

## **Federal Agency Approvals Required**

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Federal law requires conservation programs for all listed endangered and threatened species and their habitats. This requirement can affect all federal agencies.

- Consultations are partnerships between the Fish and Wildlife Service and federal agencies. Federal law requires all federal agencies to participate in conserving listed species, stipulating that agency activities must not be "likely to jeopardize the continued existence of listed species or adversely modify designated critical habitats." Consultations can involve recovering the habitats of listed species, addressing threats to listed species from federal programs or actions, and coordinating projects and resources between federal agencies. Examples of federal activities that require consultations include oil and natural gas drilling on federal land, offshore drilling in areas owned by the federal government, and oil and gas activities affecting wetlands or other waters of the United States.
- Recovery is a process to halt the decline of endangered or threatened populations by removing or reducing threats. In its recovery efforts, the Fish and Wildlife Service collaborates with federal, state, and local agencies, as well as conservation groups, businesses, private individuals, and volunteers. According to the Fish and Wildlife Service, recovery plans are implemented "to stabilize, recover, and ultimately delist" threatened and endangered species.

## **Potentially endangered/threatened species in the Tombstone MOA**

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### **Key ESA-Listed Species in the Tombstone MOA**

- Chiricahua Leopard Frog; Mexican Spotted Owl; Twin Spot Rattlesnake; Jaguar; Mexican long-tongued bat; ocelot; Mexican gray wolf; American bison; pronghorn antelope; black-tailed prairie dog; Gila topminnow; green ratsnake; night-blooming cereus.
- For a complete list of all sensitive or endangered species in the Douglas Ranger District, see below.

## Sensitive Animal & Plant Species known to or suspected to occur on the Douglas Ranger District of the Coronado National Forest

Name	Description	EMA; Findings
<b>Amphibians</b>		
Lowland leopard frog <i>Rana yavapaiensis</i>	Restricted to lentic and lotic water systems in the Cloverdale area; stock tanks, stock ponds, etc.	Peloncillo; Species is not known to occur or have habitat on or near the project area, though they may occur elsewhere on the District.
<b>Birds</b>		
Northern Goshawk <i>Accipiter gentilis</i>	Ponderosa pine, Apache Pine, or mixed conifer forests, including some riparian habitats; 4,750-9,120 ft.	All
Violet-crowned hummingbird <i>Amazilia violiceps</i>	Guadalupe Canyon (Peloncillos); Cave Creek; Riparian woodlands--sycamore and some cottonwood-willow along several canyons and creeks; 2800-5500 ft	Peloncillo Chiricahua
Baird's sparrow <i>Ammodramus bairdii</i>	Dense stands of grass, usually in extensive expanses of grasslands; taller, denser grass; south-facing slopes of mixed-oak grasslands where oaks are on the north slope; 4140-4900 ft	All
Arizona grasshopper sparrow <i>Ammodramus savannarum ammoregus</i>	Large expanses of intermediate height grass for nesting; grasslands often include some low, woody shrub component like mesquite and mimosa; nearly 75% ungrazed grass cover, 5% woody cover, and about 20% bare ground; 3800-5300 feet	Peloncillo Chiricahua
Gray hawk <i>Asturina nitida maximus</i>	Riparian woodlands with large trees (cottonwoods), usually near mesquite forest; mostly Sonoran Riparian Deciduous Forest and Woodlands and lesser extent Madrean Evergreen Woodland	Peloncillo
Common black-hawk <i>Buteogallus anthracinus</i>		All
Lucifer hummingbird <i>Calothorax lucifer</i>	Prefer open, arid landscapes, especially with scattered flowering plants such as agave, yucca, ocotillo, penstemon, and paintbrush	Peloncillo Chiricahua
Northern beardless-tyrannulet <i>Camptostoma imberbe</i>	Fairly open riparian woodlands, including lower canyons and heavily wooded dry washes; surface water frequently found near occupied sites, but not a requirement; cottonwood, willow stands and understory of mesquite and locally tamarisk	Peloncillo
Western yellow billed cuckoo <i>Coccyzus americanus occidentalis</i>	See biological assessment.	All
Broad-billed hummingbird <i>Cynanthus latirostris</i>	Perennial drainages dominated by cottonwood and sycamore; at higher elevations found in foothill and canyon bottoms with sycamore, AZ walnut, alligator juniper, and oaks; lower elevations cottonwood, willow, or mesquite dominated woodlands along drainages, lakes, ponds, and springs.	All

Name	Description	EMA; Findings
Northern buff-breasted flycatcher <i>Empidonax fulvifrons pygmaeus</i>	Open stands of pine (especially ponderosa and Chiricahua) or sycamore with bare, weedy, or grassy understory areas; riparian vegetation; does not tolerate dense vegetation 5720-8625	Peloncillo Chiricahua
Eared quetzal <i>Euptilotis neoxenus</i>	Madrean pine-oak woodlands and adjacent cool drainages and canyons with various species of pine, Douglas-fir, evergreen oak, juniper, madrone, maple, and scattered sycamore.	Peloncillo Chiricahua
American peregrine falcon <i>Falco peregrinus anatum</i>	Near cliffs that support sufficient abundance of prey; steep, sheer cliffs overlooking woodlands, riparian areas or other habitats supporting avian prey species in abundance; presence of open expanse is critical	All
White-eared hummingbird <i>Hylocharis leucotis</i>	Pine-oak, oak, and pine-evergreen forests, and are also found in clearings filled with flowers; lower and middle levels of the forest where they are particularly common near banks of low flowers	All
Gould's wild turkey <i>Meleagris gallopavo mexicana</i>	Evergreen oak woodlands, Madrean pine-oak forests, and sycamore dominated drainages; 3800-9300 ft.	Peloncillo Chiricahua
Whiskered screech owl <i>Otus trichopsis</i>	5,000-8,000 feet; primarily mixed conifer, pine, and pine-oak habitats, but also occur locally in woodlands of pinyon-juniper, oak and cypress.	Peloncillo Chiricahua
Varied bunting <i>Passerina versicolor</i>	Brushy arid slopes, canyons, and dry washes; most common along drainage edges containing mesquite and netleaf hackberry or with or without a scattering of cottonwood, willow, ash, or sycamore; 1350-5100 ft	Peloncillo Chiricahua
Abert's towhee <i>Pipilo aberti</i>	Understory is dense and the soil is often damp; riparian thickets of cottonwood, willow, seepwillow, and mesquite; dense growth adjacent desert dry washes that empty into the wetter drainages	All
Thick-billed kingbird <i>Tyrannus crassirostris</i>	Guadalupe Canyon (Peloncillos); Deciduous riparian woodlands in semi-arid canyons; 3000-6500 ft; mixed groves of sycamores and cottonwoods, while adjoining slopes are covered by oak-pine woodland or mesquite-grasslands	Peloncillo Chiricahua
<b>Fish</b>		
Longfin dace <i>Agosia chrysogaster</i>		Chiricahua
Mexican stoneroller <i>Campostoma ornatum</i>		Chiricahua
<b>Insects</b>		
Chiricahua water scavenger beetle <i>Cymbiodyta arizonica</i>	Larvae and adults are aquatic, most often along water's edge; pupation occurs in moist soil along water's edge; most likely creeks although may occur in other shallow habitats including shallows of lakes, temporal pools, etc	Chiricahua
Arizona snaketail <i>Ophiogomphus arizonicus</i>		Chiricahua
Four spotted skipperling <i>Piruna polingii</i>	Moist woodland openings with lush vegetation, meadows, ravines, and stream sides in the mountains	Chiricahua
<b>Mammals</b>		
Northern pygmy mouse <i>Baiomys taylori ater</i>	Variety of habitats with dense ground cover	All

Name	Description	EMA; Findings
Mexican long-tongued bat <i>Choeronycteris mexicana</i>	Mesic areas in canyons of mixed oak-conifer forests in mountains rising from the desert; caves and abandoned mines; 2540-7320 ft but most from 4000-6000 ft.	All; Species is not known to have roost habitat on or near the project area, though they may occur elsewhere on the District
Pale Townsend's big-eared bat <i>Corynorhinus townsendii pallescens</i>	Caves and mines from desert scrub up to woodlands and coniferous forests; usually above 3000 ft.	All; Species is not known to have roost habitat on or near the project area, though they may occur elsewhere on the District.
Greater western mastiff bat <i>Eumops perotis californicus</i>	Arid and semiarid, rocky canyon country habitats in the Chihuahuan desert; roosts in crevices and shallow caves on the sides of cliffs and rock walls, and occasionally buildings	All
Allen's lappet-browed bat <i>Idionycteris phyllotis</i>	Ponderosa pine, pinyon-juniper, pine-oak woodland, and riparian habitats above 3,000 ft	Chiricahua
Western red bat <i>Lasiurus blossevillii</i>	Riparian and wooded areas; roost in tree foliage, sometimes in leafy shrubs or herbs; primarily roosts in cottonwood trees; 1900-7200 ft	Peloncillo Chiricahua
Western yellow bat <i>Lasiurus xanthinus</i>	Currently in Cave Creek; Extant in Silver Creek (Chiricahuas) and Guadalupe Canyon (Peloncillos); historically in Herb Martyr, SWRS (Chiricahuas) and Hay Hollow Creek (Peloncillos); leafy vegetation such as sycamores, hackberries and cottonwoods; 550-6000 ft	Peloncillo Chiricahua
White-sided jack rabbit <i>Lepus callotis</i>		Peloncillo
California leaf-nosed bat <i>Macrotus californicus</i>		Dragoon
Hooded skunk <i>Mephitis macroura milleri</i>	Rocky ledges or canyons and areas adjacent to streams; in AZ prefers intermediate elevations above deserts but not in highest mountains	All
White-nosed coati <i>Nasua narica</i>	Encinal and Mexican pine-oak woodlands from 4600-7600 ft	All
Cockrum's desert shrew <i>Notiosorex cockrumi</i>	Found in arid areas having adequate cover for resting and nesting; deserts; semiarid grasslands with scattered cactus and yucca; chaparral slopes; alluvial fans; sagebrush; gullies; juniper woodland; riparian associations	Chiricahua
Pocket free-tailed bat <i>Nyctinomops femorosaccus</i>		All
Chiricahua fox squirrel <i>Sciurus nayaritensis chiracahuae</i>	Partially open Apache pine-oak forest with mixed broadleaf deciduous trees, mainly in the thick growth of canyon bottoms; avoids the oak-covered slopes, except when acorns are numerous; 5280-8400 ft	Chiricahua

Name	Description	EMA; Findings
Yellow-nosed cotton rat <i>Sigmodon ochrognathus</i>	Grassy slopes in oak-pine woodlands, and montane meadows within Ponderosa Pine and Douglas fir forests; often associated with rocks	Chiricahua
Arizona shrew <i>Sorex arizonae</i>	Range and habitat needs not clearly known, Usually in close proximity to surface water; interior riparian forest; 5165-9200 ft	Chiricahua
<b>Reptiles</b>		
Giant spotted whiptail <i>Aspidoscelis burti stictogrammus</i>	Mountain canyons, arroyos, and mesas in arid and semi-arid regions entering lowland desert along stream courses. Found in dense shrubby vegetation, often among rocks near permanent and intermittent streams. Open areas of bunch grass within these riparian habitats; up to 4500 ft.	All
Twin spotted rattlesnake <i>Crotalus pricei</i>	Chiricahua, Pinaleno, Huachua, Santa Ritas; Petran subalpine conifer forest and Petran montane conifer forest; most often in taluses and rocky outcrops but it is also common in relatively flat, rockless, open forest; 6000-11,000	Chiricahua
Arizona ridge-nosed rattlesnake <i>Crotalus willardi willardi</i>		Chiricahua
Mountain skink <i>Eumeces callicephalus</i>	Madrean evergreen woodland and upper reaches of adjoining semi-desert grasslands; often found under rocks, logs, and other surface cover in moist areas such as riparian corridors, rocky canyon bottoms, and grassy hillsides; 3500-6500	Peloncillo
Reticulate Gila monster <i>Heloderma suspectum suspectum</i>	Desert scrub into lower reaches of Great Basin conifer woodlands and Madrean evergreen woodlands; rocky bajadas, hillsides, and in mountainous terrain; up to 5,500 ft	
Slevins bunchgrass lizard <i>Sceloporus slevini</i>	Primarily coniferous forest up to 10,000 ft; rarely desert-grassland. Found on the ground in and among bunchgrass; 4300-9480 ft	
Green ratsnake <i>Senticolis triaspis</i>	Primarily in Madrean evergreen woodland and the upper reaches of adjoining semidesert grasslands; often encountered on relatively exposed, steep, rocky slopes, and along drainages at the base of such slopes; 3600-8000 ft	
Yaqui black-headed snake <i>Tantilla yaquia</i>	Madrean evergreen woodland and semidesert grasslands; usually found in rocky, wooded canyons and on neighboring slopes; 3300-6000 ft	
<b>Plants</b>		
Chiricahua rockcress <i>Arabis tricornuta</i>	Found between 6,000 and 8,840 feet on steep and rock slopes in the understory with pine, and on road banks.	
Lemmon milkweed <i>Asclepias lemmonii</i>	Mountains in canyons, roadsides, and open woodlands; 5500-7000 ft	
Maguire's (coppermine) milkvetch <i>Astragalus cobrensis var. maguirei</i>	Shady canyons (near stream bottoms) and lower ledges both in full sun (often on rocky soils) and in the shade (found on more organic soils composed of leaf litter); 5500-7000 ft possibly up to 9000 ft	
Chihuahuan sedge <i>Carex chihuahuensis</i>	Damp sand, mud, among rocks, streambeds; colluvial slope overlain by boulders, sediment, or granite bedrock and underlain by alluvium; 1109-8000 ft	

Name	Description	EMA; Findings
Cochise sedge <i>Carex ultra</i>	Moist soil near perennially wet springs and streams: undulating rocky-gravelly terrain. 2040-6000 feet	
Trans-pecos Indian paintbrush <i>Castilleja nervata</i>	Rocky slopes with grassy openings, oak to pine-oak or pine woods, rarely in pine fir; 4,200 to 9,640 ft	
Arid throne fleabane <i>Erigeron arisolius</i>	Grasslands and areas of oak woodlands, in grassy openings or on roadsides; often moist areas; typically 4265-5413	
Chiricahua fleabane <i>Erigeron kuschei</i>	Within pine and mixed-conifer forest on shaded, north-facing cliffs and rock ledges carpeted with moss; 6875-9360 ft	
Wislizeni Gentian <i>Gentianella wislizeni</i>	Open meadows, roadsides, and steep unstable slopes in pine-oak and mixed-conifer forests; 6880-9600 ft	
Arizona alum root <i>Heuchera glomerulata</i>	Found in shaded rocky slopes in humus soil near seeps, streams, and riparian areas.	
Arizona coralroot <i>Hexalectris spicata</i> var. <i>arizonica</i>	In heavy leaf litter in oak, pine, or juniper woodlands over limestone; 5300-6560 ft	
Rusby hawkweed <i>Hieracium rusbyi</i>	Mixed conifer forests above 8,000 feet	
New Mexico bitterweed <i>Hymenoxys ambigens</i> var. <i>neomexicana</i>	Rocky to sandy granitic soils on open canyon floors or slopes; oak woodland, Apache pine forests or along intermittent streamsides with Arizona cypress, Arizona walnut, and Arizona sycamore; 5400-7250 ft	Peloncillo
Lemon lily <i>Lilium parryi</i>	Mesic, shady canyon bottoms along perennial streams or adjacent hillside springs. Sandy soil is high in organic material and remains saturated or nearly so, year-round. 5,500-7,800 feet.	
Chiricahua mudwort <i>Limosella pubiflora</i>	Muddy edges of ponds and perhaps streams; 5000-6500 ft	
Lemmon's lupine <i>Lupinus lemmonii</i>	Open grassland, juniper, and oak communities at 4,000-7,300 feet.	
Catalina beardtongue <i>Penstemon discolor</i>	Occurs in soil pockets of bare rock outcrops in chaparral or pine-oak communities.	
Chiracahua rockdaisy <i>Perityle cochisensis</i>	Endemic to rhyolite cliffs.	Chiricahua
Hinckley's polemonium <i>Polemonium pauciflorum</i> ssp. <i>hinckleyi</i>	Occurs in Ponderosa pine and oak forests up to Douglas and white fir forests in various habitats with moderate disturbance; 6800-9500 ft	
Blumer's dock <i>Rumex orthoneurus</i>	Mid- to high-elevation wetlands with moist, organic soil adjacent to perennial springs or streams in canyons or meadows; 4480-9660 ft	
Chiricahua mountain brookweed <i>Samolus vagans</i>	Springs, seeps, and in and along streams; 4000-7200 ft	
Huachuca groundsel <i>Senecio multidentatus</i> var. <i>huachucanus</i>	Intermediate disturbance on steep, rocky high elevation mountain slopes and in canyon bottoms within pine-oak or mixed-conifer dominated forests; typically occurs in areas with a patchy matrix of moderate canopy cover and small openings; 7000-9500 ft	
Toumey groundsel <i>Senecio neomexicana</i> var. <i>tourmeyii</i>	Huachuca and Chiricahua Mts; most common in oak chaparral and sometimes in pine forests; 5500-9000 ft	
Nodding blue-eyed grass <i>Sisyrinchium cernuum</i>	Along streams in partial shade; canyons bottoms; wet soil by seeps, pools and springs in desert scrub; also found on sandy stream banks; 3300-8000 ft	

Name	Description	EMA; Findings
Porsild's starwort <i>Stellaria porsildii</i>	Grows in partly shaded understory of mixed conifer or aspen at 7,000-8,200 feet.	
Pinos Altos flame flower <i>Talinum humile</i>	Dry, shallow, gravelly, well-drained, rhyolitic soil terraces, often overlying bedrock. Known populations occur in semi-desert grassland/Madrean evergreen woodland transition communities in AZ. 6000-8000 feet; 5100 feet in AZ; Falk, Jenkins et al. report elevation range from 4000-5000 feet	Peloncillo
Shade violet <i>Viola umbraticola</i>	Shady areas in canyon bottoms, usually within riparian ponderosa pine forest; 5200-7500 ft	