i>Rebutia canigueralii</i>	-----	Cactaceae	Least Concern
159.	<i>Rebutia marsoneri</i>	-----	Cactaceae	Least Concern
160.	<i>Rebutia minuscula</i>	Red crown	Cactaceae	Least Concern
161.	<i>Rebutia neocummingii</i>	sea urchin	Cactaceae	Least Concern
162.	<i>Rebutia pulvinosa</i>	-----	Cactaceae	Least Concern
163.	<i>Rebutia senilis</i>	Fire crown	Cactaceae	Least Concern
164.	<i>Rhipsalis burchellii</i> 'Hybrid'	Mistletoe	Cactaceae	Least Concern
165.	<i>Sclerocactus brevispinus</i>	shortspine fishhook	Cactaceae	Endangered
166.	<i>Sclerocactus glaucus</i>	Colorado hookless	Cactaceae	Endangered
167.	<i>Sclerocactus wrightiae</i>	fishhook cactus.	Cactaceae	Endangered
168.	<i>Stenocactus vaupelianus</i>	Brain Cactus	Cactaceae	Least Concern
169.	<i>Stenocactus stenocereus</i>	sweet cactus fruit	Cactaceae	Least Concern
170.	<i>Stenocactus beneckeii</i>	starfish flower	Cactaceae	Least Concern
171.	<i>Sulcorebutia arenacea</i>	-----	Cactaceae	Least Concern
172.	<i>Sulcorebutia arenacea</i> 'Hybrid'	-----	Cactaceae	Least Concern
173.	<i>Sulcorebutia flavissima</i>	-----	Cactaceae	Least Concern
174.	<i>Thelocactus bicolor</i>	Glory of Texas	Cactaceae	Least Concern
175.	<i>Thelocactus hexaedrophorus</i>	-----	Cactaceae	Least Concern
176.	<i>Trichocereus candicans</i>	Argentine Gian	Cactaceae	Least Concern
177.	<i>Trichocereus pasacana</i>	Pasacana Tree	Cactaceae	Least Concern
178.	<i>Trichocereus pasacana cristata</i>	Candelabra	Cactaceae	Least Concern
179.	<i>Trichocereus peruvianus</i>	torch cactus	Cactaceae	Least Concern
180.	<i>Turbincarpus mandragora</i>	Biznaugita	Cactaceae	Endangered
181.	<i>Turbincarpus schmiedickeanus</i> ' <i>Klinkerianus</i> ' yellow	Biznaugita	Cactaceae	Least Concern
182.	<i>Turbincarpus lophophoroides</i>	Biznaugita	Cactaceae	Least Concern
183.	<i>Turbincarpus schmiedickeanus</i> ' <i>Klinkerianus</i> '	Uñita	Cactaceae	Least Concern
184.	<i>Uebelmannia pectinifera</i>	-----	Cactaceae	Least Concern

Table 2. Succulents in the ASCC Rahuri Baotanic Garden :

Sr.No.	Botanical Name	Common name	Family
185.	<i>Abromeitiella chlorantha</i>	Bromeliad	Bromeliaceae
186.	<i>Adenium obesum</i> ' <i>Obesum</i> '	Desert Rose	Apocynaceae
187.	<i>Adenium obesum</i> ' <i>Somalense</i> '	Impala Lily	Apocynaceae
188.	<i>Adenium obesum</i> ' <i>Swazicum Swetangini</i> '	White Impala	Agavaceae /Apocynaceae
189.	<i>Agave americana</i> ' <i>Medio-picta</i> '	Century Plant	Agavaceae /Apocynaceae
190.	<i>Agave americana</i> ' <i>Medio-picta</i> ' <i>Alba</i>	Century Plant	Agavaceae /Apocynaceae
191.	<i>Agave angustifolia</i>	Caribbean Agave	Agavaceae /Apocynaceae
192.	<i>Agave angustifolia</i> ' <i>Woodrowii</i> '	variegated Agave	Agavaceae /Apocynaceae
193.	<i>Agave falcata</i>	sentry plant	Agavaceae /Apocynaceae

194.	Agave filifera	Thread- Agave	Agavaceae /Apocynaceae
195.	Agave geminiflora	TwinFlowered Agave.	Agavaceae /Apocynaceae
196.	Agave leopoldii	Leopold's Hybrid Agave	Agavaceae /Apocynaceae
197.	Agave lophantha 'Coerulescens'	American aloe	Agavaceae /Apocynaceae
198.	Agave parviflora	Santa cruize	Agavaceae /Apocynaceae
199.	Agave parviflora 'Compacta	Little princes	Agavaceae /Apocynaceae
200.	Agave potatorum	Butterfly Agave	Agavaceae /Apocynaceae
201.	Agave potatorum 'Form'	Silver Star	Agavaceae /Apocynaceae
202.	Agave stricta 'Nana'	Dwarf Hedgehog Agave	Agavaceae /Apocynaceae
203.	Agave stricta	Hedgehog Agave,	Agavaceae /Apocynaceae
204.	Aloe abyssinica	---	Amaryllidaceae
205.	Aloe arborescens	Aloe arborescens	Amaryllidaceae
206.	Aloe aristato	Medicinal aloe	Amaryllidaceae
207.	Aloe bakeri	Sea Daffodil	Amaryllidaceae
208.	Aloe brevipolia	short-leaved aloe	Amaryllidaceae
209.	Aloe brevipolia " Variegata'	partridge breast aloe	Amaryllidaceae
210.	Aloe cryptopoda	Yellow Aloe	Amaryllidaceae
211.	Aloe dichotoma	Quiver Tree	Amaryllidaceae
212.	Aloe distans 'Variegata'	Tiger Aloe	Amaryllidaceae
213.	Aloe harlana	Mosaic Aloe	Amaryllidaceae
214.	Aloe haworthioides	Haworthia-leaved aloe	Amaryllidaceae
215.	Aloe humilis	Spider Aloe	Amaryllidaceae
216.	Aloe humilis ' Echinata'	Hedgehog Aloe	Amaryllidaceae
217.	Aloe jucunda	-----	Amaryllidaceae
218.	Aloe plicatilis	Fan aloe	Amaryllidaceae
219.	Aloe rauhii	Snowflake aloe	Amaryllidaceae
220.	Aloe sladeniana		Amaryllidaceae
221.	Aloe Variegata	Partridge Breast Aloe	Amaryllidaceae
222.	Alluudia montagnacii	-----	Didiereaceae
223.	Anacampseros filamentososa	Love Plant	Portulacaceae
224.	Aptania cordifolia	heartleaf	Aizoaceae
225.	Beaucarnea longifolia	elephant's foot	Dracaenaceae
226.	Beaucarnea longifolia 'Marginata'	Ponytail Palm	Dracaenaceae
227.	Caralluma sarkarii	Caralluma	Asclepiadaceae
228.	Caralluma stalagifera		Asclepiadaceae
229.	Crassula carborescens	jade plant	Crassulaceae
230.	Crassula Falcata	airplane plant	Crassulaceae
231.	Dyckia breyifolia	SAWBLADE	Bromeliaceae
232.	Dyckia marnier-lapostollei	White Dyckia	Bromeliaceae
233.	Echeveria agavoides	Lipstick Echeveria	Grassulaceae
234.	Echeveria derenbergii	Painted Lady	Grassulaceae
235.	Echeveria peacockii	Peacock Echeveria	Grassulaceae
236.	Echeveria runyonii	Mexican Hen and Chicks	Grassulaceae
237.	Echidnopsis repens	great record	Aselapiadaceae
238.	Euphorbia bergeri	spurge	Euphorbiaceae
239.	Euphorbia bioensis	century plant	Euphorbiaceae
240.	Euphorbia bupleurifolia	Pine Cone Plant	Euphorbiaceae
241.	Euphorbia canariensis	Canary Island Spurge	Euphorbiaceae
242.	Euphorbia clavigera	Hercules Club	Euphorbiaceae
243.	Euphorbia dinteri	spurge	Euphorbiaceae
244.	Euphorbia echinus	Tikiwt	Euphorbiaceae
245.	Euphorbia flanagani	Green-crown	Euphorbiaceae
246.	Euphorbia flanagani ' Cristata'	Crested Medusa's Head, Green Coral	Euphorbiaceae
247.	Euphorbia horrida	African milkbarrel	Euphorbiaceae
248.	Euphorbia mamillaris ' Variegata'	Corncob cactus	Euphorbiaceae
249.	Euphorbia meloformis	spurge	Euphorbiaceae
250.	Euphorbia milli	Crown of thorns	Euphorbiaceae
251.	Euphorbia milli 'Breoni'	crown of thorns	Euphorbiaceae
252.	Euphorbia obesa	Base ball plant	Euphorbiaceae
253.	Euphorbia royleana	Sullu Spurge	Euphorbiaceae
254.	Euphorbia royleana 'Cristata'	Royle's Spurge	Euphorbiaceae
255.	Euphorbia squarrosa	spinysucculent	Euphorbiaceae
256.	Euphorbia tirucalli	Milk bush	Euphorbiaceae
257.	Euphorbia trigona	African Milk Weed	Euphorbiaceae
258.	Euphorbia viguieri	Viguier's spurge	Euphorbiaceae
259.	Furcraea gigantia ' Medio- picta'	Variegated Mauritius Hemp	Agraceae
260.	Gasteria batesiana,	Cow Tongue	Liliaceae
261.	Gasteria bicolor,	dwarf gasteria	Liliaceae
262.	Gasteria disticha	Great Karoo ox-tongue	Liliaceae
263.	Gasteria obtusifolia 'Variegata'	Ox Tongue	Liliaceae
264.	Gastrolea bedinghausii	Fan Aloe	Liliaceae
265.	Graptopetalum filiferum	Stonecrop	Crassulaceae

266.	<i>Graptopetalum paraguayense</i>	Ghost Plant	Crassulaceae
267.	<i>Haworthia fasciata</i> 'Variegata'	Calico Kitten	Liliaceae
268.	<i>Haworthia limifolia</i>	File Leafed Haworthia	Liliaceae
269.	<i>Haworthia Maxima</i>	Pearl Plant	Liliaceae
270.	<i>Haworthia papillosa</i>	"DONUTS".	Liliaceae
271.	<i>Haworthia resendeana</i>		Liliaceae
272.	<i>Haworthia setata</i>	Haworthia cactus	Liliaceae
273.	<i>Haworthia truncate</i> xmaughanil	Maughan's Haworthia	Liliaceae
274.	<i>Haworthia hystrix</i>	starfish flower or carrion plant	Liliaceae
275.	<i>Huernia kirki</i>	sea daisies	Apidaceae
276.	<i>Huernia hystrix</i>	Porcupine huernia	Apidaceae
277.	<i>Huernia zebrina</i>	Owl eyes / Zebra flower	Apidaceae
278.	<i>Jatropha podagrica</i>	Bottle plant shrub	Euphorbiceae
279.	<i>Kalanchoe blossfeldiana</i>	Fleming Katy	Crassulaceae
280.	<i>Kalanchoe daigremontianum</i>	Mexican hat plant	Crassulaceae
281.	<i>Kalanchoe marmorata</i>	Penwiper Plant	Crassulaceae
282.	<i>Kalanchoe 'Rose Leaf'</i>	-----	Crassulaceae
283.	<i>Kalanchoe wendy</i>	Spider cactus	Crassulaceae
284.	<i>Lithops glaudinae</i>	Stone Plant, Living Stone	Aizoaceae
285.	<i>Monadenium ellenbeckii</i>	Octopus arms	Euphorbiceae
286.	<i>Pachypodium geayi</i>	Madagascan palm	Euphorbiceae
287.	<i>Pachypodium lealii</i> 'Saundersil'	Bottle tree	Euphorbiceae
288.	<i>Pedilanthus tithymaloides</i>	Devil's backbone	Euphorbiceae
289.	<i>Pedilanthus tithymaloides</i> 'Cucullatus'	Cristmas candle	Euphorbiceae
290.	<i>Pedilanthus tithymaloides</i> "Nanus"	Nanus Devil Back bone	Euphorbiceae
291.	<i>Pedilanthus tithymaloides</i> 'Variegatus'	Japanese poinsettia	Euphorbiceae
292.	<i>Portulacaria afra</i>	Elephant bush	Portulacaceae
293.	<i>Sedum morganianum</i>	Donkey's tail	Crassulaceae
294.	<i>Senecio radicans</i> 'Fish hook'	String of banana	Asteraceae
295.	<i>Senecio stapeliaeformis</i>	Pickle plant	Asteraceae
296.	<i>Tavaresia grandiflora</i>	Devil's trumpet	Asteraceae
297.	<i>Uncarina grandidieri</i>	Mouse Trap tree	Pedaliaceae
298.	<i>Yucca aloifolia</i>	Dagger plant	Pedaliaceae
299.	<i>Yucca aloifolia</i> 'Marginata'	Golden spanish	Asparagaceae
300.	<i>Yucca aloifolia</i> 'Medio- picta'	Striped dagger	Asparagaceae

Conclusion :

Educational and aesthetic displays of plant species, their conservation and multiplication are the main important plant house, which attracts students, researchers academicians and plant lovers across the country.

Botanic gardens have an important role to play in ensuring that no species of cactus/other succulent plant becomes needlessly extinct. Working with the available expertise enhance that role.

At a practical level it remains a priority to develop more projects to supports conservation of cacti in their natural habitats as far as possible involving local NGO's and people as custodians of their flora.

Ex-situ collections indirectly supports such activities, allowing for research into propagation techniques, provision of propagules for restoration and long term storage of living material and seeds. Raising awareness of diversity and conservation needs and cacti is another important role for botanic gardens to play. For better understanding the problem it is necessary to study biochemical composition and their biochemical activity. Among 300 species under study most of the species having good medicinal value and are used by tribal people. So it seems to be more cultivate and conserve.

Rich floristic composition of cacti and succulents found in botanic garden of ASCC Rahuri, will be useful for Student, Biologist and Plant Lovers. It will also encourage researchers for understanding our cacti and succulents.

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