

Landscaping With Natives



Without Attracting Nuisance Wildlife

Topics



- œ Handouts of trees, shrubs, and flowers that javelina, deer, and rabbits don't like
- œ Importance of using natives in landscaping
- œ Which ornamental species are highly invasive and should be avoided
- œ Basics on planting arrangement that benefit non-nuisance wildlife (bees, butterflies, birds)
- œ Tips for deterring nuisance wildlife

Importance of Using Natives in Landscaping



- ❧ Low water requirements and drought tolerant
- ❧ Native are better adapted to:
 - ❧ Growing season
 - ❧ Climate
 - ❧ Soils
- ❧ Benefits to desirable wildlife
- ❧ Wildlife habitat connectivity
- ❧ Reduced pests and needs for chemicals

Watch Out for Invasive Ornamentals



- ❧ Invasive spread within and beyond your landscape
- ❧ Less benefits to the environment
- ❧ Cheaper in the short run, but more expensive in the long run

Invasive Ornamentals To Avoid

Common Name	Scientific Name
Siberian Elm	<i>Ulmus pumila</i>
Tree-of-Heaven	<i>Ailanthus altissima</i>
Salt Cedar	<i>Tamarix spp.</i>
Russian Olive	<i>Elaeagnus angustifolia</i>
Pampas Grass	<i>Cortaderia selloana</i>
Vinca	<i>Vinca major</i>
Japanese Knotweed	<i>Polygonum cuspidatum</i>
Fountain Grass	<i>Pennisetum setaceum</i>
Himalayan Blackberry	<i>Rubus discolor</i>
Buffalo Grass	<i>Buchloe dactyloides</i>
Floating Water Primrose	<i>Ludwigia hexapetala</i>
Giant Reed	<i>Arundo donax</i>
Purple Loosestrife	<i>Lythrum salicaria</i>
English Ivy	<i>Hedera helix</i>

Invasive Ornamentals To Avoid



Photo courtesy of Max Licher



Photo courtesy of Max Licher

Substitute Pampas Grass and Fountain Grass
with Bull Grass (*Muhlenbergia emersleyi*)

Or

with Big Sacaton (*Sporobolus wrightii*).



Invasive Ornamentals To Avoid



Substitute
Tree of
Heaven



with Arizona Walnut,
Juglans major



Invasive Ornamentals To Avoid



Photo courtesy of Max Licher

with Desert
Four
O'clock,
*Mirabilis
multiflora.*

Substitute
Vinca



Invasive Ornamentals To Avoid



Substitute
Russian
Olive

with Emory Oak,
Quercus emoryi



Invasive Ornamentals To Avoid



Substitute English ivy
with
Arizona Grape,
Vitis arizonica



Beneficial Plant Arrangement



Plants as a Food Source

- ❧ Plant a mixture of grasses, wildflowers, vines, shrubs, and trees.
- ❧ Allow grasses to go to seed
- ❧ Choose berry producing shrubs and vines
- ❧ Plant nectar producing flowers, vines, shrubs, and trees
- ❧ Augment natural sources with seed, suet, sugar water

Beneficial Plant Arrangement

Special Consideration for Pollinators

- ❧ Flowers should bloom throughout the growing season
- ❧ Plant big patches for better foraging efficiency
- ❧ Avoid chemicals – pesticides and herbicides kills pollinators
- ❧ Avoid using weed cloth or heavy mulch
- ❧ Allow for other forms of structure:
 - ❧ Small piles of branches
 - ❧ Hollow twigs
 - ❧ Rotting logs and stumps
 - ❧ Rodent burrows
 - ❧ Fallen plant material

Beneficial Habitat Arrangement



Natural Cover

- ❧ Rocks, downed woody material, even mulch piles
- ❧ Mixture of ground cover, mid-story cover, and canopy cover
- ❧ Standing dead woody material

Artificial Cover

- ❧ Roost boxes
- ❧ Nesting platforms and boxes

Beneficial Habitat Arrangement



Augment Your Landscaping with Water

- ❧ Pedestaled bird bath, ground level water dish, water garden, pond
- ❧ Elevated versus ground level
- ❧ Escape ramps
- ❧ Local ordinances may require fencing if water exceeds certain depth

Dealing with Nuisance Species



Bats

- ☞ Only nuisance when they roost in structures or under eaves
- ☞ Pros – bats are very efficient insect control
- ☞ Point electronic bat repellents up toward the eaves where bats roost
- ☞ Proper bat exclusion when roosting in structure
- ☞ Suitable artificial roosts

Proper Bat Exclusion



Step 1:

Hang a bat box on or near your house early in the summer. This allows bats time before the eviction date (in the fall) to explore and find the alternate roost.



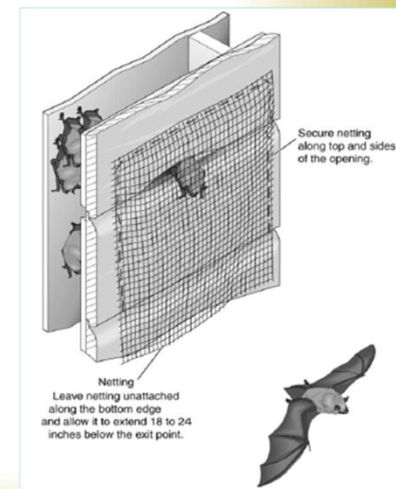
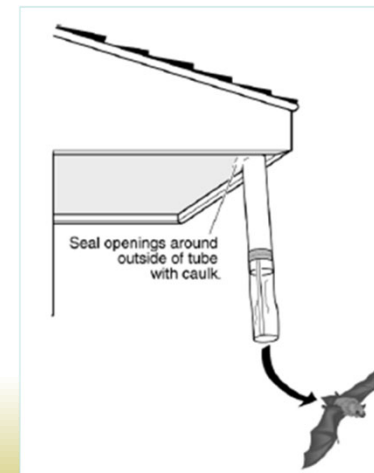
Step 2:

Inspect your house for openings 1/2 inch or greater in diameter.



Step 3:

In **September** (not before), install tubes or flaps to allow exit but prevent entry.



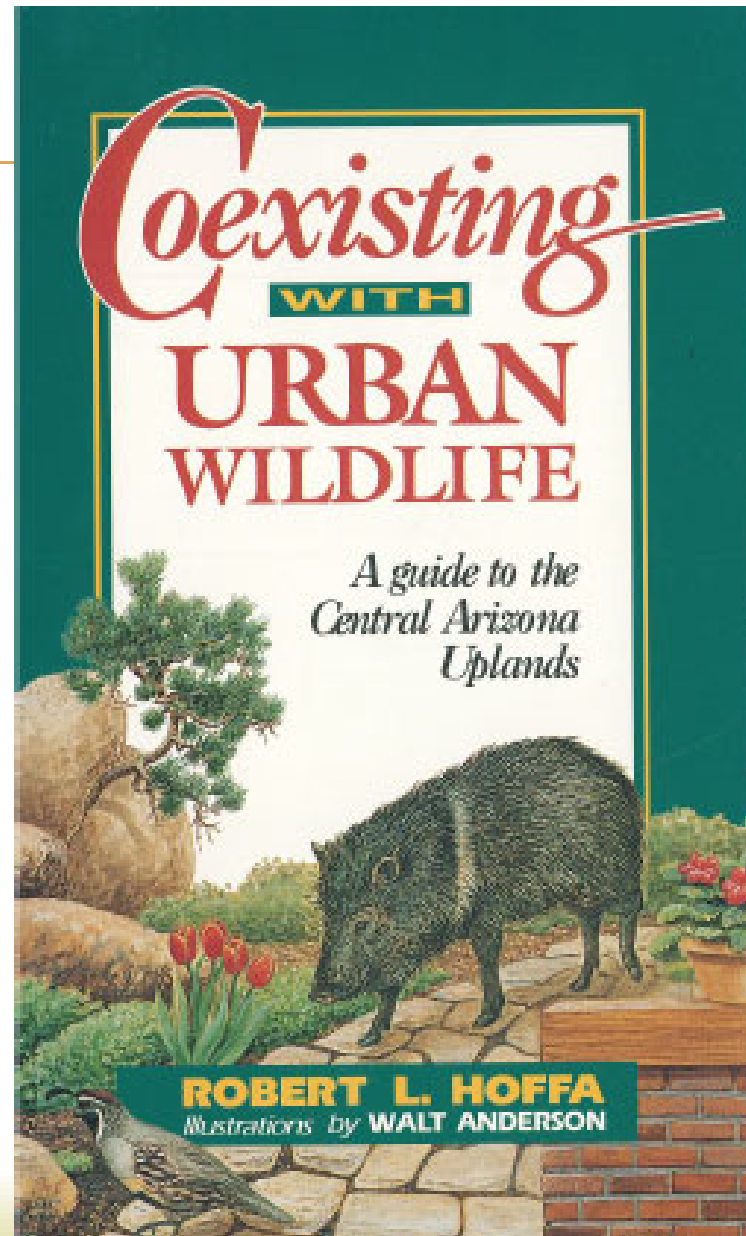
Suitable Artificial Bat Houses



1. Minimum size of 2' X 2'
2. Air tight, caulked seams, painted dark to be a solar collector, vented along lower 2/3 for fresh air, surfaces roughened, crevices between 3/4 and 1 1/2 inches wide.
3. Placement 10' above ground, facing south, near but not shaded by trees.



Dealing with Nuisance Species



Dealing with Nuisance Species



Rabbits

- ❧ Fencing 2-3' high poultry wire and buried 6-12"
- ❧ Protect sapling trees with a cylinder of hardware cloth
- ❧ Keep vegetation cleared around base of shrubs
- ❧ Ammonia-soaked rags near dens and nests
- ❧ Commercial repellents
- ❧ When eating wires in engines, use flashing LED lights and keep hood open



Dealing with Nuisance Species



Woodrats

- ❧ Build extensive nests
- ❧ Non-lethal forms of control
 - ❧ Clean up property
 - ❧ Flashing LED lights
 - ❧ Ammonia-soaked rags, peppermint oil, Irish Spring soap
 - ❧ Sprinkle blood meal around plants
 - ❧ Live traps
 - ❧ Prompt removal of nests
 - ❧ 2' tall sheet metal barrier or full caging-out
- ❧ Lethal forms of control
 - ❧ Large snap traps

Dealing with Nuisance Species



Pocket gophers

☞ Non-lethal methods:

☞ Flooding or collapsing burrows not very effective

☞ Buried barrier of hardware cloth (bury 3' deep)

☞ Lethal Methods:

☞ Traps

☞ Poisons

☞ Chemical fumigants



Dealing with Nuisance Species



Beaver

- ✧ Cut down trees for food and to build dams
- ✧ Surround trees with hardware cloth 3' high
- ✧ Benefits of beaver

Dealing with Nuisance Species



Deterring Coyotes

- ❧ Keep small pets indoors, especially at night
- ❧ Don't place pet food outdoors
- ❧ Secure garbage lids with weights or straps
- ❧ Hazing



Dealing with Nuisance Species



Raccoons

- ❧ Remove attractants (bird bath, pet food, water)
- ❧ Weigh down garbage can lids
- ❧ Secure cans so they don't tip over
- ❧ Keep pet food indoors, especially at night
- ❧ Fence in open water such as ponds

Dealing with Nuisance Species



Javelina

- ❧ Avoid feeding them (even bird seed)
- ❧ Clean up edible garbage
- ❧ Frequently pick up dropped fruit
- ❧ Spread cayenne pepper
- ❧ Ammonia-soaked rags
- ❧ Large cat urine
- ❧ Fencing 3 feet tall
- ❧ Electric fencing can be inexpensive



Dealing with Nuisance Species



Deer

- ❧ Chemical repellents sprayed on leaves and flowers (only inedible plants)
- ❧ Hanging shiny objects
 - ❧ mirrors
 - ❧ tinfoil strips
- ❧ Scarecrows, pinwheels
- ❧ Change objects out to avoid acclimation
- ❧ Fencing 6 feet high

Contact



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Flowers That Deer & Rabbits Don't Prefer

Common Name	Scientific Name	Deer Resistant	Rabbit Resistant
Candytuft	<i>Iberis</i> spp.	X	X
Red-Hot Poker	<i>Kniphofia uvaria</i>	X	X
Dead Nettle	<i>Lamium maculatum</i>	X	X
Lupine	<i>Lupinus</i> spp.	X	X
Crown-Pink	<i>Lychnis coronaria</i>	X	X
Blackfoot Daisy	<i>Melampodium leucanthum</i>	X	X
Bee Balm	<i>Monarda</i> spp.	X	X
Forget-Me-Not	<i>Myosotis scorpioides</i>	X	X
Daffodil	<i>Narcissus</i> hybrids	X	X
Catnip	<i>Nepeta</i> spp.	X	X
Oregano	<i>Origanum</i> spp.	X	X
Oriental Poppy	<i>Papaver</i> spp.	X	X
Beard Tongue	<i>Penstemon</i> spp.	X	X
Moss Pink	<i>Phlox subulata</i>	X	X
Gloriosa Daisy	<i>Rudbeckia hirta</i>	X	X
Santolina	<i>Santolina</i> spp.	X	X
Saxifrage	<i>Saxifraga</i> spp.	X	X
Pincushion Flower	<i>Scabiosa</i> spp.	X	X
Squill (Bluebell)	<i>Scilla</i> spp.	X	X
Lamb's Ears	<i>Stachys byzantina</i>	X	X
Thyme	<i>Thymus</i> spp.	X	X
Verbena	<i>Verbena</i> spp.	X	X
Speedwell	<i>Veronica</i> spp.	X	X
Sweet Violet	<i>Viola odorata</i>	X	X
California Fuchsia	<i>Zauschneria californica</i>	X	X

Flowers That Deer & Rabbits Don't Prefer, Cont...

Common Name	Scientific Name	Deer Resistant	Rabbit Resistant
Yarrow	<i>Achillea</i> spp.	X	X
Agave	<i>Agave</i> spp.	X	X
Naked Lady	<i>Amaryllis belladonna</i>	X	X
Columbine	<i>Aquilegia</i> spp.	X	X
Pink Sea Thrift	<i>Armeria</i> spp.	X	X
Artemisia	<i>Artemisia</i> spp.	X	X
Aster	<i>Aster</i> spp.	X	X
Flase Spiraea	<i>Astilbe</i> spp.	X	X
Balsam	<i>Impatiens</i> spp.	X	X
Begonia	<i>Begonia</i> spp.	X	X
Swan River Daisy	<i>Brachycome iberidifolia</i>	X	X
Serbian Bellflower	<i>Campanula</i> spp.	X	X
Centaurea	<i>Centaurea</i> spp.	X	X
Snow-in-Summer	<i>Cerastium tomentosum</i>	X	X
Coreopsis	<i>Coreopsis</i> spp.	X	X
Crocus	<i>Crocus</i> spp.	X	X
Dahlia	<i>Dahlia</i> spp.	X	X
Bleeding Heart	<i>Dicentra</i> spp.	X	X
Fleabane	<i>Erigeron</i> spp.	X	X
California Poppy	<i>Eschscholzia californica</i>	X	X
Euphorbia	<i>Euphorbia</i> spp.	X	X
Ferns	Many Species	X	X
Blanket Flower	<i>Gaillardia grandiflora</i>	X	X
Cranesbill	<i>Geranium</i> spp.	X	X
Straw Flower	<i>Helichrysum</i> spp.	X	X
Daylily	<i>Hemerocallis</i> spp.	X	X
Sweet William	<i>Dianthus barbatus</i>	X	X

Flowers That Javelina Don't Prefer

Common Name	Scientific Name	Javelina Resistant
Red-Hot Poker	<i>Kniphofia uvaria</i>	X
Daffodil	<i>Narcissus</i> hybrids	X
Santolina	<i>Santolina</i> spp.	X
Sweet Violet	<i>Viola odorata</i>	X
Gladiola	<i>Gladiolus</i> spp.	X
Globe Amaranth	<i>Gomphrena</i> spp.	X
Ice Plant	<i>Mesembryanthemum</i> spp.	X
Larkspur	<i>Delphinium</i> spp.	X
Lilac	<i>Syringa</i> spp.	X
Marigolds	<i>Tagetes</i> spp.	X
Peonies	<i>Paeonia</i> spp.	X
Snapdragons	<i>Antirrhinum majus</i>	X

Flowers That Javelina Don't Prefer, Cont...

Common Name	Scientific Name	Javelina Resistant
Dahlia	<i>Dahlia</i> spp.	X
Cranesbill	<i>Geranium</i> spp.	X
Daylily	<i>Hemerocallis</i> spp.	X
Allysum	<i>Allysum</i> spp.	X
Basil	<i>Ocimum</i> spp.	X
Sweet William	<i>Dianthus barbatus</i>	X
Chrysanthemum	<i>Chrysanthemum</i> spp.	X
Cosmos	<i>Cosmos</i> spp.	X
Easter Lily	<i>Lillium longiflorum</i>	X
Petunias	<i>Petunia hybrida</i>	X
Zinnia	<i>Zinnia</i> spp.	X

Shrubs That Deer & Rabbits Don't Prefer

Common Name	Scientific Name	Deer Resistant	Rabbit Resistant
Manzanita	<i>Arctostaphylos</i> spp.	X	X
Rosemary	<i>Rosemarinus officinalis</i>	X	X
Sage	<i>Salvia officinalis</i>	X	X
Skunkbush	<i>Rhus trilobata</i> *	X	X
Glossy Abelia	<i>Abelia grandiflora</i>	X	X
Barberry	<i>Berberis</i> spp.	X	X
Butterfly Bush	<i>Buddleia</i> spp.	X	X
Boxwood	<i>Buxus</i> spp.	X	X
Fairy Duster	<i>Calliandra</i> spp.	X	X
Flowering Quince	<i>Chaenomeles</i> spp.	X	X
Dalea	<i>Dalea</i> spp.	X	X
Brittlebush	<i>Encelia farinosa</i>	X	X
Turpentine Bush	<i>Ericarmeria laricifolia</i> *	X	X
Buckwheat	<i>Eriogonum</i> spp.	X	X
Jojoba	<i>Simmondsia chinensis</i> *	X	X
Chuparosa	<i>Justicia californica</i> *	X	X
Lantana	<i>Lantana</i> spp.	X	X
Leucophyllum	<i>Leucophyllum</i> spp.	X	X
Oregon Grape	<i>Mahonia</i> spp.	X	X
Cinquefoil	<i>Potentilla</i> spp.	X	X
Currant, Gooseberry	<i>Ribes</i> spp.	X	X
Lilac	<i>Syringa</i> spp.	X	X
Viburnum	<i>Viburnum</i> spp.	X	X
Apache plume	<i>Fallugia paradoxa</i> *	X	
Rabbit brush	<i>Chrysothamnus</i> spp.	X	X
Virginia Creeper	<i>Parthenocissus</i> spp.	X	X

Shrubs That Javelina Don't Prefer

Common Name	Scientific Name	Javelina Resistant
Deerbrush	<i>Ceanothus</i> spp.	X
Manzanita	<i>Arctostaphylos</i> spp.	X
Mountain Mahogany	<i>Cercocarpus</i> spp.	X
Rose Bushes	<i>Rosa</i> spp.	X
Rosemary	<i>Rosemarinus officinalis</i>	X
Sage	<i>Salvia officinalis</i>	X
Shrub Live Oak	<i>Quercus turbinella</i> *	X
Silktassel	<i>Garrya wrightii</i> *	X
Skunkbush	<i>Rhus trilobata</i> *	X
Lilac	<i>Syringa</i> spp.	X
Hibiscus	<i>Hibiscus</i> spp.	X

Trees That Deer & Rabbits Don't Prefer

Common Name	Scientific Name	Deer Resistant	Rabbit Resistant
Juniper	<i>Juniperus</i> spp.	X	
Douglas-fir	<i>Pseudotsuga menziesii</i> *	X	X
Pinyon Pine	<i>Pinus edulis</i> *	X	
Fir	<i>Abies</i> spp.	X	X
Japanese Maple	<i>Acer palmatum</i>	X	X
Vine Maple	<i>Acer circinatum</i>	X	X
Cedar	<i>Cedrus</i> spp.	X	X
Hackberry	<i>Celtis</i> spp.	X	X
Redbud	<i>Cercis</i> spp.	X	X
Hawthorn	<i>Crataegus</i> spp.	X	X
Cypress	<i>Cupressus</i> spp.	X	X
Ash	<i>Fraxinus</i> spp.	X	X
Maidenhair Tree	<i>Ginkgo biloba</i>	X	X
Magnolia	<i>Magnolia</i> spp.	X	X
Spruce	<i>Picea</i> spp.	X	X
Oak	<i>Quercus</i> spp.	X	X
Albizia	<i>Albizia</i> spp.	X	X
Texan Mountain Laurel	<i>Sophora Secundiflora</i>	X	X

Trees That Javelina Don't Prefer

Common Name	Scientific Name	Javelina Resistant
Juniper	<i>Juniperus</i> spp.	X
Fir	<i>Abies</i> spp.	X
Spruce	<i>Picea</i> spp.	X
Oak	<i>Quercus</i> spp.	X
Cottonwood	<i>Populus fremontii</i> *	X