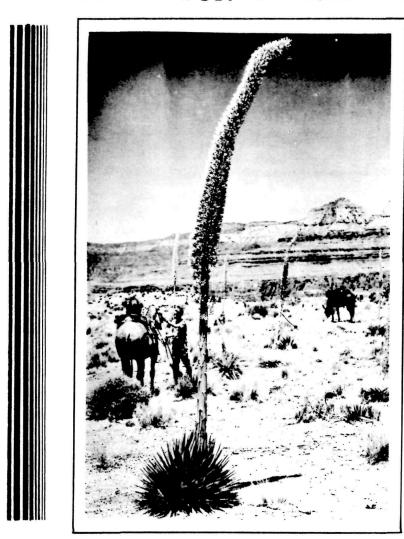
CHECK-LIST OF PLANTS OF GRAND CANYON NATIONAL PARK





Natural History Bulletin No. 6

Grand Canyon Natural History Association

June, 1936

NATURAL HISTORY BULLETIN NO. 6

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National Park Service, Grand Canyon National Park Grand Canyon Natural History Association

This bulletin is published by the Grand Canyon Natural History Association as a project in keeping with its policy to stimulate interest and to encourage scientific research and investigation in the fields of geology, botany, zoology, ethnology, archeology and related subjects in the Grand Canyon region. This number is one of a series issued at irregular intervals throughout the year.

Notification of the publication of bulletins by the Association will be given, upon date of release, to such persons or institutions as submit their names to the Executive Secretary for this purpose. The following bulletins are available at present:

No.	1	-	Mammals of the Grand Canyon Region 25¢
No.	2	-	History and Exploration of the Grand
			Canyon Region15¢
No.	3	-	Trees of Grand Canyon National Park50¢
No.	4	-	Contributions to Grand Canyon Bird Study15¢
No.	5	-	Contributions to Grand Canyon Geology 15¢
No.	6	-	Check-list of Plants of Grand Canyon
			National Park

M. R. Tillotson, Superintendent. Edwin D. McKee Exec. Sec'y. and Editor

CHECK-LIST OF PLANTS OF

GRAND CANYON NATIONAL PARK

INTRODUCTION TO PRELIMINARY CHECK-LIST

THE purpose of this check-list is to make available for interested persons a convenient means of ascertaining what plants occur in the Grand Canyon, to serve as a reference in general and local distribution of individual plants, and to establish a standard of authentic plant names in this region for use in educational and research work in the National Park.

The plants named in this list have been identified by the United States National Herbarium with a few exceptions. lichens were done by Mr. Charles C. Plitt. All other exceptions have been designated by placing the authority for the The reference used for phyloidentification in the text. genetic order, describer and general range of trees was "Checklist of the Forest Trees of the United States, Their Names and Ranges" by George Sudworth, and his nomenclature was followed for the trees. For other seed plants and for ferns, reference was made to "Flora of New Mexico" by E. O. Wooton and Paul C. Standley, and "Flora of the Rocky Mountains and Adjacent Plains" by P. A. Rydberg. Several plants occur in the check-list that were not found in manuals. In each of these cases a question mark was put down for the describer and general distribution.

"H.N." following the plant name in the text refers to the herbarium number of the specimen in the Grand Canyon Herbarium. In those cases in which a number does not follow "H.N.", there is no specimen of that plant in the Grand Canyon herbarium. A star following "H.N." indicates that the specimen may be found in the Forest Service herbarium in Kanab. Utah.

The work contributing to the compilation of this checklist has been carried on at the Grand Canyon for the past five years. It includes plant collections made by Glen E. Sturdevant, Edwin D. McKee, Vernon Bailey, Pauline Mead and Clyde Searl. A list of plants of the Kaibab Plateau in the United States Forest Service Herbarium at Kanab, Utah, was contributed by Walter G. Mann and is included here. These plants were also identified by the National Herbarium.

The preliminary status of this paper should be emphasized. The list is far from complete and there is much more information to be obtained before the entire local distribution of each plant is known. Collecting and identifying plants and building up the herbarium is being continued so that a more complete check list of Grand Canyon plants will be available in the near future.

Edwin D. McKee, who has overseen and participated in much of this work for the past three years and assisted in editing the text, is responsible to a large extent for the publication of the check-list. His advice and criticism is greatly appreciated by the writer.

Pauline Mead Patraw.

February, 1932.

INTRODUCTION TO REVISED EDITION

THIS revision is made necessary by the collection and identification of many new species. No change has been made in the style, except to substitute an indexing system for the herbarium number.

The collections of A. E. Borell, H. W. Marion, and Albert C. Hawbecker were identified by the University of California Herbarium, while all the others were identified by the National Herbarium at Washington, D. C. The same authorities were used in the revision as were used in the preliminary work.

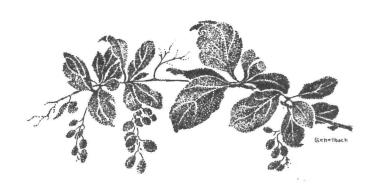
The above mentioned indexing system is taken from Tidestrom's "Flora of Utah and Nevada", and enables one to use the check-list as an index to the herbarium. Since the first edition, in February, 1932, collections have been made by Edwin D. McKee, A. E. Borell, Clyde Searl, Pauline Mead Patraw, D. E. McHenry, H. W. Marion, and Albert C. Hawbecker. Out of over five hundred plants some two hundred were new species which can be added to the list.

Edwin D. McKee assisted greatly in matters of policy, and also is responsible for editing the text. T. B. Plair, Forest Inspector, made the work possible by allowing time to be used in botanical research. Too much credit can not be given to Pauline Mead Patraw for paving the way with the first edition.

The check-list, as it now stands is still very incomplete. In many out-of-the-way places the writer saw new species that it was impossible to bring out, and there are other places that have not been touched that may yield new species. It is urged that others collect that the check-list and the herbarium be more complete.

Albert C. Hawbecker, Junior Forester.

March, 1936.



C O N T E N T S

PLANT FAMILIES BY COMMON NAMES

	Herbarium	Dama		Herbarium	Dame
	Number*	Page		Number	Page
	Transor "	,	0	0.0000000000000000000000000000000000000	0.7
Algae		1	Goosefoot	36	21
Amaranth	37	22	Grape	78	43
Amaryllis	22	15	Grass	16	8
Apple	59	35	Green Algae		1
Aster	128	64	Heath	96	50
Barberry	46	27	Honeysuckle	121	63
Beech	28	17	Horsetail	5	4
Bellflower	126	64	Hydrangea	56	31
Birch	27	17	Indian pipe	95	50
Bittersweet	75	42	Joint fir	8	7
Borage	110	55	Lichens		1
Broomrape	117	62	Lily	21	14
Buckthorn	77	42	Loasa	86	45
Buckwheat	35	19	Lobelia	127	64
Bur-reed	10	7	Madder	120	62
Buttercup	45	24	Mallow	79	43
Cactus	87	45	Maple	76	42
Capper	50	30	Milkweed	105	53
Carrot	92	49	Mimosa	61	35
Dogbane	104	52	Mint	113	58
Dogwood	93	50	Mistletoe	33	18
E1m	29	18	Mosses		2
Evening Primros	e 90	47	Mormon tea	8	7
Fern	2	3	Mulberry	31	18
Figwort	114	59	Mustard	49	27
Flax	66	40	Nettle	32	18
Four o'clock	38	22	Oleaster	88	47
Fumitory	48	27	Olive	100	51
Gentian	102	52	Orchid	24	16
Geranium	65	39	Pea.	64	36
Gooseberry	57	31	Phlox	108	53
	0.			200	30

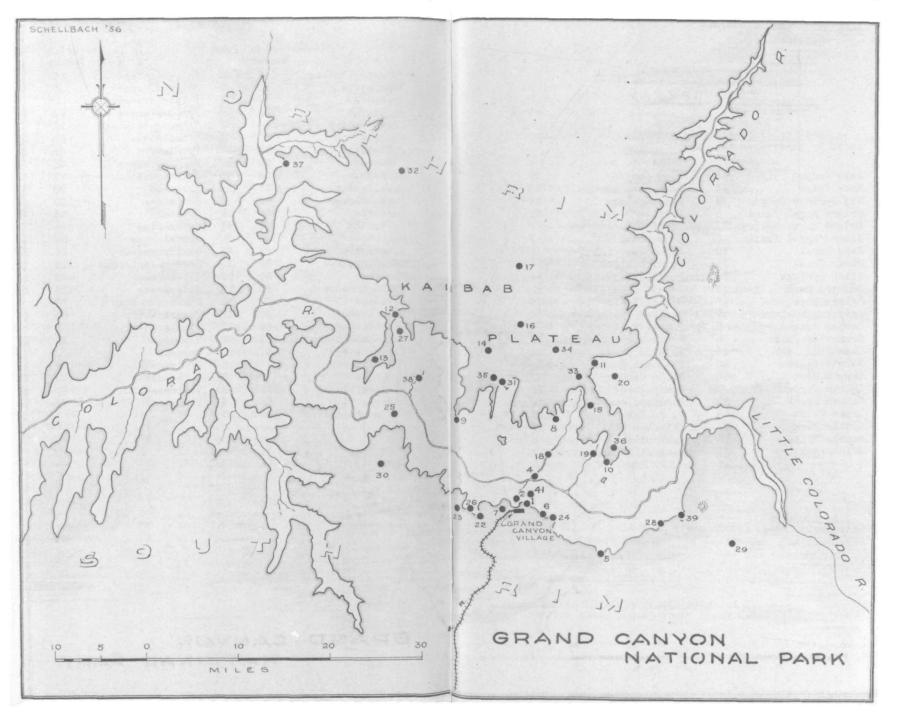
*The figures are the numbers of the family and indicate the number of the folder in which the specimen may be found in the Grand Canyon National Park Herbarium.

	Herbarium Number	Page		Herbarium Number	Page
Pine	7	5	Sedge	17	13
Pink	42	23	Senna	62	36
Plantain	119	62	Shinleaf	94	50
Plum	60	35	Spurge	71	40
Pondweed	11	7	St. John's-wort	; 80	44
Poppy	47	27	Stonecrop	53	30
Potato	112	57	Sumac	74	41
Primrose	98	51	Tamarix	83	44
Purslane	40	23	Verbena	111	56
Rose	58	32	Violet	85	45
Rue	68	40	Waterleaf	109	54
Rush	20	14	Water scum		1
Sandalwood	34	18	Water starwort	72	41
Saxifrage	54	30	Willow	26	16

PLANT FAMILIES BY SCIENTIFIC NAMES

	Herbarium Number	Page		Herbarium Number	Page
Acarosporaceae		1	Celastraceae	75	42
Aceraceae	76	42	Chenopodiaceae	36	21
Algae		1	Chlorophyceae		1
Amaranthaceae	37	22	Cladoniaceae		1
Amaryllidaceae	22	15	Cornac sae	93	50
Anacardiaceae	74	41	Crassulaceae	53	30
Apiaceae	92	49	Cyperaceae	17	13
Apocynaceae	104	52	Dicranaceae		2
Asclepiadaceae	105	53	Eleagnaceae	88	47
Asteraceae	128	64	Equisetaceae	5	4
Berberidaceae	46	27	Ericaceae	96	50
Betulaceae	27	17	Euphorbiaceae	71	40
Boraginaceae	110	55	Fabaceae	64	36
Brachytheciace	ae	3	Fagaceae	28	17
Brassicaceae	49	27	Fumariaceae	48	27
Cactaceae	87	45	Gentianaceae	102	52
Caesalpinaceae	62	36	Geraniaceae	65	39
Callitrichacea	e 72	41	Gnetaceae	8	7
Caloplacaceae		2	Grimmiaceae		2
Campanlulaceae	126	64	Grossulariaceae	57	31
Capparidaceae	50	30	Gyrophoraceae		1
Caprifoliaceae	121	63	Hydrangeaceae	56	31

	Herbarium	Page		Herbarium	Page
	Number			Number	
Hydrophyllacea	e 109	54	Polygonaceae	35	19
Hyperaceae	80	44	Polypodiaceae	2	3
Hypnaceae		3	Polytrichaceae		3
Juncaceae	20	14	Portulacaceae	40	23
Lecanoraceae	*	1	Potemogetonacea	θ 11	7
Lecideaceae		1	Primulaceae	98	51
Liliaceae	21	14	Pyrolaceae	94	50
Linaceae	66	40	Ranunculaceae	45	24
Loasaceae	86	45	Rhamnaceae	77	42
Lobeliaceae	127	64	Rosaceae	5 8	32
Loranthaceae	33	18	Rubiaceae	120	62
Malaceae	59	35	Rutaceae	68	40
Malvaceae	7 9	43	Salicaceae	26	16
Menthaceae	113	5 8	Santalaceae	34	18
Mimosaceae	61	35	Saxifragaceae	54	30
Monotropaceae	95	50	Scrophulariacea	e 114	59
Moraceae	31	18	Silenaceae	42	23
Nyctaginaceae	3 8	22	Solenaceae	112	57
Oleaceae	100	51	Sparaganaceae	10	7
Onagraceae	90	47	Tamaricaceae	83	44
Orchidaceae	24	16	Timmiacaceae		2
Orobanchaceae	117	62	Ulmaceae	29	18
Papaveraceae	47	27	Uneacae		2
Parmeliaceae		1	Urticaceae	32	18
Pinaceae	7	5	Verbenaceae	111	56
Plantaginaceae	119	62	Violaceae	85	45
Poaceae	16	8	Vitaceae	7 8	43
Polemoniaceae	108	53			



MAP LEGEND

Location of place names mentioned in check-list shown by numbers on the map:

Bass Canyon Bass Point Big Springs Canyon Bright Angel Point Bright Angel Springs Bright Angel Trail Cape Royal Clear Creek Cliff Springs DeMotte Park Desert View Dripping Springs Garden Creek Grandview Point Greenland Lake Hermit Basin Hermit Rest Indian Gardens Kaibab Trail	25 32 8 35 2 10 19 36 17 39 23 25 15 26 22 21	Muav Canyon Nankoweap Basin Neal Springs Pasture Wash Phantom Ranch Pipe Creek Point Imperial Point Sublime Powell Plateau Powell Saddle Ribbon Falls Roaring Springs Rowe's Well Santa Maria Springs Shinumo Creek Shoshone Point Slide Canyon Swamp Point Thompson Canyon	27 20 33 30 4 11 9 13 12 18 7 26 38 24 37 12 34
Indian Gardens	2	Swamp Point	12
Lipan Point Little Park Marble Flats Milk Creek	28 16 14 31	Thompson Canyon V. T. Ranch Waterloo Hill Yaki Point Yavapai Point	17 29 6

ALGAE "WATER SCUM, SEA WENDS"

Chlorophyceae "Green Algae"

Chara "Stonewort"

Chara vulgaris

Found in pools and quiet water along Bright Angel Creek.

LICHENES "LICHENS"

Lecideaceae

Lecidea

Lecidea crenata

Kaibab Trail, south of the River.

Cladoniaceae

Cladonia

Cladonia pyxidata chlorophaea

Cups always present, ashy sea-green. Northern Minnesota, Massachusetts, Pennsylvania, Ohio, north to Great Bear Lake. On earth or rotten wood. Found in the Kaibab Forest, north rim of Grand Canyon.

Gyrophoraceae

Gyrophora

Gyrophora hirsuta

South rim of Grand Canyon, Hermit Trail, base of Kaibab Limestone.

Acarosporaceae

Acarospora

Acarospora sp.

South rim of Grand Canyon. Cocopa Point.

Lecanoraceae

Lecanora

Lecanora rubina

Subfoliose, yellowish green above, black below. South rim of Canyon. Summit of Lassen Pk. San Francisco Mts.

Parmeliaeceae

Parmelia

Parmelia conspersa stenophylla

Yellow green above, brown black below. South rim.

Common throughout northern United States, Alaska and British Columbia. South in mountains. On igneous or metamorphic rocks, rarely in wood.

Parmelia mollueseula Cocopa Point, south rim. Near De Motte Park, Kaibab Forest.

Usneaceae

Usnea

Usnea florida
South rim of Grand Canyon on trees. Near Yavapai
Point.
Usnea hirta
North rim, on trees.

Ramalina

Ramalina calicares subampliata
Kaibab Forest. North rim of Grand Canyon.

Caloplacaceae

Caloplaca

Caloplaca elegans
South rim of Grand Canyon. Summit of Lassen Peak,
San Francisco Mountains.

MUSCI "MOSSES"

Dicranaceae

Ceratodon

Ceratodon purpurens xanthopus
In Kaibab Forest.
Ceratodon pulvinata Smith
Ceratodon apocarpa Hedw.

Grimmiaceae

Grimmia

Grimmia montana
North rim of Grand Canyon.

Timmiaceae

Timmia

Timmia bavarica

North rim of Grand Canyon. Timmia piliferum Schreb.

Polytrichaceae
Polytrichum
Polytrichum juniperum
Kaibab Forest.

Hypnaceae
Amblystegium

Amblystegium juratzkanum
Kaibab Forest

Hypnum reptile
Kaibab Forest.

Brachythecium

Brachythecium collinum

Kaibab Forest.

Polypodiaceae "Fern family" Woodsia R. Br.

Woodsia oregona D. C. Eaton 2.1-2
Crevices of dryish cliffs and rock slopes; chiefly in the yellow pine belt. British Columbia to South Dakota, Nebraska, New Mexico and Arizona and in the Sierras to southern California. Occurs at V.T. Park on the Kaibab Plateau.

Cystopteris or Filix Adans.

Cystopteris fragilis Bernh., or Filix fragilis L.

"Bladder fern"

2.2-2

Alaska to Labrador and Newfoundland, southward nearly

throughout the United States. Also in Function and

Alaska to Labrador and Newfoundland, southward nearly throughout the United States. Also in Eurasia and tropical America. Rocky woods and moist situations of Canadian and Alpine Zones. Found in the Kaibab Forest growing in the protection of rocks.

Pteridium Scop "Bracken Fern"

Pteridium aquilinum pubescens Underw. 2.11-1

Found from Alaska to Montana, southward to the Mexican border on open slopes, in thickets and moist woods. It

is quite abundant in the Kaibab Forest, especially on the south facing slopes of canyons and in aspen groves.

Adiantum L. "Maidenhair fern" Adiantum capillus-veneris L.

Ranges from Virginia to Florida, west to Mississippi, Utah, Southern California and the Mexican border region. Warm temperate regions of both hemispheres. Found on shaded banks and in rocky ravines in Lower and Upper Sonoran Zones. At Grand Canyon it grows along Bright Angel Creek and on the north rim.

Cheilanthes Swartz. "Lipfern"

Cheilanthes feei Moore

Ledges and rock crevices, Illinois and southern Minnesota to British Columbia, Washington, Southern California (Providence Mountains), and the Mexican border region from central Texas westward.

Collected northeast of Grand View Point at Grand Canyon.

Pellaea Link. "Cliffbrake"

Pellaea Longimucronata Hook. 2.14-3

Cliffs and dry rocky slopes. Southwestern New Mexico
to southern Utah, southern Nevada and western Arizona.

Also in south-central Colorado. At the Grand Canyon
it was collected near Bright Angel Trail.

Notholaena R. Br. "Cloak fern"

Notholaena parryi D. C. Eaton 2.15-1

Found in the desert region of Southern California to southcentral Arizona and southwestern Utah. In crevices of rocks. Found north of the River in Grand Canyon.

Notholaena sinuata integerrima Hook. 2.15

Dry hills of the Upper and Lower Sonoran Zones. Found in a rock cleft along the Kaibab Trail at Grand Canyon.

Notholaena limitanea Maxon 2.15-4

Clefts of dry limestone rocks of the artemisia belt.

New Mexico, Arizona and Utah. Found on the south rim in clefts of rocks.

Equisetaceae "Horse-tail Family"

Equisetum L. "Soouring rush"

Equisetum kansanum (?) Schaffn. 5.1-2

British Columbia to Ontario, south to Southern Cali-

fornia, Arizona, New Mexico, Missouri and Ohio. River banks and moist slopes. Found near springs on the Kaibab Plateau.

Equisetum laevigatum R. Br. 5.1-3
Found from British Columbia to Southern California, east to New York, Illinois, Missouri, and Texas. In deep alluvial thickets and on sandy banks. At the Grand Canyon it is found along Bright Angel Creek in the Canyon and at Greenland Spring on the north rim.

Pinaceae "Pine family" Pinus L. "Pine"

<u>Pinus monophylla</u> Torr. and Frem. "Single-leaf Pine" 7.1-1
Forming a characteristic belt at an elevation of 3600
feet and upward to 7200 feet or more. Western Utah to
California. In Grand Canyon found around the Utah
Parks powerhouse and in Nankowoap Basin. Characterized
by the single needle to the bundle.

Pinus edulis Engelm. "Pinyon"

From Colorado and Utah southward to Texas and Northern

Mexico. Characteristic tree of Upper Sonoran Zone.

It is the dominant tree on the south rim of the Grand

Canyon and occurs in abundance on the north rim also.

The nut is large and edible.

Pinus ponderosa Lawson "Western Yellow Pine" 7.1-4
From British Columbia and Dakota southward in the
Pacific and Rocky Mountain region to Western Texas,
southwestern Mebraska, and Mexico. It is the characteristic tree of the Transition Zone, growing in large
pure stands. In the Grand Canyon region it extends
over the Kaibab and Coconino National Forests in one of
its biggest stands.

Picea Link. "Spruce"

Picea pungens Engelm. "Blue spruce" 7.2-1
Extends from Wyoming to New Mexico and Arizona, in the
Transition and Canadian Zones. It is the dominant tree
on the Kaibab Plateau at the higher elevations, conspicuous along the edges of the parks. It is a very hardy
tree with a beautiful symetrical shape and the needles
are silvery green.

Picea engelmannii Engelm. "Engelmann spruce" 7.2-2
From southeastern and northern Arizona and southern New
Mexico northward through the Rocky Mountain region to

British Columbia, and westward to the eastern slopes of the Cascade Mountains in Oregon and Washington; occurs also in a small patch in the northeast corner of Shasta County, California. It occurs in the Kaibab Forest at the Grand Canyon. With Alpine fir in dense stands on west facing slopes.

Pseudotsuga Carriere

Pseudotsuga taxifolia (LaMark) Britton. "Douglas fir"

Ranges from Alaska to western Texas, California and northern Mexico. It occurs in the Transition Zone between the Transition and Canadian Zones. On the Kaibab plateau it grows on the higher, drier hill slopes of the Canadian Zone and in the upper limits of the Transition Zone. On the south side of the Grand Canyon it grows just below the rim in protected places.

Abies Miller "Fir"

Abies concolor Lindley & Gordon "White fir" 7.5-1
Colorado and New Mexico to oregon and California.
Occurs in the upper limits of the Transition Zone. It is abundant on the Kaibab, forming pure stands on many of the hill tops in the Canadian Zone, and grows also with the Yellow pine in the upper limits of the Transition Zone. On the south rim of the Grand Canyon it grows just below the rim in protected places.

Abies lasiocarpa (Hooker) Nuttal "Alpine fir" 7.5-2
From Alaska to New Mexico and Arizona in the Canadian
Zone. It occurs on the Kaibab Plateau with Engelmann

Spruce on West and North facing slopes.

Juniperus communis L. "Dwarf juniper"

Juniperus L. "Juniper"

Juniperus siberica Burgsd.

7.7-1

Alaska to Greenland, southward in the Rocky Mountains to New Mexico, in the Sierra Nevadas to Mono Pass, east to North Carolina and northern Nebraska. Also in the Old World. A low shrub growing usually at the bases of aspens and evergreens, in the Canadian Zone, on the Kaibab Plateau.

Juniperus scopulorum Sargent "Rocky Mountain red cedar"
7.7-2

Alberta to British Columbia, southward to New Mexico, Arizona, and Nevada. Upper Sonoran and Lower Transition Zones. Grows on north rim of Grand Canyon.

Juniperus utahensis (Engelmann) Lemmon "Utah juniper"

-7-4

Ranges from southwestern Wyoming to Nevada, southward to New Mexico and southwestern California. Characteristic tree of the Upper Sonoran Zone, found in pure stands in Nankoweap Basin and on the Great Thumb. Found on both rims of the Grand Canyon.

Gnetaceae "Jointfir family" Ephedra L. "Jointfir"

Ephedra viridis Coville "Brigham tea" 8.1-1
Ranges from Utah to southwestern California and New
Mexico in Upper Sonoran and Transition Zones. It is
the common form which occurs on both rims of the Grand
Canyon.

Ephedra torreyana S. Wats.

Southern Colorado (?) to Southern California and southward to Mexico. Grows in canyons and on hillsides of Lower and Upper Sonoran Zones. Occurs in the Grand Canyon, collected north of the river.

Ephedra nevadensis S. Wats. 8.1-3

Utah to California and Northern Mexico. In Upper
Sonoran Zone. Rare in Lower Sonoran Zone. Grows in
the inner gorge of Grand Canyon.

1. MONOCOTYLEDONES

Sparganiaceae "Bur-reed family"
Sparganium L. "Bur-reed"

Sparganium angustigolium Michx. 10.1-3
Newfoundland to British Columbia, California, and Pennsylvania. In streams and lakes upward to the Alpine Zone. In the Kaibab Forest it occurs in abundance in the older ponds.

Potamogetonaceae "Pondweed family" Potamogeton L. "Pondweed"

Potamogeton americanus Schecht. & Cham. 11.1-2

North America except in the extreme north. In ponds and streams of Upper Sonoran upward to Canadian Zone, Kaibab Forest.

Poaceae "Grass family"

Andropogon L. "Beardgrass"

Andropogon virgineus ditior Hack. 16.2

General range (?). Phantom Ranch, in Grand Canyon.

Heteropogon Pers. "Tanglehead"

Heteropogon contortus (L.) Beauv 16.2a

Rocky hills and canyons, Texas to Arizona; tropical and warmer regions of both hemispheres. Found along the Clear Creek Trail in the Grand Canyon.

Hilaria H.B.K. "Bladk bunch grass"

Hilaria jamesii (Torr.) "Galleta grass" 16.4-2

Desert areas, hillsides and lower canyons, North rim.

Aristida L. "Three-awn"

Aristida glauca (Nees) Walp. "Reverchon Three-Awn" 16.14-3

Dry or rocky hills and plains, Texas to Utah, Nevada, and southern California, south to Puebla, Mexico.

Found on the South Rim, and in the Canyon near Huxley Terrace at Grand Canyon.

Aristida longiseta Steud. "Red Throe-Awn" 16.14-4
Plains and foothills, North Dakota to Montana, south to
Texas, Arizona, and northern Mexico. Found on the
South Rim at Grand Canyon.

Aristida fendleriana Steud. 16.14-5

Lower and Upper Sonoran Zones. North Rim.

Stipa L. "Needle grass"

Stipa neomexicana (Thurb.) Scribn.
"New Mexican Feather-Grass".

16.15-1

Mesas, canyons, and rocky slopes, western Texas and Colorado to Utah and Arizona. Found on the Tonto and on the South Rim of the Grand Canyon.

Stipa arida Jones 16.15-8
Rocky slopes, rare, southwestern Colorado, Utah and
Arizona. Found along streams on the Tonto and along
Bright Angel Trail in Grand Canyon.

Stipa comata intermedia Scribn. 16.15-8a
"Needle and thread"

Saskatchewan to New Mexico and California. Upper Sonoran to Alpine Zones. Kaibab Forest.

Stipa columbiana Macoun. "Porcupine grass" 16.15-British Columbia, Wyoming, Transition and Canadian

Zones. Kaibab Forest.

Oryzopsis Michx.

Oryzopsis hymenoides Roem. & Schult. "Rice grass" 16.16-1
Manitoba to Texas, west to California and Mexico.
Lower and Upper Sonoran Zones. Found on both Rims of
Grand Canyon.

Oryzopsis bloomeri (Boland) Ricker 16.16-3
Dry ground, medium altitudes, Montana to eastern
Washington, south to New Mexico and California. Found
on the South Rim, and in the Canyon at Grand Canyon.

Muhlenbergia Schreb.

Muhlenbergia wrightii Vasey "Spike Muhly" 16.17-9
Plains and open slopes at medium altitudes, Colorado,
Utah, New Mexico, Arizona, and northern Mexico. Found
at Milk Creek, and in South Big Spring Canyon on the
North Rim of the Grand Canyon.

Muhlenbergia montana (Nutt.) Hitchc.

16.17-10

Muhlenbergia trifida Hack.

Western Texas to Utah and California and Mexico. Upper Sonoran Zone. Kaibab Forest.

Phleum L. "Timothy"

Phleum pratense L. "Timothy"

An escape common all over the United States in waste places and along roadsides. At Grand Canyon found around tanks on the South Rim.

Phleum alpinum L. "Mountain timothy" 16.18-2
Canada to New Hampshire, New Mexico, California and
Alaska. Europe and Asia. Mountain meadows and
slopes of Canadian Zone, Kaibab Forest.

Alopercurus L.

Alopercurus aequalis Sobol. 16.19-1

Valleys and Canyons along water courses. Upper

Sonoran up to Canadian Zone. Maine to Pennsylvania,

California and Alaska. North Rim, Grand Canyon.

Sporobolus R. Br. "Dropseed"

<u>Sporobolus contractus</u> Hitchc. 16.20-6

Texas to Colorado, Nevada, California and southward.

Lower and Upper Sonoran Zones. North Rim.

Blepharoneuron Nash.

Blepharoneuron tricholepis (Torr.) Nash. 16.21-1
Transition and Canadian Zones. North Rim.

Polyogon Desf.

Polyogon monspeliensis (L.O) Desf. "Rabbitfoot Grass"
16.23-1

Meadows and along ditches about settlements. New Hampshire to British Columbia, southward to Mexico. Introduced from Europe. In Grand Canyon found only at Powell Saddle Spring. Probably introduced years ago by prospectors along with animal feed.

Agrostis L. "Bentgrass"

Agrostis verticillata Vill. 16.25-3
Moist ground, along irrigation ditches, and in canyons, at 3600 feet upwards to 5400 feet; introduced from Europe. California to Utah, Texas, and Mexico. In Grand Canyon found near Roaring Springs and around springs near routes of travel. Probably introduced through horse feed.

Agrostis rossae Vasey "Ross Red-top" 16.25-5
Rocky creeks and mountain slopes at high altitudes, Colorado and Utah to Alberta, Washington, and California.
Found along creeks on the Tonto in Grand Canyon.

Agrostis hiemalis Walt. "Rough hair grass" 16.25-6
Canadian Zone. North Rim.

Agrostis alba L. "Redtop" 16.25Common redtop of lawns, meadows, and pastures. Found in all the cooler parts of U. S. and Eurasia. In Grand Canyon found along routes of travel, especially in meadows, and around springs.

Aira L. "Hairgrass"

Aira caespitosa L. 16.28-3

Wet places in Transition and Canadian Zones. Newfound-land to Alaska, southward to New Jersey and California.

North Rim, Grand Canyon.

Koeleria Pers. "Mountain Junegrass"

Koeleria cristata (L.) Pers. 16.31-1

Illinois to Texas, British Columbia and California.

Up to Alpine Zone. Kaibab Forest.

Avena L. "Oats"

Avena fatua L. "Wild Oats" 16.32-1
In fields and along roads throughout the U.S. Introduced from the Old World. In Grand Canyon found along B.A. Trail where probably dropped from packs of horse feed.

Bouteloua Lag. "Grama grass"

Bouteloua barbata Lag. "Six-weeks Grama" 16.37-2

Open ground, mesas, and rocky hills, Texas, New Mexico,
Southern Utah, Arizona, southeastern California, and
Mexico. Found on the Clear Creek Trail in Grand Canyon.

Bouteloua gracilis (H.B.K.) "Blue grama" 16.37-4

Plains, canyons and foothills to 7500 feet. North Rim
and South Rim in large flats.

Bouteloua eriopoda Torr. "Black grama" 16.37-6

From 3600 feet to 4500 feet. North Rim.

Munroa Torr.

Munroa squarrosa (Nutt.) Torr. 16.40-1
Saskatchewan and Alberta, Texas and Arizona. Lower and Upper Sonoran Zones. Kaibab Forest.

Phragmites Trin. "Reed"

Phragmites communis Trin. 16.41-1
Swamps, edges of rivers and lakes. Temperate regions of the world. Phantom Ranch in Grand Canyon.

Triodia R. Br.

Triodia mutica (Torr.) Scribn. "Slim Triodia" 16.42-1
Plains and hillsides of the Covillea belt; St. George,
Utah; St. Thomas, Nevada. California to Colorado and
Texas. Found in Grand Canyon along trails and in
meadows of the North Rim.

Triodia pilosa (Buckl.) Merr. "Hairy Triodia" 16.42-3
Plains and rocky hills, western Kansas to Nevada, south
to Texas, Arizona and central Mexico. Found along
streams on the Tonto in Grand Canvon.

Scleropogon (Describer ?)

Scleropogon brevifolius (Describer ?) 16.46
Kaibab Forest.

Dactylis L.

Dactylis glomerata L. "Orchard Grass" 16.47-1
Fields, canyons and mountain sides, upward to 9000 feet, introduced. North America and Europe. Quite common in meadows and along trails of the Grand Canyon, North Rim.

Poa L. "Blue grass"

Poa pratensis L. "Kentucky blue grass"

North America, Europe and Asia. Canadian Zone.

Kaibab Forest.

Poa longiligula Scribn. & Williams. 16.48-13
Oregon and California to South Dakota and New Mexico.
Foothills, canyons and mountain sides up to Canadian
Zone. North Rim of the Grand Canyon.

Poa fendleriana (Steud.) "Fendler's blue grass" 16.48-14
Washington to Wyoming and New Mexico and Lower California. Upper Sonoran to Alpine Zones. Kaibab Forest.

Poa arida Vasey "Plains Bluegrass" 16.48-24

Prairies, plains, and alkali meadows, up to 9000 feet.

Manitoba to Alberta, south to western Iowa, Texas, and northern Arizona. Found along Clear Creek Trail in Grand Canyon.

Festuca L. "Fescue"

Festuca octoflora Walt. "Slender fescue grass" 16.51-1

Lower Sonoran to Canadian Zone. North Rim.

Festuca ovina L. "Sheep's fescue grass" 16.51-16a

North rim. Little Park.

Bromus L. "Brome grass"

Bright Angel Trail.

Bromus rubens L. "Fox-tail Chess" 16.52-3

Dry hills and in waste or cultivated ground, Washington to southern California, and east to Utah and Arizona;

Massachusetts. Found along roadsides in the Grand Canyon region.

Bromus richardsoni Link, Hart. 16.52-13
Transition and Canadian Zones. North rim of Grand
Canyon.

Bromus porteri Coulter 16.52=14
Transition and Canadian Zones. North Rim.

Bromus frondosus (Shear) Woot, & Standl. 16.52

North Rim of Grand Canyon.

Bromus purgans L. "Canada Brome" 16.52

Moist woods and rocky slopes, Massachusetts to Alberta, south to northern Florida and Arizona. In Grand Canyon found on stream sides down on the Tonto and along

Bromus ciliatus L. "Fringed Brome" 16.52

Moist woods and rocky slopes, Newfoundland to Washington south to New Jersey, Tennessee, Iowa, western Texas, and Southern California. Found freely in the Rocky Mountains. Quite common through the Kaibab Plateau.

Agropyron Beauv. "Wheat grass"

Agropyron dasystachyum (Hook) "Northern wheat grass"

16.54-1

Valleys, canyons and mountain meadows up to 9000 feet. North Rim of Grand Canyon.

Agropyron riparium Scribn. and Smith 16.54-2 Gravelly banks, dry hill sides and sage plains. North Rim of Grand Canyon.

Agropyron smithii Rydb. "Bluestem" 16.54-3

Upper Sonoran Zone. Alkaline plains up to 8100 feet.

North Rim of Grand Canyon.

Agropyron tenerum Vasey "Slender Wheatgrass" 16.54-7
Foothills, canyons and mountain sides upward to
9000 feet. North Rim of Grand Canyon.

Hordeum L.

Hordeum murinum L. "Mouse Barley"

Fields, waste places, and open ground, introduced from Europe; here and there in the Eastern States from Maine to Alabama; common on the Pacific Coast, Idaho and British Columbia, south to Utah, New Mexico, and California. In Grand Canyon found around dwellings and along trails and roads.

Hordeum jubatum L. "Foxtail Barley" 16.55-6
Open ground, meadows and waste places, Newfoundland and
Labrador to Alaska, south to Maryland, Illinois, Missouri, Texas, California, and Mexico; introduced into
Eastern States. Found in Grand Canyon around head of
Kaibab Trail, and along roads of both Rims.

Elymus L.

Elymus triticoides Buckl. "Beardless Wild-rye" 16.56-1
Moist or alkaline soil, at low and medium elevations,
Montana to Washington, south to western Texas and Baja
California. Found in Grand Canyon near Santa Maria
Spring.

Sitanion

Sitanion hystrix (Nutt.) J.G.Smith 16.57-2

New Brunswick to Georgia, Texas and California. Up
to Transition Zone. Kaibab Forest.

Cyperaceae "Sedge family"

Carex L. "Sedge"

Carex rostrata Stokes "Sedge"

Plains upward to the spruce belt. Labrador to Alaska, southward to Delaware, New Mexico and California. In Grand Canyon occurs in damp meadows of the North Rim.

Juncaceae "Rush Family"
Juncus L. "Rush"

Juncus saximontanus Nels. "Rush" 20.1-31

Wet places in Aspen and spruce belts. Alberta and
British Columbia southward to New Mexico and California.
In Grand Canyon occurs in damp meadows and around
springs on the North Rim.

Liliaceae "Lily family"

Zygadenus Michx. "Death camas"

Zygadenus elegans Pursh "Mountain death camas" 21.3-3
Ranges from Saskatchewan to New Mexico, Nevada and
Alaska in Transition and Canadian Zones. It was
collected in a damp canyon on the Kaibab Plateau.

Allium L. "Onion".

Allium bisceptrum Wats. 21.8Plains and hillsides of Covillea, artemisia, and pinyon belts. Utah to New Mexico, westward to California.
Found at Pasture Wash on south rim of Grand Canyon.

Allium acuminatum Hook. 21.8-19
Plains and mountain sides of Upper Sonoran and Transition Zones. British Columbia to California, Arizona and Colorado. North Rim of Grand Canyon.

Hookera Salisb.

Hookera capitata (Benth) Kuntze

Brodiaea capitata Benth. (Blue Dicks" 21.10-1

Found throughout California at moderate elevations.

Found in Grand Canyon National Monument.

Hookera pauciflora (Torr.) Tidestrom "Clusterlily"

Brodiaea capitata pauciflora Torr. "Niggertoe" 21.10-2

Found on plains and hillsides of the Covillea belt.

New Mexico to southern Utah and southern California.

In Grand Canyon found along the Hermit Trail.

Anthericum L.

Anthericum torreyi Baker "Craglily"

New Mexico and Arizona, southward into Mexico. South
Rim of Grand Canyon.

Fritillaria L.

Fritillaria atropurpurea Nutt. "Fritillary" 21.13-2
Plains, canyons, and mountainous regions, upward to
9000 feet. North Dakota to New Mexico, westward to
Oregon and California. In Grand Canyon found at Grand

View Point on the South Rim.

Calochortus Pursh.

Calochortus nuttallii Torr. and Gray "Mariposa" "Sego lily" 21.16-9

Found from Montana to New Mexico, westward to California in Lower Sonoran up to Transition Zone. This beautiful white tulip-like flower, delicately marked with lavender and purple is conspicuous in the Grand Canyon region, blooming throughout most of the spring and summer. It is the state flower of Utah.

Yucca L. "Spanish bayonet" "Soap weed"

Yucca baccata torr.

Texas to Colorado and Nevada. Dry mesas of Upper and Lower Sonoran Zones. One of the typical plants of the belt. Found on both rims of the Grand Canyon.

Yucca baileyi "Narrow leaved yucca" 21.18

Common in Lower Sonoran Zone of Grand Canyon.

Occasionally in Upper Sonoran.

Yucca whipplea Torr. "Quixote Plant". 21.18

Commonly found in the cismontane chaparral belt of
Southern California, as far north as Kings River and
south to Lower California. Questionable as to distinction from Y. baileyi. Believed to be here by Mrs. Susan
Delano McKelvey.

Nolina Michx.

Nolina bigelovii (Torr.) Wats. "Bear grass" 21.18a
Occurs in mountains; southern borders of the Colorado
Desert, south to Lower California, east to Arizona.
Found on Darwin Plateau under Bass Camp, and all along
the Esplanade, south of River. Also occurs north of the
River around Shinumo Creek and Powell Plateau.

Vagnera Adans. "False Solomon seal" 21.21-2

Vagnera liliacea (Greene) Rydb.

Shaded places of the Transition and Canadian Zones.

British Columbia to New Mexico and California. At the Grand Canyon it occurs on both rims.

Amaryllidaceae "Amaryllis family"
Agave L. "Century plant" "Mescal"
Agave utahensis Engelm.

Southern Utah, Nevada, Arizona and Southern California. In desert areas and mountain sides of Lower and Upper Sonoran Zones. Found in considerable abundance on both rims of the Grand Canyon, and also down in the canyon.

Orchidaceae "Orchid family"
Habenaria Willd.

<u>Habenaria thurberi</u> Gray "Rein Orchid" 24.2
Found in damp places in the Southwest, ranging up through the Rockies. In Grand Canyon found at Roaring Springs.

Ibidium Salisb. "Ladies-tresses"

Ibidium romanzoffianum (Cham.) 24.4-1

Newfoundland to Alaska, southward to New York, Colorado and California. Bogs and wet places in the Canadian Zone. Occurs on the Kaibab in washes, and near ponds and springs.

Peramium Salisb. "Rattlesnake-plantain"

Peramium decipiens (Hook) Piper 24.6-1

Transition and Canadian Zones. Quebec to Alaska, southward to New Hampshire, Arizona and California. Collected on Kaibab Plateau in woods near V.T. Park.

Corallorrhiza Chatelain "Coral root"

Corallorrhiza maculata occidentalis (Lindl.) 24.8-1

British Columbia to California and eastward. Canadian

Zone. Found on the Kaibab in June growing in moist shady places in the forest.

2. DICOTYLEDONES

Salicaceae "Willow family"
Populus L. "Poplar"

Populus tremuloides aurea (Tidestrom) Daniels
"Rocky Mountain Aspen" 26.1-3

Very much like the eastern Populus tremuloides. Saskatchewan to New Mexico and Arizona, westward to California

chewan to New Mexico and Arizona, westward to California forming dense groves in the Upper Transition and Canadian Zones. On Kaibab Plateau it is a very prominent tree.

Populus fremontii S. Watson "Fremont Cottonwood" 26.1-7
Utah and Arizona to California along water courses in
Lower and Upper Soncran Zones. Occurs along banks of
Bright Angel Creek. This identification is by V.
Bailey.

Salix L. "Willow"

Salix gooddingii Ball. "Dudley Willow" 26.2-3

Nevada and California to New Mexico. Along streams of
Lower Sonoran Zone. Occurs along the banks of Bright
Angel Creek.

Salix exigua Nutt.

26.2-8

Along streams, upwards to 6000 feet. Saskatchewan to British Columbia, southward to Mexico. In Grand Canyon found along Hermit Trail.

Salix bebbiana Sarg. "Bleak Willow" 26.2-16
Along streams and in canyons from Upper Sonoran Zone
through Canadian Zone. Quebec to New Jersey, westward
to Alaska and California. At the Grand Canyon it was
collected on Point Imperial on the North Rim.

Salix taxifolia H.B.K. "Yew-leaf Willow" 26.2

A southwestern form. Believed to extend up through the Rockies, as well as down into Mexico. In Grand Canyon found along Hermit Trail.

Betulaceae "Birch Family"

Ostrya Scop.

Ostrya knowltoni Coville "Hop hornbeam" 27.1-1
Canyons of the pinyon belt. Utah and Arizona. In Grand
Canyon found in Bright Angel Canyon and in Nankoweap
Basin.

Betula L.

Betula fontinalis Sargent "Red Birch" "Black Birch" 27.2-1

Along creeks in canyons of the pinyon and Aspen belts.

Saskatchewan to Nebraska, British Columbia, and California. In Grand Canyon found at Bright Angel Spring and at South Big Spring. Found only on the North Rim.

Fagaceae "Beech family"

Quercus L. "Oak"

Quercus utahensis (A. de Candolle) Rydb.

Quercus gambelii Nutt.

28-2-2

"Rocky Mountain White Oak"

Extreme southwestern Wyoming to Utah, New Mexico and Arizona. Forms dense colonies in the Upper Sonoran and lower Transition Zones. Both rims of Grand Canyon.

Querous undulata Torr. 28.2-4
Canyons and slopes, upward to 3600 feet; southern Utah.
Northern New Mexico to southern Utah and southern Texas.
In Grand Canyon found in Shinumo country, and down Muav Canyon.

Querous wilcoxii Nutt. "Wilcox Oak" 28.2-5
Canyons and dry hillsides upward to 3600 feet; southern
Utah, Nevada, and Arizona. In Grand Canyon found on
both sides of the river. Found in Bass Canyon.

Querous dumosa var. turbinella Jepson 28.2-6

Quercus turbinella Greene

Found from southern Utah and Nevada to New Mexico and Southern and Lower California. Ranges up to Transition Zone and occurs on the Kaibab Plateau.

Querous pungens Liebm. "Holly Oak" 28.2

New Mexico, Colorado, Utah and Arizona in the Lower

Sonoran Zone. In Grand Canyon north of the river.

Ulmaceae "Elm family"
Celtis L. "Hackberry"

Celtis reticulata Torr. "Polo Blanco" 29.1-1
From western Texas to Oklahoma and through southern New
Mexico and Arizona. It was found in Havasu Canyon and
down Bright Angel trail.

Moraceae "Mulberry family"
Morus L. "Mulberry"

Morus microphylla Buckley "Small-leaved mulberry" 31.1-1
From Texas and southern New Mexico to Arizona and
Mexico. Cultivated in Havasupai Canyon.

Urticaceae "Nettle family"
Urtica L. "Nettle"

Urtica breweri S. Wats. 32.1-1
Found from Utah to California and Oregon. In valleys and canyons of Upper Sonoran and Transition Zones.
Appears along Bright Angel Creek and on the Kaibab.

Loranthaceae "Mistletoe family"
Razoumofskya Hoffm.

Razoumorskya cryptopoda (Engelm.) Coville 33.2-2
South Dakota to Montana, New Mexico, Arizona, on Pinus ponderosa and allied species. Collected on North Rim of Grand Canyon.

Razoumofskya divaricata (Engelm.)Coville "Pinon Mistletoe" 33.2-3

On Pinus edulis and allies. Southern Colorado, and New Mexico to Nevada. Found in Grand Canyon on both rims.

Santalaceae "Sandalwood family"
Comandra Nutt. "Bastard Toad-flax"

34-1-1

35-4-49

Plains and hillsides from Lower Sonoran to Canadian Zone. Minnesota to Texas. California. British Columbia. At the Grand Canyon it occurs on Powell Saddle. Polygonaceae "Buckwheat family" Eriogonum Michx. "Wild buckwheat" "Umbrella plant" Eriogonum deflexum Torr. 35-4-7 Southwestern Utah and Nevada to Arizona and California. Desert areas and hillsides of Lower and Upper Sonoran Zones. South rim of Grand Canyon. Eriogonum cernum Nutt. 35-4-13 Montana and Idaho southward to New Mexico and Nevada. Upward to Canadian Zone. North rim of Grand Canyon. Eriogonum plumatella Dur. and Hilg. 35-4-34 Desert areas and hillsides of the Lower Sonoran Zone. Southern Utah, Nevada, and Southern California. At the Grand Canvon it was collected at Point Sublime. Eriogonum wrightii Torr. 35.4-36 Valleys and mountain sides of Upper Sonoran Zone. Colorado to California, southward to Texas and Mexico. At the Grand Canyon it was collected at Waterloo Hill. Eriogonum racemosum Nutt. 35-4-39 Colorado to Texas, Arizona and Nevada. Canyons and mountain sides from Upper Sonoran to Canadian Zone. Occurs on both rims of the Grand Canyon. Eriogonum sulcatum Wats. 35-4-40 Rocky places of the artemisa and pinyon belts. Southern Utah, Arizona and Nevada. Common on the North Rim. Eriogonum simpsoni Benth. Colorado and New Mexico to Nevada. Plains and foothills of Upper Sonoran Zone. Collected on the North Rim of Grand Canvon. Eriogonum microthecum Nutt. Montana to Washington, southward to Colorado and California, from Upper Sonoran to Canadian Zone. On South Rim of Grand Canyon and at Pt.Sublime on the North Rim. Eriogonum jonesii S. Wats. 35-4-47 Distribution limited to Utah and Arizona on plains and

hillsides of Upper Sonoran Zone. Occurs on north rim

Covillea and artemisia belts. Southern Utah. In Grand Canyon found on the rocky points of the North Rim.

Desert areas and mountain sides of the Covillea belt.

Eriogonum aureum Jones "Golden Eriogonum"

Comandra pallida A.DC.

of Grand Canyon.

Eriogonum polifium Benth.

Southern Utah, Arizona, and southern California. Quite common on North Rim out on rocky points.

Eriogonum ovalifolium Nutt. 35.4-70
Plains and mountain sides of the artemisia belt, upward to the spruce belt. Alberta to Washington southward to New Mexico and Arizona. Found in Grand Canyon on the North Rim out on rocky points and in Slide Canyon.

Eriogonum alatum Torr.

Plains and mountain sides of the artemisia belt, upward to the spruce belt. Nebraska to Texas, westward to Wyoming and Arizona. Found on the south side of the River and on the South Rim, especially on Huxley Terrace.

Eriogonum triste S. Wats. 35.4-78
Southern Colorado and Utah to Arizona and Texas. Sand and mountain sides of Upper Sonoran and Transition Zones
Found on the North Rim of Grand Canyon.

Eriogonum stellatum Benth. 35.4-83
Washington to Utah, Nevada, and California. Upper
Sonoran, Transition, and Canadian Zones. At the Grand
Canyon it is found on the North Rim.

Eriogonum neglectum Greene 35.4-84
Upper Sonoran to Canadian Zone. Wyoming and Colorado to
Nevada. At Grand Canyon it occurs on Powell Saddle
Plateau.

Eriogonum arcuatum Greene

Eriogonum jamesii flavescens Benth. 35.4-93
Wyoming to New Mexico, Utah, and Arizona. Transition,
Canadian, and Alpine Zones. Occurs on both rims of the
Grand Canyon.

Eriogonum gysophylum Wott. and Standl. 35.4
Restricted range found on North Rim.

Rumex L. "Dock" "Sorrel"

Rumex occidentalis S. Wats.

Meadows and canyons of the artemisia belt, upward to the spruce belt. Labrador to Alaska, southward to the Dakotas, New Mexico and California. Found on the North Rim of the Grand Canyon along the highway.

Rumex mexicanus Meisn. 35.6

Labrador to British Columbia, southward to Maine, Missouri and Mexico. Wet places in valleys and canyons of Upper Sonoran and Transition Zones. Kaibab Plateau.

Polygonum "Knotweed" "Deerweed" "Knotgrass"

Polygonum aviculare L. "Knotgrass" 35.8-3

Introduced from the Old World. Found from Newfoundland to Virginia, New Mexico, and California. Grows on waste ground. Occurs on the North Rim of Grand Canyon.

Polygonum sawatchense Small 35.8-5
Ranges from South Dakota to New Mexico, westward to
Washington and California. Grows in Transition and
Canadian Zones. Found on the North Rim of Grand Canyon,
and at Trash Tank on the South Rim.

Polygonum montanum (Small) Greene 35.8-8
Alberta to New Mexico and California. Canadian and
Alpine Zones. Kaibab Plateau.

Polygonum aequale Lindman Kaibab Plateau. **35.**8

Polygonum douglasii Greene 35.8-10
Ranges from Vermont and New York westward to British
Columbia and California. From Upper Sonoran to Canadian
Zones. At Grand Canyon it is found on the North Rim.
Polygonum watsoni Small 35.8
Same distribution as P. douglasii.

Bistorta Mill. "Bistort"

Bistorta bistertoides (Pursh) 35.10-3

Montana to British Columbia, southward to New Mexico and California. From Canadian to Alpine Zones. Occurs on the Kaibab Plateau.

Chenopodiaceae "Goosefoot family" Chenopodium L. "Goosefoot"

Chenopodium watsoni A. Nels. 36.4-11
Montana to New Mexico, Arizona. Foothills and mountains
up to Transition Zone. Kaibab Forest.

Chenopodium album L. "Lamb's Quarters" 36.4-14
Newfoundland to Alaska, south to Florida and California.
Europe, Asia, and North Africa. At Grand Canyon it
occurs on the Kaibab, in waste places and along roads.
Introduced.

Chenopodium rubrum L. 36.4-19

Bottom lands, margins of ponds, and open woods, upwards to 6000 feet. Newfoundland to New Jersey, westward to British Columbia and Northern New Mexico; also in Europe and Asia. Found on North Rim in South Big Spring Canyon.

Atriplex L. "Salt bush"

Atriplex argentea Nutt. "Stinking weed" 36.6-6
Western North Dakota to New Mexico and California.
Alkaline plains and in valleys. Kaibab Plateau.

Atriplex canescens (Pursh) Nutt. "Fourwing saltbush"
36.6-31
South Dakota to Oregon, California and Mexico. Lower and Upper Sonoran Zones. At the Grand Canyon it is found at Phantom Ranch and at Pasture Wash.

Grayia Hook. "Hop-sage"

Grayia spinosa (Hook) (Local range?)

Plains and dry slopes between Lower and Upper Sonoran
Zones. Wyoming and Utah, westward to Washington and
California.

Eurotia Adans. "Winter-fat"

Eurotia lanata (Pursh)

Plains and dry sides of mountains of the Lower and Upper Sonoran Zones. Saskatchewan to Texas, westward to Washington and California. Collected on South Rim of Grand Canvon. Pasture Wash.

Salsola L.

Salsola pestifer A.Nels. "Russian thistle"

Desert area, plains, and foothills of the Covillea, artemisia, and pinyon belts; introduced and established throughout western U.S. Native to Russia and western Asia. Found on South Rim profusely.

Amaranthaceae "Amaranth family"
Amaranthus L.

Amaranthus powellii S. Wats. 37.1-7
Wyoming to Oregon, southward to Mexico. Lower Sonoran to Canadian Zones. Cultivated fields, waste grounds, and canyons. North Rim of Grand Canyon.

Nyctaginaceae "Four o'clock family"
Boerhaavia L.

Boerhaavia wrightii A. Gray 38.4-1
Plains of the Covillea belt. Western Texas to southern
Nevada. Found in Grand Canyon along Bright Angel Creek.

Abronia Jess. "Sand verbena"

Abronia nana S. Wats. 38.6-2

Southern Utah and Arizona to California. Rocky slopes and canyons of Upper Sonoran and Transition Zones.

Found in Kaibab Forest.

42-1-1

Wedeliella Cockerell

Wedeliella incarnata (L.) Cockerell 38.7-1
Plains and hillsides of the Covillea and artemisia belts.
Colorado and Utah to Texas, Mexico and South America.
Found quite commonly on the south side of the river in Grand Canyon.

Alliona Loefl. "Umbrellawort"

Alliona pumila Standl. 38.8-1
Southwestern Nevada and Arizona. Lower Sonoran Zone.
South rim of Grand Canvon.

Alliona linearis Pursh

Plains and hillsides of the Upper Sonoran Zones. South Dakota to Missouri, Texas, Arizona and Utah. South Rim of Grand Canyon and at Phantom Ranch.

Hesperonia Standl.

Hesperonia retrorsa (Heller) Standl. 38.9-1
Among rocks, in canyons, and on hillsides of the Covillea belt (and artemisia belt). California and Nevada. Found in canyon at Grand Canyon at Phantom Ranch.

Quamoclidion Choisy

Quamoclidion multiflorum Torr. "Four o'clock" 38.11-2

Colorado, Utah, Texas and Mexico. Lower and Upper

Sonoran Zones. South Rim of the Grand Canyon at

Portulacences "Purslane family"
Oreobroma Howell "Bread root"

Pasture Wash.

Oreobroma pygmaeum (A.Gray) Howell

Ranges from Montana to Colorado, westward to Washington and California. In Canadian and Alpine Zones. At the Grand Canyon it grows on the Kaibab Plateau in the Parks where it is a conspicuous flower in the early part of June. It blooms with Phlox caespitosa.

Silenaceae "Pink family"
Alsine L. "Chickweed"

Alsine jamesiana (Torr.)

Stellaria jamesiana Torr.
Wyoming to New Mexico, California and Washington.

Wyoming to New Mexico, California and Washington.
Transition and Canadian Zones. Occurs on the North Rim
of the Grand Canyon. Collected in Thompson Canyon.

Cerastium L. "Mouse ear" "Chickweed"

Cerastium stictum L. 42.2-6

Wyoming to New Mexico, South Dakota to British Columbia southward to Colorado and Utah. Also in Europe and Asia. Plains and mountain sides upward to Canadian Zone. Occurs in considerable abundance in the parks of the Kaibab Plateau.

Arenaria L. "Sandwort"

Arenaria confusa Rydb. 42.4-3
Aspen and spruce belts. Colorado, southwestern Utah,
New Mexico and Arizona. Found in the Aspen and Spruce
stands on the North Rim of the Grand Canyon.

Arenaria compacta Coville 42.4-9
Canadian Zone. Utah to California. Found in the parks of the Kaibab Plateau.

Arenaria aculeata S. Wats. 42.4-10

Pinyom belt upward to 9000 feet. Idaho and Oregon, southward to Nevada and Arizona. Found in the meadows on the North Rim of the Grand Canyon.

Arenia fendleri A. Gray 42.4-12
Wyoming to New Mexico and Arizona. In Transition,
Canadian and Alpine Zones. Found on both rims of the
Grand Canyon.

Arenaria eastwoodiea Rydb. 42.4-13

Artemisia, pinyon and yellow pine belts. Colorado, Utah and New Mexico. Found on the North Rim of Grand Canyon.

Silene L."Campion"

Silene priglei Wats. "Sticky Catchfly" 42.9

Found in the Yellow Pine belts of the Southwest. In

Grand Canyon found on the North Rim under Yellow Pine.

It is quite rare.

Ranunculaceae "Buttercup family" Caltha L. "Marshmarigold"

Caltha leptosepala DC. 45.2-2

Ranges from Alberta to British Columbia and New Mexico.
Confined to Canadian Zone. At the Grand Canyon it appears in damp places in the parks on top of the Kaibab Plateau.

Aquilegia L. "Columbine"

Aquilegia elegantula Greene 45.5-6

Spruce and subalpine belts; eastern Utah. Southern

Colorado. New Mexico and adjacent Utah. In Grand Canyon

found in more shaded and damp parts of the North Rim.

Aquilegia micrantha Eastio. "Yellow columbine" 45.5-8

Found in southwestern Colorado, Utah and Arizona. In canyons of Upper and Lower Sonoran Zones. At Grand Canyon it grows in damp crevices of rocks at Ribbon Falls and along Bright Angel Creek. In the Kaibab Plateau it is found at Cliff Springs.

Aquilegia caerulea James "Columbine" "Colorado

Columbine" 45.5-9
Aspen belt, upward to 9900 feet; rare in Utah; Mt. Terrell. Montana, New Mexico and Utah. State flower of Colorado. Found in rather shady places on the North Rim of the Grand Canyon.

Aquilegia pinetorum
Aspen, yellow pine, and spruce belts; yellow pine area
Buckskin Mountains (Kaibab Plateau) northern Arizona.
Found at Greenland Spring on North Rim of Grand Canyon.
Aquilegia triternata
Payson
45.5

Found in Southwest and in the Rockies. In Grand Canyon found on North Rim and near Ribbon Falls in the canyon.

Delphinium L. "Larkspur"

Delphinium amabile Tidestrom 45.6-8

Plains and dry hillsides. Southern Utah, Nevada and
Arizona. Found in Grand Canyon at Pipe Creek.

Delphinium scaposum Greene 45.6-9
Found in Colorado, Utah, New Mexico and Arizona. On mesas and dry slopes of Lower and Upper Sonoran Zones.
At Grand Canyon appears on both north and south rims.
Delphinium menzicsii DC. 45.6-13

Delphinium nelsonii Greene

Ranges from British Columbia and Idaho southward to California and New Mexico, in Transition and Canadian Zones. It is fairly abundant in the parks on top of the Kaibab Plateau, where it is among the earliest flowers blooming in June. It occurs also on the South Rim.

Anemone L. "Anemone"

Anemone tuberosa Rydb. 45.8-1
Covillea belt. Southern Utah and Nevada southward.
Found in Grand Canyon in Bright Angel Canyon.
Anemone hispida A. Gray 45.8
Found along Kaibab Trail on north side of Grand Canyon.

Clematis L. "Western virgin's bower" Clemitis ligusticifolia Nutt.

45.10-1

North Dakota to British Columbia. Southward to New Mexico and California. Grows in canyons and on hillsides of Upper Sonoran and Transition Zones. At Grand Canyon it is found on the North Rim; also on the south side below Coconino on Bright Angel Trail

Clematis pseudoalpina (Kuntze) Nels. 45.10-6
Yellow pine, aspen and spruce belts. Colorado, Utah and New Mexico. Found on Kaibab Trail in Grand Canyon.

Myosurus L. "Mouse tail"

Myosurus arisatatus Benth. 45.ll-1
Montana to Washington southward to New Mexico and California. Muddy places in the Great Basin. Up to Transition Zone. On the North Rim of the Grand Canyon.

Ranunculus L. "Buttercup"

Ranunculus alismaefolius Geyer. Benth. 45.13-3

Found in Rockies and West. In Grand Canyon found on the North Rim. Ordinarily found in wet places from Wyoming to Nevada, Colorado, Utah and Oregon.

Ranunculus glaberrimus Hook. 45.13-5
Ranges from British Columbia to the Dakotas to New Mexico and California. Grows on plains and hillsides and canyons in Upper Sonoran and Transition Zones. Is found on the North Rim of Grand Canyon.

Ranunculous subsagittatus (A.Gray) Greene 45.13-6
Range limited to northern Arizona and New Mexico. Found in Canadian Zone. Abundant in parks on top of the Kaibab Plateau.

Ranunculous inamoenus Greene 45.13-7

Found in Montana and Idaho running southward to New Mexico and Arizona. Grows in damp places in Transition and Canadian Zones. Found on Kaibab Plateau near springs and pools.

Ramunculous cardiophyllus Hook. 45.13

Found in Rockies. Found on North Rim of Grand Canyon.

In wet bogs and meadows from Saskatchewan to Colorado.

Thalictrum "Meadow rue"

Thalictrum fendleri Engelm. 45.16-7
Found from Wyoming to New Mexico, Arizona and Nevada.
In Transition and Canadian Zones. Appears on North Rim of Grand Canyon in damp places. Collected in South Canyon.

Thalictrum wrightii A. Gray 45.16

New Mexico, Arizona and Southwest. North Rim of Canyon.

Berberidaceae "Barberry family"

Odostemon Raf. "Hollygrape"

Odostemon repens (Lindl.) Cockerell

46.1-1

Berberis repens Lindl.

Alberta to western Nebraska, New Mexico, California. Upper Sonoran, Transition and Canadian Zones. Both rims of Grand Canyon.

Odostemon fremontii (Torr.) Rydb.

46.1-2

Berberis fremontii Torr.

Southern Colorado, New Mexico, Nevada, Arizona. Upper Sonoran Zone. Both rims of Grand Canyon.

Papaveraceae "Poppy family"

Argemone L. "Prickly poppy" "Thistle poppy"

Argemone platyceras Link and Otto 47.3

Southern Wyoming to Mexico. Upper Sonoran. North Rim of Grand Canyon.

Argemone hispide A. Gray 47.3
Wyoming to New Mexico and California. Upper Sonoran.
Both rims of Grand Canyon.

Fumariaceae "Fumitory family"

Capnoides Adans.

Capnoides aureum (Willd.) Kuntze 48.2-2
Canadian Zone. Apparently rare in Utah. Canada to
Pennsylvania, Texas and California. Found on the South
Rim of Grand Canyon.

Brassicaceae "Mustard family"

Stanleya Nutt.

Stanleya pinnata (Pursh) Britton 49.1-4
Plains and dry slopes of the Artemisa and pinyon belts.
South Dakota to Nebraska and Utah. Found in the Canyon.
Stanleya arouata Rydb. 49.1-5

Plains and hillsides of the Covillea and Artemisa belts. Wyoming to northwestern New Mexico and California. Found in the Canyon.

Hesperidanthus (Robinson) Rydb.

Hesperidanthus linearifolius (A.Gray) Rydb.
Colorado, Texas, Arizona, Mexico. Transition and
Canadian Zones. Kaibab Forest and South Rim.

Thelypodium Endl.

Thelypodium wrightii A.Gray 49.3-9
Rocky places in the Covillea, artemisia, and pinyon

belts. Colorado to Nevada and southward. Found near Grand View in Grand Canvon.

Thelypodium linearifolium (Gray) Wats. 49.3

Found on North Rim of Grand Canyon. In river valleys and on hillsides from Colorado to Texas and Arizona, also in Mexico.

Streptanthus Nutt.

Streptanthus cordatus Nutt 49.5-3
Plains, foothills and canyons of artemisa and pinyon belts. Wyoming and Colorado, westward to Sierra Nevada. Found on North Rim, and also along Yaki Trail.

Lepidium L. "Pepper grass"

Lepidium jonesii Rydb. 49.7-9
Plains and dry, sunny slopes of artemisa and pinyon
belts. Utah and Nevada. Rim of inner Canyon, Torroweap
Valley - Grand Canyon.

Lepidium densiflorum Schrad. 49.7-12
Ranges from Hudson Bay to British Columbia, southward to
New York and New Mexico. Grows on plains in Upper Sonoran Zone. Found on North Rim of Grand Canyon.

Thalaspi L "Pennycress"

Thalaspi purpurascens Rydb. 49.8-Found in Colorado, Utah, Arizona and New Mexico. In Canadian and Alpine Zones. At Grand Canyon it occurs in the Kaibab Parks in abundance.

Sisymbrium L. "Watercress"

Sisymbrium nasturtium-aquaticum 49.17-1
Introduced from Europe. Throughout most of temperate
North America and Europe. Wet places about springs and
running water. Found in the Kaibab Forest.

Radicula Hill "Yellow water-cress"

Radicula alpine (S.Wats.) Greene 49.18-5

Montana, Colorado, Utah and Idaho. Wet places in the mountains in Canadian and Alpine Zones. Kaibab Forest.

Lesquerella S. Wats. "Bladderpod"

Lesquerella kingii Wats. 49.23-1
Rocky canyons and mountains sides of aspen and spruce belts. Utah and Nevada. In Grand Canyon found on the North Rim.

Lesquerella arizonica S. Wats. "Arizona Bladderpod" 49.23-4
Arizona and southern Utah. Hillsides and canyons.
Kaibab Plateau and South Rim of Grand Canyon.

Lesquerella purpurea (A.Gray) Wats. 49.23
Western Texas to Arizona; South into Mexico. Found on the South Rim of Grand Canyon near the Village.

Draba L. "Whitlow grass"

Draba asprella Greene 49.28-1

Distribution limited to southern Utah and Arizona. It grows in damp places in the Transition Zone. At the Grand Canyon it occurs on the North Rim.

Thysanocarpus Hook.

Thysanocarpus amplectens Greene 49.30-1 Covillea, artemisia and pinyon belts. Southern Utah, Arizona and New Mexico. Found on the North Rim and at Phantom Ranch.

Sophia Adans. "Tansy mustard"

Sophia pinnata (Walt.) Howell 49.32-2
Pennsylvania to Florida and California. Plains and slopes of Upper Sonoran Zone. North Rim of Grand Canyon.
Sophia incisa (Engelm.) Greene 49.32-3
Aspen and spruce belts. Wyoming to New Mexico, Utah and Nevada. In Grand Canyon found on North Rim at Greenland

Spring.

Sophia filipes (A.Gray) Heller 49.32-4

Canyons and mountain sides, upward to spruce belt.

Saskatchewan to North Dakota, California and British

Columbia. Found in Grand Canyon along Hermit Trail.

Arabis L. "Rockeress"

Arabis perennans S.Wats. 49.34-23

Plains and dry hillsides of the Covillea and artemisia belts. Southern California, Nevada, Utah and Arizona. Found in the Canyon around Roaring Springs.

Arabis fendleri (S.Wats.) Greene 49.34

Found in the Sierras and thence eastward to New Mexico.

Found in Grand Canyon along Hermit Trail.

Cheirinia Link "Blistercress"

Cheirinia elata (Nutt.) Rydb. 49.35-10

Artemisia plains, mountain sides and canyons, upward to spruce belt. North Dakota to New Mexico, westward to Washington and California. Found on the South Rim and

in sage flats in the Grand Canyon.

Cheirinia oblanceolata Rydb.

49.35-12

Aspen, Spruce and subalpine belts. Wyoming, Colorado and Utah. Found on Kaibab Plateau and at Greenland Spring.

Capparidaceae "Capper family"

Cleome L. "Bee plant"

Cleome serrulata Pursh "Blue Colorado bee plant" 50.1-1
Saskatchewan to Missouri westward to Washington and Arizona. Upper Sonoran and Transition Zones. Kaibab
Plateau.

Cleome lutea Hook "Yellow bee plant" 50.1-2

Nebraska to New Mexico, Arizona and Washington. Plains and mountain sides of Upper Sonoran Zone. Kaibab Plateau.

Crassulaceae "Stonecrop family"

Sedum L. "Stonecrop"

Sedum stenopetalum Pursh 53.1-2

Rocky places of the Canadian Zone. South Dakota to
Nebraska, New Mexico and California. Found on the North
Rim of Grand Canyon.

Saxifragaceae "Saxifrage family" "Saxifrage"

Saxifraga rhomboidea Greene 54.5-5

Spruce and alpine belts. Montana to New Mexico, Utah and Nevada. Found on North Rim of Grand Canyon.

Heuchera L. "Alumroot"

Heuchera rubescens
Lower Sonoran to Canadian Zone. Utah to New Mexico,
westward to Oregon and eastern California. Found on
South Rim of Grand Canyon growing on north facing rocks
over the rim.

Heuchera parviflora Nutt.; T. & G. 54.5-5

Aspen, spruce and alpine belts. Alberta to eastern Oregon, southward to New Mexico and Arizona. Found in the region of Bass Camp in secluded area on South Rim of Grand Canyon. Also found at Grand View.

Heuchera novomexicana Wheelock 54.5

Mountains of New Mexico and Arizona. North Rim of Grand Canyon.

Lithophragma Nutt. "Woodland Star"

Lithophragma bulbifera Rydb. 54.6-2
Yellow Pine, Aspen and spruce belts. Montana and British Columbia, southward to Black Hills, South Dakota, Colorado and California. Found in Yellow Pine near Grand View on the South Rim of the Grand Canyon.

Hydrangeaceae "Hydrangea family" Philadelphus L. "Mock orange"

Philadelphus argenteus Rydb.

Found in Arizona and southwestern New Mexico.

Canyon found near Bass Camp on the South Rim.

Philadelphus serphyllifolius A. Gray "Syringa" 56.1

General range? Found on North Rim of Grand Canyon.

Philadelphus argyrocalyx Woot. 56.1

Given only in White and Sacramento Mountains of New

Given only in White and Sacramento Mountains of New Mexico. Found on the North Rim of the Grand Canyon.

Fendlera Engelm. and Gray

Fendlera rupicola A. Gray

Colorado to Nevada, New Mexico and Arizona. Upper Sonoran Zone. South Rim of Grand Canyon and north of the
river in the canyon.

Fendlerella Heller

Fendlerella cymosa Greene 56.4

Arizona and New Mexico to northern Mexico. Found in Kaibab Forest and also in canyon along Kaibab Trail.

Fendlerella utahensis (S.Wats.) Heller 56.4-1
Rocky canyons and mountain sides of the pinyon, yellow pine and aspen belts. Utah, Nevada and Arizona. Found on most of the rocky points of the South Rim, especially Grand View Point.

Grossulariaceae "Gooseberry family"

Ribes L. "Current"

Ribes cereum Dougl. "Wax current" 57.1-5
Upper Sonoran, Transition and Canadian Zones. Montana
to British Columbia, southward to Arizona and California. At Grand Canyon it was collected at head of North
Canyon on Kaibab Plateau. Also believed to occur on
South Rim.

Ribes inebrians Lindl. 57.1-6
Upper Sonoran to Canadian Zone. South Dakota to western Nebraska, westward to Montana, central California and Arizona. At Grand Canyon it was collected east of Grand

View on South Rim and at Cape Royal on the North Rim.

Ribes viscosissimum Pursh 57.1-7

Transition and Canadian Zones. Montana to British Columbia, southward to Colorado and California. It occurs on the South Rim of Grand Canyon east of Grand View.

Grossularia Mill. "Gooseberry"

Grossularia leptantha (A.Gray) Coville & Britton 57.2-3

Transition and Canadian Zones. Colorado, Utah, New Mexico and Arizona. At Grand Canyon was collected under Grand View on South Rim; at Bright Angel Point on Kaibab Plateau, as well as Powell Plateau and North Canyon.

Grossularia velutina (Greene) Coville & Britton 57.2-5

"Desert Gooseberry"

Upper Sonoran, Transition and Canadian Zones. Utah, Oregon, Arizona and Southern California. Found near Grand View on the South Rim.

Grossularia inermis (Rydb.) Coville & Britton 57.2-7
"Wine Gooseberry"

Transition and Canadian Zones. Montana to British Columbia, southward to New Mexico and California. At Grand Canyon it was collected at Point Imperial on North Rim. Grossularia brachyantha 57.2

rossularia brachy North Rim.

Grossularia sarothrae
North Rim

57.2

Rosaceae "Rose family" Petrophytum Rydb.

Petrophytum caespitosum (Nutt.) Rydb. Rock Rose 58.3-1
Distributed from South Dakota and Montana to New Mexico and California. Forms dense colonies on rocks from Upper Sonoran to Canadian Zones. Occurs on both sides of river in canyon and on South Rim. It is particularly abundant on the Redwall Limestone. It has been found only on limestone.

Chamaebatiaria Maxim. "Fern-bush"

Chamaebatiaria millefolium (Torr.) Maxim. 58.4-1

Plains, canyons and hillsides of Upper Sonoran up to

Canadian Zones. Found on both rims of the Canyon;

i.e. Cape Royal and Yaki Point.

Sericotheca Raf. "Ocean Spray" "Mountain Spray"

Sericotheca obovata Rydb. 58.5-2

Sericotheca glabrescens (Green) Rydb.

58.5

Canyons and mountain sides of Upper Sonoran and Transition Zones. Oregon and northern California to Utah. Found along the North Rim of the Canyon.

Sericotheca schaffneri Rydb.

Found on the North Rim of the Canyon.

Potentilla L. "Cinquefoil"

Potentilla paradoxa Nutt., Torr. & Gray 58.10-1
Wet ground of Covillea, artemisia and pinyon belts. New
York to Washington, southward to New Mexico and Mexico.
Potentilla rivalis Nutt. 58.10-2

On damp places of Lower and Upper Sonoran Zones. Saskatchewan to British Columbia and Mexico. Found on the North Rim of the Grand Canyon.

Potentilla monspeliensis L. 58.10-5
Waste places, canyons and hillsides, upward to 9000 ft.
Labrador to District of Columbia, California and Alaska;
also Europe and Asia. In Canyon and on North Rim.

Potentilla subviscosa Greene 58.10

Damp places at higher elevations on the Kaibab Plateau.

New Mexico. Arizona and northern Mexico.

Potentilla propinqua Rydb. 58.10-34
Ranges from Alberta to South Dakota and Arizona. Occurs in Canadian Zone on North Rim of the Canyon.

Found from Saskatchewan and Alberta southward to New
Mexico and Nevada. Occurs in Canadian Zone and is found
on the North Rim.

Potentilla crinita A. Gray 58.10-41

Found in Colorado, Utah, New Mexico and Arizona. In

Transition and Canadian Zones. Occurs on South Rim of
the Canyon.

Potentilla hippiana Lehm. 58.10
Found from New Mexico to British America. Found in moist parks of the mountains. Occurs on North Rim of Grand Canyon.

Fragaria L. "Strawberry"

Fragaria ovalis (Lehm.) Rydb. 58.12
From Canada to New Mexico and Nevada. As far as can be determined found only on the North Rim.

Coleogyne Torr. "Black bush"

Coleogyne ramosissima Torr. "Burro-bush" 58.18-1

Southwestern Colorado, Arizona, Nevada and California.

Found on plateaus and mountain sides of the Lower and

Upper Sonoran Zones. Abundant on the Tonto in Grand Canyon.

Fallugia Endl. "Apache-plume"

Fallugia paradoxa (Don) Endl. 58.22-1
Ranges from Colorado to Nevada, Arizona, Texas and Mexico. In Lower and Upper Sonoran Zones. It is fairly abundant in the Canyon and appears on both rims. The white flowers and long silvery, lavender plumes make it a shrub conspicuous for its beauty.

Cowania D. Don "Cliff-rose" "Quinine-bush" Cowania mexicana D.Don

58,23-1

Cowania stansburiana Torr.

Found in southern Colorado and ranges to Nevada, Southern California and Mexico. Typical of the Upper Sonoran Zone and runs into the Transition. It is found on both rims of the Canyon where it is a favorite food of deer. Blooms and fruits all summer.

Cercocarpus H.B.K. "Mountain Mahogany

Cercocarpus montanus Raf. "Fan-leaf Mt.Mahogany 58.25-1
Found from South Dakota to western Kansas, westward to
Montana, Nevada and Arizona. In Upper Sonoran and Transition Zones. Found on both sides of the River in the
Canyon at the level of the Supai Formation.

Cercocarpus ledifolius Nutt. "Curl-leaf Mt.Mahogany" 58.25-2
Upper Sonoran, Transition and Canadian Zones. Montana
to Washington, southward to Colorado and Southern California. Common on rocky points of North Rim and found
occasionally in such places on the South Rim.

Cercocarpus intricatus S.Wats. "Small-leaf Mt.Mahogany"
Canyons and mountain sides of Upper Sonoran /58.25-3
Zone. Utah, Nevada, Arizona and Southern California.
Occurs on both rims and in the Canyon.

Canyons and mountain sides of Upper Sonoran Zone. Utah,
Nevada and Arizona. Occurs on South Rim of the Canyon.

Rubus L. Raspberry

Rubus parviflorus Nutt. "White Flowering Raspberry" 58.26-1
Canyons and wooded slopes of Canadian Zone. Western
Ontario to British Columbia, southward to Michigan and
California. Found north of the River down Bright Angel
Canyon.

Rosa L. "Rose"

Rosa neomexicana Cockerell "New Mexican Rose" 58.27-5
Southern Colorado and New Mexico to southern Nevada and
Arizona. Transition and Canadian Zones. North Rim of
Grand Canvon.

Rosa fendleri Crepin "Fendler's Rose"

Upper Sonoran Zone to Canadian Zone.

British Columbia and northern Mexico.

Grand View on the South Rim of Grand Canyon.

Rosa mirifica (Greene) 58.27

White and Sacramento mountains of New Mexico and also found in Arizona in the Grand Canyon.

Malaceae "Apple Family"

Amelanchier Medic. "Shadblow" "Service-berry"

Amelanchier goldmani W. and S. 59.1

Mountains of western New Mexico. At Grand Canyon it was collected in Bass Canyon and at Cape Royal.

Amelanchier covillei Standl. 59.1-3

Aspen belt; Toiyabe Mountains. Southeastern California and southern Nevada. Found on the South Rim.

Amelanchier utahensis Koehne "Utah Shadblow" 59.1-8
Upper Sonoran, Transition and Canadian Zones. Colorado
and New Mexico, westward to Nevada and Arizona. Collected at Grand View on South Rim of Grand Canyon.

Sorbus L. "Mountain Ash"

Sorbus sambucifolius 59.3

Occurs on the Kaibab Plateau

Sorbus dumosa Greene 59.3

Collected at Point Imperial on the North Rim.

Amygdalaceae "Plum Family" Prunus L. "Plum" "Cherry"

Prunus melanocarpa (A.Nels)Rydb."Black Choke Cherry"

Moist Canyons and mountain sides of the pin-/60.1-5

yon, yellow pine and aspen belts. Alberta and

British Columbia southward to New Mexico and California.

At Grand Canyon found on North Rim at Neal Spring.

Mimosaceae "Mimosa Family" Acacia L. Cat-claw

Acacia greggii A. Gray

Western Texas to southwestern Utah, Nevada and California. Lower Sonoran. In Grand Canyon on both sides of the River.

Prosopis L. "Mesquite"

Prosopis glandulosa Torr.

61.4-1

Plains, desert areas and dry canyons of the Covillea and lower artemisia belts. Texas to southern Utah and California. In Grand Canyon found in abundance along the River and a short distance up the creeks.

Caesalpinaceae "Senna Family"

Cercis L. "Redbud"

Cercis arizonica "Arizona Redbud" 62.1
California, Nevada and Arizona. Upper Sonoran Zone.
On both sides of the River in the Canyon.

Cassia L.

Cassia covesii Wats. 62.3-1

Desert areas of Covillea belt. New Mexico to southern

Nevada and California. Found along Clear Creek Trail in
the Canyon.

Fabaceae "Pea Family"

Lupinus L. "Lupine" "Wolf's bean" "Blue Bonnet"

Lupinus brevicaulis S. Wats. 64.3-3

Valleys, plains and mountain sides of Upper Sonoran and
Transition Zones. Colorado to Arizona and Mexico, westward to Oregon and California. Kaibab Forest.

Lupinus kingii S. Wats.

64.3-4

Lupinus sileri S. Wats.

Plains, mountain sides and canyons of the artemisia belt upward to the Aspen belt. Colorado, New Mexico, Utah and Arisona. Found around Cape Royal on the North Rim.

Lupinus caudatus Kellog Lupinus palmeri S. Wats. 64.3-42

Ranges from Oregon and Nevada to Wyoming and Utah.
Upper Sonoran and Transition Zones. Found on the North
Rim of Grand Canyon.

Lupinus barbiger S. Wats. 64.3-43
Colorado, Utah, Arizona and California. Sandy plains and hills of Lower and Upper Sonoran Zones. Found on the North Rim of Grand Canyon.

Lupinus meionanthus A. Gray 64.3-47
In granitic sand of yellow pine, aspen and spruce belts.
Nevada and California. Collected on the North Rim of
Grand Canyon.

Lupinus ramosus E. Nels. 64.3

Coulter and Nelson give the range for this lupine as northwestern Wyoming. It was collected at Marble Flats

on the North Rim of Grand Canyon.

<u>Lupinus hillii</u> Greene

Found on the North Rim of Grand Canyon.

64.3

Medicago L.

Medicago lupilina L. 64.4-2
Fields and waste places; introduced from Europe. Nova
Scotia to Florida, westward to Washington and California
Found on North Rim of Grand Canyon near Neal Spring.

Trifolium L. "Clover"

Trifolium dasyphyllum Torr. & Gray 64.6-18

Montana to Colorado and Utah. In Transition, Canadian, and Alpine Zones. On North Rim of the Canyon.

Trifolium monanthum Gray (near var.glabrifolium McDer.)
Yellow pine, aspen and spruce belts. Cali- / 64.6-19
fornia and western Nevada. Found in meadows on North
Rim.

Trifolium fendleri Greene 64.6-22

Valleys and mountain sides, upward to aspen belt. Colorado and Utah, southward to Mexico. Found on the North Rim along roads and in meadows.

Trifolium pinetorum Greene 64.6

Trifolium pinetorum Greene
Found on the North Rim of Grand Canyon.

Lotus L.

Lotus longebracteatus Rydb. 64.7-9

Hillsides of artemisia belts. Southern Utah, Arizona and Nevada. Found on North Rim of Grand Canyon.

Lotus rigidus Greene 64.7

Ranges in and bordering the deserts. California, east to Utah and Arizona; south to Lower California. Found on

Psoralea L. "Sourf Pea"

the North Rim of Grand Canyon.

Psoralea mephitica S. Wats. 64.8-9

Distribution limited to southern Utah and Arizona. It occurs in the Lower and Upper Sonoran Zones. At Grand Canyon it has been reported only from the North Rim.

Psoralea tenuiflora Pursh. 64.8

Montana and South Dakota to Arizona and Arkansas.

Found on the North Rim at Cape Royal.

Petalostemon Michx. "Prairie Clover"

Petalostemon oligophyllum (Torr.) Rydb. 64.10

Minnesota, Iowa, Texas, Arizona. Canadian Zone. Kaibeb Forest

Petalostemon flavescens S. Wats. 64-10-1 Utah and northern Arizona. Rocky hillsides of the Upper Sonoran Zone. North Rim of Grand Canvon

Petalostemon searlsiae A. Grav Southern Utah and Arizona. Rocky hillsides of the Upper Sonoran Zone. Kaibab Forest.

Robinia L. "Locust"

Robinia neomexicana luxurians Dieck.

64.11-2

"Southwestern Locust" Colorado through northern New Mexico and Arizona, and to

southern Utah and western Texas. In canyons of Upper Sonoran and Transition Zones. Found on both rims of the Canyon.

Astragalus L. "Milk Vetch"

Astragalus artipes A. Gray "Loco" Southern Utah, Arizona and Nevada, Found in the Transition Zone on the North Rim of Grand Canyon.

Astragalus oophorus S. Wats. Valleys and gravelly hillsides of the artemisia and pinyon belts. Utah, California and Oregon. Found around Yaki Point on the South Rim.

64.13-28 Astragalus diphysus A. Gray Colorado, Utah, New Mexico and Nevada. On plains and hillsides of Lower and Upper Sonoran Zones. Appears on the North Rim of Grand Canyon.

Astragalus thompsonae S. Wats. 64.13-33 Plains and foothills of the Upper Sonoran Zone, Utah, Found on the South Rim of the Canyon.

Astragalus palans Jones 64.13-38 Foothills and canyons of the artemisia and pinyon belts. Utah and Arizona. Found at Shoshone Point on the South Rim of Grand Canyon.

Astragalus scaposus Found from Wyoming to New Mexico, Arizona and Utah. In Upper Sonoran Zone. Found on the South Rim.

Astragalus amphioxys A. Gray Plains and dry hillsides of the Covillea and artemisia belts. Southern Colorado to Nevada, southward to Texas and Arisona. In Grand Canyon on the Tonto.

. Astragalus purshii Dougl. 64.13-89 Plains, foothills, and canyons of the artemisia, pinyon, and yellow pine belts. Montana to British Columbia, southward to Colorado and California. Found on the South Rim near Hermit's Rest.

Astragalus convallarius Greene

64.13-105

Ranges through Wyoming, Colorado and Utah up to Canadian Zone. At Grand Canyon, found on the Kaibab Plateau.

Astragalus impensus (Sheld.) W. & S.

64.13-119

Kentrophyta impensa (Sheld.) Rydb.

Nevada to Colorado and northern New Mexico. In the Upper Sonoran Zone. Found around Cape Royal on the

North Rim of the Canyon.

64.13

Astragalus hosackiae Greene Distribution limited to Arizona and New Mexico. Low hills in Upper Sonoran Zone. Found on the North Rim of Grand Canyon.

Oxytropis DC. "Locoweed"

Oxytropis lambertii Pursh

64.14-3

Ranges from Minnesota to Montana, southward to Texas and Arizona. Grows on plains, hillsides and canyons upward to Transition Zone. Found on North Rim of the Canyon.

Vicia L. "Vetch"

Vicia americana Muhl.

64.18-6

Meadows, canyons and mountain sides of artemisia belt, upward to 9000 feet. New Brunswick to British Columbia. southward to Virginia and Arizona. Found on North Rim of the Canyon around Neal Spring.

Lathyrus L. "Pea"

Lathyrus graminifolius (S. Wats.) White

Yellow pine belt, Arizona, New Mexico and California, southward to Mexico. Found along the Hermit Trail on the south side of the River.

Lathyrus leucanthus Rydb.

64.19-8

Aspen and spruce belts. Wyoming to New Mexico and Utah. Found on the North Rim of the Canyon.

Phaseolus L. "Bean"

Phaseolus dilatatus W. & S. 64.

Mountains of southern New Mexico and Arizona. Found on the South Rim in Long Jim Canyon and at Rowe's Well.

Geraniaceae "Geranium Family"

Geranium L. "Cranes bill"

Geranium richardsonii Fisch. & Trauty

65.1-5

Geranium gracilentum Greene, Rydb.

Saskatchewan to New Mexico, westward to British Columbia and California. Transition and Canadian Zones. Occurs

commonly under aspen on the North Rim.

Geranium atropurpureum Heller 65.1-7

Colorado and southern Utah, southward to Mexico. Upper Sonoran through Canadian Zone, North Rim of the Canyon. Geranium furcatum Hanks 65.1

Mountains of New Mexico and Arizona. Transition Zone.
North Rim of Grand Canyon.

Geranium fremontii Torr. 65.1-9

Colorado, Utah, New Mexico and Arizona. North Rim.

Geranium lentum W. & S. 65.1

Mountains of western New Mexico. Transition Zone.

Found in the Kaibab Forest.

Erodium L'Her "Filaree"

Erodium circutarium (L.) L'Her 65.2-1

Waste ground, canyons and mountain sides, upward to the aspen belt; introduced from Europe. Canada to Virginia westward to California and Mexico. Found at Hermit's Rest on the South Rim of the Canyon.

Linaceae "Flax Family" Linum L. "Flax"

Linum lewisii Pursh. "Prairie Flax" 66.1-2

Manitoba to Alaska, Texas, California and Mexico.

Slopes, canyons and open flats of Upper Sonoran, Transition and Canadian Zones. Found along the roads on both rims of the Canyon.

Rutaceae "Rue Family"

Thamnosma Torr. & Frem.

Thamnosma montana Torr. & Frem. Turpentine Broom 68.1-1

Southern Utah to southeastern California and southward.

Lower Sonoran Zone. Found in Hermit Basin in the

Canyon. Blooms in late winter.

Ptelea L. "Hoptree"

Ptelea baldwinii Torr. & Gray 68.2-1
Florida to Texas, Utah and California, southward to
Mexico. Lower and Upper Sonoran Zones. At Grand Canyon
may be found down any of the trails into the Canyon.

Euphorbiaceae "Spurge Family"
Tithymalus Adans. "Spurge"

Tithymalus palmeri (Engelm.) Aterenis 71.2-4
Pinyon and yellow pine belts. California to Arizona and Utah. Found under yellow pine on the South Rim.

Tithymalus schizolobus (Engelm.) Norton "Snakeweed" Euphorbia schizoloba Engelm. Plains and hillsides of Lower and Upper Sonoran Zones.

California, Arizona and southern Nevada. Found on the Pasture Wash road, south rim of the Canyon.

Tithymalus robustus (Engelm.) Small 71.2-10
Nebraska, Montana, Arizona. Plains, canyons and mountain sides upward to the Transition Zone. Collected in the Kaibab Forest.

Chamaesyce S.F. Gray "Spurge" "Carpet weed"

Chamaesyse chaetocalyx Boiss 71.3-5 Western Texas to Arizona and southern Utah. Plains. hillsides and canyons of Lower and Upper Sonoran Zones. North Rim of Grand Canyon.

Chamaesyce fendleri (Torr. & Gray) Small 71.3-6 Plains and rocky canyons of the artemisia, pinyon and yellow pine belts. Texas to Arizona, Utah and Nevada. Occurs along the Clear Creek Trail in the Canyon.

Chamaesyce versicolor (Greene) Norton Valleys and rocky canyons; Grand Canyon. Texas to Arizona. Found at Phantom Ranch in the Canyon.

Bernardia P. Br.

Bernardia myricaefolia (Scheele) Benth. & Hook. 71.5-1 Hillsides and rocky canyons: Grand Canyon. Western Texas to Arizona and Mexico. In Grand Canyon on both sides of the River.

Callitrichaceae "Water Starwort Family" Callitriche L.

Callitriche palustris L.

72.1-2

Newfoundland to Florida, westward to Alaska and California. Also in the Old World. In water of Upper Sonoran to Alpine Zone. Found in pools on Kaibab Plateau.

Anacardiaceae "Sumac Family" Rhus L. "Sumac"

> Rhus utahensis Goodding 74-2-1 Rocky hillsides and canyons of the artemisia and pinyon

belts. Southern Utah, Arizona and southeastern California. Found along Hermit Trail in Grand Canyon.

Rhus trilobata Nutt. Torr. & Gray 74-2-2

Schmaltzia trilobata (Nutt.) Small

Saskatchewan, Missouri, Texas, California and Washington Upper Sonoran to Transition. In, and on both rims of the Grand Canyon.

Rhus cismontana Greene 74.2-3

Found from South Dakota to Wyoming and southward to Missouri and Arizona. Ranges from Upper Sonoran to Transition Zone. Grows in Grand Canyon along Bright Angel Creek.

Celastraceae "Bittersweet Family" Pachistima Raf.

Pachistima myrsinetes (Pursh) Raf. "Myrtle pachistima"
Upper Sonoran to Hudsonian Zone. British /75.2-1
Columbia to California and New Mexico. Collected at
Powell Saddle on the North Rim.

Forsellesia Greene "Spiny Bittersweet"

Forsellesia spinescens (A. Gray) Greene 75.3-2

Canyons and dry hillsides of artemisia and pinyon belts.

Colorado to western Texas, California and Oregon. At

Grand Canyon occurs on the Tonto and in the Upper Sonoran Zone.

Acer L. "Maple Family"

Acer grandidentatum Nutt., Torr. & Gray 76.1-1 "Bigtooth Maple"

Montana and Idaho, southward to western Texas and Arizona. Along water courses and in canyons of Upper Sonoran and Transition Zones. North of Colorado River in the Canyon.

Acer glabrum Torr. "Rocky Mountain Maple" 76.1-2
Canyons and mountain sides of the pinyon, yellow pine, aspen and spruce belts. Alberta and British Columbia, southward to New Mexico and California. Found on both rims along the slopes of the Kaibab limestone.

Acer interius Britton "Boxelder" 76.1-3

Along water courses of the artemisia and pinyon belts.

Manitoba to Nebraska, Montana and Arizona. Found quite commonly along south tending slopes and along water courses of the Grand Canyon.

Rhamnaceae "Buckthorn"

Zizyphus Juss. "Lute Bush"

Zizyphus lycioides A. Gray 77.

Dry mesas, hills and along sandy water courses. Found from western Texas to New Mexico and Arizona. Found in the Shinumo and on the Great Thumb.

Rhamnus L. "Buckthorn"

Rhamnus betulaefolia Greene 77.1-1

Canyons of the artemisia and pinyon belts. Southeastern

Utah, New Mexico and Arizona. Found at Roaring Springs
in Grand Canyon.

Rhamnus purshiana DC. "Cascara sagrada" 77.1

Eastern slopes Sierra Nevadas. Mountains of Colorado,
Arizona, New Mexico and western Texas. In Grand Canyon
collected only in Bright Angel Canyon.

Ceanothus L. "New Jersey Tea" "Mountain Laurel" "Snow brush"

Ceanothus greggii A. Gray 77.2-3

Plains, canyons and slopes of Lower and Upper Sonoran

Zones. Western Texas to southern Nevada, southward to

Mexico. Found in Canyon on both sides of river.

Ceanothus martini Jones 77.2-6

Mountain sides of Upper Sonoran, Transition and Canadian Zones. Found at the head of Roaring Springs Canyon on the north side of the river.

Ceanothus fendleri A. Gray 77.2-7
From South Dakota to Wyoming, New Mexico and Arizona in Upper Sonoran, Transition and Canadian Zones. Occurs on both sides of the river in the Canyon.

Vitaceae "Grape Family" Vitis L. Grape

Vitis arizonica Engelm. "Canyon Grape" 78.1-1

Found from western Texas to southern Utah, southeastern California and Mexico. Near water courses, in gulches and canyons of Lower Sonoran up to Transition Zone.

Found along Bright Angel Creek, in Cataract Canyon and in Nankoweap Basin.

Malvaceae "Mallow Family"
Malva L. "Mallow"

Malva rotundifolia L. 79.1-1
Waste places throughout the United States. Introduced from the Old World. Collected on North Rim of Canyon.

Sphaeralcea St. Hil. "Globemallow"

<u>Sphaeralcea cuspidata</u> (A. Gray) Britton 79.4-1

Plains and low hillsides of Lower and Upper Sonoran

Zones; Fort Mojave. Kansas to southern Nevada, southward to Texas and Mexico. Found along the Dripping

Springs Trail on the South Rim.

Sphaeralcea ambigua A. Gray 79.4-3
Desert areas and rocky canyons of Lower and Upper Sonoran Zones, southern Utah and Arizona to Southern California. Collected on South Rim at Yavapai Point.

Sphaeralcea marginata York 79.4-5
Found in Colorado, Utah, New Mexico and Arizona. In the Upper Sonoran and Transition Zones. Common on North Rim of the Grand Canvon.

Sphaeralcea leptophylla (A. Gray) Rydb. 79.4-11
In southern Colorado, Utah, southward to western Texas and Arizona. Lower and Upper Sonoran Zones. North Rim of the Grand Canyon.

Sphaeralcea fremontii Torr. 79.4-12
Grows in California and southwestern Nevada. On the
North Rim of Grand Canyon in Upper Sonoran Zone.

Phymosia Desv. "Wild Hollyhock" "Maple-leaved mallow"

Phymosia grandiflora Rydb. 79.4-14

Sphaeralcea grandiflora Rydb.

Northern New Mexico, Colorado and southeastern Utah.

Meses along streems and convers of Unper Separate Trans

Mesas, along streams and canyons of Upper Sonoran, Transition and Canadian Zones. Found in South Canyon on the Kaibab Plateau.

Sida L.

Sida hederacea (Dougl.) Torr. 79.6-1
Ranges from Washington to western Texas and Mexico.
Grows in saline areas and dry plains of Lower and Upper Sonoran Zones. Found on the North Rim of Grand Canyon.

Hypericaceae "St Johnswort Family"
Hypericum L. "St. Johnswort"

Hypericum anagalloides Cham. & Schlecht. 80.1-1
Idaho to British Columbia, Lower California. Wet meadows and canyons of Upper Sonoran, Transition and Canadian Zones. Found in Kaibab Forest along shores of ponds

Tamaricaceae L. "Tamarix Family"
Tamarix L. "Tamarix"

Tamarix gallica L. "French Tamarix" 85.1-1

Introduced from Europe and planted extensively; escaped along Virgin River and down along the Colorado River.

In Grand Canyon along the River from Nankoweap Creek to base of Tanner Trail.

Violaceae "Violet Family"

Viola L. "Violet"

Viola nephrophylla Greene

85.1-1

Moist places in meadows, canyons and mountain parks, upward to spruce belt. Quebec to British Columbia, southward to New Mexico and California. Occurs on North Rim. Viola canadensis L. 85-1-13

Aspen and spruce belts. New Brunswick to British Columbia, southward to New Mexico and Arizona. Found on the

Loasaceae "Loasa family"

Mentzelia L. "Blazing star"

Mentzelia multiflora (Nutt.) A. Gray 86.2-4
Sandhills and canyons of Lower Sonoran up to Transition
Zone. Colorado and Utah, southward to Texas and Mexico.
Collected at Point Sublime on the North Rim.

Mentzelia densa Greene 86.2-8

Canyons, hillsides and plateaus of Upper Sonoran and
Transition Zones. Colorado, Utah and Arizona.

Collected at Cedar Ridge at Grand Canyon.

Mentzelia rusbyi Wooton 86.2-9
Wyoming, New Mexico, Arizona. Canyons and plateaus of
Upper Sonoran and Transition Zones. Occurs on Kaibab
Plateau.

Cactaceae "Cactus Family"

Echinocereus "Hedgehog cactus"

Echinocereus coccineus Engelm. 87.1-1
Rocky slopes and canyons of Upper Sonoran Zone. Colorado, Utah, New Mexico and Arizona. At Grand Canyon found on North Rim but probably occurs also on South Rim

Echinocereus engelmanii (Parry) Rumpler 87.1-2

Mesas and hills of central and western Arizona.

Beliewed by Shreve to occur in the Grand Canyon.

<u>Echinocereus fendleri</u> (Engelm.) Rumpler 87.1-3

Occurs well over the State. Believed by Shreve to occur in Grand Canyon.

Echinocereus mojavensis (Engelman and Bigelow) Rumpler
Vicinity of Colorado River along California /87.1-4
boundary. Believed by Shreve to occur in the Canyon
region.

Ferocactus Britt. and Rose "Barrel cactus"

Ferocactus lecontei Engelm. 87.4-2

Southern California along the Colorado, northern Lower

California, east into Utah and Arizona. Lower Sonoran Zone. Found on the Tonto in the Canyon.

Coryphantha Lem.

Coryphantha arizonica Engelm. 87.7-1

Arizona and southern Utah, Plains and hillsides of Lower Sonoran Zone. Occurs in the Canyon.

Opuntia Hill. "Prickly pear" "Cholla"

<u>Opuntia Whipplei</u> Engelm. & Bigel. 87.9-2

The common cholla. Range limited to western New Mexico and Arizona. Collected on both rims.

Opuntia acanthocarpa Engelm. "Stag-horn Cholla" 87.9-3
Foothills or stony mesas of central and western Arizona.
Believed by Shreve to occur in the Canyon region.

Opuntia echinocarpa Engelm. and Bigelow 87.9-4

Mesas; occurring from Florence to Kingman and Yuma, Arizona. Believed by Shreve to occur in the Canyon region.

Opuntia spinosior (Engelm.) Toumey 87.9
Mesas and foothills of central and southern Arizona;
believed by Shreve to occur. in the Grand Canyon.

Opuntia basilaris Engelm.& Bigelow*Beaver-tail Cactus*
Low hills in southwestern Arizona. Believed /87.9-8
by Shreve to occur in the Grand Canyon.

Opuntia phaeacantha Engelm. 87.9

Common in most of desert foothills and mesas of central and southern Arizona; probably the most wide-spread species of this group.

Opuntia chlorotica Engelm. 87.9

Hills and on mountains as high as the oak belt throughout central and southern Arizona; common east of Safford and in northwestern Arizona south of Colorado River.

Believed by Shreve to occur in the Grand Canyon

Opuntia fragilis (Nutt.) Haworth 87.9-11
Mountains, usually in shaded situations; oak and yellow
pine belts of northeastern Arizona. Believed by Shreve
to occur in the Canyon region.

Opuntia hystricina Engelm. & Bigelow 87.9-13
Rocky ledges and shallow soil in western Arizona.
Collected in Nankoweap Basin, north of the River.

Opuntia polycantha Eaworth 87.9-15
Open desert plains and juniper forests in northern
Arizona. Believed by Shreve to occur in the Canyon.

Mamillaria Haworth "Pincushion cactus" "Ball cactus"

Mamillaria radiosa arizonica 87

New Mexico to western Texas and Mexico. Found on North

Rim of Grand Canyon.

Elaeagnaceae "Oleaster Family" Lepargyrea Raf. "Buffalo Berry"

Lepargyrea rotundifolia (Parry) Green "Lead bush" 88.1-2
Southern Utah and Arizona. Upper Sonoran Zone. Occurs
on rocky points on both rims of Canyon. Around Lipan
Point on South Rim and Cape Royal on the North Rim.

Onagraceae "Evening-primrose Family"
Chamaenerion Adans. "Fire weed"

Chamaenerion angustifolium (L.) Scop. *Blooming Sally**90.5-2
Greenland to Alaska, North Carolina, New Mexico and California, Europe and Asia. Transition and Canadian
Zones. Kaibab Forest.

Epilobium L. "Willow weed"

Epilobium drummondii Hausskn. 90.4-9
Saskatchewan to British Columbia, southward to Colorado and Nevada. In wet places of Transition and Canadian Zones. Occurs on the Kaibab Plateau.

Epilobium alpinum L. 90.4-10

Meadows and willow groves of aspen, spruce and alpine belts. Greenland to Alaska, southward to New Hampshire, Colorado and California; also in Europe and Asia. Found on the North Rim of the Canyon.

Epilobium fastigiatum (Nutt.) Piper 90.4-15
Wet places of aspen and spruce belts. British Columbia
to Utah and California. Found around Greenland Spring
on the North Rim.

Epilobium paniculatum Nutt. 90.4-20
Alberta to British Columbia, southward to Colorado,
Arizona and California. Upper Sonoran and Transition
Zones. Found on the Kaibab Plateau.

Oenothera L.

Oenothera longissima Rydb. 90.8-1 Sandy river banks and canyons; Grand Canyon. Utah and Arizona. Found along the Cape Royal road on the North Rim of the Canyon.

Oenothera hookeri Torr. & Gray 90.8-3

Montana to British Columbia, southward to Mexico. On plains and in canyons and moist slopes of Upper Sonoran, Transition and Canadian Zones. Found on North Rim along roads.

Anogra Spach "White evening-primrose"

Anogra coronopifolia (Torr.&Gray) Britton 90.9-9

South Dakota to Kansas, Arizona and Utah. Upper Sonoran and Transition Zones. Plains, canyons and mountain sides. On Kaibab Plateau it grows in yellow pine belt.

Pachylophus Spach "Mountain primrose" "Rock rose"

Pachylophus marginatus (Nutt.) Rydb. 90.10-7

Oenothera marginata Nutt., Torr. & Gray

Found from Colorado to Nevada, Idaho and Oregon. On plains and rocky mountain slope of Upper Sonoran, Transition and Canadian Zones. Collected at Pasture Wash on the South Rim of Grand Canyon.

Galpinsia Britton

Galpinsia lavandulaefolia (Torr. & Gray) Small 90.13-1
Oenothera lavandulaefolia Torr. & Gray "Evening primrose"
Plains and foothills of Upper Sonoran Zone. Kansas and
Texas, westward to Utah and Nevada. Collected at Rowe's
Well and near the Village at Grand Canyon.

Chylismia Nutt.

Chylismia parviflora (S. Wats.) Rydb. 90.15-9
Found in southern Utah, Arizona and Southern California.
In desert areas and dry canyons of Lower Sonoran Zone.
Occurs in the Canyon north of the river.

Gayophytum A. Jess. "Baby's breath"

Gayophytum intermedium Rydb. 90.16-4

Moist ground in canyons and on slopes, upward to 8400
feet. Montana to New Mexico, westward to Washington and California. Found at Greenland Spring on North Rim.

Gayophytum ramosissimum Torr. & Gray 90.16-5

Montana to New Mexico and California. Plains among sagebrush. Canyons and mountain sides upward to Transition Zone. North Rim of the Canyon in meadows.

Gayophytum nuttallii Torr. & Gray 90.16-6
South Dakota to Colorado and Arizona, westward to Washington and California, Plains and hillsides. At Grand Canyon it occurs on the North Rim.

Gayophytum racemosum Torr. & Gray 90.16-7
Renges from South Dakota to Idaho westward to Washington and California. Canyons and mountain sides up to the Transition Zone. Found on the North Rim.

Gaura L. "Gaura"

Gaura coccinea Pursh 90.17-2
Plains and foothills of the Lower and Upper Sonoran

Zones. Montana to Texas. Arizona and Nevada. Found at Pasture Wash. South Rim of the Canyon.

Apiaceae "Carrot Family"

Carum L.

Carum gairdneri (Hook.& Arn.) Gray "Yampa" 92.12-2 Mountain sides and canvons of the artemisia, pinyon and vellow pine belts: Montana to Utah. westward to British Columbia and California. Found on North Rim of Canyon. Ligusticum L.

Ligusticum porteri Coulter and Rose 92.18-2 Aspen, spruce and subalpine belts. Wyoming to New Mexico and Arizona; Utah. Occurs at Greenland Spring on North Rim.

Oreoxis Raf.

Oreoxis macdougali (Coult. & Rose) Rydb. 92,19-3 Canyons of artemisia, pinyon and yellow pine belts. Southern Utah and Arizona. Occurs along Kaibab Trail south of the River.

Conioselinum Fisch.

Conioselinum scopulorum (Gray) Coult.& Rose Pinyon belt upward to subalpine belt. New Mexico and Arizona, northward to Colorado, Utah and Oregon. Occurs on the North Rim of Grand Canyon.

Phellopterus Nutt.

Phellopterus utahensis (Jones) W. & S. Idaho and Nevada to New Mexico. Plains and hillsides of Lower and Upper Sonoran Zones. Occurs on Kaibab Plateau

Ptervxia Nutt.

Pteryxia petraea (Jones) Coult. & Rose 92.23-1 Foothills and mountain sides of artemisia, pinyon and yellow pine belts. Nevada and southeastern California to Idaho. Found on South Rim of Grand Canyon.

Pseudocymopterus Coult. "Wild carrot"

Pseudocymopterus montanus (Gray) Coult. & Rose Spruce and subalpine belts, Wyoming to Arizona and New Mexico. Found on the North Rim of the Canvon.

Pseudocymopterus tidestromii Coult. & Rose 92,27-3 Utah and northern Arizona. Canadian and Alpine Zones. Kaibab Plateau.

Cogswellia Raf.

Cogswellia macdougali (Coult. & Rose) Jones 92.30-10
Utah, Nevada and northern Arizona. Plains and mountain sides of Upper Sonoran, Transition and Canadian Zones.
North Rim of Grand Canyon.

Cornaceae "Dogwood Family"

Garrya A. Gray "Silk-tessel bush"

Garrya flavescens S. Wats. 93.1-1
Southern Utah, Nevada, Arizona and southeastern California. Hillsides and canyons of Lower and Upper Sonoran Zones. At Grand Canyon it occurs in abundance along the Kaibab Trail from the North Rim to Roaring Springs.
Occasionally found on the Kaibab Plateau.

Cornus L. "Dogwood"

Cornus stolonifera Michx. 93.2-2

Along brooks in Transition and Canadian Zones. Alaska to Montana, southward to Nevada, Arizona and Nebraska. At Grand Canyon found on the North Rim at Neal and Bright Angel Springs.

Pyrolaceae "Shinleaf family"
Pyrola L. "Shinleaf"

Pyrola secunda L. 94.3-1
Labrador to Alaska, southward to Virginia and California
Europe and Asia. Canadian and Alpine Zones. Damp
places in forests. Kaibab Plateau.

Pyrola picta Smith 94.3-3
Aspen and spruce belts. Wyoming to New Mexi∞, westward to British Columbia and California. Found on the North Rim of the Canvon.

Pyrola chlorantha Swartz 94.3-5
Labrador to Virginia, British Columbia, California.
Canadian and Alpine Zones. Also in Europe. Found on the Kaibab Plateau.

Monotropaceae "Indianpipe Family"
Pterospora Nutt. "Pinedrops"

Pterospora andromedea Nutt. 95.3-1
Yellow pine, aspen and spruce belts. Quebec to Pennsylvania, New Mexico and California. Found on North Rim in yellow pine humus.

Ericaceae "Heath Family"
Arctostaphylos Adans. "Manzanita"

Arctostaphylos pungens H.B.K. 96-6-3 Utah to California, Mexico, Upper Sonoran, Transition Zones. Both rims but rare on the South.

Arctostaphylos platyphylla (A. Gray) Kuntze Colorado to California. Forming dense colonies in Upper Sonoran Zone and more in Transition Zone. Rarely found on the North Rima

Primulaceae "Primrose Family" Primula I.

> Primula specuicola Rvdb. Canvons under overhanging cliffs. Southeastern Utah. Found on the North Rim of Grand Canvon.

Androsace L.

Androsace diffusa Small Mackenzie to British Columbia, southward to New Mexico and Arizona. In Transition and Canadian Zones. Found on Kaibab Plateau in abundance, particularly in sink holes and parks.

Androsace puberulenta Rydb.

98.2-5

Same occurrence as above.

Androsace glandulosa Woot. and Stand. Mountains of southwestern New Mexico and southeastern Arizona. Occurs at Cliff Springs on North Rim of Canyon Androsace pinetorum Greene 98.2 From New Mexico far northward and westward. Occurs on the North Rim of Grand Canvon.

Oleaceae "Olive Family" Fraxinus L. "Ash"

Fraxinus anomala Torr. "Single-leaf Ash" Ranges from southwestern Colorado and northwestern New Mexico westward to Nevada and Arizona. Grows in canvons and on rocky hillsides of Lower Sonoran, Upper Sonoran and Transition Zones. Found on any of the Canyon trails. Fraxinus macropetala Eastw. 100-1-2

Rocky slopes, upward to 6300 feet. Northwestern Arizona Found on both sides of River at level of Supai Formation.

Mendora H.B.K.

100.3-3 Mendora scabra A. Gray Plains and hillsides of the Lower and Upper Sonoran Zones. Western Texas to southern Utah, southward to Mexico. Collected at Pasture Wash on the South Rim.

Gentianaceae "Gentian Family"
Centaurium Hill. "Centaurium"

Centaurium exaltatum (Grisb.) W.F.Wright 102.1-2
Wet meadows and along creeks of the Upper Sonoran Zone.
Washington to California and Utah. Found at the mouth
of Garden Creek in the Canyon.

Amarella Gilib. "Gentian"

Amarella heterosepala (Engelm.) Greene 102.

Utah and Colorado to New Mexico. Damp places in the meadows of the Kaibab.

Dasystephana Adans. "Closed gentian"

Dasystephana affinis (Griseb.) Rydb. (?) 102.

British Columbia, Colorado(?), California, Saskatchewan.

Canadian Zone. In meadows of the Kaibab Plateau. One

of the last flowers to bloom in the fall.

Frasera Walt. "Deers ears"

Frasera albomarginata S. Wats. 102.3-1
Southern Utah, Nevada and Arizona. Mesas and pine
forests. Kaibab Forest.

Frasera utahensis Jones 102.3-3

Mesas and dry hillsides. Southern Utah and Arizona.

Found on the Tonto and in Upper Bass Canyon.

Frasera scabra Greene "American columbo" 102.3

Colorado, Arizona, New Mexico. Transition Zone.

Kaibab Forest.

Apocynaceae "Dogbane Family"
Amsonia Walt

Amsonia brevifolia A. Gray 104.1-3

Plains and hillsides of the Covillea and Artemisia belts

New Mexico and southern Utah, westward to Southern California. Found on the South Rim of the Canyon

Amsonia eastwoodiana Rydb. 104.1-4
Plains and foothills of the Covillea and artemisia belts
Central Utah and Arizona. Found along the Hermit Trail
south of the River.

Apocynum L.

Apocynum cannabinum L. 104.2-2
Plains and hillsides of Covillea and artemisia belts.
Anticosti to Florida, westward to British Columbia and California. Found at Indian Gardens in Grand Canyon

Asclepiadaceae "Milkweed Family"

Funastrum Fourn.

Funastrum heterophyllum (Engelm.) Standl. 105.2-2
Mesas and low hills of the Covillea belt. Southern
California to Utah, Texas and Mexico. Found on the
Tonto and in sage flats of the Grand Canyon.

Asclepias L. "Milkweed"

Asclepias tuberosa L.

105.5-1

Artemisia, pinyon and yellow pine belts. Ontario to Florida, westward to Utah and Arizona. Found on North Rim of Grand Canyon.

Asclepiodora A. Gray

Asclepiodora decumbens (Nutt.) A. Gray 105.6-1

Kansas to Texas, westward to Nevada and Mexico. Plains, desert areas and mountain sides of Lower and Upper Sonoran and Transition Zones. On the Kaibab Plateau.

Polemoniaceae "Phlox Family"

Phlox L.

Phlox depressa (E.Nels.) Rydb. 108.1

In moist places, Colorado, Wyoming and Idaho. Found on the North Rim of the Canyon.

Phlox stansburyi (Torr.) Heller

108.1-3

Foothills and canyons of artemisia belt, upward to spruce belt. Colorado to New Mexico, westward to California. Found on Hermit Trail south of river in Canyon.

Phlox caespitosa Nutt. 108.1-7

Montana to northern New Mexico, westward to Oregon and Washington. Canadian and Alpine Zones. A conspicuous plant in the Kaibab parks in the early part of June.

Collomia Nutta

Collomia grandiflora Dougl. 108.2-1
Plains, canyons and on mountain sides of Upper Sonoran
to Canadian Zone. Montana to Utah, westward to British
Columbia and California. Found at Cape Royal on North
Rim and at Trash Tank on the South Rim.

Collomia linearis Nutt. 108.2-2
Minnesota, nebraska, British Columbia and California.
Moist places in Upper Sonoran, Transition and Canadian
Zones. At Greenland Spring on the North Rim.

Gilia Ruiz and Pav.

Gilia arizonica (Greene) Rydb.

108.8-14

Small red Gilia. Southern Utah and Arizona to southern Nevada. Upper Sonoran to Canadian Zone. On dry ridges and canyons. Both rims of the Canyon.

Gilia aggregata (Pursh) Spreng. 108.8-15

Large, red, spotted Gilia. Ranges from Montana to Colorado, westward to Washington and Nevada. Transition and Canadian Zones. Occurs on both rims of Grand Canyon.

Gilia pulchella Dougl. 108.8-16

Transition and Canadian Zones, Montana to Colorado, westward to Washington and Nevada. Collected at Cape Royal and Powell Saddle on the North Rim.

Gilia longiflora (Gray) Don. 108.8-17

Large, pink Gilia. Nebraska to Texas, westward to Washington and Nevada. Collected at Bright Angel Point on the North Rim.

Hydrophyllaceae "Water leaf Family"
Nemophila Nutt.

Nemophila breviflora A. Gray 109.2-2
Pinyon, yellow pine and aspen belts. Utah to Montana and Washington. On the South Rim of Grand Canyon.

Phacelia Juss. "Wild heliotrope"

Phacelia corrugata A. Nels. 109.4-3

In dry soil from Colorado and Utah to western Texas and New Mexico. Found on the North Rim of Grand Canyon.

Phacelia heterophylla Pursh 109.4-14

Phacelia heterophylla Pursh 109.4-14

Alberta to British Columbia, southward to New Mexico and California. From Upper Sonoran to Canadian Zone. Found at Greenland Spring on the North Rim.

Phacelia rotundifolia Torr., S. Wats. 109.4-26
Crevasses of rocks in desert areas; in Covillea and artemisia belts. South Rim of Grand Canyon.

Phacelia glechmaefolia A. Gray 109.4-28
Canyons and dry hillsides; Grand Canyon. Arizona and southern Utah. Found in Toroweap Valley in Grand Canyon National Monument; as well as along Kaibab Trail in Grand Canyon.

Phacelia micrantha Torr. 109.4

Colorado and Mohave Deserts; east to Utah and western
Texas, south to Lower California and Sonora. Found at
Roaring Springs in the Grand Canyon.

Boraginaceae "Borage Family"

Coldenia L.

Coldenia hispidissima (Torr.) A. Gray 110.1-1
Western Texas to Nevada and Arizona. Lower and Upper Sonoran Zones. North Rim of Grand Canyon.

Euploca Nutt.

Euploca convolvulaceae Nutt. 110.3-1
Nebraska to southern Utah and California south to Mexico
In Lower and Upper Sonoran Zones. North Rim of Canyon.

Lappula Moench "Stickseed"

Lappula floribunda (Lehm.) Greene. 110.6-2
Manitoba to New Mexico, westward to British Columbia and California. Foothills and mountain sides of Upper Sonoran to Canadian Zone. North Rim of Grand Canyon.

Lappula occidentalis (S.Wats.) Greene 110.6-6
Saskatchewan to New Mexico, California and Alaska.
Plains and mountain sides of Upper Sonoran Zone. In
Thompson Canyon on North Rim.

Oreocarya Greene

Oreocarya setosissima (A. Gray) Greene 110.13-1
Yellow pine, aspen and spruce belts. Southern Utah and
Arizona. Found at Cape Royal on the North Rim.

Oreocarya <u>flava</u> Nels. 110.13

Found in the southern desert region of Wyoming and extending southward to Arizona. Found in Toroweap Valley in Grand Canyon National Monument.

Oreocarya ceaspitosa
Wyoming southward.
River in the Canyon.

Oreocarya depressa (Jones) MacBr. 110.13-9
Pinyon belt. Southern Utah and Nevada. Found as above.
Oreocarya fulvocanescens (A.Gray) Greene 110.13

On hills from Wyoming to New Mexico. Found as above.

Oreocarya cinerea (?) Greene 110.13-16

Yellow pine helt: Kaihah Plateau. Western Teres to Col

Yellow pine belt; Kaibab Plateau. Western Texas to Colorado and Arizona. Also occurs in Canyon and on South Rim.

Oreocarya confertiflora Greene 110.13-25
Pinyon and yellow pine belts. Western Colorado to southeastern California and Arizona. Found in the Canyon at Roaring Springs.

Amsinckia Lehm.

Amsinckia menziesii (Lehm.) Nels. & MacBr. 110.15-2

Artemisia and pinyon belts. British Columbia to California, eastward to Arizona. Found on South Rim of Canyon

Myosotis L. "Forget-me-not"

Myosotis virginica

110.19

Mertensia Roth. "Bluebells"

Mertensia toyabensis subnuda MacBr. 110.20-4a
Yellow pine and aspen belts, Utah. Found at Greenland
Spring on the North Rim of Grand Canyon.

Mertensia coronata A. Wels. 110.20
Western Wyoming to Idaho and Montana. Found near Neal Spring on the North Rim of Grand Canyon.

Mertensia cynoglossoides Greene 110.20
Found from Western Colorado south to Mexico. On the North Rim of Grand Canyon.

Mertensia pratensis Heller 110.20-5

Transition and Canadian Zones. Western Colorado and
Utah to New Mexico and Arizona. In damp canyons of the
Kaibab Plateau. Collected in Thompson Canyon.

Lithospermum L. "Gromwell" "Puccoon" "Indian Paint"

Lithospermum linearifolium Goldie 110.21-3

Plains, dry canyons and mountain sides of Upper Sonoran and Transition Zones. Manitoba to British Columbia, southward to Texas and Arizona. Collected on the South Rim near the old Flagstaff-Grand View Road.

Lithospermum breviflorum Engelm. & Gray 110.21-4
Arkansas, Texas, New Mexico and Colorado. Lower and
Upper Sonoran Zones. North Rim of Grand Canyon.

Lithospermum multiflorum Torr. 110.21-5
Wyoming, New Mexico, Arizona, Utah and Mexico. Transition and Canadian Zone. Both rims of Grand Canyon.

Verbenaceae "Verbena Family" Verbena L. "Verbena"

Verbena macdougalii Heller 111.1-2
Colorado, Utah to New Mexico and Arizona. Canyons and grassy flats of Upper Sonoran and Transition Zones.
North Rim of Grand Canyon.

Lippia L.

Lippia wrightii A. Gray 111.2-1
Mesas, rocky canyons and hillsides of the Covillea and

Lower artemisia belts. Western Texas to southern Nevada southward to Mexico. Found on the Tonto along the Clear Creek Trail in Grand Canyon.

Solanaceae "Potato Family"

Lycium L.

Lycium pallidum Miers

Plains, hillsides and canyons of Covillea, artemisia and pinyon belts. Colorado and Utah southward to Mexico.

Found on the Tonto in Grand Canyon.

Lycium andersonii A. Gray "Water Jacket" 112.1-3

Dry stony hills, Mohave desert; southern Nevada and Arizona. Found along Hermit Trail south of river in Canyon Lycium torreyi Gray 112.1-4

Desert areas and dry hillsides of Covillea belt. Western Texas to southern Utah, Nevada and California. Found in Toroweap Valley in Grand Canyon National Monument.

Physalis L. "Ground cherry"

Physalis hederaefolia A. Gray 112.5-4
Plains and foothills of the Covillea and artemisia belts
Colorado to Texas, southern Utah, California and Mexico.
Collected at Cliff Springs on the North Rim.

Physalis crassifolia Benth. 112.5-6a
Washes or canyon beds, rather common in the desert ranges, Death Valley; east to Mohave Desert; Colorado
Desert; south to Mexico. Collected at Point Sublime on the North Rim of Grand Canyon.

Solanum L. "Nightshade"

Solanum triflorum Nutt. 112.6-1

Damp waste places, Ontario to British Columbia, Kansas,

New Mexico and Nevada. Upper Sonoran Zone. Plains and
canyons. North Rim around Jacob's Lake.

Solanum elacagnifolium Cav. 112.6-7

Plains and dry hillsides of Covillea and artemisia belts

Missouri to Texas, westward to California and Mexico.

Occurs along Bright Angel Trail in the Canyon,

Datura L.

Datura metaloides DC. "Sacred Datura" 112.8-1
Along streams and in moist places of the Covillea and artemisia belts. Colorado to western Texas, westward to California and Mexico. Found along the Kaibab Trail north of the River and Bright Angel Trail south.

Nicotiana L. "Tobacco"

Nicotiana attenuata Torr. 112.9-1
Texas to Utah and California. Valleys and foothills of Upper Sonoran and lower Transition Zones. Occurs on both rims of Grand Canyon.

Menthaceae "Mint Family"

Salazaria Torra

Salazaria mexicana Torr. 113.3-1

Desert areas, rocky ravines and hillsides of Covillea belt. Southern Nevada and California, southward to Mexico. Found in lower end of Toroweap Valley at Grand Canyon National Monument.

Scutellaria L. "Skull cap"

Scutellaria antirrhinoides Benth. 113.4-2
Idaho and Oregon to Nevada and California. Plains and dry hillsides of Upper Sonoran and Transition Zones. Found on the Kaibab Plateau.

Marrubium L. "Hoarhound"

Marrubium vulgare L. 113.5-1

Maine to North Carolina, west to British Columbia and California. Waste places and on sheep ranges. Kaibab Plateau.

Agastache Clayt. "Giant hyssop"

Agastache urticifolia (Bent.) Kuntze 113.6-2

Montana to Colorado, British Columbia and California.

Transition and Canadian Zones. Kaibab Forest.

Moldavica Adans.

Moldavica parviflora (Nutt.) Britt. "Dragonhead" 113.8-1
Plains and slopes of the artemisia belt, upward to the spruce belt. New York to Alaska, southward to New Mexico and Arizona. Found in damp meadows of the North Rim of Grand Canyon.

Prunella L. "Selfheal"

Prumella vulgaris L. 113.9-1
Throughout temperate North America, Asia and Europe.
Waste places, canyons and on mountain sides upward to Canadian Zone.

Salvia L. "Sage"

Salvia carnosa Dougl.

113.14-5

Audibertia incana

Washington to California, Utah and Arizona. Lower and Upper Sonoran Zones. Collected on Cedar Ridge on the South Rim of Grand Canyon.

Salvia microphylla var. wizlisenii

113.14

Salvia lemmoni Gray

Found on the South Rim of Grand Canyon.

Hedeoma Pers. "Penneyroyal"

Hedeoma nana (Torr.) Brig. 113.16-2
Western Texas to Nevada and southward. Rocky places of
Upper Sonoran and Transition Zones. Found on South Rim
at Hull Tank and on north at Swamp Point.

Hedeoma lata

Western Texas to New Mexico. Dry plains and low hills in Upper Sonoran Zone. North Rim of Grand Canyon.

Madronella Greene "False Horse-mint" "Western Penneyroyal"

Madronella linoides (A. Gray) Greene 113.18-2

Rocky canyons of Lower and Upper Sonoran belts. Southeastern California and Grand Canyon. Kaibab Plateau.

Madronella parvifolia (Greene) Rydb. 113.18-3

Colorado, New Mexico, Utah and Arizona. Transition and Canadian Zones. Kaibab Forest.

Mentha L. "Mint"

Mentha penardi (Briq.) Rydb. 113.20-3
Wet places of the yellow pine and aspen belts. British
Columbia to Nevada and California. At Grand Canyon
found in such meadows as the Basin on the North Rim.

Scrophulariaceae "Figwort Family"
Antirrhinum L. "Vine Figwort"

Antirrhinum antirrhiniflorum (Willd.)Hitchc. 114.4 Maurandia antirrhiniflora Willd.

Western Texas and southern Arizona to Mexico. Occurs in Grand Canyon in Lower and Upper Sonoran Zones.

Penstemon Schmidel. "Wild Snapdragon" "Beard-tongue"

Penstemon bridgesii A. Gray 114.7-1

Colorado and New Mexico, westward to Nevada and California. Upper Sonoran and Transition Zones. Reported from both sides of the Canyon just below the rims.

Penstemon eatoni undosus Jones Utah and Arizona. Lower and Upper Sonoran Zon lected at Yavapai Point, South Rim of Grand Ca Penstemon torreyi Benth. Colorado and eastern Utah, southward to Mexico Sonoran to Canadian Zones. Mostly a high moun species. Found on both rims of the Canyon.	nyon. 114.7-16 . Upper .tain
Colorado to Nevada. Grows on foothills and in	
canyons of Upper Sonoran and Transition Zones. both rims of Grand Canyon.	
Penstemon palmeri A. Gray Southern Utah and Arizona, westward to Califor Lower and Upper Sonoran Zones. Both rims of C	
Penstemon cyathophorus Rydb.	114.7-
Found in mountains of Colorado and Wyoming and Rim of Grand Canyon in Transition and Canadian	on North
Penstemon nitidus Dougl.	114.7
Found on Hermit Trail on south side of Grand C	
Penstemon pachyphyllus A. Gray	114.7-45
Colorado and Utah into northern Arizona. Foun	
Sonoran and Transition Zones. In Grand Canyon	only
collected on the South Rim.	
Penstemon radicosus Nels.	114.7-51
In moist areas in desert places; south central	Wyoming
and adjacent Colorado and Utah. Found in wet	
and around springs on the North Rim of Grand C	
	114.7-59
Rocky canyons, upward to 7200 feet. Southern	Utan and
Arizona. Found in Slide Canyon, north side of Penstemon linarioides A. Gray "Creeping Penste	canyon.
	114.7-62a
adjacent Mexico. Both rims of Grand Canyon.	TT 1-024
Penstemon virgatus A. Gray	114.7
Mountains of New Mexico and Arizona. Transiti	
Collected on the North Rim of Grand Canyon.	on Donos
Penstemon stenophyllus Gray	114.7
Kaibab Forest.	
Varnan Loresco	22261
REIDED FORESCO	
Mimulus L. "Monkey Flower"	
Mimulus L. "Monkey Flower" Mimulus cardinalis Dougl.	114.9-1
Mimulus L. "Monkey Flower" Mimulus cardinalis Dougl. Oregon and California to western New Mexico an	114.9-1 d Mexico.
Mimulus L. "Monkey Flower" Mimulus cardinalis Dougl. Oregon and California to western New Mexico an In Valleys of Upper Sonoran Zone. Found on the	114.9-1 d Mexico.
Mimulus L. "Monkey Flower" Mimulus cardinalis Dougl. Oregon and California to western New Mexico and In Valleys of Upper Sonoran Zone. Found on the Rim and at Ribbon Falls in Grand Canyon.	114.9-1 d Mexico. e North
Mimulus L. "Monkey Flower" Mimulus cardinalis Dougl. Oregon and California to western New Mexico an In Valleys of Upper Sonoran Zone. Found on the	114.9-1 d Mexico. e North

Mexico and California. Transition and Canadian Zones. Found in damp areas on both rims and in Grand Canyon.

Mimulus primuloides Benth. 114.9-15

Ranges from Washington and Idaho southward to California and Nevada. Transition and Canadian Zones. In damp places, especially the shores of ponds. Found on the North Rim along Milk Creek.

Veronica L. "Speedwell" "Ironweed"

Veronica xalapensis H.B.K. 114.13

Saskatchewan to British Columbia southward to Texas and Mexico. Lower and Upper Sonoran and Transition Zones.

Occurs in damp places on the Kaibab Plateau.

Veronica americana Schwein 114.13-1

Newfoundland to Alaska, Virginia, New Mexico and California. Wet places of Upper Sonoran up to Alpine Zones, Kaibab Forest. Collected at Big Springs and at Spring Lake.

Synthyris Benth.

Synthyris plantaginea Benth. 114.15-3
Transition and Canadian Zones. Wyoming to New Mexico and Arizona. At Grand Canyon collected near the old Flagstaff-Grand View Road.

Castilleja Mutis. "Paintbrush"

Castilleja linariaefolia Benth. 11.4.17-3
State flower of Wyoming. British Columbia to California eastward to Wyoming and New Mexico. Upper Sonoran to Canadian Zones. Found on the Kaibab Plateau.

Castilleja integra A. Gray 114.17-5
Colorado, New Mexico and Arizona, southward to Mexico.
At Grand Canyon it is prominent on rocky hills and in open parks of Kaibab Plateau. Found also on South Rim.

<u>Castilleja pinetorum</u> Fernald 114.17-16

<u>Yellow pine</u>, aspen and spruce belts. Idaho and Oregon to Nevada and California. Found on North Rim under yellow pine.

Castilleja augustifolia (Nutt.) Don 114.17-18

Yellow pine, aspen and spruce belts. Alberta and British Columbia, southward to Colorado and California.

Found in Slide Canyon north of the River and along the Kaibab Trail south.

Adenostegia Benth.

Adenostegia parviflora Ferris 114.18-3

In Grand Canyon region only in the Transition Zone on the North Rim.

Adenostegia wrightii (A. Gray) Greene 114.18-5
Southern Colorado and Utah southward to Texas and Mexico.
In Upper Sonoran and Transition Zones on North Rim of Grand Canyon.

Orthocarpus Nutt. "Owl's Clover"

Orthocarpus <u>luteus</u> Nutt. "Yellow Owl's Clover" 114.19-4
Ranges from Saskatchewan to British Columbia, southward
to New Mexico and Arizona. Found on the North Rim in
Transition and Canadian Zones. Occurs around Cape Royal.

Orthocarpus purpureo-albus A. Gray 114.19-6
Colorado and New Mexico to Idaho and Arizona. Transition and Canadian Zones. North Rim of Grand Canyon

Orobanchaceae "Broomrape Family"
Thalesia Raf. "Cancer-root"

Thalesia fasciculata (Nutt.) Britton 117.1-2

Upper Sonoran to Canadian Zone. Saskatchewan to British
Columbia, southward to Mexico. Occurs commonly on the
South Rim of Grand Canyon in the spring. Found as a
parasite growing on the roots of sagebrush.

Plantaginaceae "Plantain Family" Plantago L. "Plantain"

Plantago purshii Roem. & Schult. 119.1-5
Plains and dry slopes of the Covillea, artemisia and pinyon belts. Ontario to Texas, westward to British Columbia and Arizona. Found on South Rim around Village Plantago scariosa Morris 119.1-6

Plains and slopes of Covillea belt. Southern Utah and Arizona to California. Found south of the River along Kaibab Trail.

Rubiaceae "Madder Family" Galium L. "Bedstraw"

Galium bradegi A. Gray

Wyoming to New Mexico and California. Moist places in

Upper Sonoran Zone, upward to the Canadian Zone.

Found on Kaibab Plateau along the margins of ponds.

Galium mathewsii A. cray 120.3-10

Utah and Arizona westward to California. In crevices of rocks and on hillsides of Lower and Upper Sonoran Zones.

North Rim of Grand Canyon.

Galium triflorum Michx. 120.3-12 Newfoundland to Alaska southward to Alabama, Colorado and California. Moist places in Upper Sonoran and Transition Zones. Found at South Canvon on Kaibab Plateau as well as at Roaring Springs in the Grand Canyon. Galium watsoni (A. Gray) Heller 120.3-14 Rocky places in pinyon and yellow pine belts. Idaho to Arizona. Occurs in Canyon along Bright Angel Trail. Galium fendleri A. Gray 120.3 Found in the damp woods of the Transition Zone. Occurs on the Kaibab Plateau.

Caprifoliaceae "Honeysuckle Family"

Sambucus L. "Elder" Sambucus caerulea Raf. 121.1-1 Alberta to British Columbia southward to Arizona and California. Moist slopes and canyons of Transition and Canadian Zones. Found on both rims of Grand Canyon. Sambucus melanocarpa A. Gray 121-1-3 Montana to New Mexico, westward to Nevada and Arizona. Moist places in the Transition, Canadian and Alpine Zones. Found on the North Rim of Grand Canyon. Sambucus microbotrys Rydb. Wyoming to New Mexico, westward to Nevada and Arizona. Canyons, plateaus and slopes of Transition and Canadian Zones. Occurs on the North Rim of Grand Canyon. Sambucus neomexicana Wooton 121.1 Mountains of southern Colorado and New Mexico. Found along road to Cape Royal on North Rim of Grand Canyon.

Symphoricarpos Ludw. "Snowberry"

Symphoricarpos albus pauciflorus (Robbins) Blake 121.2-la Vermont to Pennsylvania, westward to Nebraska, New Mexico and British Columbia. Upper Sonoran and Transition Zones. North Rim of Grand Canyon.

Symphoricarpos rotundifolius A. Gray "Ocean Spray" 121.2-3 Wyoming to western Texas, westward to Oregon and California. Foothills and canyons upward to Canadian Zone. North Rim of Grand Canvon.

Symphoricarpos utahensis Rydb. Mountain sides of yellow pine and aspen belts. Wyoming . and Colorado to Utah and Idaho. Found along Hermit Trail south of the River.

Symphoricarpos vaccinioides Rydb. 121.2-5
Mountain sides of yellow pine and aspen belts. Montana to Colorado, westward to Washington and Nevada. Found under Grand View Point on South Rim of Grand Canyon.

Symphoricarpos oreophilus A. Gray 121.2-6
Mountain sides and canyons upward to Canadian Zone.
Colorado and New Mexico, westward to Idaho and California. Collected in Thompson Canyon on the North Rim of Grand Canyon.

Symphoricarpos longiflorus A. Gray 121.2-7
Utah and Arizona, westward to Nevada and southeastern
California. Mountain sides and canyons upward to
Canadian Zone. South Rim of Grand Canyon.

Linnaea Gronov. "Twin flower"

Linnaea borealis americana (Forbes) Rehder 121.3-1
Newfoundland to Alaska, Maryland, Colorado, Oregon.
Kaibab Forest. Canadian Zone. Damp canyons on north facing slopes.

Campanulaceae "Bell flower Family"

Campanula L. "Hairbell" "Bell flower" "Bluebell"

Campanula parryi A. Gray 126.2-2
Wyoming and Utah to New Mexico and Arizona. Canadian and Alpine Zones. Found in almost any of the North Rim meadows.

Lobeliaceae "Lobelia Family"

Lobelia L. "Lobelia"

Lobelia splendens Willd. 127.2-1
Wet ground of Upper Sonoran Zone, Texas to California and Mexico. Found along the creeks in Grand Canyon.

Asteraceae "Aster Family"

Eupatorium L. "Thoroughwort"

Eupatorium herbaceum (A. Gray) Greene 128.2-3 New Mexico westward to Utah. Canyons and mountain sides up to Canadian Zone. Kaibab Forest.

Coleosanthus Cass.

Coleosanthus longifolius (S.Wats.) Kuntze 128.3-1

Desert areas and dry canyons of Lower and Upper Sonoran

Zones. Utah to Arizona and to eastern California.

Phantom Ranch in Grand Canyon.

Coleosanthus californicus (Torr.& Gray) Kuntze 128.5-5
Plains and foothills of artemisia belts. Colorado to

California and Mexico. Found along Kaibab Trail in

Bright Angel Canyon.

Coleosanthus oblongifolius linifolius (D.C.Eaton) Blake
Canyons, hillsides and rocky places of the /128.3-9a
artemisia, pinyon and yellow pine belts. Colorado to
Arizona and California. Occurs along Bright Angel Creek
in Grand Canyon

Coleosanthus grandiflorus (Hook.) Kuntze 128.3-10
Missouri to Washington and California. Canyons and
mountains up to Transition Zone. Kaibab Forest.

Coleosanthus atractyloides (A.Gray) Kuntze 128.3-11

Desert areas and rocky canyons of Lower and Upper Sonoran Zones. Utah, Nevada and Arizona. Found at Phantom
Ranch in Grand Canyon.

Gutierrezia Lag. "Snake weed"

Gutierrezia sarothrae (Pursh) Britt. Rusby 128.7-1
Saskatchewan to Kansas, Utah and California. Upper
Sonoran, canyons of Transition. North and South Rim.

Gutierrezia microcephala DC. 128.7-2
Plains foothills and canyons of artemisia, pinyon, yel-

low pine and aspen belts. Idaho to New Mexico and Arizona. Found along Clear Creek Trail in the Canyon.

Gutierrezia lucida Greene 128.7-4

Plains, slopes and rocky canyons of Covillea and artemisia belts. Texas to Colorado, Nevada, Southern California and northern Mexico. Found on South Rim of Canyon

Chrysopsis Ell. "Golden Aster"

Chrysopsis villosa (Pursh) Nutt. 128.9-3
Minnesota to Saskatchewan, southward to Texas and New
Mexico. Upper Sonoran to Canadian Zone. Both Rims of
Grand Canyon

Chrysopsis hispida (Hook.) Nutt. 128.9
Widely distributed in intermountain region. Found around South Big Spring and Powell Saddle on the North Rim.

Solidago L. "Goldenrod"

Solidago ciliosa Greene 128.10-1

Alberta and British Columbia southward to Colorado, Utah and Arizona. Mountain parks and open slopes of Canadian Zone. Grows in abundance in parks of the Kaibab Forest.

Solidago sparsiflora A. Gray 128.10-6
Plains and dry hillsides of Upper Sonoran and Transition
Zones. Southern Utah and Arizona. In Grand Canyon it
occurs at Powell Saddle.

Solidago trinervata Greene 128.10-7
South Dakota to New Mexico, Utah and Wyoming. Dry slopes of Transition and Canadian Zones. North and South Rims of Grand Canyon.

Solidage arizonica (Gray) Woot. & Standl. 128.10
Occurs in the Upper Sonoran and Transition Zones.
Found on the North Rim of Grand Canyon.

Solidago altissima L. 128.10-9
Wyoming to Utah and eastward. Upper Sonoran Zone.
North Rim of Grand Canyon.

Solidago petradoria Blake

128.10-14

Petradoria pumila Greene

Wyoming to Texas, Arizona and Nevada. Upper Sonoran and Transition Zones. Both rims of Grand Canyon.

Solidago parryi (A. Gray) Greene Oreochrysum parryi Rydb. 128,10-15

Wyoming to New Mexico. Transition, Canadian and Alpine Zones. Kaibab Plateau.

Petradoria Greene (Type of Solidago)

Petradoria graminifolia (Torr. & Gray) Blake 128.10a

Plains and low hills in the Upper Sonoran Zone. Found on the North Rim of Grand Canyon.

Aplopappus Cass.

Aplopappus nuttallii Torr. & Gray 128.11-1
Artemisia, pinyon and yellow pine belts. Nebraska to
Alberta, New Mexico and Arizona. Found on North Rim of
Grand Canyon.

Aplopappus spinulosus goodinggii (A. Nels.) Blake 128.11-3 Covillea belt. Nevada. Found in the lower end of Toroweap Valley, Grand Canyon National Monument.

Aplopappus heterophyllus (A. Gray) Blake 128.11-31 Colorado to Mexico. Lower and Upper Sonoran Zones.

Haplopappus Cass. (much like above)

Haplopappus drummondii (Torr. & Gray) Blake 128.11a

Found on the North Rim of Grand Canyon.

Chrysothamnus Nutt. "Rabbit brush"

Chrysothamnus nauseosus graveolons Hall & Clements

Chrysothamnus graveolons /128.12-12a

Nebraska to Montana, Utah and New Mexico. Found on both rims in the Upper Sonoran and Transition Zones.

128.15-12a

Chrysothamnus mohavensis Greene 128-12-17 Southern California to southern Utah and Arizona. Desert areas and dry hillsides of the Lower Sonoran Zone. Occurs in Grand Canyon.

Chrysothamnus depressus Nutt. 128,12-20 Colorado, Utah and New Mexico. Plains and mountain sides of Upper Sonoran and Transition Zones. Both rims of Grand Canvon.

Chrysothamnus stenophyllus (A.Gray) Greene 128-12-28 Montana to Wyoming, Nevada and Arizona. Dry ridges and stony slopes. Upper Sonoran and Transition Zones. Both rims of Grand Canyon.

Townsendia Hook.

Townsendia exscapa (Richards.) Porter 128.14-1 Plains and upward to spruce belt. Saskatchewan to Arizona and Texas. Collected at Village on South Rim.

Townsendia intermedia Rydb. 128.14-2 Plains. Nebraska to Wyoming, south to Arizona. Found on the South Rim.

Aster L. "Aster"

Aster multiflorus Ait.

Found up and down Rockies and east to New England.

Found on the North Rim in meadows.

Aster hirtifolius Blake 128.15-27 Lower Sonoran, Upper Sonoran and Transition Zones. Wyoming to Texas. Arizona and Nevada. Collected on the South Rim of Grand Canvon.

Aster leucelene Blake 128.15-28 Kansas to Texas and Mexico, west to Colorado and Utah. Lower and Upper Sonoran Zones. North Rim of Grand Canyon

Aster abatus Blake 128,15-31 Covillea belt. California, Utah and Nevada. Found on South side of Grand Canyon along Hermit and Kaibab Trails Aster tanacetifolius H.B.K. 128-15-37

South Dakota to Alberta, Nevada and Mexico. Lower and Upper Sonoran and Transition Zones. North Rim of Grand Canvon.

Aster cichoriaceus (Greene) Blake 128.15-40 Upper Sonoran and Transition Zones. Colorado, New Mexico, Utah and Arizona. Collected at Point Imperial on the North Rim of Grand Canyon.

Aster bigelovii Gray 128.15-41 Yellow pine belt Colorado and New Mexico to California. Found under yellow pine on North Rim of Grand Canyon,

Aster canescens Pursh 128.15-43

Saskatchewan to British Columbia, California and Colorado, Upper Sonoran and Transition Zones. North Rim of Grand Canyon.

Aster apricus (Gray) Rydb. 128.15

Montana, Colorado, Oregon, British Columbia, Canadian and Alpine Zones. Kaibab Plateau.

Erigeron L. "Flea bane"

Erigeron flagellaris Gray 128.16-5
Yellow pine, aspen, spruce and subalpine belts. South
Dakota to Wyoming, New Mexico and Texas. Found extensively in meadows and open hillsides of North Rim of
Grand Canyon.

Erigeron divergens Torr. & Gray 128.16-8

Montana to British Columbia, California and Texas. Low plains and river banks. Lower Sonoran and Transition Zones. North Rim of Grand Canyon.

Erigeron subtrinervis Rydb. 128.16-1:
Yellow pine, aspen and spruce belts. South Dakota to
Washington, Utah and New Mexico. Found in the meadows
and on hillsides of the North Rim.

Erigeron macranthus Nutt. 128.16-17

Alberta to British Columbia south to New Mexico and
Arizona. Transition and Canadian Zones. North Rim of
Grand Canyon.

Erigeron asperugineus (D.C. Eaton) A. Gray 128.16-27
Montana to Wyoming, Nevada and Arizona. Transition and
Canadian Zones of the North Rim of Grand Canyon.

Erigeron concinnus (H.& A.) Torr. & Gray 128.16-31
Artemisia, pinyon and yellow pine belts. Montana to
British Columbia southward to New Mexico and California.
In meadows on North Rim of Grand Canyon.

Erigeron utahensis A. Gray 128.16-36
Artemisia belt, Utah and Arizona. Found in the sage flats and in the pinyon-juniper belt at Grand Canyon.

Erigeron eatoni A. Gray 128.16-39
Yellow pine, aspen and spruce belts. Oregon to Wyoming and Utah. Found under Grand View Point on the South Rim of Grand Canyon.

Erigeron tener A. Gray 128.16-43

Montana and Idaho to Nevada and California. Transition and Canadian Zones. North Rim of Grand Canyon

Erigeron gulielmi Greene 128.16
North Rim of Grand Canyon.

Machaeranthera Nees. "Tansy aster" "Prickly aster"

Machaeranthera leucanthemifolia Greene 128.

Aster leucanthemifolius

Montana to Colorado, westward to Nevada, Upper Sonoran and Transition Zones. North Rim of Grand Canyon.

Machaeranthera angustifolia W. & S. 128.

Wyoming to Arizona. Canadian Zone. Found on North Rim of Grand Canyon.

Baccharis L. "Groundsel tree"

Baccharis emory: A. Gray 128.18-3
Covillea and artemisia belts. Utah and Nevada to Texas and Southern California. Found on the South Rim of Grand Canyon, but mostly in the Canyon by water.

Baccharis glutinosa Pers. 128.18-5
Colorado to California, Texas, Mexico and South America.
Lower Sonoran Zone. Grows in abundance in Grand Canyon along Bright Angel Creek.

Pluchea Cass.

Pluchea sericea (Nutt.) Coville

128.19-2

Berthelotia sericea Rydb.

Found from southwestern Utah to California, Mexico and Texas. In Lower Sonoran Zone. Collected in Grand Canyon north of the River.

Antennaria Gaertn. "Pussytoes" "Everlasting"

Antennaria rosulata Rydb. 128.22-7
Yellow pine, aspen and spruce belts. Colorado, Utah and Arizona. Found on the North Rim of Grand Canyon on open hillsides.

Antennaria aprica Greene 128.22-9

Manitoba, New Mexico, Nevada and British Columbia, Upper Sonoran, Transition and Canadian Zones. North Rim of Grand Canyon.

Antermaria rosea Greene 128,22-13

Alaska to California and Colorado. Transition and Canadian Zones. Kaibab Forest.

Gnaphalium L. "Cud weed"

Gnaphalium wrightii A. Gray 128.24-5

Upper Sonoran and Transition Zones. Colorado and New Mexico, westward to California. It occurs at Phantom Ranch in Grand Canyon.

Hymenoclea Torr. & Gray

Hymenoclea salsola Torr. & Gray 128,28-1 Covillea belt. Southwestern Utah to Arizona and California, Found in Grand Canyon National Monument.

Franseria Cav. "Bur-sage"

Franseria dumosa A. Gray Covillea belt. Southwestern Utah and Nevada to California and Mexico. Occurs along Clear Creek Trail in Grand Canyon.

Franseria eriocentra A. Gray 128.30-3 Lower Sonoran Zone. Southwestern Utah, Nevada, Cali-fornia and Arizona. Collected on the Redwall along the Kaibab Trail and at Grand View.

Zinnia L.

Zinnia grandiflora Nutt. 128.32-1 Covillea and artemisia belts. Kansas and Texas to Nevada. Found on the South Rim of Grand Canyon.

Viguiera H.B.K.

Viguiera multiflora (Nutt.) Blake 128.36-2 Montana, New Mexico, west to Idaho and California. Transition and Canadian Zones. Kaibab Plateau in South Canyon and at Cape Royal.

Helianthus L. "Sunflower"

Helianthus petiolaris Nutt. 128.37-3 Artemisia belt, upward to spruce belt. Saskatchewan to Missouri, westward to California and British Columbia. Found at Trash Tank on South Rim and believed to occur at Marble Flats on the North Rim.

Encelia Adans.

Encelia farinosa A. Gray 128.38-1 Lower Sonoran Zone. Southern Utah to California, southward to Mexico. At Phantom Ranch in Grand Canyon. Encelia frutescens A. Gray 128.38-2 California and Arizona, Lower Sonoran Zone, In Grand Canyon.

Verbesina L. "Crownbeard" Verbesina encelioides Gray var. exauriculata 128.40a Rob. & Greenm. Montana, Texas, Arizona. Upper Sonoran and Transition Zones. Kaibab Plateau.

Helianthella Torr. & Gray

Helianthella microcephala Gray

Colorado, Utah and New Mexico. Dry hills in Upper Sonoran Zone. Found near Powell Spring on the North Rim.

Helianthella quinquenervis (Hook.) A. Gray

128.41-2

Yellow pine, aspen and spruce belts. South Dakota to
Idaho, southward to New Mexico and Nevada. Found in the neighborhood of Marble Flat on the North Rim.

Bebbia Greene

Bebbia juncea Greene 128.44-1
Lower Sonoran Zone. California, southern Nevada and
Arizona. At Grand Canyon it occurs at Phantom Ranch.

Maidia Mol. "Tarweed"

Maidia glomerata Hook. 128.46-3

Artemisia belt, upward to spruce belt. Saskatchewan to Colorado and California. Found in such North Rim meadows as the Basin.

Psilostrophe DC. "Paperflower"

<u>Psilostrophe tagetina var. sparsiflora</u> A. Gray 128.51-3

<u>Psilostrophe sparsiflora</u> (A. Gray) A. Nels.

Southern Utah and northern Arizona and New Mexico.

Lower Sonoran Zone. Both rims of Grand Canyon.

Laphamia A. Gray

Laphamia toumeyi

Upper Sonoran Zone. South Rim of Grand Canyon.

Hymenopappus L'Her

Hymenopappus filifolius Hook. 128.57-1
Saskatchewan to Kansas and New Mexico, westward to Washington and Nevada. In Upper Sonoran and Transition
Zones. Found on the South Rim of Grand Canyon.
Hymenopappus lugens Greene 128.57-5

Ranges from southwestern Colorado and New Mexico westward to California. In Upper Sonoran Zone. Found on both rims of Grand Canyon.

Actinea Juss. "Colorado Rubber Plant"

Actinea richardsoni (Hook.) Kuntze 128.67-2

Saskatchewan to New Mexico, Arizona and Utah. Canyons and rocky hillsides of Lower Sonoran up to Canadian Zone. Both rims of Grand Canyon.

Actinea lemmoni (Greene) Blake 128.67-4 Hymenoxys greenei Rydb. California and western Nevada. Canyons and slopes of the Transition and Canadian Zones. Kaibab Forest. Actinea biennis (A.Gray) Kuntze 128-67-5 Southern Utah. Nevada and Arizona. Canyons and rocky hillsides of Lower Sonoran to Transition Zone. Actinea acaulis arizonica (Greene) Blake 128.67-9b Tetraneuris arizonica Greene Canyons and dry mountain slopes of Transition and Canadian Zones. Found on both rims of Grand Canyon. Actinea scaposa linearis (Nutt.) Robinson 128.67-10 Kansas to Texas. New Mexico. southeastern Utah. Plains and hillsides of Upper Sonoran Zone. South Rim of Grand Canyon.

Actinea subintegra
North Rim of Grand Canyon.

128.67

Gaillardia Foug. "Blanket flower"

Gaillardia pinnatifida Torr. "Red-eyed Susan" 128.69-5
Colorado, Texas, Arizona and Utah. Lower Sonoran to
Transition Zone. Both Rims of Grand Canyon.

Dyssodia Cav.

Plains and hillsides of the Covillea belt. Nevada to Texas and Mexico. Lower end of Toroweap Valley, Grand Canyon National Monument.

Dyssodia pentachaeta (DC.) Robinson 128.70-2 Covillea belt. Southern Utah to Mexico and Texas. Collected at Phantom Rench in the Grand Canyon.

Dyssodia thurberi (A.Gray) A. Nels. "Tiny Tim" 128-70-3 Texas, Utah, Arizona, Mexico. Lower Sonoran Zone. In the Grand Canyon.

Dyssodia berlandieri S. F. Blake 128.70
Phantom Ranch, Grand Canyon.

Achillea L. "Yarrow"

Achillea lanulosa Nutt. 128.74-1

Saskatchewan, British Columbia, California and Mexico.

Upper Sonoran to Canadian Zones. Occurs around the industrial area on the North Rim of Grand Canyon,

Artemisia L. "Wormwood" "Mugwort" "Cudweed" "Sagebrush"

Artemisia dracunculoides Pursh 128.79-1

Manitoba to Texas and Lower California. Upper Sonoran

and Transition Zones. North Rim around Neal Spring.

Artemisia forwoodii S. Wats. 128.79-2

Ontario to Saskatchewan, south to Arizona. Upper Sonoran and Transition Zones. North Rim of Grand Canyon.

Artemisia frigida Willd. "Mountain sagebrush" 128.79-4
Minnesota to Alaska, southward to Texas. Upper Sonoran,
Transition and Canadian Zones. North Rim of Grand
Canyon on rocky points.

Artemisia <u>ludoviciana</u> Nutt. 128.79-10

Upper Sonoran and Transition Zones. Missouri to Texas and California. Collected at Powell Saddle on the North Rim of Grand Canyon.

Artemisia mexicana Willd. 128.79-11
Colorado, California, Mexico. Upper Sonoran and Transition Zones. North Rim of Grand Canyon.

Artemisia wrightii A. Gray

Colorado, New Mexico, Utah and Arizona. Dry hills and mountains of Upper Sonoran and Transition Zones. North Rim of Grand Canyon.

Artemisia bigelovii A. Gray 128.79-16
Upper Sonoran Zone. Colorado to Texas and Arizona.
Point Sublime. North Rim of Grand Canyon.

Artemisia arbuscula "Low sage-brush" 128.79-19
Wyoming, California and Oregon. Dry mountains and high plains. Transition and Canadian Zones. South Rim of Grand Canyon.

Artemisia tridentata Nutt. "Sagebrush" 128.79-21
Washington, Nevada, Colorado and California. Characteristic plant of Upper Sonoran and Transition Zones.
Ranging upward to Canadian Zone. Common sage of sage flats on both rims.

Arnica L.

Arnica cordifolia Hook. 128.82-6
Yellow pine, aspen, spruce and subalpine belts. British
Columbia to Colorado and California. Collected on the
North Rim of Grand Canyon.

Arnica foliosa Nutt. 128.82-12
Transition and Canadian Zones. Alaska to Colorado and Utah. V. T. Park, Kaibab Forest, Arizona.

Senecio L. "Groundsel"

Senecio ambrosioides Rydb. 128.86-11
Wyoming, New Mexico and Utah. Canadian Zone. North Rim
of Grand Canyon around Greenland Spring.

Senecio multilobatus Torr. & Gray 128.86-17
Artemisia, pinyon and yellow pine belts. Wyoming, Utah and Nevada. Found on the South Rim in the sage flats and under yellow pine.

Senecio lynceus Greene 128.86-19
Arizona, Nevada and Utah. Upper Sonoran Zone. North
Rim of Grand Canyon.

Senecio uintahensis (A. Nels.) Greenm. 128.86-20
Wyoming, Oregon, California and Arizona. Transition and
Canadian Zones. Both rims of Grand Canyon.

Cirsium Hill "Thistle"

Cirsium nidulum (Jones) Petrak "Large red thistle"
Confined to Utah and Arizona. Upper Sonoran /128.88-15
Zone, but appears on dry exposed slopes up to Canadian
Zone. Found on the North Rim of Grand Canyon.

Cirsium perennans (Greene) W.& S. "Lavander thistle"

Mountains of southern New Mexico. Upper /128.88

Sonoran and Transition Zones. North Rim of Grand Canyon

Cirsium pulchellum (Greene) W.& S. 128.88-17

Artemisia, pinyon and yellow pine belts. Colorado, Utah
and New Mexico. Found under the yellow pine of the

North Rim but believed to occur on both rims.

Ptiloria Raf.

Ptiloria pauciflora (Torr.) Raf. 128.95-6
Plains and foothills of Lower and Upper Sonoran Zones.
Kansas to California, Arizona and Texas. Collected at
Greenland Point at Grand Canyon.

Leontodon L. "Dandelion"

Leontodon taraxacum L. "Common dandelion" 128,102-4
Labrador to Alaska, North Carolina, California and
Mexico. Waste places. Introduced from Europe. On
both rims of the Grand Canyon.

Sonchus L. "Sowthistle"

Sonchus asper (L.) Hill 128.103-4
Fields and canyons of the Great Basin. Introduced from
Europe. A weed throughout the United States. In Grand
Canyon north of the River.

Agoseris Raf. "Wild Dandelion"

Agoseris leptocarpa Osterhout 128.106-5

Agoseris arizonica "Pink Mountain Dandelion"

Wyoming to New Mexico, Arizona and Utah. Canadian Zone.

Grows in meadows and on open slopes of the Kaibab Forest

Agoseris glauca parviflora (Nutt.) Rydb. 128.106-8a

Agoseris confinis Greene "Yellow Dandelion"

Manitoba to Washington, southward to North Dakota, Utah
and New Mexico. Upper Sonoran and Transition Zones.

Kaibab Forest and South Rim of Grand Canyon

Agoseris taraxicifolia (Nutt.) D.Dietr. 128.106-10

Montana to British Columbia, California and Utah.

Canadian Zone. Grows in meadows of the Kaibab Forest.

Crepis L.

Crepis occidentalis Nutt. "Groundsel" 128.107-7
Plains, canyons and mountain slopes of Upper Sonoran and
Transition Zones. Saskatchewan to British Columbia,
southward to Colorado, Arizona and California. South
Rim of Grand Canyon.

Perezia Lag.

Perezia wrightii A. Gray

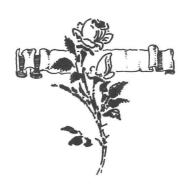
Western Texas to southern Arizona and southward. Occurs
at Phantom Ranch in the Grand Canyon.

Trixis P. Br.

Trixis californica Kell. 128

Desert washes, west and north boundary of the Colorado
Desert, east to Arizona, south to Lower California.

Found at Phantom Ranch in the Canyon.



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