

Carefree Mountain Estates Landscaping Guidelines

Revised 6/2018

Each lot in Carefree Mountain Estates Community Associations has three types of areas; natural, transitional, and private. These guidelines are followed by a list of all recommended plants for each area.

Natural Area

Natural area is that portion of the Lot, which lies outside the Building Envelope and should remain natural desert. Irrigation of the Natural Area is not permitted, since the indigenous vegetation does not require additional water. Irrigation of the Natural Area can lead to disease and death of the native plants, particularly cactus, and aid in the spread of undesirable plant species or weeds. **Any alterations to this area must have design approval.**

Transitional Area

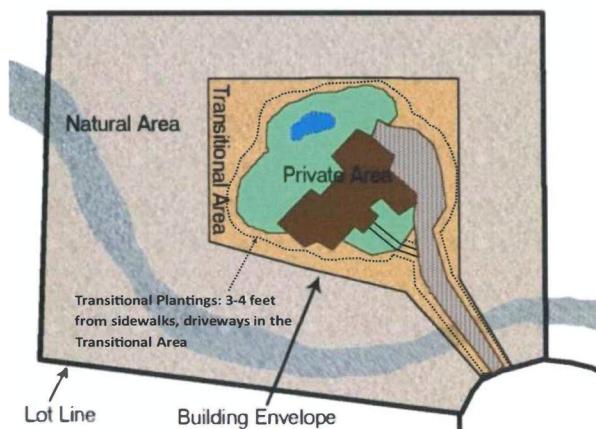
The transitional Area is that portion of the building envelope, which lies between the Natural Area and the wall of a Residence or Improvement and is visible from the adjacent properties, streets or public areas. **Any alterations to this area must have design approval. No approval for TRIMMING is necessary in the normal course of landscape maintenance in the Transitional Area.**

Private Area

The Private Area is that portion of the building Envelope that is not visible from adjacent properties, streets, or public spaces because it is hidden behind walls or structures. Attached is a list of recommended plants for the Private Area but the Private Area may be designed as a mini-oasis area, which may be as lush and varied as desired by the owner. All plants visible from a street or public area should be from this list. **The Private Area is your private space and any alterations to this area do not have to be approved by the design committee unless it would be visible from the street.**

Mineral Landscape Features

Boulders, mineral ground covers, and similar features should be limited to materials indigenous to Carefree Mountain Estates or materials similar in color and appearance to indigenous materials. Over the years a number of owners have added granite to their yards along with rocks to prevent dirt runoff. This is allowed on a design approval basis. A sample of the granite and rock should be provided with the design application listing the size, type, and color of granite and rock. Photos of approved Granite ground cover are listed on page 11.



RECOMMENDED NATURAL AREA PLANT LIST

Natural Area

Natural area is that portion of the Lot, which lies outside the Building Envelope and should remain natural desert. Irrigation of the Natural Area is not permitted, since the indigenous vegetation does not require additional water. Irrigation of the Natural Area can lead to disease and death of the native plants, particularly cactus, and aid in the spread of undesirable plant species or weeds. Any alterations to this area must have design approval. Trimming dead limbs from trees and cleaning up weeds and trees that are a fire hazard does not require approval.

RECOMMENDED TREES FOR THE NATURAL AREA

1. **Desert Ironwood** (*Olneya tesota*)
30' high x 30' wide, lavender spring flower, fine gray-green foliage, fast grower on water, low water use, no thorns, minimal litter.
2. **Foothill or Little-leaf Palo Verde** (*Cercidium microphyllum*)
20' x 20', yellow-green bark and foliage, yellow spring flower, slow grower, low water use, thorns, moderate litter.
3. **Blue Palo Verde** (*Cercidium tloridum*)
34' x 30', blue-green bark and foliage, yellow spring flower, fast grower, low to moderate water use, thorns, moderate litter.
4. **Velvet Mesquite** (*Prosopis velutina*)
30' x 20', yellow spring flower, gray-green foliage and dense shade, fast growth rate, low water use will give best structural growth, deep water 1x/month April -August.
5. **Catclaw Acacia** (*Acacia greggii*)
10' x 15', pale yellow flower, perfumes spring air but spines grab and hang on, feathery gray-green foliage, winter-deciduous, moderate growth on low water.

RECOMMENDED NATURAL AREA PLANT LIST (CONTINUED)

ACCENT OR TEXTURE PLANTS:

- Saguaro (*Carnegiea gigantean*) 30' high x 2' wide
- Ocotillo (*Fouquieria splendens*) 15' x 20'
- Crucifixion Thorn (*Canotia holacantha*) 15' x 10'
- Banana Yucca (*Yucca baccata*) 4' x 6'
- Soaptree Yucca (*Yucca elata*) 15' x 8-10'
- Buckhorn Cholla (*Opuntia acanthocarpa*) 4' x 5'
- Desert Christmas Cholla (*Opuntia leptocaulis*) 2' x 3'
- Compass Barrel Cactus (*Ferocactus acanthodes*) 4' x 2'
- Prickly Pear Species (*Opuntia phaeacantha*) 4' x 4'
- Hedgehog Cactus (*Echinocereus engelmannii*) 1' x 3'

SHRUBS:

- Tomatillo (*Lycium frremontii*) 10' x 10'
- Sugar Bush (*Rhus ovata*) 8-15' x 8-15'
- Jojoba (*Simmondsia chinensis*) 10' x 6'
- Desert Hackberry (*Eltis pallida*) 8' x 10'
- Desert Wolfberry (*Lycium andersonii*) 6' x 16'
- Creosote Bush (*Larrea tridentate*) 6' x 6'
- Chuparosa (*Justicia californica*) 3' x 4'
- Giant Bursage (*Ambrosia ambrosioides*) 3' x 4'
- Pink Fairy Dist (*Calliandra ariophylla*) 3' x 4'
- Mormon Tea (*Ephedra species*) 3' x 3'
- Turpentine Bush (*Ericameria laricifolia*) 2' x 3'
- Bursage (*Ambrosia deltoidea*) 1.5' x 2'

GROUND COVERS:

- Skeletonleaf Goldeneye (*Viguiera stenoloba*) 3' x 3'
- Globemallow (*Sphaeralcea ambigua*) 3' x 3'
- Texas Betony (*Stachys coccinea*) 1' x 2'

Competent Professionals should be consulted prior to planting or transplanting any desert plant materials.

Recommended Book: NATIVE PLANTS FOR SOUTHWESTERN LANDSCAPES by Judy Mielke. Available on Amazon.com

RECOMMENDED TRANSITIONAL AREA PLANT LIST

Carefree Mountain Estates' Goal: to mitigate the effect of construction upon the native Sonoran Desert by inconspicuously slipping homes in amongst the native vegetation.

The transitional Area is that portion of the building envelope, which lies between the Natural Area and the wall of a Residence or Improvement and is visible from the adjacent properties, streets or public areas. Any alterations to this area must have design approval. Trimming dead limbs from trees and cleaning up weeds and trees that are a fire hazard does not require approval.

RECOMMENDED TREES FOR THE TRANSITIONAL AREA

1. Desert Ironwood
30' high x 30' wide, lavender spring flower, fine gray-green foliage, fast grower on water, low water use, no thorns, minimal litter.
2. Foothill or Little-leaf Palo Verde (*Cercidium microphyllum*)
20' x 20', yellow-green bark and foliage, yellow spring flower, slow grower, low water use, thorns, moderate litter.
3. Blue Palo Verde (*Cercidium floridum*)
34' x 30', blue-green bark and foliage, yellow spring flower, fast grower, low to moderate water use, thorns, moderate litter.
4. Desert Willow (*Chilopsis linearis*)
25' x 15' fragrant pink to lavender, ruffled, trumpet-shaped flowers similar to an orchid appear April - September, medium green foliage, winter-deciduous but attractive seed pods hang through the winter, can be grown as a large shrub.
5. Velvet Mesquite (*Prosopis velutina*)
30' x 20' yellow spring flowers, gray-green foliage and dense shade, fast growth rate, low water use will give best structural growth, deep water 1x/month April - August.
6. Catclaw acacia (*Acacia greggii*)
10' x 15', pale yellow flower perfumes spring air but spines grab and hang on, feathery gray-green foliage, winter-deciduous, moderate growth on low water.

RECOMMENDED TRANSITIONAL AREA PLANT LIST (continued)

COLOR: (also see Groundcovers, below)

- Firecracker Red Penstemon (*Penstemon eatoni*) 2' high x 2' wide
- Hot Pink Perry's Penstemon (*Penstemon parryi*) 2' x 2'
- Fuchsia Desert Penstemon (*Penstemon pseudospectabilis*) 2' x 2'
- Coral Superb Penstemon (*Penstemon superbus*) 2' x 2'
- Native Verbena (*Verbena gooddingii*) 1' x 2'
- Sacred Datura (*Datura nieteloides*) 1' x 4'

SHRUBS:

- Jojoba (*Simmondsia chinensis*) 10' x 6'
- Desert Hackberry (*Celtis pallida*) 8' x 10'
- Desert Wolfberry (*Lycium andersonii*) 6' x 16'
- Creosote Bush (*Larrea tridentata*) 6' x 6'
- Chuparosa (*Justicia californica*) 3' x 4'
- Giant Bursage (*Ambrosia ambrosioides*) 3' x 4'
- Pink Fairy Distr (*Calliandra eriophylla*) 3' x 4'
- Brittlebush (*Encelia farinosa*) 3' x 4'
- Desert Holly (*Atriplex hymenelytra*) 3' x 3'
- Mormon Tea (*Ephedra* species) 3' x 3'
- Turpentine Bush (*Ericameria laricifolia*) 2' x 3'
- Bursage (*Ambrosia deltoidea*) 1.5' x 2'

GROUNDCOVERS:

- Skeletonleaf Goldeneye (*Viguera stenoloba*) 3' x 3'
- Globemallow (*Sphaeralcea ambigua*) 3' x 3'
- Paperflower (*Psilostrophe cooperi*) 2' x 2'
- Shrubby Dear Vetch (*Lotus rigidus*) 1.5' x 2'
- Texas Betony (*Stachys coccinea*) 1' x 2'
- Blackfoot Daisy (*Melampodium leucanthum*) 1' x 2'
- Desert Marigold (*Baileya multiradiata*) 1' x 1'
- White Primrose (*Oenothera caespitosa*) 6" x 1'

Competent Professionals should be consulted prior to planting or transplanting any desert plant materials.

Recommended Book: NATIVE PLANTS FOR SOUTHWESTERN LANDSCAPES by Judy Mielke Available on Amazon.com

RECOMMENDED PLANT LIST FOR PRIVATE AREA

The Design Review Committee has found the plants included in the following list to be inherently compatible with the natural desert existing at Carefree Mountain Estates and encourages their use. All species of cacti are acceptable for use within Carefree Mountain Estates as are any species of trees or shrubs not listed below which have been found to be indigenous to the Carefree Mountain Estates area. The Private Area is your private space and any alterations to this area do not have to be approved by the design committee unless it would be visible from the street.

Non-indigenous plant materials, which normally reach a mature height greater than 20 feet, may not be used.

TREES

Acacia abyssinica
Acacia aneuria
Acacia cavenia
Acacia constricta
Acacia eburnia
Acacia farnesiana (smallii)
Acacia greggii
Acacia pennatula
Acacia occidentalis
Acacia schaffneri
Acacia stenophylla
Acacia willardiana
Caesalpinia cacalaco
Caesalpinia Mexicana
Caesalpinia platyloba
Caesalpinia pumila
Canotia holacantha
Celtis pallida
Celtis reticulata
Cercidium floridum
Cercidium microphyllum
Ghilopsis linearis
Juniperus monosperma
Lysiloma candida
Lysiloma thornberi
Nicotiana glauca
Olneya Tesota
Pithecellobium bervefolium

ALSO KNOWN AS

Abyssinian Acacia
Mulga Acacia

White Thorn Acacia
Needle Acacia
Sweet Acacia
Catclaw Acacia

Shoestring Acacia
White Bark Acacia

Mexican Poinciana
Bird of Paradise
Copper Bird of Paradise
Crucifixion Thorn
Desert Hackberry
Net Leaf Hackberry
Blue Palo Verde
Littleleaf Palo Verde
Desert Willow or Desert Catalpa
One-seed Juniper
Palo Blanco
Fern of the Desert
Tree Tobacco
Ironwood
Apes Earring

TREES CONTINUED

Pithecellobium flexicaule
Pithecellobium Mexicana
Pittosporum phylliraeoides
Prosopis alba
Prosopis chilensis
Prosopis glandulosa
Prosopis pubescens
Prosopis velutina
Rhus ovata
Zizyphus obtusifolius

ALSO KNOW AS

Texas Ebony
Mexicaca Ebony
Willow Pittosporum
White or Argentine Mesquite
Chilean Mesquite
Honey Mesquite
Fremont Screwbean
Velvet Mesquite
Mountain Laurel
Graythorn

SHRUBS

Abutilon incanum
Acacia angustissima
Acacia craspedocarpa
Acourtia wrightii
Aloysia lycioides
Aloysia wrightii
Agave Species
Ambrosia deltoidea
Ambrosia ambrosioides
Aristolochia watsoni
Artemesia ludoviciana
Asclepias subulata
Astragalus praelongus
Atriplex canescens
Atriplex lentiformis
Atriplex lentiformis
Atriplex mullaria
Atriplex Nummularia
Atriplex polycarpa
Atriplex rhagodiodes
Atriplex torreyi
Baileya multiradiata
Bebbia juncea
Berberis haematocarpa
Brickellia coulteri
Buddleia marrubifolia
Bursera microphylla
Bursera fagaroides

Indian Mallow
Fern Acacia
Leather Leaf Acacia
Perezia
White Bush

Century Plants
Bursage
Gaintleaf Bursage or Spanish Daggers
Arrow Root
Wormwood
Desert Milkweed
Locoweed
Four Wing Salt Bush
Desert Holly
Quail Bush

Old Man Salt Bush
Desert Salt Bush
Cattle Spinach
Nevada Salt Bush
Desert Marigold
Chuckawalla's Delight
Barberry
Coulters Bricklebush
Woold Butterfly Bush or Summer lilac
Elephant Tree
Fragrant Bursera

SHRUBS CONTINUED

Caesalpina gilliesii
Caesalpina pulcherrima
Calliandra californica
Calliandra eriophylla
Caliandra penninsularis
Cassia artemisioides
Cassia biflora
Cassia candoleana
Cassia circinnata
Cassia goldmannii
Cassia leptophylia
Cassia nemophylla
Cassia philodinea
Cassia purpussiae
Cassia Sturtii
Cassia wislizenii
Castilleja chromosa
Ceanothus greggii
Cercocarpus montanus
Cirsium neomexicanum
Clianthus formosus
Cordia parvifolia
Crossosoma bigelovii
Dalea bicolor
Dalea Formosa
Dalea pulchra
Dalea spinosa
Dalea wislizeni
Dasyliion wheeleri
Delphinium scaposum
Dichelostemma pulchellum
Dysodia porophylloides
Dodonaea viscosa
Encelia farinose
Ephedra species
Ericameria laricifolia
Erigeron species
Eriogonum fasciculatum
Eriogonum inflatum
Eriogonum wrightii
Eysenhardtia polystachya

ALSO KNOW AS

Yellow Bird of Paradise
Mexican Bird of Paradise
Fairy Duster
Fairy Duster or False Mesquite
Baja Fairy Duster
Feathery Cassia
Texas Cassia
New Zealand Cassia

Green Feathery Cassia
Silver Cassia

Sturts Cassia
Shrubby Cassia
Indian Paint Brush
Buckthorn
Mountain Mahogany
Thistle
Sturts Desert Pea

Bigelow Ragged Flower
Indigo Bush
Feather Dalea
Gregg Dalea
Smoke Tree
Indigo Bush
Desert Spoon
Bartemmed Larkspur
Blue-dick
Dysodia
Hop Biush
Brittle Bush
Mormon Tea
Turpentine Bush
Fleabone Daisy
Buckwheat
Flat-topped Buckwheat
Wrights Buckwheat
Kidney Wood

SHRUBS CONTINUED

Fallugia paradox
Forestiera neomexicana
Fouguieria splendens
Galium (Relbunium) microphyllum
Gutierrezia sarothrae
Hedeoma species
Hesperaloe funifera
Hesperaloe parviflora
Holacantha emoryi
Hymenoclea monogyra
Hyptis emoryi
Isocoma acradenia
Jatropha cardiophylla
Jojoba simmondsia
Justicia candicans
Justicia californica
Justicia ghiesbreghtiana
Keckiella antirrhinoides
Krameria grayi
Larrea tridentata
Leucaena retusa
Leuocophyllum frutescens
Leuocophyllum laevigatum
Lotus rigidus
Lycium Andersonii
Lycium brevipes
Lycium fremontii
Machaeranthera species
Marah gilensis
Maytenus phyllanthiodes
Melampodium leucanthum
Mentzelia species
Menodora scabra
Mimosa biuncifera
Mirabilis bigelovii
Mimosa dysocarpa
Nicotiana trigonophylla
Nolina bigelovii
Nolina microcarpa
Penstemon species
Porophyllum gracile

ALSO KNOW AS

Apache Plume
Desert Olive
Ocotillo
Bedstraw
Snake Weed
Mock Pennyroyal

Coral Yucca
Crucifixion Thorn
Burrobush
Desert Lavender
Alkaline Bush
Limber Bush
Jojoba
Firecracker Bush
Chuparosa
Desert Honeysuckle

White Rantany
Creosote Bush
Gold Lead Ball Tree
Texas Sage or Texas Ranger
Chihuahuan Sage
Desert Rock-pea
Anderson Thornbush
Thornbush
Wolfberry, Tomatillo
Aster
Marah
Gutta Percha Mayten
Blackfoot Daisy
Stickleaf
Menodora
Cataclaw
Wishbone Bush
Velvet Pod Mimosa
Wild Tobacco
Bigelow Nolina
Bear Grass
Beard Tongue
Odora

SHRUBS CONTINUED

Psilostrophe cooperi (tagetina)
Quercus tubinella
Rhamnus californica
Rhamnus Crocea
Rhus trilobata
Ruellia californica
Ruellia penninsularis
Rumex hymenosepalus
Salvia farinacea
Salvia greggii
Salvia chamyorioides
Senna covesii
Senecio douglasii
Sophora arizonica
Sophora secundiflora
Sphaeralcea ambigua
Tecomaria stans
Tetracoccus hallii
Trixis californica
Vauquelinia californica
Verbena (Glandularia)
Viguiera deltoidea
Yucca baccata
Yucca elata
Zauschneria latifolia
Zizyphus obtusifolia

ALSO KNOWN AS

Paperflower
Shrub Oak
Coffee Berry
Redberry Buckthorn
Lemonade Bush

Canagre, Wild Rhubarb
Mealy Cup Sage
Texas Red Salvia
Blue Sage
Desert Senna
Willow-Leaf Groundsel
Arizona Sophora
Mescal Bean, Texas Mountain Laurel
Globe Mallow
Arizona Yellow Bells

Trixis
Arizona Redwood
Vervain
Golden Eye
Banana Yucca
Soap Tree Yucca
Hummingbird Flower, Calif. Fuchsia
Graythorn

ANNUALS

Amsinckia intermedia
Amsinckia tessellata
Cryptantha
Datura meteloides
Emmenanthe penduliflora
Eriogonum deflexum
Eriogonum Circutarium
Erodium texanum
Eschscholtzia Mexicana
Euphorbia species
Gilia flavocincta
Lysimachia concinnus
Lysimachia sparsiflorus

Fiddleneck
Fiddleneck
Cryptantha
Sacred Datura
Whispering Bells
Buckwheat Slettonweed
Filaree
Filaree
Mexican Poppy
Spurge
Gilia
Lysine
Lysine

ANNUALS CONTINUED

Oenothern species
Phlox tenuifolia
Plantago species
Rafinesquia species

ALSO KNOWN AS

Evening Primrose
Phlox
Plantain
Desert Chicory

LAWNS

Any grass except Common Bermuda Grass may be used in lawns. Lawns and irrigated ground cover will be limited in uses to areas confined by walls or structures and may not be visible from natural desert areas.

MINERAL LANDSCAPE FEATURES

Boulders, mineral ground covers, and similar features should be limited to materials indigenous to Carefree Mountain Estates or materials similar in color and appearance to indigenous materials. Over the years a number of owners have added granite to their yards along with rocks to prevent dirt runoff. This is allowed on a design approval basis. A sample of the granite and rock should be provided with the design application listing the size, type, and color of granite and rock.

The approved Granite for Carefree Mountain Estates are:

**Madison Gold 1/2 Washed for
Private & Transitional Areas**



**Madison Gold 1/2 Minus
for Private, Transitional
& Natural Areas**



**Madison Gold 1/4 Minus
for Private, Transitional
& Natural Areas**



PROTECTED PLANTS

Any and all transplantable species of Yucca, Ocotillo (*fouquieria splendens*), and all members of the Cactus family including, but not limited to, Barrel, Saguaro, Staghorn Cholla, Mammalaria (or Nipple Cactus), and Hedgehog, but excluding Teddy Bear (or Jumping) Cholla (*opuntia bigelovii*), Chain Fruit Challa, and Prickly Pear.

Indigenous trees, which are four inches or greater in caliper measured one foot above ground level, of the following species:

BOTANICAL NAME	COMMON NAME
<i>Acacia Constricta</i>	Whitehone Acacia
<i>Acacia Greggii</i>	Catclaw Acacia
<i>Canotia Holocantha</i>	Crucifixion Thorn
<i>Celtis Reticulate</i>	Hackberry
<i>Cercidium Floridum</i>	Blue Palo Verde
<i>Cercidium</i>	Foothills Palo Verde
<i>Microphyllum</i>	
<i>Chilopsis Linearis</i>	Desert Willow
<i>Juniperous species</i>	Juniper
<i>Olneya Tesota</i>	Ironwood
<i>Populus Fremontii</i>	Cottonwood
<i>Prosopis species</i>	Mesquite
<i>Quercus species</i>	Scrub Oak
<i>Rhus Ovata</i>	Sugar Sumac
<i>Vauquelinea</i>	Arizona Rosewood
<i>Californica</i>	

PROHIBITED PLANT LIST

The following may not be planted or maintained anywhere in Carefree Mountain Estates:

1. Any species of tree or shrub whose mature height may reasonably be expected to exceed 18 feet, with the exception of those species specifically listed as approved by the Design Review Committee.
2. All Palms whose mature height may reasonably be expected to exceed six feet will be prohibited for aesthetic reasons as well as their high maintenance requirements. Dwarf varieties whose mature height may reasonably be expected to be less than six feet will be allowed only within the confines of a private garden.
3. All Pines (*Pinus*), Cypress (*Cupressus*), False Cypress (*Chamaecyparis*), Juniper or Cedar (*Juniperus*) except those species specifically approved, whose mature height may reasonably be expected to exceed six feet will be prohibited for aesthetic reasons. Dwarf varieties, and those whose mature height may reasonably be expected to be less than six feet, may be used immediately adjacent to dwellings or connecting structures, or within the confines of a private garden.
4. Olive trees (*Olea Europaea*) **will** be prohibited for reasons of their profuse production of allergy-producing pollen, as well as for aesthetic reasons.
5. Oleanders (*Nerium Oleander*) and Thevetia will be prohibited for aesthetic reasons as well as for their profuse production of allergy-producing pollen. These poisonous plants will also be prohibited for their high maintenance requirements and excessive height. Dwarf varieties will be allowed within a private garden.
6. Fountain Grass (*Pennisetum Setaceum*) **will** be prohibited as a defined weed with the potential to spread throughout the development and also as a fire hazard.
7. All varieties of Citrus will be prohibited for aesthetic reasons and for their profuse production of allergy-producing pollen. Dwarf varieties are permissible within the confines of a private garden.
8. Common Bermuda Grass (*Cynodon Dactylon*) will be prohibited as a defined weed.
9. Mexican Palo Verde (*Parkinsonia Aculeatra*) will be prohibited as a harborer of pests and because of its ability to spread throughout the development, thereby altering the present natural desert

INVASIVE PLANTS IN THE DESERT

As development pushes into the Sonoran Desert, an unintended consequence has resulted in the introduction and spread of invasive plants into natural open spaces. Invasive plants are generally not native and tend to compete with and take over native plants. Unfortunately, due to landscaping and other choices on developed land, several invasive plants have been inadvertently introduced into the area by windblown seeds or carried by birds, humans or water. The ecological damage caused by invasive plants negatively impacts the desert landscape by replacing native plants, damaging lands for animal habitat, eliminating preferred plants for forage and significantly increasing the risk of potential fire damage. All of these elements can permanently alter the landscape of our Sonoran Desert.

What is an Invasive Plant?

An invasive plant is generally not native to the Sonoran Desert. These plants compete with native plants and have the ability to take over an area. Invasive plants upset the sensitive and natural ecological balance of the surrounding area and can also disrupt the habitat for desert wildlife. In addition to the impact on native plants, this vegetation becomes a major fire fuel source during the hot weather when these weeds dry out.

Fire

The invasive plants that have been introduced provide a substantial increase in the available fuel and can serve to increase the risk and intensity of wildland fire incidents. These types of invasive plants can more quickly regenerate themselves. This gives them a distinct advantage over the native plant species, which will take a much longer time to recover and regenerate after a fire incident. The result is the potential for hotter and more destructive fires in the Sonoran desert that can lead to the irreversible destruction of the native vegetation and local eco-system.

Habitat Loss

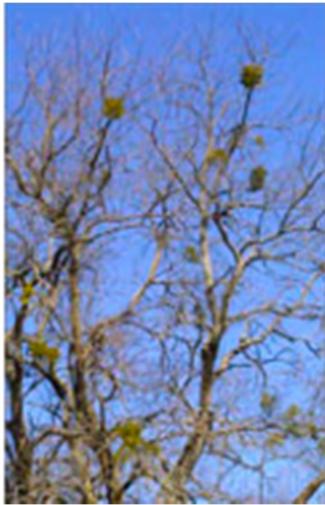
Because invasive plants can displace native plants, this can also result in negative impacts on desert fauna. The Preserve is an attractive home to desert wildlife. If forced to feed on invasive species, animals can become sick, leave the area for a more palatable food source or possibly die.

The Culprits

Nine vegetation types have been identified to exist within our area and are outlined below

- Mistletoe the Plant
- Desert Broom (*Baccharis sarothroides*)
- Red Bromegrass (*Bromus rubens*)
- Saharan Mustard (*Brassica tournefortii*)
- Bermuda Grass
- Buffel Grass (*Pennisetum ciliare*)
- Tamarisk/Salt Cedar (*Tamarix* ssp.)
- Fountain Grass (*Pennisetum setaceum*)
- Malta Starthistle (*Centaurea melitensis*)

Invasive Plants Continued:



Mistletoe The Plant

Mistletoe is a parasitic plant that can affect the growth and vigor of its host and expose trees to attacks by diseases and insects. It has leaves to produce its own food, but steals water and nutrients from its host. In some instances, mistletoe can cause branches to die back, and heavy, shrubby mistletoes can break entire limbs. In other situations, mistletoe is simply a cosmetic problem which only affects the appearance of the tree. There are two main types of mistletoes, true mistletoes and dwarf mistletoes.

It's a perennial flowering plant that has specialized roots, which are able to penetrate the host plant from which it takes water and nutrients. Mistletoe spreads slowly and it takes many infections and years to kill a tree, however they do draw a lot of water from their hosts and can seriously desiccate the host during a drought unless you water adequately at these times. One or a few infections on a vigorous tree will cause no harm, although the portion of a branch beyond infections may be stunted or die. Numerous infections can cause significant stress, leading to premature death either directly or indirectly through secondary disease or insect infestations.

The good news is that mistletoes are obligate parasites, which mean they survive only in living tissue. Pruning an infected branch kills the mistletoe on that branch. The bad news is that you cannot eliminate mistletoe from a tree unless all infected limbs are removed.

The only effective way of ridding your tree of a mistletoe infestation is pruning. However, care must be taken to avoid over-pruning. This can damage the tree.

Cut the infected limb one to two feet (30 to 60 cm) below the plant, because mistletoe "roots" may extend up to a foot (30 cm) on either side of the point of attachment. Breaking off the tops will only encourage re-growth.

Invasive Plants Continued:



Desert Broom (*Baccharis sarothroides*) *native*

This native desert shrub, that is almost always green, grows quickly to nearly 10-feet high. In autumn, the blooms, containing a mass of seeds with white bristles, easily become airborne and spread freely. Desert Broom is viewed as an invasive plant because of its aggressiveness in overtaking disturbed areas (such as roadsides and new landscaped areas), and because it burns fiercely and is a significant threat to nearby structures.

Red Bromegrass (*Bromus rubens*) *non-native*

Found in very dense patches to widely dispersed as individual plants, the Red Bromegrass is a fast-growing annual grass that reaches over 10-inches tall. Characteristic brush-like heads start out green in color, become reddish purple when mature and then light brown when seeds dry. The seed carrying portion of the grass have sharp ends and easily attach to animals or clothing for transport to other locations where the seeds then germinate. Red Bromegrass has become a major threat to the Sonoran Desert because it is so well established.



Buffel Grass (*Pennisetum ciliare*) *non-native*

This perennial bunchgrass grows up to 4-feet tall and has a mass of long, tough roots that can grow up to 8-feet deep. Narrow, light green leaves are 1 to 4-inches long. Bristly flower heads may be purple, gray or yellowish and turn a distinctive golden-brown when dry. Buffel Grass will burn while still green. When native plants die, Buffel Grass moves in and chokes our native seedlings.

Tamarisk/Salt Cedar (*Tamarix* spp.) *non-native*

This shrubby tree grows up to 15-feet with gray-green foliage and slender branches. Pink-white flowers appear from January to October. Tamarisk spreads rapidly and forms dense thickets. Once established, it is difficult to eradicate. These trees use large amounts of ground water causing desert springs to dry up and crowding out native trees such as cottonwood, mesquite and desert willow. Because this plant is difficult to remove, it is advised to contact a specialist if you detect a Tamarisk in your area or in the Preserve.

Invasive Plants Continued:



Saharan Mustard (*Brassica tournefortii*) *non-native*

This annual, spring herb forms rosettes 6 to 12-inches in diameter. Leaves vary in size and have tiny bristles on the undersides. Small plane yellow flowers appear from January to April or May. Tiny reddish seeds are formed in narrow pods. Saharan Mustard can grow in large stands, creating barriers to normal wildlife movement when plants are alive. As desert temperatures rise, parts of the plant die and increase wildfire fuel loads dramatically.

Bermuda Grass (*Cynodon dactylon*) *non-native*

This perennial grass is common to many lawns in southern regions and grows well in our hot, desert climate. It is the most common summer lawn choice in the desert southwest. Bermuda Grass competes with native plants and invades disturbed areas. It is a leading cause of hay fever in the Sonoran Desert.

Please remember to keep these invasive weeds from your property. Work with your landscaper / gardener so native plants take priority in your own yard. These weeds should be removed as they not only infect you're your but your surrounding neighborhood.