The **Mesilla Valley**

Backyard Guide

Creating Habitat for Birds & Pollinators

by Marcy Scott, Trish Cutler, and Rob Wu

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DEPARTMENT OF DEFENSE LEGACY PROGRAM

Mesilla Valley Audubon Society

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Front Cover montage:
Anthophorid bee on Chocolate Flower (upper L), Broad-tailed Hummingbird (upper R), Tahoka Daisy (C), and Chinati Checkerspot on Chocolate Flower (lower L) by Rob Wu. Canyon Penstemon (lower R) by Jimmy Zabriskie.

Back Cover photo:
Greater Roadrunner by Trish Cutler.

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In Memoriam

Jud Wright
1960 - 2023

Jud, the longtime proprietor of Del Valle Imaging & Design, passed away just before the completion of this project. Over the years, Jud orchestrated many successful printings related to Dept. of Defense projects. He will always be remembered for his professionalism, diligence, attention to detail, wealth of knowledge (and generosity in sharing it), and—most of all—the openness and kindness of his character, which always instilled confidence and made working with him so much fun. Thanks for everything, Jud; you will be deeply missed.

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Introduction

As a major north-south artery of the Central Flyway for migratory birds, the Rio Grande and associated riparian vegetation have provided vital bird habitat for millions of years. Here in southern New Mexico, where the Rockies peter out into scattered, mostly desert ranges with our extraordinary sky island, the Organ Mountains, punctuating the higher-elevation chain, many other important resources in canyons, woodlands, and grasslands add to the remarkable diversity of bird and pollinator species that grace our corner of the world.

A bird's-eye view, seen from an airplane or Google Earth, easily reveals the relatively green ribbon of life that is the Mesilla Valley, which even during times of drought stands in stark contrast to the surrounding arid expanses of the Chihuahuan Desert. Along with the bracketing by the various mountains and mesas along the margins, these features together serve as a

Facing page: A Cooper's Hawk flushes from its early morning perch. Photo by Rob Wu.

veritable funnel for migrating birds, as well as tending to concentrate lingering and resident birds in pockets of especially good habitat—which can make birdwatching exciting! More than 400 different species have been documented in Doña Ana County, with nearly half of those observable in any given year.

While natural areas certainly rank highest in importance to birds and pollinators, our garden plantings and irrigated landscapes are vital as well, and can provide valuable food and cover that are even more crucial when land development, extreme drought, or catastrophic wildfire degrades or destroys extensive natural areas. Fortunately, creating backyard bird and pollinator habitat can be surprisingly simple, if armed with good information on what plants and other elements are especially appropriate for our area, and that is what this booklet aims to provide.

The more of us who take steps to enhance our backyards, be they sprawling acreage or patio container gardens, the more interconnected the mosaic of habitats will become, which will maximize their usefulness to a wide variety of birds and pollinators and help provide some meaningful backup to our diminishing natural areas. While artificial feeders can definitely

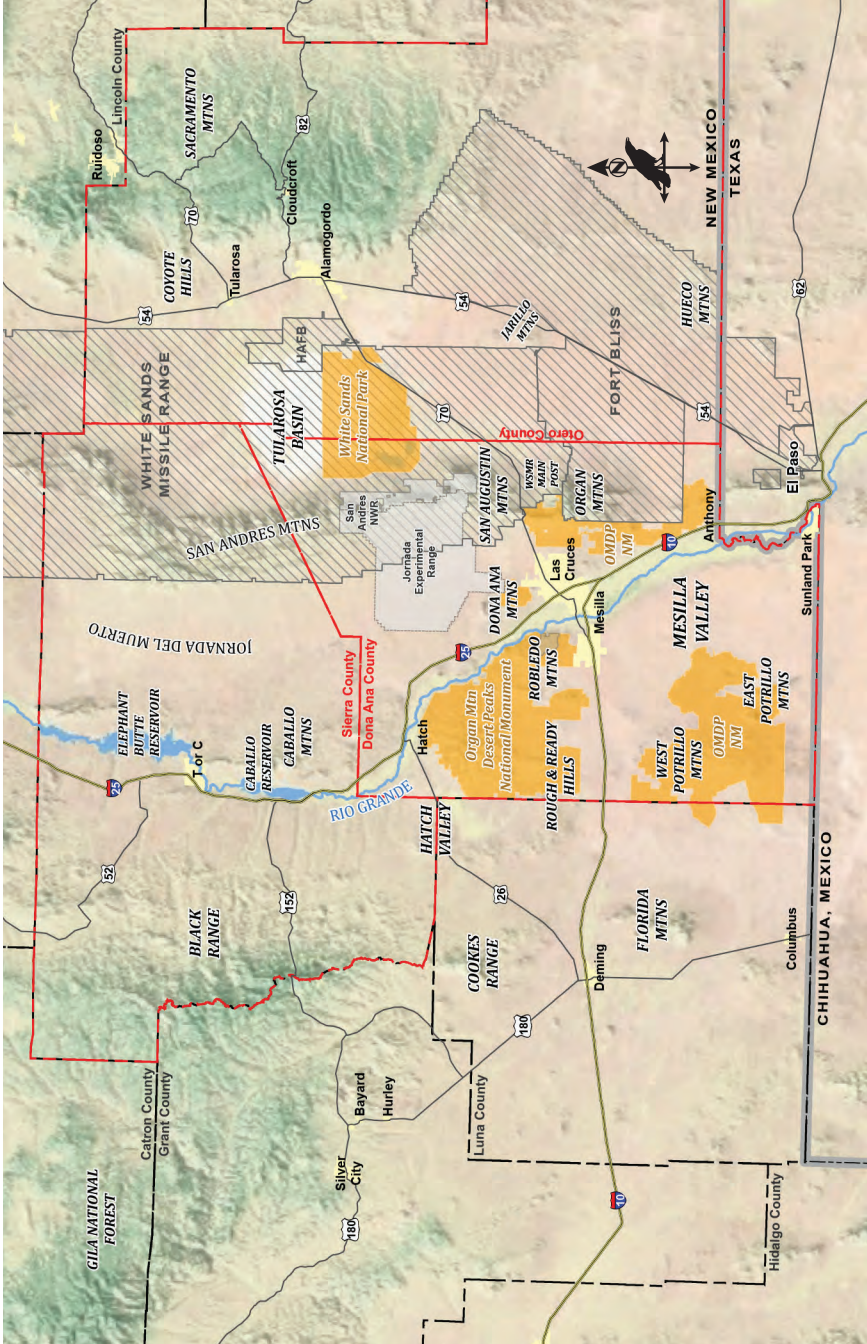
amplify the attractiveness of a backyard to certain species of birds, other features such as a reliable water source and native plantings that provide cover, nest sites, and natural food are even more important, and will provide a more lasting legacy for generations of birds, pollinators, and people to come.

Western Bluebirds congregate at a birdbath. Photo by Jimmy Zabriskie.

FYI:

About the Map:

This guide covers Las Cruces and the Mesilla Valley—for which the local Audubon Society chapter is named. Like the Mesilla Valley Audubon Society, this booklet also encompasses nearby geographical areas, such as the Hatch Valley, Jornada Del Muerto, the Tularosa Valley, White Sands Missile Range Main Post, Alamogordo, Truth or Consequences, and other valley and foothills locations in Doña Ana, Otero, and Sierra Counties.



Facing page: Regional map by Carol Placchi.

Providing Supplemental Water *for Birds*

Cooper's Hawk at water. Photo by Trish Cutler.

Birds need water for a variety of reasons: hydration, digestion, bathing, foraging, and even to escape predators (like a duck on a pond). The natural diet of a bird will provide some water, especially if the diet includes nectar, fruit, or insects, but most birds will benefit from the added provision of a backyard water source. Access to water is more urgent today, with long-term drought and climate change that have reduced the availability of natural water sources for wildlife.

Water should be perennial (provided year-round) and kept clean and safe. An artificial water source can range anywhere from an inexpensive dish or birdbath to an elaborate pond, stream, or fountain.

Lesser Goldfinch pool party. Photo by Jimmy Zabriskie.

Perennial: While it is obvious to provide water during the blazing hot summer months in southern New Mexico, the winter and spring are the driest times of the year. For that reason, we recommend that if you provide water, make sure it is available year-round.

Pedestal birdbath fed by a dripper. Photo by Marcy Scott.

Sanitary: Be sure to clean your water source on a regular basis to prevent the spread of wildlife diseases. We recommend cleaning at least once a week, but frequency will vary depending on use, accumulation of debris, and if there is a constant source of flowing or dripping water. Of course, the cleaning of ponds, streams, or fountains will be more difficult and involved than a simple dish or birdbath. Consider keeping a second dish or

bath on hand so that a clean dish can simply be switched out while the other is being sanitized. If there is visible debris, scrub it off before cleaning with a sanitizing solution of nine parts water to one part bleach. Thoroughly rinse and dry the dish before refilling it with clean water.

This pond features a recirculating pump to aerate the water and a small copper dripper spout to replenish evaporating water. The perimeter, shallow and gently sloping, is stocked with mosquitofish to keep bugs from breeding. Periodic maintenance is required (e.g., removing debris, cleaning pump filter), but the sound of moving water draws in birds by the dozen, which makes the effort worth the fuss! Photo by Marcy Scott.

Safe: Water should be shallow (2 inches or less), or include rocks or escape ramps for animals to easily climb out. For deeper sources (such as stock tanks or swimming pools), escape ramps must be constructed in such a way that an animal swimming around the outer perimeter will come into contact with the ramp at any level of water. Detailed instructions for escape ramps can be found in the Water For Wildlife Handbook by Bat Conservation International: https://www.batcon.org/wp-content/uploads/bciwaterforwildlife.pdf.

Water sources bring all types of wildlife together in one place, so you can expect your water source to be used by bird predators as well. Place your water source away from places where predators

Two terracotta trays stacked on a small mound of dirt are fed by tubing with just enough flow for water to spill from one tray to the next. At about 1-1/2" deep, they are perfect for most bathing birds and are easily scrubbed to keep clean. Photo by Rob Wu.

can hide or ambush birds. While it's impossible to prevent all predation, placing a water source in an open area can give birds a chance to see predators in time to escape.

This simple and inexpensive water source includes a UV resistant dog bowl (with rock inside to prevent drowning) and drip irrigation tubing connected to a spigot. Some birds, like goldfinches, prefer to hang from the tube and drink directly from it. With a constant drip of water and an extra bowl to switch out, this setup is very easy to keep clean. Photo by Trish Cutler.

Marine Blue butterflies form a puddle club on wet soil near a garden hose. Photo by Rob Wu.

Native Plants
Anchor Backyard Habitats

While a dependable source of water is a critical component of a thriving backyard bird habitat, particularly here in the parched Southwest, a diversity of plants in the landscape is even more essential. At a minimum, birds need places to perch or they're much less likely to visit, let alone stick around. Especially important are mature trees and shrubs, which birds can use for nesting, roosting at night, ducking out of bad weather, or hiding from predators. Many trees and shrubs also provide food, sometimes directly (as with seeds, fruits, and/or nectar) and sometimes indirectly (such as the insects attracted). Perennials and grasses might provide less cover than larger plantings, but they too offer important resources for both birds and pollinators.

Although just about any tree or bush can serve as a perch and perhaps quick cover, only regionally native plants are likely to fulfill most or all of the other needs that birds have. That is because the native plants, along with their myriad of associated insects, have co-evolved with the birds of the area and over time have developed a highly complex network of

Trees, such as this Alligator Juniper (*Juniperus deppeana*), provide perching, roosting, and nesting opportunities for birds. They also offer shelter from weather and predators as well as food in the form of berries (see inset) and resident insects. Photo by Jimmy Zabriskie.

interrelationships—a distinctly local web of life that nurtures both flora and fauna.

A Honey Mesquite tree, for example, offers thorny cover and nest sites for birds; is a larval host plant for some butterflies, nurturing caterpillars for potential consumption by birds; supplies flower nectar for many types of bees and other pollinators; provides seeds eagerly taken by quail and small mammals; and in the spring, its emerging new leaves attract aphids, which in turn often draw migrating warblers to feed on the nutritious bounty. Few, if any, non-native trees can boast of such value to wildlife!

Blue Mistflower (*Conoclinium dissectum*) is an attractive source of nectar for a foraging Honey Bee. Photo by Jimmy Zabriskie.

Honey Mesquite (*Prosopis glandulosa* var. *torreyana*), an important native plant, provides ample resources to birds and insects. Photo by Jimmy Zabriskie.

In addition to their considerable benefit to birds and pollinators, regionally native plants that are available in the nursery trade are often excellent choices for a sustainable landscape. Most handle our climate extremes (blazing summer heat, regular winter freezes with occasional frigid spells, unrelenting months-long droughts, monsoon torrents) amazingly well once established—plus they don't require soil amendments, fertilizers, pesticides, or

more-than-minimal maintenance. That makes managing a backyard habitat pretty easy, even for non-gardeners.

A habitat need not be huge to be valuable. Certainly, sprawling natural areas with woodland and other vegetation are extremely beneficial to a wide variety of birds; however, a small backyard with a couple of well-chosen trees, a few scattered shrubs or a dense thicket, and some wildflowers that bloom and offer nectar and seed at different times of year can pack a lot of value into a limited space. Even patio gardens can feature container plants that attract and support hummingbirds and other pollinators. Collectively, the value of such habitat is immense.

In an established neighborhood blessed with mature trees, adding some additional layers to the yard like shrubs and perennials might make the most sense. Brand-new backyards are more of a blank slate, where planting a native tree or two is a smart first step, so as to get the backbone of the habitat going. Taking note of what other nearby yards may offer is also a good idea. If there's a stand of dense evergreens right next door, for example, it's not as critical a feature to add right away.

In addition to valuable resources that they provide to birds and pollinators, native plants are excellent choices for a sustainable landscape.

From L to R: Apache Plume (*Fallugia paradoxa*), Claretcup Cactus (*Echinocereus coccineus*), Chocolate Flower (*Berlandiera lyrata*), and Desert Four O'Clock (*Mirabilis multiflora*). Photos by Jimmy Zabriskie.

Plants

Native plants, like this Sideoats Grama (*Bouteloua curtipendula*) grass, may be adapted to arid conditions, but they still need periodic watering—especially during the establishment phase. Photo by Jimmy Zabriskie.

In our area, planting can be done year round, except for some winter-tender, non-natives that should be planted in spring. Otherwise, fall and early winter are great times to plant because much less initial watering is needed and roots can get going all winter long, meaning they'll be well on their way toward being established by the heat of late spring and early summer and likely require a lot less water.

From trees down to small perennials, planting recommendations are the same: Dig a hole the same depth as the soil level in the container, dig out or loosen the soil to 2-3 times the width, place the plant in the hole (teasing out matted roots if necessary), and fill the hole back in with the same soil that was taken out and tamp it down. Adding amendments to the hole is not recommended, as that may actually inhibit natural root growth. Topping off the planting with a layer of compost and/or mulch is a better idea, as nutrients trickle down more slowly that way. Creating a berm of soil a few inches high around the planting hole can help direct water to the root zone. Water frequently at first, as much as daily in hot, dry weather, and gradually less so as the plants seem to stabilize and not need watering as often. For detailed instructions, see http://www.robledovista.com/info.html.

The most common mistake with planting these drought-tolerant natives is neglecting to water them regularly until they are established. With

Trees like this Valley Cottonwood (*Populus deltoides* ssp. *wislizeni*) may take 2-3 years to establish and will benefit from periodic deep watering even after they mature. Photo by Jimmy Zabriskie.

Plants

trees and large shrubs, that may be two or three years; with smaller plants, at least a year. Even after establishing, plants will still benefit from periodic deep watering, particularly during the hot, dry months and in times of extended drought.

The **Plant List** on the following pages features plants that are exceptionally valuable to birds and pollinators; are generally native to the **Chihuahuan Desert** of Southern NM and West TX—a few exceptions are marked with an asterisk (*); do well at our elevation (~4000 feet); don't normally need winter protection; can take at least half a day of sun; are drought-tolerant once established; and are at least occasionally available in the nursery trade.

A few notes about the **Plant List:**

- Plant names may change over time, so both **Common Name** and **Botanical Name** are included. *Non-natives are indicated by asterisk (*****) after Common Name.*
- **Mature Size** given is an average size: for trees >25 years, for shrubs >5-10 years.
- **Cover** is marked for most on the list, but especially valuable are dense, thorny, and/or evergreen plants.
- The **Insects** column reflects plants noted to attract a variety of insects upon which birds may feed.
- The **Attracts Butterflies** column denotes plants that offer nectar to adult butterflies and/or host larvae.
- **Type** code abbreviations for plants are as follows:

  AN = Annual
  CA = Cactus
  DE = Deciduous
  DV = Deciduous Vine
  EV = Evergreen
  PE = Perennial
  PV = Perennial Vine
  SE = Semi-Evergreen
  SS = Subshrub
  SU = Succulent
  WP = Woody Perennial

Common Name *Botanical Name*	Type	Mature Size (h x w)(ft)	Value to Birds & Wildlife								Comments
TREES			Cover	Nest Sites	Fruits/Berries	Seeds/Nuts/Cones	Insects	Nectar	Attracts Butterflies	Attracts Bees	
Canyon or Netleaf Hackberry *Celtis reticulata*	DE	25 x 25	x	x	x		x		x	x	Valuable fall & winter fruit for Pyrrhuloxia, others
Desert Willow *Chilopsis linearis*	DE	25 x 20	x	x		x	x	x	x	x	Goldfinches fond of seeds & buds
Arizona Cypress *Hesperocyparis arizonica* (*Cupressus*)	EV	40 x 20	x	x		x					Siskins, finches feed on seed cones
Alligator Juniper *Juniperus deppeana*	EV	30 x 30	x	x		x	x		x		Iconic native evergreen, seldom found in nurseries
One-seed Juniper *Juniperus monosperma*	EV	20 x 20	x	x		x	x		x		Dense cover, nest sites, female plants make fruits
Rocky Mountain Juniper *Juniperus scopulorum*	EV	30 x 15	x	x		x	x		x		Dense cover, nest sites, female plants make fruits
Pinyon Pine *Pinus edulis*	EV	20 x 15	x	x		x	x				Only heat-tolerant native pine, slow-growing
Afghan Pine* *Pinus eldarica*	DE	65 x 30	x	x		x					Best non-native medium-size pine for area
Italian Stone Pine* *Pinus pinea*	EV	70 x 35	x	x		x					Best non-native large pine for area
Valley or Rio Grande Cottonwood *Populus deltoides* ssp. *wislizeni*	DE	50 x 50	x	x		x	x		x		Best in moist valley soils
Honey Mesquite *Prosopis glandulosa* var. *torreyana*	DE	30 x 30	x	x		x	x		x	x	Seeds for quail, bees attract tanagers
Screwbean Mesquite, Tornillo *Prosopis pubescens*	DE	20 x 20	x	x		x	x		x	x	Quail take seeds, native in Rio Grande floodplain
Texas Red Oak *Quercus buckleyi*	DE	40 x 30	x	x		x			x		Showy fall color, great shade tree, acorns for jays
Emory Oak *Quercus emoryi*	EV	30 x 25	x	x		x			x		Acorns for jays, host plant for butterflies
Escarpment Live Oak *Quercus fusiformis*	EV	35 x 35	x	x		x			x		Dense shade, acorns for jays and woodpeckers
Chinquapin Oak *Quercus muehlenbergii*	DE	50 x 40	x	x		x			x		Nice bronze fall color, acorns for scrub jays
Scrub Oak *Quercus turbinella*	EV	10 x 14	x	x		x			x		Shrubby form, summer acorns
Southern Live Oak* *Quercus virginiana*	EV	40 x 50	x	x		x					Usually available in nurseries, needs moderate water

Plant List - TREES

Common Name *Botanical Name*	Type	Mature Size (h x w)(ft)	Value to Birds & Wildlife								Comments
			Cover	Nest Sites	Fruits/Berries	Seeds/Nuts/Cones	Insects	Nectar	Attracts Butterflies	Attracts Bees	
TREES											
Goodding's or Black Willow *Salix gooddingii*	DE	45 x 30	x	x		x	x		x	x	Best in moist valley soils
Mexican Elder *Sambucus nigra* ssp. *caerulea*	DE	25 x 20	x	x	x				x	x	Berries extremely popular, best in moist valley soils
Catclaw Acacia *Senegalia greggii (Acacia greggii)*	DE	10 x 15	x	x		x	x		x	x	Seeds for quail, bees attract tanagers
Whitethorn Acacia *Vachellia constricta (Acacia constricta)*	DE	10 x 15	x	x		x	x		x	x	Fragrant yellow puffball flowers in spring, quail seeds
Sweet Acacia *Vachellia farnesiana (Acacia farnesiana)*	DE	20 x 20	x	x		x	x		x	x	Fragrant yellow puffball flowers in spring, quail seeds

Desert Willow (*Chilopsis linearis*; above), an attractive and low-maintenance ornamental, is an important nectar source for birds and insects. A Black-headed Grosbeak (below) feeds on berries of a Mexican Elder (*Sambucus nigra* ssp. *caerulea*). Photos by Jimmy Zabriskie.

Common Name *Botanical Name*	Type	Mature Size (h x w)(ft)	Value to Birds & Wildlife							Comments
SHRUBS & VINES			Cover	Nest Sites	Fruits/Berries	Seeds/Nuts/Cones	Insects	Nectar	Attracts Butterflies	Attracts Bees	
Mexican Fire, Flame Acanthus *Anisacanthus quadrifidus*	DE	4 x 4	x			x	x	x	x		Outstanding summer-fall hummingbird plant
Desert Honeysuckle *Anisacanthus thurberi*	DE	4 x 4	x			x	x	x	x		Excellent spring humming-bird plant
Four-wing Saltbush *Atriplex canescens*	SE	5 x 7	x			x	x		x		Fall-winter seeds support variety of birds
Red Barberry *Berberis haematocarpa (Mahonia)*	EV	5 x 5	x	x	x					x	Excellent cover, valuable berries for thrashers, others
Algerita *Berberis trifoliolata (Mahonia)*	EV	5 x 5	x	x	x					x	Excellent cover, valuable berries for thrashers, others
Pink Fairy Duster *Calliandra eriophylla*	SE	3 x 4				x		x	x	x	Pink powder-puff flowers in spring
Black Dalea *Dalea frutescens*	DE	3 x 4	x			x			x	x	Deep purple flowers late fall, attracts bees
Turpentine Bush *Ericameria laricifolia*	EV	3 x 3	x			x		x	x	x	Yellow fall flowers, attractive landscape plant
Chamisa, Rubber Rabbitbrush *Ericameria nauseosa*	SE	5 x 5	x			x	x		x	x	Golden late summer flowers, abundant seeds
Apache Plume *Fallugia paradoxa*	SE	5 x 5	x			x	x			x	Goldfinches take fluffy seed heads
New Mexico Olive or Privet *Forestiera pubescens (F. neomexicana)*	DE	12 x 8	x	x	x					x	Can prune as tree, females produce spring berries
Ocotillo *Fouquieria splendens*	DE	10 x 8		x		x		x	x	x	Important spring hummingbird flowers
Compact Texas Sage, Cenizo *Leucophyllum frutescens* 'Compacta'	SE	6 x 6	x	x		x	x	x	x	x	All species are good cover, great bee plants
Desert Wolfberry *Lycium andersonii*	DE	6 x 6	x	x	x			x		x	Thorny cover, tiny lavender flowers, orange berries
Pale Wolfberry *Lycium pallidum*	DE	5 x 5	x	x	x			x		x	Thorny cover, small lavender flowers, red berries
Torrey's Wolfberry *Lycium torreyi*	DE	5 x 5	x	x	x			x		x	Thorny cover, tiny lavender flowers, red berries
Snapdragon Vine *Maurandella antirrhiniflora*	PV	To 10				x		x	x	x	Dies back in winter, reseeds readily
Flameleaf Sumac *Rhus lanceolata*	DE	20 x 15	x		x		x			x	Can prune as tree, females have red berries in winter
Littleleaf Sumac, Agritos *Rhus microphylla*	DE	8 x 10	x	x	x		x		x	x	Need multiple plants to pro-duce summer berries

Plant List - SHRUBS & VINES

Common Name *Botanical Name*	Type	Mature Size (h x w)(ft)	Value to Birds & Wildlife: Cover	Nest Sites	Fruits/Berries	Seeds/Nuts/Cones	Insects	Nectar	Attracts Butterflies	Attracts Bees	Comments
SHRUBS & VINES											
Three-leaf Sumac *Rhus trilobata*	DE	8 x 10	x	x	x					x	Fleshy orange fruits beginning late spring
Evergreen Sumac *Rhus virens*	EV	10 x 10	x	x	x					x	Need multiple plants to produce winter berries
Yellow Bells, Native Esperanza *Tecoma stans* (var. *angustata*)	WP	6 x 6	x			x		x	x	x	Dies back to ground in winter
Arizona Rosewood *Vauquelinia californica*	EV	15 x 12	x			x			x	x	Can prune as tree, spring flowers, goldfinch seeds
Chisos Rosewood *Vauquelinia corymbosa* ssp. *angustifolia*	EV	15 x 12	x			x			x	x	Can prune as tree, spring flowers, goldfinch seeds
Skeletonleaf Goldeneye *Viguiera stenoloba*	SE	3 x 3	x			x			x	x	Yellow summer flowers, seeds for finches
Canyon Grape *Vitis arizonica*	DV	To 12	x	x	x		x			x	Summer fruit taken by variety of birds
Graythorn, Lotebush *Ziziphus obtusifolia*	SE	6 x 8	x	x	x		x			x	Thorny cover, black summer berries, rarely available

Turpentine Bush (*Ericameria laricifolia*; above) produces golden blooms in fall that provide nectar for insect pollinators, like the Fiery Skipper (upper L) butterfly seen here. Littleleaf Sumac (*Rhus microphylla*; below) provides dense cover as well as berries for birds and other wildlife. Photos by Jimmy Zabriskie.

Common Name *Botanical Name*	Type	Mature Size (h x w)(ft)	Value to Birds & Wildlife								Comments
FORBS & SUBSHRUBS			Cover	Nest Sites	Fruits/Berries	Seeds/Nuts/Cones	Insects	Nectar	Attracts Butterflies	Attracts Bees	
Sunset Hyssop, Licorice Mint *Agastache rupestris*	PE	2 x 2				x		x	x		Summer flowers, best in part shade
Desert Marigold *Baileya multiradiata*	PE	1 x 1				x			x	x	Short-lived but reseeds readily
Chocolate Flower *Berlandiera lyrata*	PE	1 x 2				x			x	x	Blooms spring to fall, reseeds readily
Blue or Gregg's Mistflower *Conoclinium dissectum*	PE	1 x 2				x			x		Excellent butterfly plant, spring-summer blooms
Mexican Gold Poppy *Eschscholzia californica* ssp. *mexicana*	AN	1 x 1				x				x	Can propagate by fall-sown seed
Hummingbird Trumpet *Epilobium canum (Zauschneria)*	SS	1.5 x 2				x		x	x	x	Late summer hummingbird flowers
Red-Dome Blanketflower *Gaillardia pinnatifida*	PE	2 x 1				x			x	x	Yellow spring blooms
Firewheel *Gaillardia pulchella*	AN	1 x 1				x			x	x	Summer blooms, can propagate by fall-sown seed
Snakeweed *Gutierrezia sarothrae*	SS	1.5 x 2				x	x	x	x	x	Yellow flowers, mostly in fall, SE
Annual Sunflower *Helianthus annuus*	AN	8 x 3				x	x		x	x	Seed wildly popular, aphids attract insect-eaters
Maximilian's Sunflower *Helianthus maximiliani*	PE	8 x 5				x	x		x	x	Yellow summer flowers, needs moderate water
Spotted Gayfeather *Liatris punctata*	PE	2 x 1				x		x	x	x	Purple or white flowers
Tahoka Daisy, Tansy Aster *Machaeranthera tanacetifolia*	AN	2 x 1				x	x	x	x	x	Easily propagated by seed
Blackfoot Daisy *Melampodium leucanthum*	PE	1 x 1.5				x			x	x	White flowers spring-fall, dies back in winter
Desert Four O'Clock *Mirabilis multiflora*	PE	2 x 4				x		x	x	x	Hummingbird/hawkmoth nectar, favored seeds
Tufted Evening Primrose *Oenothera caespitosa*	PE	1 x 2				x			x	x	White flowers late afternoon, spring-summer
Mexican Primrose *Oenothera speciosa*	PE	1 x 3				x			x	x	Pink spring flowers, seeds taken by many birds
Rock Penstemon *Penstemon baccharifolius*	PE	1.5 x 2				x		x	x	x	Great summer hummingbird flower
'Coral Baby' Penstemon *Penstemon barbatus* 'Coral Baby'	PE	1 x 1				x		x	x	x	Heat-tolerant selection of mountain native

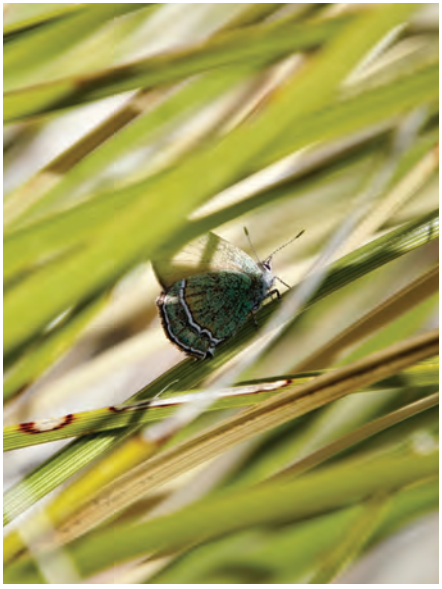
Common Name *Botanical Name*	Type	Mature Size (h x w)(ft)	Value to Birds & Wildlife								Comments
FORBS & SUBSHRUBS			Cover	Nest Sites	Fruits/Berries	Seeds/Nuts/Cones	Insects	Nectar	Attracts Butterflies	Attracts Bees	
Cardinal Penstemon *Penstemon cardinalis*	PE	1 x 1				x		x	x		Late spring deep red hummingbird flower
Firecracker Penstemon *Penstemon eatonii*	PE	1 x 1				x		x	x		Scarlet red spring hummingbird flower
Fendler's Penstemon *Penstemon fendleri*	PE	1 x 1				x		x	x	x	Purple flowers late spring-summer
Canyon Penstemon *Penstemon pseudospectabilis*	PE	1 x 2				x		x	x	x	Deep pink spring hummingbird flower
Superb Penstemon *Penstemon superbus*	PE	1 x 1				x		x	x		Tall spikes of coral red flowers early spring
Woolly Paperflower *Psilostrophe tagetina*	PE	2 x 2				x			x	x	Spring-summer yellow flowers
Mexican Hat *Ratibida columnifera*	PE	1.5 x 1				x			x	x	Summer flowers, can propagate by fall-sown seed
Autumn or Cherry Sage *Salvia greggii*	SS	2 x 3				x		x	x		Great spring and fall hummingbird plant

Copper Canyon Daisy *Tagetes lemmonii*	SS	3 x 3				x	x		x	x	Yellow-orange fall flowers
Angelita or Four-nerve Daisy *Tetraneuris acaulis*	PE	1 x 1.5				x			x	x	Nearly everblooming, goldfinches adore seeds
Golden Dogbane *Thymophylla pentachaeta*	PE	1 x 1				x	x		x	x	Golden flowers, butterfly nectar & host plant
Texas Creeping Oxeye, Zexmenia *Wedelia acapulcensis (W. texana)*	SS	3 x 3				x	x		x	x	Golden daisies spring-fall, prune damage early spring
Desert Zinnia *Zinnia acerosa*	PE	0.5 x 1				x			x	x	White spring flowers, again in summer and fall
Prairie Zinnia *Zinnia grandiflora*	PE	0.5 x 1				x			x	x	Yellow-orange late spring-fall flowers

Tahoka Daisy (*Machaeranthera tanacetifolia*; top) with Fiery Skipper, Rock Penstemon (*Penstemon baccharifolius*; middle), and Angelita Daisy (*Tetraneuris acaulis*; bottom) with syrphid fly. Photos by Jimmy Zabriskie.

Plant List - GRASSES

Common Name *Botanical Name*	Type	Mature Size (h x w)(ft)	Value to Birds & Wildlife								Comments
GRASSES			Cover	Nest Sites	Fruits/Berries	Seeds/Nuts/Cones	Insects	Nectar	Attracts Butterflies	Attracts Bees	
Sideoats Grama *Bouteloua curtipendula*	PE	2 x 2				x	x		x		Stems may be used for nesting material
Blue Grama *Bouteloua gracilis*	PE	1.5 x 1				x	x		x		Can be used as a turf grass
Bull Grass *Muhlenbergia emersleyi*	PE	3 x 3				x	x		x		Attractive seed plumes, seeds taken by many birds
Mexican Feather Grass *Nassella tenuissima (Stipa)*	PE	2 x 2				x	x				Fine-textured, thrashers use flower tufts in nests
Switchgrass *Panicum virgatum*	PE	5 x 5	x			x					Seeds taken by wide variety of birds
Little Bluestem *Schizachyrium scoparius (Andropogon)*	PE	2 x 1				x	x		x		Stems turn reddish brown in fall
Alkali Sacaton *Sporobolus airoides*	PE	2 x 2				x					Airy rosy to buff flower spikes in summer
Giant Sacaton *Sporobolus wrightii*	PE	4 x 4	x	x		x					6' feather-like panicles in late summer



Alkali Sacaton (*Sporobolus airoides*; above) is a drought tolerant summer grass that produces lots of tiny seeds for birds. Basket Grass (*Nolina texana*; below)—actually a succulent—is the host plant for New Mexico's official state butterfly, the Sandia Hairstreak. Photos by Rob Wu.

Common Name *Botanical Name*	Type	Mature Size (h x w)(ft)	Value to Birds & Wildlife								Comments
CACTI & SUCCULENTS			Cover	Nest Sites	Fruits/Berries	Seeds/Nuts/Cones	Insects	Nectar	Attracts Butterflies	Attracts Bees	
Lechuguilla, Shindagger *Agave lechuguilla*	SU	1.5 x 2					x	x	x	x	Forms offsets, 10' flower stalk after many years
New Mexico Agave *Agave parryi* ssp. *neomexicana*	SU	1.5 x 2		x			x	x	x	x	Forms offsets, showy 10' bloom after many years
Tree Cholla *Cylindropuntia imbricata*	CA	6 x 6	x	x	x					x	Fuchsia spring flowers, orange persistent fruits
Desert Christmas Cactus *Cylindropuntia leptocaulis*	CA	3 x 3	x		x					x	Valuable red fruits in winter for thrashers, others
Walkingstick Cholla *Cylindropuntia spinosior*	CA	5 x 4	x	x	x					x	Pink to rosy purple flowers, yellow-green fruits
Green Sotol *Dasylirion texanum*	SU	6 x 6	x			x					Stalks provide good lookout perches
Sotol, Desert Spoon *Dasylirion wheeleri*	SU	6 x 6	x			x					Stalks provide good lookout perches
Claretcup Cactus *Echinocereus coccineus*	CA	1 x 1.5				x	x	x	x	x	Red spring blooms draw hummingbirds
Red Yucca *Hesperaloe parviflora*	SU	3 x 3				x	x	x	x		Easy care, long-blooming hummingbird flowers
Bear Grass, Sacahuista *Nolina microcarpa*	SU	4 x 6	x			x			x		Cluster of tiny white flowers on central stalk
Basket Grass, Texas Sacahuista *Nolina texana*	SU	3 x 3	x			x			x		Greenish-white flowers on central stalk
Engelmann's Prickly Pear *Opuntia engelmanniana*	CA	5 x 8	x	x	x		x			x	Yellow or orange flowers, red fruits for thrashers
Purple Prickly Pear *Opuntia macrocentra*	CA	2 x 3	x		x		x			x	Pads turn purple in winter, yellow flowers
Santa Rita Prickly Pear *Opuntia santa-rita*	CA	4 x 6	x	x	x		x			x	Pads turn deep purple in winter
Banana Yucca *Yucca baccata*	SU	4 x 6	x		x	x		x	x		Short flower stalks, fleshy fruit
Soaptree Yucca *Yucca elata*	SU	10 x 6	x	x		x		x	x		Forms trunk, skirts used for nesting
Spanish Dagger *Yucca faxoniana*	SU	15 x 6	x	x		x		x	x		Forms trunk, skirts used for nesting
Thompson's Yucca *Yucca thompsoniana*	SU	6 x 4	x	x		x		x	x		Forms short trunk, large white flowers early summer
Torrey's Yucca *Yucca torreyi*	SU	10 x 4	x	x		x		x	x		Forms trunk, skirts used for nesting

New Mexico Agave (*Agave parryi* ssp. *neomexicana*; above L) grows for many years before putting up a tall stalk of blooms, setting fruit, and dying. Red Yucca (*Hesperaloe parviflora*; above R) provides nectar for a roving Rufous Hummingbird. Walkingstick Cholla (*Cylindropuntia spinosior*; below) provides dense cover and nesting sites for birds—such as Cactus Wrens—and also produces yellow-green fruit and rosy blooms. Photos by Jimmy Zabriskie.

Tip:

Wild Ones Native Garden Template for Las Cruces

Wild Ones promotes environmentally friendly and sound landscaping to preserve biodiversity through the preservation, restoration, and establishment of native plant communities by:

- providing free, educational resources and learning opportunities that are open to the public
- supporting the efforts of over 100+ local Wild Ones chapters and seedlings in 30 states
- publishing a quarterly, award-winning Journal for members featuring current native plant information and resources
- offering free, professionally designed native garden templates for multiple regions in the United States.

For a native garden design specifically tailored to the Las Cruces area, visit https://nativegardendesigns.wildones.org/ and select the design for **Las Cruces** by **David Cristiani**. The design is downloadable, and includes a plant list specific to our area as well as tips on phased installation, irrigation and water use, pruning, soils, mulch, etc.

Providing Supplemental Food *for Birds*

Broad-tailed Hummingbird. Photo by Jimmy Zabriskie.

Birds need nutritious food for all aspects of their daily life. Foods with adequate fat, protein, and carbohydrates are particularly important and will provide a dietary boost for birds that use your backyard for breeding, wintering, or as a stopover site during migration.

Supporting birds with native plants and associated insects is ideal because the food is fresh and direct from nature, dispersed (rather than bringing birds together at one spot), and less expensive and more sustainable should a property change hands. Nevertheless, providing supplemental food can attract a greater number of birds and additional species to your yard. Long-term drought, climate change, and habitat destruction have reduced the availability of natural food sources to birds throughout North America, and supplemental food can provide an extra source of nutrition and energy that is increasingly difficult to find in the natural environment.

These suet and thistle feeders in a mature mesquite tree are being used by a Cactus Wren (L) and Lesser Goldfinch (R) while a Curve-billed Thrasher (far L) and House Finch (far R) approach. Photo by Trish Cutler.

A variety of food types will attract the largest variety of bird species. As with your own food, the quality and freshness of food is important. Keep your feeders fresh and dry, throwing away any seed that becomes wet. Feeders should be emptied and sanitized on a regular basis to prevent disease transmission. While it's impossible to hang feeders in a way that will completely prevent predators from attacking birds, they should be placed away from ledges or branches that are easy access for cats. Placing them 10+ feet from low bushes or other ground cover will give birds a greater chance of seeing a predator and reacting in time to escape.

Pyrrhuloxia at post feeder.
Photo by Jimmy Zabriskie.

If you are successful in attracting birds to your backyard, you will likely attract natural bird predators—such as the Cooper's Hawk or Sharp-shinned Hawk—but rest assured that is a sure sign of a healthy habitat. Keep in mind, in addition to natural bird predators, supplemental food may attract other wildlife such as rodents, rabbits, or even javelinas.

Seed: Seed mixes are available from a variety of vendors, but quality can vary widely. Avoid stale, clumped, moldy, or bug-infested food. Steer clear of commercial mixes with large amounts of "filler" seeds that birds don't like to eat such as milo (a.k.a. sorghum) or wheat. High oil content seeds and nuts such as sunflower seeds, safflower seeds, and peanuts are most desirable. Black oil sunflower seeds are easier to crack open and contain more fat and calories than striped sunflower seeds. Some mixes include added calcium for stronger bones and eggshells.

Mixes designed for quail and doves typically include millet, corn, and hulled sunflower chips.

Tip:

If you want to feed quail, but don't want the local flock of doves to eat all of the food first, scatter the seed on the ground and rake through it with a rake. Quail will scratch to find the buried seed, while doves typically eat only what they can see on the surface.

Solid seed blocks placed on the ground seem ideal because they last longer than fillable feeders, but they have the disadvantage of bringing a lot of birds and other animals (such as

Cooper's Hawk feeding on a bird. Photo by Rob Wu.

squirrels, mice, skunks, foxes, or other predators) together in one place. If you use a block, avoid those with fillers such as milo or bound with molasses, which tends to bind seeds too strongly together.

Lincoln's Sparrow amid scattered Nyjer. Photo by Jimmy Zabriskie.

Black thistle, or Nyjer, is a great choice for finches, especially the charming Lesser Goldfinch. Place a thistle feeder in a tree where birds can land before flying to the feeder, but not close to branches that predators can easily access.

Suet: Suet is typically made of beef fat, lard, or peanut butter mixed with seeds, nuts, cornmeal, or dried fruit. It can be provided any time of year, but is commonly used in winter when natural food sources dwindle. As smaller birds peck at the suet, some will fall to the ground to be gobbled up by quail or doves. Suet can be purchased in pre-formed blocks or cylinders, or you can make your own version to smear on pine cones or tree bark. Suet that is soft or runny can adhere to belly feathers and interfere with egg incubation, so we recommend using only the solid "no-melt" formulas.

Nectar: Sugar water will attract hummingbirds and orioles to your yard. Keep an eye on local bird reports to determine the best dates to hang and take down your feeders. The standard recipe is a mixture of 1 part table sugar to 4 parts water. Do not add red dye; this is unnecessary and the dye is harmful to birds. Feeders designed specifically for orioles provide a large surface for them to land on. Always replace nectar that is turning moldy or cloudy. In our region during the summer, that will likely be every 3-5 days. Antibacterial additives that are safe for birds can be added to the nectar to keep it fresh for longer. Ant guards or water moats may be necessary to keep out unwanted insects. Feeder bases that are all red are less likely to attract bees.

Calliope Hummingbird. Photo by Jimmy Zabriskie.

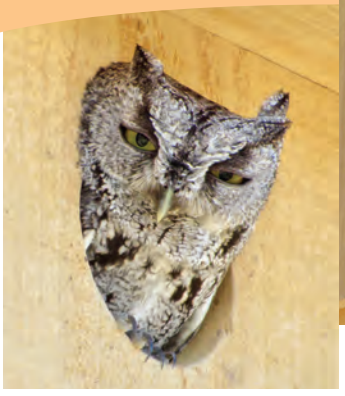
Fruit and Jelly: Orioles and finches will appreciate the provision of fresh slices of citrus (orange, grapefruit) or jelly. Orange or apple slices can be placed in a tree (skewered on thorns or branches) to be eaten before ants discover them. As with nectar feeders, ant guards or water moats may be necessary to prevent access by insects.

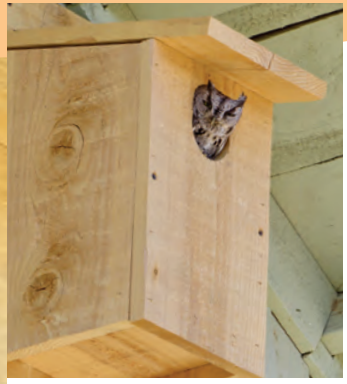
Mealworms: Mealworms are a good source of protein and fat, and in our area will be devoured by roadrunners, thrashers, wrens, mockingbirds, and a variety of other species. Squirrels and lizards will get in on the action, too. Compared to live mealworms, dried mealworms contain a greater percentage of protein, fat, and fiber, are easy to store, and are less expensive.

Bullock's Oriole indulging in some sweets. Photo by Jimmy Zabriskie.

Supplemental feeding can be expensive, so before you begin we recommend creating a plan that will fit your budget. What types of food will you provide, and where? How many feeders will you use, and how many times a day will you refill them? How often will you sanitize them? What unexpected wildlife might the food attract, and will that cause problems for you?

Nut Butters: Nut butters are an excellent source of protein and fat, and can be slathered on tree bark to attract woodpeckers and other birds. Choose butters without salt, or those formulated for birds. Avoid butters that are soft or oily, as they can stick to bird mouths or belly feathers. Mixtures that incorporate cornmeal are safer for birds, as they are typically less oily or sticky.





This Western Screech-Owl has made itself at home in a kestrel box. Photo by Rob Wu.

FYI:

A word or two about birdhouses:

Several species of birds in our area will nest and roost on ledges, on light fixtures, in cavities, or beneath the shaded alcoves of our homes. These may include White-winged Dove, House Finch, Say's Phoebe, Barn Swallow, European Starling, and House Sparrow. Most of these species (except for the European Starling and House Sparrow) are protected by the **Migratory Bird Treaty Act**, so please keep in mind that it is unlawful to disturb or destroy an active nest with eggs or nestlings.

Artificial birdhouses, however, aren't readily used by the native bird species in our area.

If you wish to provide an artificial nest box, it is important to know what species you are targeting, and to avoid placing it in direct sun where nestlings may overheat and die. They should also be placed out of the reach of predators.

Boxes designed for **American Kestrels** may be used by kestrels, flickers, or other bird species such as screech owls, wrens, thrashers, or flycatchers. For nest box plans as well as instructions on mounting and monitoring, see: https://kestrel.peregrinefund.org/nest-monitoring.

Barn Owls will readily use nest boxes, although again it's important to place them properly. Detailed plans and mounting instructions are provided by the **Santa Clara Valley Audubon Society:** https://scvas.org/build-a-barn-owl-box.

Remember that when nest boxes are used by native bird species, their nests are then protected by the Migratory Bird Treaty Act. It is important to consider that it is unlawful to disturb nests that become established in a nest box that you provide.

Common Backyard Birds

With the wide diversity of natural and manmade habitats in the Mesilla Valley and surrounding areas, coming up with a definitive list of bird species that are likely to be seen in any given backyard is next to impossible. Generally, such a list would include birds that are commonly seen in a variety of habitat types and observed most years, whether as visitors during migration or as year-round residents, but beyond that it gets trickier. Species common to some habitats are much less likely to pop up in others, such as river valley dwellers in the desert edges and vice versa, and complicating the matter is that birds do fly—and as such may turn up in the most unusual and unpredictable places!

Cedar Waxwing. Photo by Jimmy Zabriskie.

The following basic list narrows down the possibilities to bird species that are regularly

Facing Page: American Kestrel. Photo by Jimmy Zabriskie.
This page: Gambel's Quail. Photo by Rob Wu.

observed in or from backyards across much of the region. Species that are strongly associated with water, such as waterfowl, shorebirds, wading birds, and gulls; primarily flyover species like cranes and many raptors; and/or species largely confined to specific natural habitats like grasslands or mountains tend to be less commonly observed from most backyards and thus are not included here.

House Finch (L) and House Sparrow (R). Both species are common in urban environments; however, House Finch ranges broadly across habitat types—including elevations high and low as well as remote wilderness. Photos by Jimmy Zabriskie.

The more mature and varied the vegetation in a backyard habitat, the greater likelihood that these and other species will eventually make an appearance, along with rarer visitors that may make one's heart race faster. Such is the joy of living in this avian-rich corner of the world and the connectedness that comes from enhancing even a small sliver of habitat to support birds and other wildlife.

A few notes about the **Backyard Bird List:**

- Bird species are listed by **Common Name**. *Uncommon species are listed in italics.*
- **Seasons Present** code abbreviations are as follows:

Sp = Spring
Su = Summer
F = Fall
W = Winter
YR = Year-Round
( ) = Present but less common

Common Name	Seasons Present	Preferred Habitat(s)	Foods
Gambel's Quail	YR	Brushy desert edges, riparian thickets	Seeds, berries, leaves, grass blades; also insects, spiders, small reptiles
Rock Pigeon	YR	Cities, towns, farms	Berries, seeds, nuts; also food scraps
Eurasian Collared-Dove	YR	Small towns, residential areas, farms	Berries, seeds, nuts; also food scraps
Inca Dove	YR	Residential areas, farms, parks	Berries, seeds
White-winged Dove	YR	Cities, residential areas, pecan farms	Berries, seeds, nuts
Mourning Dove	YR	Open areas in low to middle elevations	Berries, seeds, nuts; also insects
Greater Roadrunner	YR	Deserts, grasslands, riparian areas, towns	Large insects, reptiles, rodents, scorpions; also mice, small birds, eggs
Lesser Nighthawk	Sp, Su	Desert washes, farms, ponds	Insects
Common Nighthawk	(Sp), Su	Grasslands, valleys	Insects
Common Poorwill	Sp, Su, (F)	Mesas, canyons, foothills, desert edges	Insects
White-throated Swift	Sp, Su, F, (W)	Cliffs, mountain canyons	Insects

Black-chinned Hummingbird	Sp, Su, (F)	Riparian woodlands, residential areas	Small insects, nectar
Calliope Hummingbird	Su, (F)	Breeds in mountain forests of Pacific NW	Small insects, nectar
Rufous Hummingbird	Su, F, (W)	Breeds in forest openings in Pacific NW	Small insects, nectar
Broad-tailed Hummingbird	(Sp), Su, F, (W)	Breeds in forests of western mountains	Small insects, nectar
Turkey Vulture	Sp, Su, F	Open areas, especially along highways	Carrion
Northern Harrier	F, W, Sp	Grasslands, marshes, desert edges	Rodents, reptiles, large insects, birds, frogs
Sharp-shinned Hawk	F, W, Sp	Mountain forests, riparian areas, towns	Small birds, rodents, lizards; also large insects
Cooper's Hawk	F, W, Sp, (Su)	Wooded habitats, riparian areas, towns	Birds, small mammals
Red-tailed Hawk	YR	Open habitats, mountains, cliffs, farms	Mammals, birds, reptiles
Swainson's Hawk	Sp, Su, F	Open areas, prairies, desert edges, farms	Large insects; also small mammals, birds
Barn Owl	YR	Open areas, especially farms, grasslands	Rodents, bats, rabbits; also birds, reptiles, amphibians

Common Name	Seasons Present	Preferred Habitat(s)	Foods
Great Horned Owl	YR	Wooded areas, canyons, deserts, towns	Many mammal species, birds
Red-naped Sapsucker	F, W, (Sp)	Breeds in forests of western mountains	Sap, bark cambium, insects, berries
Ladder-backed Woodpecker	YR	Desert edges, canyons, residential areas	Insects, cactus fruit, some berries
Northern Flicker	F, W, Sp	Riparian woods, farms, residential areas	Ants and other insects, berries, seeds
American Kestrel	YR	Open areas, desert edges, farms, towns	Large insects, small mammals, birds; also small reptiles, amphibians
Ash-throated Flycatcher	Sp, Su	Mesquite scrub, pinyon-juniper-oak	Insects, few berries; also small lizards
Western Kingbird	Sp, Su	Open areas, desert edges, farms, towns	Insects, few berries
Western Wood-Pewee	Sp, F	Open pine woodlands, edges	Insects, few berries
Black Phoebe	F, W, (Sp), (Su)	Open areas by permanent water	Insects, few berries
Say's Phoebe	YR	Desert edges, farms, towns	Insects, few berries

Bell's Vireo	Sp, Su	Brushy riparian habitat, mesquite thickets	Insects
Loggerhead Shrike	F, W	Grasslands, farms, mowed roadsides	Large insects; also small birds, lizards
Woodhouse's Scrub-Jay	(F), (W), (Sp)	Mid elevation pinyon-juniper-oak	Nuts, berries, seeds, large insects, lizards; also bird eggs, nestlings, frogs
American Crow	F, W, Sp	Parks, farms, especially pecan orchards	Waste grain, nuts, berries, large insects, toads; also reptiles, mice, bird eggs
Chihuahuan Raven	YR	Desert scrub, mesquite grassland, farms	Large insects, reptiles, toads, cactus fruit, berries; also carrion, birds, eggs, food scraps
Verdin	YR	Thorny desert scrub, dry washes	Insects, berries, nectar
Northern Rough-winged Swallow	Sp, Su	Riverbanks, bridges, culverts	Insects
Barn Swallow	Sp, Su, F	Open habitats, especially farms	Insects
Cliff Swallow	Sp, Su	Cliffs, overpasses, dams, culverts	Insects
Ruby-crowned Kinglet	F, W, Sp	Breeds in mountain forests	Insects, tree sap, few berries, seeds
Cedar Waxwing	(F), (W), Sp	Wood edges, parks, any fruiting trees	Berries, flower buds, insects

Common Name	Seasons Present	Preferred Habitat(s)	Foods
Phainopepla	Sp, (Su), (F), (W)	Riparian woods, brushy arroyos	Mostly berries, especially mistletoe, some insects
Red-breasted Nuthatch	F, W, (Sp)	Breeds in mountain coniferous forests	Insects, nuts, berries, seeds; also tree sap
Rock Wren	YR	Rocky cliffs, desert washes, canyons	Insects
Cactus Wren	YR	Desert scrub, especially chollas	Insects, cactus fruit, few berries, seeds
Bewick's Wren	F, W, Sp	Riparian thickets, mesquite scrub, borders	Insects
Curve-billed Thrasher	YR	Mesquites, chollas, riparian areas, towns	Insects, cactus fruit and seeds, berries
Crissal Thrasher	YR	Canyons, foothills, desert scrub	Insects, berries, seeds
Northern Mockingbird	Some YR	Shrubby open habitats, residential areas	Insects, earthworms, berries; also small lizards, snakes, frogs
European Starling	YR	Cities, towns, farms	Insects, berries, seeds; also food scraps
Western Bluebird	F, W	Breeds in open oak and pine woodlands	Insects, earthworms, berries

Hermit Thrush	F, W, Sp	Breeds in mountain coniferous forests	Insects, berries
American Robin	YR	Riparian woods, parks, residential areas	Insects, earthworms, berries
House Sparrow	YR	Cities, towns, farms	Seeds, grains, berries, buds, insects
House Finch	YR	Shrubby open habitats, farms, towns	Seeds, berries, buds, flowers, leaves; also insects during breeding season
Pine Siskin	F, W, Sp	Breeds in mountain coniferous forests	Seeds, buds, berries, nectar, tree sap, insects
Lesser Goldfinch	YR	Riparian woodlands, residential areas	Mostly seeds, buds, few insects
Black-throated Sparrow	YR	Desert scrub, dry slopes, mesquites	Seeds, grass, insects
Lark Sparrow	(Sp), (Su), F	Grasslands, roadsides, pinyon-juniper	Seeds, insects
Chipping Sparrow	(Su), F, (W), Sp	Breeds in mid elevation woodlands	Weed and grass seeds, insects
Brewer's Sparrow	F, W, Sp	Brushy habitats, roadsides in winter	Weed and grass seeds, insects
Dark-eyed Junco	F, W, Sp	Breeds in mountain forests	Weed and grass seeds, berries, insects

Common Name	Seasons Present	Preferred Habitat(s)	Foods
White-crowned Sparrow	F, W, Sp	Brushy desert edges, riparian thickets	Weed and grass seeds, berries, buds, insects
Lincoln's Sparrow	F, W, Sp	Brushy desert edges, riparian thickets	Weed and grass seeds, insects
Canyon Towhee	YR	Desert scrub, rocky hillsides, pinyon-juniper	Weed and grass seeds, berries, insects
Green-tailed Towhee	F, (W), Sp	Brushy slopes, arroyos, oaks, pinyon-juniper	Seeds, berries, insects
Spotted Towhee	F, (W), Sp, (Su)	Breeds in mid elevation riparian habitats	Seeds, berries, insects
Yellow-breasted Chat	Sp, Su, (F)	Dense streamside thickets, forest edges	Insects, berries
Yellow-headed Blackbird	F, W, Sp	Wetlands, farms, feedlots	Insects, weed and grass seeds, grains
Bullock's Oriole	Sp, Su	Wooded habitats, riparian areas	Insects, berries, nectar, seeds
Scott's Oriole	Sp, Su	Canyons, pinyon-juniper, mesquite desert	Insects, berries, cactus fruit, nectar
Red-winged Blackbird	YR	Wetlands, irrigated farms, alfalfa fields	Seeds, waste grain, berries, insects; also aquatic invertebrates

Brown-headed Cowbird	Sp, Su, (F)	Open woodlands, riparian areas, farms	Weed and grass seeds, insects
Brewer's Blackbird	F, W, Sp	Mountain meadows, fields, feedlots	Insects, seeds, waste grain, some berries
Great-tailed Grackle	YR	Cities, towns, parks, residential areas, farms	Insects, worms, tadpoles, some berries; also lizards, bird eggs, food scraps
Orange-crowned Warbler	F, W, Sp	Breeds in high mountain forests	Insects, few berries, nectar, sap
Yellow Warbler	Sp, F	Riparian thickets, marshes, gardens	Insects, few berries
MacGillivray's Warbler	Sp, F	Breeds in wooded mountain habitats	Insects
Common Yellowthroat	Sp, Su, F	Cattails, streamside thickets	Insects
Yellow-rumped Warbler	F, W, Sp	Breeds in mountain coniferous forests	Insects, few berries, sap
Wilson's Warbler	Sp, F	Brushy desert edges, riparian thickets	Insects
Summer Tanager	Sp, Su, F	Mature riparian woods	Insects, berries, nectar
Western Tanager	(Sp), Su, F	Breeds in mountain coniferous forests	Insects, berries, nectar

Backyard Bird List

Common Name	Seasons Present	Preferred Habitat(s)	Foods
Pyrrhuloxia	YR	Dense thickets, desert edges	Weed and grass seeds, flowers, berries, insects
Black-headed Grosbeak	Sp, (Su), F	Mature riparian woods, canyon groves	Insects, berries, seeds
Blue Grosbeak	Sp, Su, F	Weedy fields, wood edges, desert washes	Insects, seeds, especially bristlegrass

Brewer's Sparrows (above) and Blue Grosbeak (below). Photos by Rob Wu.

Clockwise from upper L: Inca Doves, Rufous Hummingbird, Ladder-backed Woodpecker, Dark-eyed Junco, Western Tanager, Yellow-breasted Chat, Ruby-crowned Kinglet, and Sharp-shinned Hawk. Photos by Jimmy Zabriskie.

Safety
Considerations

Genuinely welcoming birds and pollinators into your backyard habitat comes with an important responsibility to be as careful as possible to do no harm. That means taking steps to minimize existing dangers and to avoid creating unnatural hazards. Wild animals face enormous challenges that we have little direct control over, such as prolonged drought, catastrophic wildfires, severe weather events, and habitat loss from land development. Our aim in creating backyard habitat is to create a haven for them, providing beneficial options to the extent we are able, and the more of us that can do that the more meaningful our combined efforts will ultimately be.

Feral cat on the prowl. Photo by Rob Wu.

Free-Roaming Cats: It is all too easy to unwittingly provide an unsafe environment for birds by attracting them to a backyard where domestic animals prey on them. Outdoor cats kill billions of birds every year in the U.S. alone – one of the leading causes of bird population declines. While some dogs may kill birds, cats are much more efficient and impactful predators and can take a tremendous toll, particularly on young, nesting, and migrating birds that are especially vulnerable. If you have an outdoor pet that attacks birds, or live in an area frequented by feral cats, it is best not to attract birds to your backyard until the animals are contained. A "catio" (enclosed patio) is an excellent way to contain pet cats while still allowing them access to the outdoors. Here is a helpful and informative resource from the **Central New Mexico Audubon Society:** http://cnmas.newmexicoaudubon.org/conservation/cats-indoors/.

An enclosed patio—or "catio"—allows access to the outdoors while protecting wildlife. Photo by Whitby Jones.

A collision with a window left this print of a White-winged Dove. Photo by Rob Wu.

Windows: Windows are a common source of bird mortality, as birds may mistake reflections for the sky, trees, or other escape cover. The best way to address this problem is with screens covering the entire window, bird netting stretched across the window a few inches from the glass, or window markers such as **Feather Friendly** (https://www.featherfriendly.com/) that cover the entire surface of the window. If placing feeders near a window, try to set the feeder within 3 feet of the window to minimize risks of birds flying at high speeds into the window. For more ideas and information, please see https://www.audubon.org/news/reducing-collisions-glass.

Pesticides: The use of herbicides, insecticides, and rodenticides can have a negative effect on the pollinators and birds in your backyard. Even minute amounts of some chemicals are potentially fatal. Therefore, we recommend avoiding or minimizing their use whenever possible. Problem insects can often be controlled by hand-picking, a sharp hose stream, or a soap spray that is non-toxic to birds. Remember, birds and predatory insects will often help address many insect problems in time, particularly as your backyard habitat and its budding web of life develops. Non-chemical options to control unwanted weeds include manual removal (pulling or cutting), using a propane weed torch, or manual seed removal. If chemicals must be used, use one with a low toxicity to animals. We recommend contacting the county office of the **New Mexico Cooperative Extension Service's Pesticide Safety Education Program (PSEP)** for advice: https://pesticide.nmsu.edu/index.html.

Glue Traps: Glue traps used for insects or mice are inhumane, ineffective, and temporary, and can affect non-target animals, like wild

birds (which are protected by federal law) and pets. Instead, keep outdoor spaces clean by securing trash and bringing pet food inside to prevent unwanted wildlife disturbances around your home. All wildlife have an important role to play in our ecosystem. If you have questions regarding animal control, contact Las Cruces Animal Control, USDA Wildlife Services, or the NM Department of Game and Fish.

Disease: Bird feeders and water sources can contribute to the spread of disease among birds, including salmonellosis, trichomoniasis, pigeon paramyxovirus, avian pox, and others. The best way to prevent spreading disease is to clean your feeders and water sources regularly, avoid feeders (such as platform feeders) where birds defecate on the surface, and use multiple feeders to avoid crowding. The **National Audubon Society** recommends cleaning feeders every 2 weeks with a 10% bleach solution (9 parts water to 1 part bleach): https://www.audubon.org/news/three-easy-important-ways-keep-your-bird-feeder-disease-free.

Water: Water provided to birds should be shallow enough (2-3 inches) to prevent drowning, and

placing a rock in the center will help insects such as bees to climb out. Deeper water sources such as stock tanks or swimming pools should include a properly-designed escape ramp (see chapter in this book: ***Providing Supplemental Water for Birds***, p.9). Be cautious when flooding plant beds, as the desert cottontail leaves their precocial (helpless) young in well-hidden nests where the young are susceptible to drowning.

Uncapped Holes: Upright hollow fenceposts, or other pipes and supports, should be capped to prevent animals such as birds, insects, and lizards from falling in and becoming trapped. Birds often view these spaces as potential nest or roost sites, and can enter but are not able to escape. Other potential hazards include chimney openings and uncapped supports for solar panels. Survey your property for any potential hazards, and cap or screen any openings that you find.

Outdoor Lighting: Unshielded outdoor lighting is a common attractant to birds that migrate at night, especially during inclement weather. Birds may descend from migration and swirl around light sources, becoming exhausted or using up critical fat reserves needed for successful migration. Uncontrolled light can also negatively affect local bird, mammal, and insect populations

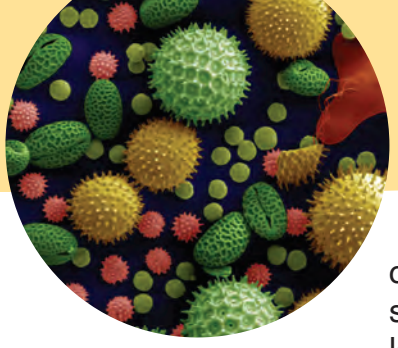
any time of year, and our ability to view the stars at night. The **International Dark-Sky Association** provides tips to limit your impact: https://www.darksky.org/light-pollution/light-pollution-solutions/.

High Voltage Electricity: If you find a dead bird beneath a power pole, please report it to the appropriate electric utility as soon as possible. Due to the Migratory Bird Treaty Act, they are required to retrofit the pole to make it safe for birds. If a utility fails to address the situation, you can contact the regional **U.S. Fish and Wildlife Service** office for assistance.

U.S. Fish and Wildlife Service
Southwest Region, Albuquerque
(505) 248-6911.

These LED lights are tilted up, which violates the City of Las Cruces lighting codes and causes sky glow that can impact nocturnal migrating birds. Photo by Trish Cutler.

Supporting Pollinators



Colorized image of pollen grains. Photo by Dartmouth Electron Microscope Facility.

Toltec scoliid wasp on Engelmann's Milkweed. Photo by Jimmy Zabriskie.

Global declines in many pollinator species have been well documented and publicized in recent years, which has spurred calls to action from concerned citizens and conservation organizations as well as from local, state, and, federal government entities. In fact, in 2015 the executive branch's **Pollinator Health Task Force** rolled out its **National Strategy to Promote the Health of Honey Bees and Other Pollinators**. The **Department of Defense (DoD)** has also issued policies and regulations in order to promote the support and enhancement of pollinator health in the interests of national security.

The good news is that enhancing our backyards to make them more attractive and habitable to birds will also provide significant benefits to other pollinator species. For instance, those penstemons that you planted for the hummingbirds will also provide nectar to locally occurring butterflies and bees. Other plants will serve as hosts for insect eggs and developing larvae. Similarly, the water enhancements that you added for the birds may also slake the thirst of countless butterflies, bees, and even bats.

FYI:

"Birds, bees, bats, and other pollinators are in significant decline across the country and around the world. Yet, nearly 80% of the world's crops require pollination, including fruits, vegetables, chocolate, and tequila. Without pollinators, there would be no tomato salads, no strawberry smoothies, no Hershey's Kisses™, and no margaritas. One out of every three mouthfuls of food we eat and beverages we drink is the result of pollinator activity. In the United States, insects pollinate crops that produce between $20 billion and $30 billion worth of products annually!"

—from **Dept. of Defense Environment, Safety and Occupational Health Network and Information Exchange (DENIX)** https://www.denix.osd.mil/nr/focus-areas/biodiversity/pollinators/index.html

Things you can do to support non-avian pollinator species…

Limit Pesticide Use: Keep in mind that pesticides don't discriminate between pollinators and pests: they harm both indiscriminately. So, when dealing with pests in your yard or garden, please consider the following:

- If you need to use pesticide, try to find something less toxic to non-target species that won't linger around on plants for long after application occurs. Also, limit application of pesticide to evenings, when many pollinators are not active.
- Use application methods that allow you to target specific problem areas or plants rather than a blanket application over a large area. Leave some buffer zones between areas of application and sensitive areas—such as water sources, sensitive species and habitats, and nectar sources.
- Encourage or even introduce native predators to combat garden pests. Simply planting a diverse garden with native plants is probably the best way to draw in natural predators, which is convenient because you're already doing that to draw in pollinators. To find out more about pest predators and other beneficial insects in our area, visit **Backyard Beneficial Insects in New Mexico**: https://pubs.nmsu.edu/_h/H172/.
- When possible, remove pests by hand, and accept that you'll always have some level of pest activity.

Provide Nesting Sites: Just like you might put up a birdhouse on your property, you may provide similar artificial housing for pollinators. Bat and bee boxes are options that involve easily obtainable materials (wood) and simple construction. For example, many solitary bees use openings in wood for their nests, so simply drilling a series of holes of various sizes in a block of wood will provide ready nesting potential for several species. See https://www.xerces.org/publications/fact-sheets/nests-for-native-bees.

Native lady beetles (Top) and tachinid flies (Bottom) are considered beneficial since they help manage garden pests. Photos by Rob Wu.

Angelita Daisy (*Tetraneuris acaulis*) will bloom thoughout the year. Photo by Jimmy Zabriskie.

Cultivate Plants for All Seasons: Our regional climate provides a long growing season, so it's not uncommon to see flowers active in our coldest months—as well as non-avian pollinators, such as bees and butterflies. To support these pollinators, we recommend planting a diverse garden consisting of plants whose flowering periods vary. For instance, Canyon Penstemon (*Penstemon pseudospectabilis*) flowers in spring while Rock Penstemon (*Penstemon baccharifolius*) will peak in the summer; Black Dalea (*Dalea frutescens*) blooms in fall; other plants, like Angelita Daisy (*Tetraneuris acaulis*), will have multiple blooming periods throughout the year.

Cultivate Plants Known to Support Specific Pollinators: While the beautiful and diverse garden that you are cultivating will benefit pollinators quite broadly, perhaps you may wish to target certain pollinators to support. For instance, the plight of the Monarch butterfly—whose numbers have experienced precipitous declines and whose migratory and wintering behavior make it particularly vulnerable to threats—has been widely publicized, inspiring many to contribute to the cause of conserving this inimitable species.

Monarch (L) and Queen (R; with bumble bee) butterflies use various species of milkweed as host plants for their eggs and larvae, but adults use a wide range of flowering plants as nectar sources, including the Blanketflower (*Gaillardia* sp.) seen here. Photos by Rob Wu.

A significant factor affecting Monarchs is thought to be the decline of host plants for these butterflies—namely wild milkweed species. To support Monarchs in your area, try to encourage native milkweeds in your garden. Although several types are locally native, most prefer moister conditions than most of us have—such as Horsetail Milkweed (*Asclepias subverticillata*)—

and/or are seldom available in the nursery trade, even as seeds. Engelmann's Milkweed (*Asclepias engelmanniana*) is somewhat more drought-tolerant but is dormant in early spring, when Monarchs are migrating northward, so not really useful to them (Some Monarchs breed in our area but are more commonly encountered during their fall migration southward.); it will, however, support the more common Queen butterflies, which also use milkweeds as hosts.

Aside from milkweeds, adult Monarchs and Queens use a wide range of plants as nectar sources, so you may also support them by cultivating a diverse native garden, including trees and shrubs that will provide roosting sites for residents and migrants. To learn more about New Mexico's butterflies, visit: https://peecnature.org/butterflies-of-new-mexico/.

Leave Some Wild Space: Humans have a tendency to seek out and impose order (our idea of order, that is) in our lives and on our surroundings. In doing so, we may subvert the natural order of things. For example, many people see a tidy, well-manicured lawn as the epitome of the domestic ideal; however,

Often an early spring emergent, the large and showy Mourning Cloak butterfly can live up to 10 months. Adults can go dormant in the cold of winter as well as hot, dry periods of summer. A female (R) is seen here laying eggs (inset) on a host plant—Black Willow (*Salix goodingii*)—in early spring when buds begin to form. Photos by Rob Wu.

potential pollinators in your garden might argue otherwise. For the many benefits of leaving leaves and other organic debris in your yard, see https://xerces.org/blog/leave-the-leaves.

One way to encourage pollinator species is to leave at least a small patch of wild area on your property. While you may want to eliminate known invasives or other noxious plants from this area, let it be for the most part, and allow some wild natives to flourish. Perhaps leave some dead or fallen wood there to provide natural nesting situations for potential pollinators and pest predators. You may find that wild plants growing there are especially attractive to pollinators, and perhaps you may transplant or collect seeds to introduce to your garden plots.

Appendices

Books for Further Reading

Cary, Steven J. *Butterfly Landscapes of New Mexico.* Albuquerque, NM: New Mexico Magazine, 2009.

Conrad Bender, Kelly. *Texas Wildscapes: Gardening for Wildlife, Texas A&M Nature Guides Edition.* College Station, TX: Texas A&M University Press, 2009.

Irish, Mary and Phillips, Judith. *Arizona & New Mexico Getting Started Garden Guide: Grow the Best Flowers, Shrubs, Trees, Vines & Groundcovers.* Beverly, MA: Cool Springs Press, 2014.

Mielke, Judy. *Native Plants for Southwestern Landscapes.* Austin, TX: University of Texas Press, 1993.

Oxford Miller, George. *Landscaping with Native Plants of the Southwest.* Minneapolis, MN: Voyageur Press, 2007.

Phillips, Judith. *Plants for Natural Gardens.* Santa Fe, NM: Museum of New Mexico Press, 1995.

Phillips, Judith. *Southwestern Landscaping with Native Plants.* Santa Fe, NM: The Museum of New Mexico Press, 1987.

Scott, Marcy. *Hummingbird Plants of the Southwest.* Tucson, AZ: Rio Nuevo Publishers, 2015.

Tallamy, Douglas. *Bringing Nature Home*. Portland, OR: Timber Press, 2009.

Xerces Society. *100 Plants to Feed the Bees.* North Adams, MA, Storey Publishing, LLC, 2016.

Xerces Society. *Attracting Native Pollinators.* North Adams, MA, Storey Publishing, LLC, 2011.

Websites

Native Plant Resources:

Robledo Vista Nursery
General Watering Guidelines
http://www.robledovista.com/info.html

Wild Ones
Native Garden Template
https://nativegardendesigns.wildones.org/

Bird Conservation and General Info:

Mesilla Valley Audubon Society
https://www.mvasaudubon.org

Santa Clara Valley Audubon Society
Cavity Nesters Recovery Pogram (CNRP)
Build a Barn Owl Box
https://scvas.org/build-a-barn-owl-box

Safety:

Central New Mexico Audubon Society
Cats Indoors Campaign
http://cnmas.newmexicoaudubon.org/conservation/cats-indoors/

Feather Friendly
https://www.featherfriendly.com/

National Audubon Society
Reducing Collisions with Glass
https://www.audubon.org/news/reducing-collisions-glass

Three Easy but Important Ways to Keep Your Bird Feeder Disease-Free
https://www.audubon.org/news/three-easy-important-ways-keep-your-bird-feeder-disease-free

New Mexico Cooperative Extension Service
Pesticide Safety Education Program (PSEP)
https://pesticide.nmsu.edu/index.html

The Peregrine Fund
Installing American Kestrel Nest Boxes
https://kestrel.peregrinefund.org/nest-monitoring

International Dark-Sky Association
Light Pollution Solutions
https://www.darksky.org/light-pollution/light-pollution-solutions/

Appendices

Pollinators:

Dept. of Defense Environment, Safety and Occupational Health Network and Information Exchange (DENIX)

Pollinators
https://www.denix.osd.mil/nr/focus-areas/biodiversity/pollinators/index.html

College of Agricultural, Consumer and Environmental Sciences (ACES), New Mexico State University (NMSU)

Backyard Beneficial Insects in New Mexico
https://pubs.nmsu.edu/_h/H172

Pajarito Environmental Education Center (PEEC)

Butterflies of New Mexico
https://peecnature.org/butterflies-of-new-mexico/

Xerces Society for Invertebrate Conservation

Nests for Native Bees
https://www.xerces.org/publications/fact-sheets/nests-for-native-bees

Leave the Leaves
https://xerces.org/blog/leave-the-leaves

Facing page: Adult female (top) and male Red-winged Blackbirds. Photo by Rob Wu.

epicollect5

We are excited about creating a network of backyard habitats for birds, pollinators, and other wildlife for southern New Mexico! We encourage you to enter your backyard habitat into our **Epicollect** project ***Backyards for Birds and Pollinators in Southern NM*** so that we can document the expansion of habitats throughout our area!

Please note that we will not ask you to provide any personal information on our data form.

However, it will be helpful to be prepared with the following information about your backyard habitat:

- number of acres
- list of plant and bird species
- number of water sources
- types of artificial food sources provided

To participate…***The app is completely free!***

1. Download your *FREE* copy of the latest **Epicollect app** to your smart device. *Note that there may be a later version of the app by the time you enter your data, but the app version is not important.*

Download on the App Store

GET IT ON Google Play

2. Open the app, and click on **+Add project**. Search for the project titled ***Backyards for Birds and Pollinators in Southern NM***, and select it.
3. You should now see the project listed on the **Projects** page of the app. Select it, and then select **+ Add entry** to begin entering your data.
4. When you have completed the form, **Save** your entry and then upload it so that the **Project Manage**r will be able to view it. If needed, you can edit your entry before uploading it.
5. To view your backyard within the network of other habitats, you can view the project online at https://five.epicollect.net/project/backyards-for-birds-and-pollinators-in-southern-nm.
6. Please contact the Project Manager at **nmbackyardhabitats@gmail.com** if you need any assistance.

About the Authors

Marcy Scott is an avid birder, habitat garden consultant, and author of *Hummingbird Plants of the Southwest* (Rio Nuevo Publishers, 2015). She co-authored the Doña Ana County chapter of *New Mexico Bird Finding Guide*, 4th edition (New Mexico Ornithological Society, 2022). Along with her landscape-designer husband, Jimmy Zabriskie, she operates Robledo Vista Nursery north of Las Cruces, specializing in regionally native landscape plants for birds and wildlife habitat.Together they have gradually developed a mini-refuge on their sliver of property along the Rio Grande.

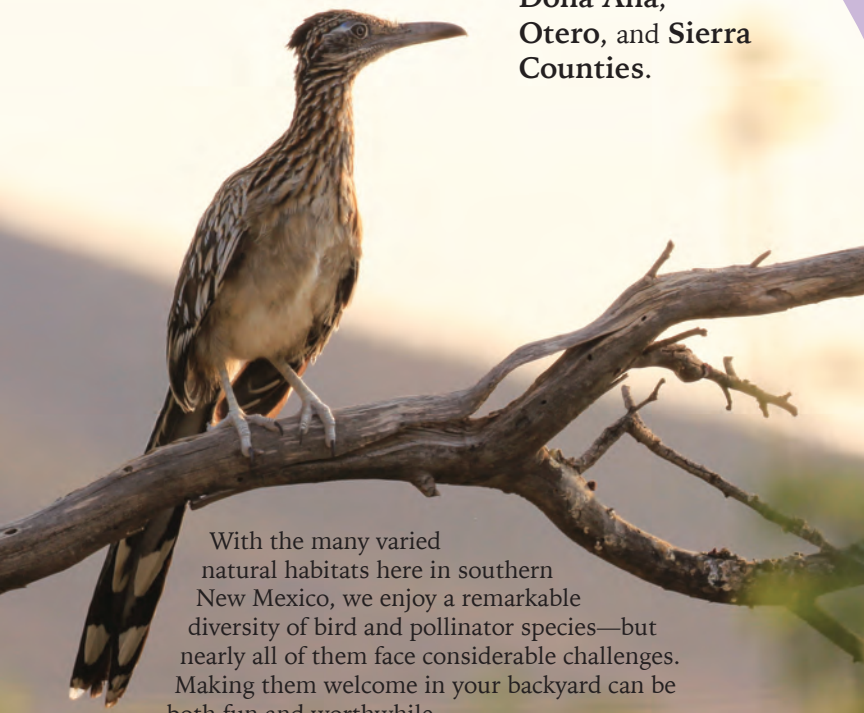
Trish Cutler has been a wildlife biologist at White Sands Missile Range for 20 years, and before that she worked as a biologist for Naval Facilities Engineering Command Southwest in San Diego. She is on the Steering Committee of DoD Partners in Flight and New Mexico Avian Conservation Partners. She currently serves as the Conservation Chair of the Mesilla Valley Audubon Society. Trish is enthusiastic about the potential for a thriving network of native backyard wildlife sanctuaries to sustain pollinators, birds, and other wildlife now and into the future.

Rob Wu has lived and worked in three of four U.S. deserts (Chihuahuan, Sonoran, Mojave) since the early 2000s. Now based in the Las Cruces area, he works as a consultant in natural resources management. He spends much of his work and free time in the outdoors, preferably in the middle of nowhere—chasing a bat, a bird, a butterfly or something—and just taking way too many photos.

Learn the key elements for creating habitats that support birds and pollinators.

Regional coverage of this book includes:

- **Las Cruces** and the **Mesilla Valley**
- **Hatch Valley**
- **Jornada Del Muerto**
- **Tularosa Valley**
- **White Sands Missile Range Main Post**
- **Alamogordo**
- **Truth or Consequences**
- and other valley and foothills locations in **Doña Ana, Otero**, and **Sierra Counties.**



With the many varied natural habitats here in southern New Mexico, we enjoy a remarkable diversity of bird and pollinator species—but nearly all of them face considerable challenges. Making them welcome in your backyard can be both fun and worthwhile.