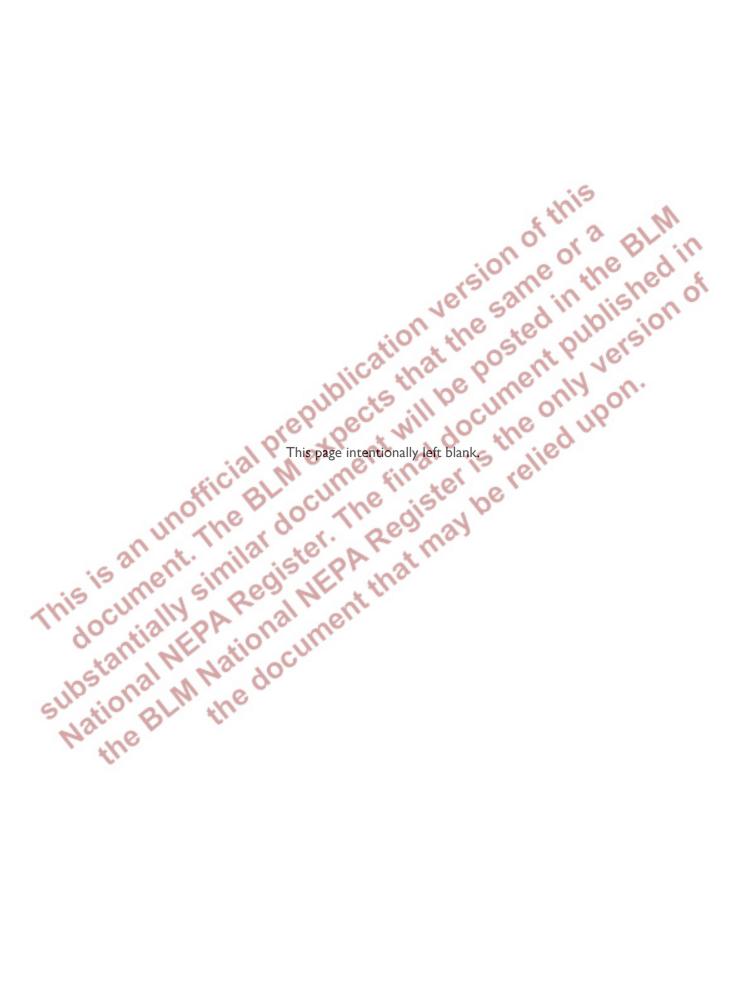


## Appendix II

Special Status Species



## **Appendix II. Special Status Species**

Taxa	Common Name	Scientific Name	Preferred Habitat
Amphibians	Great Plains toad	Anaxyrus cognatus	Great Plains toads inhabit deserts, grasslands, semidesert shrublands, open floodplains, and agricultural areas, typically in stream valleys. When not active on the surface they usually occupy underground burrows. Breeding sites include rain pools, flooded areas, and ponds and reservoirs that fluctuate in size. Eggs and larvae develop in shallow water (usually clear). Calling males sit along the shoreline or brace themselves on submerged plants.
Amphibians	Dixie Valle toad	Anaxyrus williamsi ssp.	Found in springs, seeps, streams, and similar inundated areas. Presently thought to be endemic to Dixie Valley and potentially a distinct species of western toad.
Amphibians	Woodhouse's toad	Anaxyrus woodhousii  Batrachosebs cambi	Inhabits grasslands, desert and semi-desert shrublands, river valleys and floodplains, and agricultural areas, usually in areas with deep friable soils. When inactive, they burrow underground or hide under rocks, plants, or other cover. These toads live on land except during the brief breeding season. Breeding occurs in marshes, rain pools, ponds, lakes, reservoirs, flooded areas, stream pools or backwaters, and other bodies of water with a shallow margin lacking a strong current, including both permanent and temporary pools, generally in sites with few if any fishes.
Amphibians	Inyo Mountains slender salamander  Plains leopard frog  Couch's spadefoot	Batrachoseps campi	These salamanders occur localized in mesic microhabitats along small permanent desert springs and seeps with riparian vegetation; generally under stones, wood, or in holes or crevices in moist soil near spring seepages and pools; vegetation along water courses consists of willows and wild rose; surrounding slopes are arid, grown to sagebrush, buckwheat, rabbitbrush, and cactus.
Amphibians	Plains leopard frog	Lithobates blairi	Usually in the vicinity of streams, ponds, creek pools, reservoirs, irrigation ditches, and marshes in areas of prairie and desert grassland, farmland, and prairie canyons.
Amphibians	Couch's spadefoot	Scaphiopus couchii	Habitat includes arid and semi-arid shrublands, shortgrass plains, mesquite savanna, creosote bush desert, thornforest, cultivated areas, and tropical deciduous forest (Mexico). These toads spend most of their time underground or in rodent burrows, except when rains stimulate activity and bring them to the surface. Females attach eggs to vegetation in shallow ephemeral water resulting from heavy rains.

Taxa	Common Name	Scientific Name	Preferred Habitat
Amphibians	Western spadefoot	Spea hammondii	This species lives in a wide range of habitats; lowlands to foothills, grasslands, open chaparral, pine-oak woodlands. It prefers shortgrass plains, sandy or gravelly soil (e.g., alkali flats, washes, alluvial fans). It is fossorial and breeds in
			temporary rain pools and slow-moving streams (e.g., areas flooded by intermittent streams).
Amphibians	Great Basin spadefoot	Spea intermontana	Mainly sagebrush flats, semi-desert shrublands, pinyon-juniper woodland. Digs its own burrow in loose soil or uses those of small mammals. Breeds in
			temporary or permanent water, including rain pools, pools in intermittent streams, and flooded areas along streams. Eggs are attached to vegetation in water or placed on bottom of pool.
Amphibians	Columbia spotted frog	Rana luteiventris	Closely associated with clear or slow-moving or ponded surface waters, with little shade, and relatively constant water temperatures; breeding and egglaying occurs in waters with floating vegetation and larger ponds, such as
		ibli	oxbows, lakes, stock ponds, and beaver-created ponds.
Birds	Grasshopper sparrow	Ammodramus savannarum	Breeding habitat includes grasslands of intermediate height and are often associated with clumped vegetation interspersed with patches of bare ground
		all et al	or moderately deep litter and sparse coverage of woody vegetation.
Birds	Black-throated sparrow	Amphispiza bilineata	Not closely associated with particular plant species or communities, but favors sparsely vegetated desert scrub, including thorn brush, cacti, chaparral,
	an	* 19, 40, V	mesquite and juniper. It is most often found on desert uplands, alluvial fans, and hillsides where thorny xeric brush dominates, and sometimes also in dry shrubby washes, but avoids desert valley floors.
Birds	Golden eagle	Aquila chrysaetos	Golden eagles generally inhabit open and semi-open country such as prairies,
	Mis Jim	M. S. Bes Mr V.	sagebrush, arctic and alpine tundra, savannah or sparse woodland, and barren
	711.000	III DA, VSI VEII	areas, especially in hilly or mountainous regions, in areas with sufficient
D:d.	Complement or amount of the	154, 10, 11,	mammalian prey base and near suitable nesting sites.
Birds	Sagebrush sparrow	Artemisiospiza nevadensis	This species found in shrubby, open flats and sagebrush plains, with nesting sites usually in or under low shrubs like sagebrush or saltbush.
Birds	Short-eared owl	Asio flammeus	This species is found in large, open areas with low vegetation, including prairie
	STAFFE	L 41.	and coastal grasslands, heathlands, meadows, shrubsteppe, savanna, tundra,
	W. We		marshes, dunes, and agricultural areas; winter habitat is similar, but is more
	V.		likely to include large open areas within woodlots, stubble fields, fresh and saltwater marshes, weedy fields, dumps, gravel pits, rock quarries, and shrub
			thickets.; if food is plentiful, winter areas often become breeding areas

Taxa	Common Name	Scientific Name	Preferred Habitat
Birds	Burrowing owl	Athene cunicularia	Optimum habitat typified by short vegetation and presence of fresh small mammal burrows. Found in open grasslands, sagebrush, and sagebrush-steppe, sometimes in open areas such as vacant lots near human habitation. Spends much time on the ground or on low perches such as fence posts or dirt mounds.
Birds	Upland sandpiper	Bartramia longicauda	Restricted primarily to extensive, open tracts of short grassland habitat. Nest in native prairie, dry meadows, pastures, domestic hayfields, short-grass savanna, plowed fields, along highway rights-of-way and on airfields, and (in the north) peatlands and scattered woodlands near timberline. Nesting is also known to occur in dry patches of wet meadows and in blueberry barrens. A survey of nesting habitats in Wisconsin suggests that upland sandpipers favor a level topography with a minimum of tall vegetation edges and proportionately high acreages of agricultural crops which duplicate prairie grasslands in terms of structure.
Birds	Ferruginous hawk	Buteo regalis  Buteo swainsoni	Open country, primarily prairies, plains and badlands; sagebrush, saltbush-greasewood shrubland, periphery of pinyon-juniper and other woodland, desert. In the southern Great Plains, common at black-tailed prairie dog colonies in winter. Nests in tall trees or willows along streams or on steep slopes, in junipers (Utah), on cliff ledges, river-cut banks, hillsides, on power line towers, sometimes on sloped ground on the plains or on mounds in open desert. Generally, avoids areas of intensive agriculture or human activity.
Birds			This species favors open habitats for foraging; hay and alfalfa fields, pastures, grain crops, and row crops, or perched atop adjacent fence posts and overhead sprinkler systems; they rely on scattered stands of trees near agricultural fields and grasslands for nesting sites.
Birds	Cassin's finch	Buteo swainsoni  Carpodacus cassinii  Catharus fuscescens	Open coniferous forest; in migration and winter also in deciduous woodland, second growth, scrub, brushy areas, partly open situations with scattered trees, and sometimes suburbs near mountains. Usually nests in conifer, 3-25 m above ground, on outer end of limb; may sometimes nest in deciduous tree or in shrub. May return to same nesting area in successive years, though this may be unusual.
Birds	Veery	Catharus fuscescens	Nesting habitat includes swampy forest, especially in more open areas with shrubby understory, as well as second growth, willow or alder shrubbery near water; large tracts of forest are most suitable. Nests usually are on or near the ground, at the base of a shrub, in a clump of herbaceous vegetation, or in a shrub or low tree. In migration and winter this species occurs also in lowland forest, woodland, and scrub.

Taxa	Common Name	Scientific Name	Preferred Habitat
Birds	Greater sage-grouse	Centrocercus urophasianus	Habitat includes sagebrush steppe; nest in areas with relatively dense cover from big sagebrush; may use areas with rabbitbrush, greasewood, and grassy areas; leks are located in clear areas such as broad ridgetops, grassy swales, dry lakebeds, and sometimes recently burned areas. chick rearing areas include irrigated pastures, wet meadows, and alfalfa fields, in addition to sagebrush.
Birds	Mountain plover	Charadrius montanus	Nesting habitat includes high plains/shortgrass prairie and desert tablelands, commonly prairie dog towns in some areas, such as sagebrush/blue grama habitats in central Montana. In central and southwestern Montana, southeastern Wyoming, and northeastern Colorado, nesting often occurs in shortgrass prairie with a history of heavy grazing or in low shrub semideserts. Nesting areas are characterized by very short vegetation, significant areas of bare ground, and flat or gentle slopes. Commonly, nesting takes place in barren fields that subsequently are planted with millet or sunflowers, resulting in losses of eggs and chicks. Nests are on the ground in shallow depressions that may be lined with plant material and/or adjacent to dried cattle dung. Adults often take chicks to windmill/water tank areas to forage, but site around tank must be dry. This bird generally avoids moist soils.
Birds	Bobolink	Dolichonyx oryzivorus	This species generally selects habitat with moderate to tall vegetation, moderate to dense vegetation, and moderately deep litter. Breeding habitat includes tall grass areas, flooded meadows, prairie, deep cultivated grains, and hayfields.
Birds	White-tailed kite	Elanus leucurus	Found in savanna, open woodland, marshes, partially cleared lands and cultivated fields, mostly in lowland situations. Nests in trees, often near a marsh, usually 6-15 m above the ground in branches near the top of a tree. Generally, builds a new nest for each clutch
Birds	Willow flycatcher	Empidonax traillii	Breeding habitat is strongly tied to brushy areas of willow and similar shrubs. Found in thickets, open second growth with brush, swamps, wetlands, streamsides, and open woodland. Common in mountain meadows and along streams; also in brushy upland pastures (especially hawthorn) and orchards. The presence of water such as running water, pools, or saturated soils and willow, alder, or other deciduous riparian shrubs are essential habitat elements.

Taxa	Common Name	Scientific Name	Preferred Habitat
Birds	Gray flycatcher	Empidonax wrightii	Arid woodland and brushy areas. Most commonly associated with pinyon-juniper woodland. In Wyoming, strongly associated with the presence of pinyon pine and higher than expected juniper overstory cover. In western Great Basin, nests in tall, big sagebrush shrublands. Less frequently found in open ponderosa pine or pine-oak woodland. In the last three decades has expanded its range northward into Washington and British Columbia, where it uses open stands of small to medium ponderosa pines exclusively; these stands usually have a scattered shrub or young pine understory. Usually builds nest in fork or branch of a shrub or juniper. In migration and winter also in arid scrub,
			riparian woodland, and mesquite.
Birds	Prairie falcon	Falco mexicanus	Primarily open situations, especially in mountainous areas, steppe, plains or prairies. Typically nests in pothole or well-sheltered ledge on rocky cliff or steep earth embankment, 10 to more than 100 meters above base.
Birds	American peregrine falcon	Falco peregrinus anatum	Various open situations from tundra, moorlands, steppe, and seacoasts, especially where there are suitable nesting cliffs, to mountains, open forested regions, and human population centers. When not breeding, occurs in areas where prey concentrate, including farmlands, marshes, lakeshores, river mouths, tidal flats, dunes and beaches, broad river valleys, cities, and airports.
Birds	Pinyon jay	Gymnorhinus cyanocephalus	Pinyon-juniper woodland, less frequently pine; in nonbreeding season, also occurs in scrub oak and sagebrush. Nests in shrubs or trees (e.g., pine, oak, or juniper), about 1.5-9 m above ground.
Birds	Bald eagle	Haliaeetus leucocephalus	Breeding habitat most commonly includes areas close to (within 4 km) coastal areas, bays, rivers, lakes, reservoirs, or other bodies of water that reflect the general availability of primary food sources including fish, waterfowl, or seabirds.
Birds	Loggerhead shrike	Lanius ludovicianus	Found in open country with short vegetation and well-spaced shrubs or low trees, particularly those with spines or thorns; frequent agricultural fields, pastures, old orchards, riparian areas, desert scrublands, savannas, prairies, golf courses, and cemeteries; are often seen along mowed roadsides with access to fence lines and utility poles.
Birds	Ash-throated flycatcher	Myiarchus cinerascens	Desert scrub, pinyon-juniper and oak woodland, chaparral, thorn scrub and riparian woodland; in winter also in open deciduous woodland. Usually nests in a tree cavity, a hole in a cactus, in an abandoned woodpecker hole or Cactus Wren nest.
Birds	Sage thrasher	Oreoscoptes montanus	Sagebrush plains, primarily in arid or semi-arid situations, rarely around towns. Usually breeds between 1300 and 2000 meters above sea level.

Taxa	Common Name	Scientific Name	Preferred Habitat
Birds	Mountain quail	Oreortyx pictus	Live in dense brush in wooded foothills and mountains; most common in pine-oak woodland, coniferous forest, and chaparral; sometimes in pinyon-juniper woods or in scrub at lower elevations; may be common in areas of second-growth brush after fires or clearcuts; requires dense low thickets for cover; during hot weather, rarely found more than a mile from water.
Birds	American white pelican	Pelecanus erythrorhynchos	Habitat includes rivers, lakes, reservoirs, estuaries, bays, and open marshes, sometimes inshore marine habitats. Pelicans rest/roost on islands and peninsulas. Nests usually are on islands or peninsulas (natural or dredge spoils) in brackish or freshwater lakes, or on ephemeral islands in shallower wetlands as in the northern Great Plains or on the Texas coast. Nest sites usually are in open areas but often near vegetation, driftwood, or large rocks. Habitats used in winter are mainly coastal but also include also inland waters such as the
Birds	Green-tailed towhee	Pipilo chlorurus Progne subis	Breeds in thickets, chaparral, shrublands, riparian scrub, and especially sagebrush. Habitat varies with elevation. Primarily in mountains. Found on mountain slopes, plateaus, and higher valleys of arid West, associated with dense shrubs 0.5 to 1.5 m in height; most commonly uses dry shrubby hillsides and post-disturbance shrubby second growth. Attracted to dwarf mistletoe as a nest, roost or foraging site in southwestern Ponderosa pine forests. Nests on or near ground in shrubby habitat; nest is usually under cover of brush or plant tufts; built by the female.
Birds	Purple martin	Progne subis	A wide variety of open and partly open situations, frequently near water or around towns. In west and formerly in east nests in tree cavities, abandoned woodpecker holes (including those in saguaro cacti), crevices in rocks.
Birds	Bank swallow Substantia	Riparia riparia	Habitat includes open and partly open situations, frequently near flowing water. Nests are in steep sand, dirt, or gravel banks, in burrows dug near the top of the bank, along the edge of inland water, or along the coast, or in gravel pits, road embankments, etc. Both sexes construct the nest burrow. Pairs usually dig a new burrow each year, but sometimes they use old bank swallow burrows or abandoned cavities of the belted kingfisher. Individuals tends to return to same nesting area in successive years, though they may move several kilometers away, especially if nesting was unsuccessful the previous year; yearlings often return to the natal area or nearby
Birds	Broad-tailed hummingbird	Selasaphorus platycercus	Habitat includes open woodland, especially pine, pine-oak, pinyon-juniper, and conifer-aspen associations, brushy hillsides, montane scrub, and thickets; in migration and winter, broad-tailed hummingbirds also inhabit open situations in lowlands where flowering shrubs are present.

Taxa	Common Name	Scientific Name	Preferred Habitat
Birds	Sharp-tailed grouse	Tympanuchus phasianellus	Requires a mosaic of dense grass and shrubs with rich forb and insect foods
			during nesting and brood-rearing. During winter often relies on riparian areas
			and other sites that support deciduous trees and shrub for feeding, roosting,
			and escape cover; also utilizes non-native cultivated grains and hedgerow
			species. Natural succession of grasslands and shrublands to forests, accelerated
			or expanded geographically by artificial fire regimes, have influenced habitat
			quality and populations in several regions. Habitat and distribution is
			constrained in regions where fire suppression has reduced early and mid-
			successional vegetation communities.
Birds	Columbian sharp-tailed grouse	Tympanuchus phasianellus	Native bunchgrass and shrub-steppe communities. In western Idaho, preferred
		columbianus	big sagebrush habitats with moderate vegetative cover, high plant species
			diversity, and high structural diversity; in general, selected vegetative
		Silic	communities that were least modified by livestock grazing. Deciduous shrubs
		all a	are critical for winter food and escape cover. Bunchgrasses and perennial forbs
	\/· · · · · · 1   1	V · · · · · · · · · · · · · · · · · · ·	are important components of nesting and brood-rearing habitat
Birds	Virginia's warbler	Vermivora virginiae	Breeding habitat includes arid montane woodlands, oak thickets, pinyon-
		13/10/6,01	juniper, coniferous scrub, chaparra. Brushy steep mountain slopes within or
		ECL IN THE	near dry coniferous woodlands. In northern part of breeding range, generally use scrubby habitat below pine woodlands; in southern part of range use
		OH. Brock We	scrubby habitat islands with coniferous woodlands. Will inhabit ravines or
		140 40 11	rocky slopes with dense scrub oaks or mountain mahogany. Also found along
	10	1 131 181	mountain streams in sagebrush, or cottonwood and willow.
Birds	Gray vireo	Vermivora virginiae  Vireo vicinior	Breeding habitats include warm/hot, semi-arid, shrubby habitats, especially
Dirds	Gray virco	STILL STEEL	mesquite and brushy pinyon-juniper woodlands; also chaparral and desert
	This cult	IN Real PORT	scrub. Thorn scrub, oak-juniper woodland, pinyon-juniper, juniper-cholla,
	1, 400 :13	Vireo vicinior  Pinus contorta	mesquite, dry chaparral.
Conifers and	Lodgepole pine	Pinus contorta	Thrives in mostly well drained soils but may be found in peat bogs, muskegs or
Cycads	Stan	Ma 400	on dry sandy sites.
Conifers and	Limber pine	Pinus flexilis	Limber pine dominates on dry rocky sites at many elevations (1500-3600m)
Cycads	Station	r. th	within its range. It can occur scattered throughout forested regions on more
•	40.00		mesic sites, especially in low density, open areas. At higher elevations, Pinus
	, the		flexilis can define the boundary of the treeline; occurring in high montane
			forests, often at the timberline). In these areas (i.e., Utah and the West) it is
			often very long-lived and slow growing, occurring on dry, harsh sites. In the
			northern half of its distribution, limber pine is generally found near lower tree
			line and on dry sites in the montane forests.

Taxa	Common Name	Scientific Name	Preferred Habitat
Fishes	Colorado River cutthroat trout	Oncorhynchus clarkii pleuriticus	Requires cool, clear water and well-vegetated streambanks for cover and bank stability; instream cover in the form of deep pools and boulders and logs also is important; adapted to relatively cold water, thrives at high elevations. Most remaining populations are fluvial or resident. Occurs also in lakes (Trappers Lake in Colorado formerly had the largest pure population; now hybridized with rainbow trout). Adfluvial populations largely have been eliminated, though reestablished lacustrine stocks have been reported in Wyoming and in Rocky Mountain National Park in Colorado
Fishes	Bonneville cutthroat trout	Oncorhynchus clarkii utah  Abronia turbinata	Ranges from high-elevation streams with coniferous and deciduous riparian trees to low-elevation streams in sage-steppe grasslands containing herbaceous riparian zones to lakes; in winter, streams may have instream ice that reduces trout habitat; high flows occur in spring from melting snowpack, low flows
Flowering Plants	Trans montane abronia	Abronia turbinata	This species occurs in sandy soils of desert scrub at elevations ranging from 900 to 2500 m.
Flowering Plants	Chaparral sand-verbena	Abronia villosa var. aurita	Occurs on sandy soils in creosote bush scrub. Sandy places in coastal-sage scrub, chaparral; Elevation: <1600 m.
Flowering Plants	Henderson's ricegrass	Achnatherum hendersonii	Dry, rocky, shallow soil. Often associated with Artemisia rigida and occasionally with Pinus ponderosa. Also found in Eriogonum thymoides/Poa secunda community type.
Flowering Plants	Nevada needlegrass	Achnatherum nevadense	This species is found in open woodlands and sagebrush.
Flowering Plants	Wallowa ricegrass	Achnatherum wallowaense	Dry, shallow rocky soil. Restricted to non-forested, rocky, shallow soils, dominated by Poa secunda, other bunchgrasses and forbs. Rigid sagebrush (Artemisia rigida) is often present. These communities, often referred to as "scablands", are commonly found on topographic high ground and are particularly exposed to summer heat and dryness. During winter and early spring, the shallow scabland soils are subject to severe water saturation and frost heaving.
Flowering Plants	Scrub lotus	Acmispon argyraeus var. multicaulis	Pinyon/juniper woodland; Elevation: 1200-1500 m.

Taxa	Common Name	Scientific Name	Preferred Habitat
Flowering Plants	None	Acmispon haydonii	Pygmy lotus occurs in deserts in creosote-bush scrub and pinyon-juniper woodlands at elevations of 600 to 1,200 m.
Flowering Plants	Ivory- spined agave	Agave utahensis var. eborispina	Occurs on calcareous outcrops with desert scrub.
Flowering Plants	Rabbit Valley gilia	Aliciella caespitosa	On Navajo and Wingate sandstone in crevices, Carmel Limestone formations, detrital slopes, and (infrequently) in sandy wash bottoms. Found within open pinyon-juniper communities, often mixed with mountain brush, sagebrush, or ponderosa pine, at 1554 to 2743 m elevation.
Flowering Plants	Narrow-stem gilia	Aliciella stenothyrsa	Found in open places often in hills of pinyon-juniper, salt desert shrub, sagebrush, and mountain-mahogany communities from 5,003 to 9,318 feet (1,525 to 2,840 meters) elevation. Soils are typically silty to gravelly loams and sandy or clay alkaline, sandstone and siltstone shale or clay barrens all of the Green River and Uinta Formation.
Flowering Plants	Asse's onion	Allium aaseae	Aase's onion is restricted to a narrow range of habitat conditions. It occurs on open, relatively barren, xeric, gentle to very steep, sandy slopes, generally with a southerly aspect, but ranging from east to west. It is usually associated with relatively sparsely vegetated bitterbrush (Purshia tridentata) or bitterbrush/sagebrush (Artemisia tridentata) communities.
Flowering Plants		Allium constrictum	Occurs in flat areas with shallow soils, which are often dry and sandy, but are wet or moist in the springtime. The sites tend to be on flat basalt lithosol or around the margins of rocky vernal ponds. It occurs within shrub-steppe vegetation, common associates include scabland sagebrush (Artemisia rigida) and the grass species Poa secunda. It occurs at elevations of 630 - 780 m.
Flowering Plants	Spanish needle onion	Tuliant Stictockii	Margins of metamorphic rock outcrops and talus slopes at 2000-2500 m elevation. Associates include pinyon pine, western juniper, and canyon live oak.
Flowering Plants	Jones' bluestar	Amsonia jonesii	This species is growing in dry, gravelly, sandy, loam, or clay soils of washes in pinyon- juniper, desert shrub, mountain brush, blackbrush, semi-desert grasslands, and sandy sagebrush deserts communities at 1,200 to 2,150 m.
Flowering Plants	Great Basin angelica	Angelica kingii	This species grows in a variety of sites with moist soils including montane or subalpine riparian areas, in wet meadows and seeps within pinyon-juniper woodland and Great Basin scrub.
Flowering Plants	Scabrid alpine tarplant	Anisocarpus scabridus	Known from metamorphic scree slopes and dry open ridges, within upper montane coniferous forests.
Flowering Plants	Meadow pussytoes	Antennaria arcuata	Moist meadows, often on hummocks of sedges and rushes that stay drier than the surrounding areas, or at the edges of these meadows. I 500-2400 m. The wet meadows are usually surrounded by sagebrush grassland communities.
Flowering Plants	Sticky ringstem	Anulocaulis leiosolenus var. leiosolenus	This taxon occurs in desert scrub on calcareous clays and shales and gypsum of low or steeps hills or flat grounds.

Flowering Plants Flowering Goodrich's columbine Flowering Goodrich eared rockcress Plants Flowering Fremont County Rockcress	Aquilegia scopulorum var. goodrichii Arabis goodrichii Arabis pusilla	This species is associated with pine, juniper, and mountain brush communities on Green River Shale Formation.  Occurs on rocky slopes in sagebrush, pinyon-juniper woodlands, oak thicket.
Flowering Goodrich eared rockcress Plants	Arabis goodrichii	
Plants		Occurs on rocky slopes in sagebrush, pinyon-juniper woodlands, oak thicket.
	Arabis busilla	:6
Elawaring Enament County Packeross	Arabic busilla	
riowering   Fremont County Nockcress	Al abis pasilia	This species occurs in coarse soil that has accumulated in cracks and crevices
Plants		of sparsely vegetated granite-pegmatite outcrops at about 2,350 m elevation.
		The surrounding plant community is sagebrush grassland. The habitat is
		exposed to high winds and extreme cold conditions with as few as 30 frost
		free days annually.
Flowering Park rockcress	Arabis vivariensis	Low elevations in the mountains, Granitic soil at upper limit of sagebrush and
Plants		sandy soils at the bases of cliffs.
Flowering Indian Valley spineflower	Aristocapsa insignis	This species occurs in sandy, somewhat open areas within grassland, pine-oak
Plants	110	woodland, and juniper woodland communities at elevations of 300 to 600 m.
Flowering Rock tansy	Artemisia capitata	This species grows on dry, rocky hills, in shallow, silt loams that are typically
Plants	66.60	limestone-derived overlying rock outcrops. It can be found in exposed
	Ole Abe	sagebrush grassland, desert shrubland, and juniper woodland in the valley and
	2 4 6 6	foothill zones.
Flowering Owyhee sagebrush	Artemisia papposa	This species grows in meadows, alkaline flats, and sagebrush-juniper slopes.
Plants	ELL BY CO.	2. Sto he
Flowering Porter's sagebrush	Artemisia porteri	Very sparsely vegetated badlands of pale, ashy or tufaceous (volcanic)
Plants	1. 11. of oli	mudstones and clay slopes. 1615-1980 m elevation.
Flowering Coastal sagewort	Artemisia pycnocephala	This species occurs on coastal beaches in rocky or sandy soils.
Plants	Chillian Chile	V <sub>O</sub>
Flowering Eastwood milkweed	Asclepias eastwoodiana	Desert shrub and pinyon-juniper communities on calcareous, tuffaceous, and
Plants	3/13 Dr. Vg, VEI.	sedimentary substrates at 3500-7000 feet.
Flowering Dwarf milkweed 💍 📈	A <b>s</b> clepias uncialis	This species is often associated with Juniper Woodland and Savanna ecological
Plants	Ascrepias unclaiis	systems, but it is always found in the prairie or grassland components of these
ng of	1 1/2 90	systems.

Taxa	Common Name	Scientific Name	Preferred Habitat
Flowering Plants	Gunnison mikevetch	Astragalus anisus	This species is found within Sagebrush Shrubland (dominated by Artemisia tridentata ssp. tridentata, Artemisia tridentata ssp. vaseyana, Artemisia tridentata ssp. wyomingensis, or Artemisia cana) and Sagebrush Shrub Steppe ecological system types; primarily within the Dry Sagebrush Shrubland type. It is usually found in fairly open sites where sagebrush shrubs do not form a closed canopy, but sometimes shelters under low sagebrush plants. Sites are characterized by the absence of trees, moderate shrub cover, moderate understory cover, and extensive bare ground. It is found on flats on the floor of the Gunnison Basin and on hillsides. It usually grows on sandy clay to gravelly soils overlying granitic bedrock with parent materials that include rhyolite, tuff, gneiss, and schist.
Flowering Plants	Goose Creek milkvetch	Astragalus anserinus	Confined to deeply weathered, sandy, white rhyolitic ash of the Salt Lake Formation, sometimes overlain by a thin veneer of black glassy sinter gravel of apparent volcanic origin. It occurs in drainage bottoms, lower to upper slope and crest positions, typically within open Utah juniper, Wyoming big sagebrush, or rabbitbrush communities with Sandberg's bluegrass, and needle and thread grass as well.
Flowering Plants	Ash Valley mikvetch	Astragalus anxius	Gravelly volcanic soil among pines, sagebrush; 1550 m altitude.
Flowering Plants	Lemhi milkvetch	Astragalus aquilonius	Shale or clay washes of gullied clay bluffs, on steep eroded canyon banks or on sand bars within the shrub-steppe zones at lower elevations.
Flowering Plants	Darwin Mesa mikvetch	Astragalus atratus var. mensanus	This species grows in mesas and open flats, dry desert slopes and hillsides, in volcanic clay and gravel, with pinons, usually sheltered under sagebrush at elevations of 1,700-2,350 m.
Flowering Plants	Barr's milkvetch	Astragalus atratus var. mensanus Astragalus barrii Astragalus bernardinus	In southeastern Montana, this species is restricted to heavy clay knobs, buttes, and barren hilltops. Often only a sparse shrub cover of Artemisia tridentata and/or Atriplex confertifolia is present. Also occurs in silty to sandy, calcareous soils. When an upper overstory is present, usually consists of a sparse cover of Pinus ponderosa and Juniperus scopulorum. Populations of this plant are associated with the harsh edaphic and environmental conditions of badlands areas. Buttes, bluffs, clay hills or sandstone, open barren ground; 900-1450 m.
Flowering Plants	San Bernardino milkvetch	Astragalus bernardinus	Stony washes and dry mesas, often scrambling up through low bushes, 3000-6700 feet on granite or limestone Joshua tree and pinyon-juniper woods. Gravelly washes and rocky mesas, in granitic rock or rarely calcareous soils, commonly entangled in low shrubs.
Flowering Plants	California milkvetch	Astragalus californicus	Dry hillsides, stony ridges, and canyon benches, among sagebrush, in open oak woods or in openings of coniferous forests.

Taxa	Common Name	Scientific Name	Preferred Habitat
Flowering Plants	Callaway milkvetch	Astragalus callithrix	Deep, sandy soil on the valley floor or on dunes in barren openings with Atriplex, Grayia, Chrysothamnus, and Artemisia; 1550 - 1710 m.
Flowering Plants	Cima milkvetch	Astragalus cimae var. cimae	Mesas and stony hillsides in calcareous soils, commonly among sagebrush.  Habitats include Great Basin scrub, Joshua tree woodland, and pinyon and juniper woodland.
Flowering Plants	Inflated cima milkvetch	Astragalus cimae var. sufflatus	This variety occurs among sagebrush on gentle slopes and flats, open pinon forest, and in calcareous, clay soil at elevations ranging from 5,000 to 6,000 feet.
Flowering Plants	Stiff milkvetch	Astragalus conjunctus var. conjunctus	This variety occurs in grassland and meadows, stony hillstops, canyon benches, brushy hillsides, sagebrush desert, and rarely into the edge of xeric pine forest on basaltic bedrock at elevations ranging from 2,000 feet to 5,100 feet.
Flowering Plants	Margaret Rushy milkvetch	Astragalus convallarius var. margaretiae	Grows on rocky slopes and flats beneath sagebrush (Artemisia tridentata) in pinyon-juniper woodland. Associated species include Pinus monophylla, Purshia tridentata, Artemisia tridentata ssp. wyomingensis, Ribes velutinum, Poa secunda, Juniperus osteosperma, Leymus cinereus, Elymus elymoides, and
Flowering Plants	Cronquist's milkvetch	Astragalus cronquistii  Astragalus debequaeus  Astragalus detritalis  Astragalus diaphanus var. diurnus	Occurs on fine-textured, sandy, or gravelly soil, especially with selenium, along ridges and sandy washes, in blackbrush and salt desert shrub communities on sandstone or red sandstone of the Cutler and Morrison formations in southeastern Utah, and on Mancos Shale in southwestern Colorado, at 1340 to 1830 meters (4400 to 6000 feet) elevation.
Flowering Plants	Debeque milkvetch	Astragalus debequaeus	Found in varicolored, fine-textured, seleniferous, saline soils of the Atwell Gulch Member of the Wasatch Formation, in areas surrounded by pinyon-juniper woodlands and desert shrub. Plants are mostly clustered on toe slopes and along drainages, but many occur on steep sideslopes. Soils are clayey but littered with sandstone fragments.
Flowering Plants	Debris milkvetch	Astragalus detritalis	Found in pinyon-juniper and mixed desert shrub communities associated with Artemisia, Stipa, Phlox, Trifolium, and cactus species. Often in rocky soils ranging from sandy clays to sandy loams, and on alluvial terraces with cobbles from 5,400 to 7,200 feet (1,646 to 2,195 meters) elevation.
Flowering Plants	Sout Fork John Day milkvetch	Astragalus diaphanus var. diurnus	Barren, shallow, dark, coarse gravel soils over basalt bedrock, plant associations of Juniperus occidentalis/Artemisia tridentata (western juniper/big sagebrush) or also including Pinus ponderosa (ponderosa pine). Found in openings in juniper woodland at elevations ranging from 760-1100 m (2500-3600 ft). Also occurs on sandbars or sandy banks of intermittent rivers.
Flowering Plants	Duchesne milkvetch	Astragalus duchesnensis	Found in salt desert shrub and pinon-juniper communities on sandy and gravelly pediments such as sandy mesas or around sandstone or shale outcrops (Goodrich, 1986) from 1430 to 1830 m.

Taxa	Common Name	Scientific Name	Preferred Habitat
Flowering Plants	Veyo milkvetch	Astragalus ensiformis var. gracilior	Open valley floor in stiff clay soil, sheltering under and growing up through sagebrush, 4900 ft. In Nevada: open washes, valley floors and hillsides, in clay soil, with pinyon-juniper to Artemisia, 4200-5000 ft.
Flowering Plants	Horseshoe milkvetch	Astragalus equisolensis	Grows on sand and sandy silt soils and is a component of the salt-desert <b>shrub</b> vegetative community. This species occurs on river terrace sand and gravel. Habitat is sagebrush, shadscale, horsebrush, and other mixed desert shrub.
Flowering Plants	Walker Pass milkvetch	Astragalus ertterae	Sandy loamy granitic soils in a pinyon pine woodland.
Flowering Plants	Gilman's milkvetch	Astragalus gilmanii	Great Basin scrub, pinyon and juniper woodland; gravelly or rocky.
Flowering Plants	Threeleaf or plans milkvetch	Astragalus gilviflorus	Barren knolls, stony hilltops, gullied bluffs and badlands, on limestone, shale or sandstoner in sagebrush communities at 5340-6590 feet.
Flowering Plants	Isely's milkvetch	Astragalus iselyi	Occurs on seleniferous and gypsiferous sandy to gravelly clay slopes of the uranium-rich soils derived from the Morrison (3 locations), Paradox (1 location) and Mancos formations at 1525 to 2010 m elevation in pinyon-juniper and desert scrub communities.
Flowering Plants	Long Valley milkvetch	Astragalus johannis-howellii	Sagebrush flats; sandy loam soil. Usually found in swales in the vicinity of former or present hot springs activity.
Flowering Plants	Lens-pod milkvetch	Astragalus lentiformis	Dry sandy soil among sagebrush; sometimes with Jeffrey pines, Great Basin scrub.
Flowering Plants	Grand Junction milkvetch	Astragalus linifolius	Found in rocky soil on dry hillsides. Many populations occur on the Chinle and Morrison Formations with pinyon-juniper and sagebrush. Often found in drainages and along benches of perennial streams.
Flowering Plants	Loa milkvetch	Astragalus loanus	Volcanic gravels at 1650-2075 m elevation in sagebrush and pinyon-juniper communities.
Flowering Plants	Stiff milkvetch	Astragalus microcymbus	Open sagebrush or juniper-sagebrush communities on moderately steep to steep slopes. Often found in rocky areas with a variety of soil conditions from clay to cobbles, gray to reddish in color.
Flowering Plants	Least bladdery milkvetch	Astragalus microcystis	This species is found in alpine and subalpine areas on limestone and dry, gravelly soils and sandy areas, as well as on riverbanks and in open woods.
Flowering Plants	Pauper milkvetch	Astragalus misellus var. misellus	Habitat is stony hills and pastures and gravelly clay banks, on basaltic bedrock, with sagebrush and juniper.
Flowering Plants	Pauper milkvetch	Astragalus misellus var. pauper	This variety occurs on open ridgetops, upper slopes, and shrub-steppe.
Flowering Plants	Half-ring milkvetch	Astragalus mohavensis var. hemigyrus	Rocky ledges and arid gravelly hillsides on limestone. Carbonate gravels and derivative soils on terraced hills and ledges, open slopes, and along washes in the creosote-bursage, blackbrush, and mixed-shrub zones. Occurs in Mojavean desert scrub and Joshua tree woodland communities.

Taxa	Common Name	Scientific Name	Preferred Habitat
Flowering Plants	Curved-pod milkvetch	Astragalus mojavensis var. hemigyrus	Rocky ledges and arid gravelly hillsides on limestone. Carbonate gravels and derivative soils on terraced hills and ledges, open slopes, and along washes in the creosote-bursage, blackbrush, and mixed-shrub zones. Occurs in Mojavean desert scrub and Joshua tree woodland communities.
Flowering Plants	Mono milkvetch	Astragalus monoensis	Great Basin scrub, upper montane coniferous forest; large, well-developed pumice flats, gravelly or sandy, sometimes with Artemisia arbuscula.
Flowering Plants	Mulford's milkvetch	Astragalus mulfordiae	Mulford's milkvetch occurs on loose, sandy substrates derived from lacustrine and alluvial sediments, including unconsolidated sands, decomposed sandstone, and oolithic limestone. It occurs predominantly on south to west-facing aspects. The slopes may be prone to high rates of erosion. It occurs at elevations between 670 - 1100 meters (2200 -3600 feet). It is found mainly in shrub-steppe and desert shrub communities.
Flowering Plants	Ferron's milkvetch	Astragalus musiniensis	Gullied knolls and stony clay benches among junipers, on shale, sandstone, or gravelly alluvia, 4700-7000 feet. Weber and Wittmann report the Colorado habitat as sagebrush hills.
Flowering Plants	Naturita milkvetch	Astragalus naturitensis	This species grows in the cracks and ledges of sandstone cliffs and rim rocks and flat bedrock areas with shallow soil development within pinyon-juniper woodlands at elevations of 1,650 to 2,050 m.
Flowering Plants	Picabo milkvetch	Astragalus oniciformis	Occurs almost exclusively on the Artemisia tridentata var. wyomingensis/Stipa comata habitat type, an edaphically controlled habitat type restricted to sandy loam soils.
Flowering Plants	San Diego rattleweed	Astragalus oocarpus	Chaparral and oak woodland and ecotones with meadows.
Flowering Plants	Lavin's milkvetch	Mr. 35, -C.	Occurs barren, arid and open, clay slopes and gravelly hillsides, knolls, badlands, rocky ledges in Creosote bush scrub, pinyon-juniper, sagebrush, Joshua tree woodland communities. Substrates derived from volcanic ash or carbonate, usually on northeast to southeast aspects.
Flowering Plants	Pink egg milkvetch		Pinyon-juniper, sagebrush, and mixed desert shrub communities at 1,770 to 2,300 m. Dry gravelly hillsides and stony flats, associated with sagebrush, on limestone.
Flowering Plants	Peck's milkvetch	Astragalus peckii	Occurs on very dry sites, on loose sandy soil or pumice at ca. 900-1500 m; it is often found in dry water-courses. This species is usually found in barren openings in juniper/sagebrush communities or in openings in lodgepole pine forests. Plants also occur in the forest ecotone and occasionally beneath forest canopy.
Flowering Plants	Ames milkvetch	Astragalus pulsiferae var. pulsiferae	Sandy or rocky soils (frequently granitic), often occurring with pines or sagebrush. Elevation: 1300-1900 m.

Taxa	Common Name	Scientific Name	Preferred Habitat
Flowering	Suksdorf's milkvetch	Astragalus pulsiferae var.	Rocky ledges and arid gravelly hillsides in the Creosote Bush Scrub community,
Plants		suksdorfii	Joshua tree woodland, carbonate soil. Great Basin scrub, lower montane
			coniferous forests, pinyon and juniper woodlands, dry flats in open pine forest
			and on stony plains, in loose volcanic soils, 1290 m.
Flowering	Hare's-foot milkvetch	Astragalus purshii var.	This variety occurs on dry slopes and plains usually with sagebrush on basalt or
<u>Plants</u>		lagopinus	pumice.
Flowering	Snake River milkvetch	Astragalus purshii var.	This variety is found in loosely aggregated sand and gravelly sand deposits on
Plants		ophiogenes	bluffs, talus, dunes and volcanic ash beds with big sagebrush, Indian ricegrass,
			needle-and-thread grass, and four-wing satibush, at elevations ranging from 700
			to 1,075 meters.
Flowering	Racemose milkvetch	Astragalus racemosus var.	Occurs on shale derived substrates on outwash flats and slopes along river
Plants		treleasei	valleys. Elevation 6500-7500 (8300) ft. Frequently occurs with thickspike
	Discount of the second	A	wheatgrass, rubber rabbitbrush, green rabbitbrush and shadscale.
Flowering	Bitterroot milkvetch	Astragalus scaphoides	Sagebrush-grassland communities on dry slopes at mid- elevations (5000-6000
Plants	Sandstone milkvetch	Astronolius and suite and	feet). On slickrock formations. Mixed desert shrub, pinyon-juniper, and ponderosa
Flowering Plants	Sandstone milkvetch	Astragalus sesquiflorus	pine or aspen communities at 1470-3100 meters.
Flowering	Whited's milkvetch	Astragalus sinuatus	This species occurs in sagebrush-bunchgrass shrub-steppes on predominantly
Plants	vvilited s illikvetcii	Astragalas sindatas	south facing slopes at 250-610 m elevation. It grows in loess soils with small
i iaires		201 6 100 VIV	amounts of volcanic ash.
Flowering	Weak milkvetch	Astragalus solitarius	Stiff clays of valley floors and mesas, usually in close association with Artemesia
Plants	arr	at. "ild ste A	arbuscula (Nevada, Oregon) & Sacrobatus (in Oregon).
Flowering	Railhead milkvetch	Astragalus terminalis	Sagebrush steppe and sparsely vegetated grasslands in the valley, foothills,
Plants	is in	IS RESIDENT	montane, and alpine zones; 1524-2914 m.
Flowering	Toquima milkvetch	Astragalus toquimanus	Gravelly/stony hillsides and canyon benches. Often found growing
Plants_	de Alle	Ek. 101, 11,	inconspicuously underneath sagebrush in stiff calcareous soil.
Flowering	Tygh Valley milkvetch	Astragalus tyghensis	This plant occurs on dry rocky soils with a thin overlying sandy layer. Habitats
Plants	105 231	11/4 00	where this species occur include mounded prairies, open bunchgrass
	Substanal	Ch. "he	grasslands, semi-open juniper communities, and roadsides.
Flowering	Current millwotch	Astragalus uncialis	Dry alkaline soils derived from limestone. With sagebrush in gullied foothills at
Plants	Currant minvetti		1,600-1,825 m in Nevada and in shadscale at 1,400-1,600 m on Sevier Desert in
			Utah.
Flowering	Welsh's milkvetch	Astragalus welshii	This species occurs exclusively on igneous gravels, in sagebrush, pinyon-
Plants	5	A	juniper, and sagebrush-aspen communities at elevations of 2,000-2,810 m.
Flowering	Duchess springparsley	Aulospermum duchesnensis	Found in cold desert shrub, sagebrush, and juniper communities on sandy clay
Plants			and clay semi-barrens of the Mancos and Morrison shales from 4,700 to 6,800
	<u> </u>		feet (1,433 to 2,073 meters) elevation.

Taxa	Common Name	Scientific Name	Preferred Habitat
Flowering Plants	Sickle-pod rockcress	Boechera atrorubens	This species occurs on rocky summits, and sagebrush slopes on sandy loam.
Flowering Plants	Bodie Hills rockcress	Boechera bodiensi	Occurs at high elevations on rolling to steep topography; found on dry, open, rocky, high or north-facing slopes (often in rock crevices) and exposed rocky ridges and summits. Occurs on granitic, rhyolitic, or andesitic substrates. Occurs in high elevation Great Basin scrub, pinyon and juniper woodland, and subalpine lodgepole pine and whitebark pine forests. Preferred microsites include moisture-accumulating microsites in sagebrush associations, under shrubs, and on disturbed soils of prospector's diggings.
Flowering Plants	Bodie Hills rock cress	Boechera bodiensis	Occurs at high elevations on rolling to steep topography; found on dry, open, rocky, high or north-facing slopes (often in rock crevices) and exposed rocky ridges and summits. Occurs on granitic, rhyolitic, or andesitic substrates. Occurs in high elevation Great Basin scrub, pinyon and juniper woodland, and subalpine lodgepole pine and whitebark pine forests. Preferred microsites include moisture-accumulating microsites in sagebrush associations, under shrubs, and on disturbed soils of prospector's diggings.
Flowering Plants	Sapphire rockcress	Boechera fecunda  Boechera lincolnensis	This species occurs in the ecotone between lower treeline (associated species include Pseudotsuga menziesii, Juniperus scopulorum and/or Pinus ponderosa) and shrub/grasslands (associated species include Artemisia tridentata and/or Cercocarpus ledifolius and Agropyron spicatum. Soils are highly calcareous, sandy to coarsely gravelly, derived from metamorphosed calcium silicate parent materials. Sites are usually sparsely vegetated and on south to west-facing steep, eroding slopes (erosion and a dry, warm microclimate probably help maintain the open habitat).
Flowering Plants	Lincoln rock cress	Boechera lincolnensis	This species occurs around sagebrush and other shrubs, in gravelly soil and on rocky slopes at elevations ranging from 1,400 to 1,900 meters.
Flowering Plants	Blue gramma	Bouteloua gracilis	Grows pure stands in mixed prairie associations and disturbed habitats, usually on rocky or clay soils and mainly at elevations of 300-3000 m.
Flowering Plants	Green-brand mariposa-lily	Calochortus macrocarpus var. maculosus	Dry plains, rocky slopes, sagebrush scrub, and in pine forests. Usually occurring in volcanic soils.
Flowering Plants	Cusick's camas	Camassia cusickii	Occurs at low to mid elevations on steep, rocky hillsides and ridgetops in moist soils, usually along or near creeks. Often found in sagebrush scrub and among scattered ponderosa pine.
Flowering Plants	Baird's camissonia	Camissonia bairdii	It occurs in clay soil in pinyon-juniper woodlands.
Flowering Plants	Kern River evening-primrose	Camissonia integrifolia	Generally, sagebrush slopes; 700-1000 m.

Taxa	Common Name	Scientific Name	Preferred Habitat
Flowering	Lewis' River suncup	Camissonia parvula	This species is found in areas with sagebrush scrub and sandy soils at elevations
Plants			ranging from 100 to 2,700 meters.
Flowering	Pygmy suncup	Camissonia pterosperma	This species occurs on well-drained slopes, often of volcanic origin, with
Plants			sagebrush and pinyon-juniper, at elevations of 700 to 2600 m, but at 1400 to
			2400 m elevation in California.
Flowering	Washoe suncup	Camissonia pusilla	Dry, open to branchy slopes, flats, and roadsides on sandy soil with Artemisia
Plants			to pinyon-juniper. Commonly found growing sympatrically with Camissonia
			parvula and Camissonia pubens (Kartesz 1988). Mixed desert shrub, sagebrush,
			and mountain brush communities at ca. 1220 to 1830 m.
Flowering	Tahoe sedge	Carex tahoensis	This species occurs in grasslands, sagebrush as well as open, rocky and sandy
Plants			slopes, subalpine and alpine meadows, at elevations ranging from 600 to 3,700
	Rural paintbrush	Castilleja flava var. rustica	meters.  This variety is mostly found in montane sagebrush habitats with dry soils at
Flowering Plants	Rurai paintorusii	Casulleja jiava var. rusuca	elevations ranging from 1,100 to 2,300 meters.
Flowering	Mt. Gleason Indian paintbrush	Castilleja gleasoni	Lower montane coniferous forest, pinyon-juniper woodland; granitic.
Plants	17tt. Gleason ilidian paintbrush	Castilleja gleasorii	Lower montaine connerous forest, pinyon-jumper woodiand, grantic.
Flowering	Thompson's painbrush	Castilleja thompsonii	Dry soil, frequently associated with sagebrush. Local on open slopes and bald
Plants	Thompson's pambrush	Casalicja alompsomi	summits of the surrounding mountains to about 7000 ft.
Flowering	Smooth wild cabbage	Caulanthus crassicaulis var.	This variety is found in pinyon-juniper woodland and sagebrush scrub at
Plants		glaber	elevations ranging from 1,200 to 2,900 meters.
Flowering	Birchleaf Mountain mahogany	Cercocarbus montanus	This species is found on sandstone, granite, limestone ridges, rocky slopes, and
Plants	311	at. alla ete an	valley floors, as well as grasslands, savannahs, juniper-oak, pinyon-juniper,
	15 00	Cercocarpus montanus	yellow pine woodlands, aspen, and pine-fir forests, at elevations ranging from
	isis im		800 to 3,000 meters.
Flowering	Desert or broadflower	Chaenactis stevioides	This species is found in arid or semiarid, gravelly, or sandy, open slopes, flats,
Plants	pincushion	· [ ] ( ) ( ) ( ) ( ) ( )	and shrublands at elevations ranging from -30 to 2,300 meters.
Flowering	Wheeler's skeleton-weed	Chaetadelpha wheeleri	This species is found in dunes, sandy soils and alkali flats in sagebrush scrub and
Plants	105° 28'	1 1 de	creosote bush scrub, at elevations ranging from 800 to 1,800 meters.
Flowering	White-bracted spineflower	Chorizanthe xanti var.	Sandy or gravelly substrates of coastal scrub, Mojavean desert scrub, and
Plants	137, 6	leucotheca	pinyon and juniper woodlands.
Flowering	Naked-stemmed evening-	Chylismia scapoidea ssp.	This subspecies occurs in shrublands and rocky, gravelly, or sandy slopes.
Plants	primrose	scapoidea	
Flowering	Ownbey's thistle	Cirsium ownbeyi	Juniper, sagebrush, and riparian communities. Usually on limestone, talus, or
Plants			sandy slopes. Weber and Morgan formations.
Flowering	Barneby's cryptanth	Cryptantha barnebyi	Locally abundant on the domed or gently sloping white shale knolls of the
Plants			Green River Formation, mostly in shadscale and pinyon-juniper communities at
			1850-2400 m elevation.

Taxa	Common Name	Scientific Name	Preferred Habitat
Flowering Plants	Tufted cryptantha	Cryptantha caespitosa	Populations are usually restricted to rocky or chalky ridgetops in cushion plant communities. Forb-grass, pinyon-juniper, mountain brush, limber pine, and spruce-fir forests at 1950 to 3120 meters.
Flowering Plants	Silver-mounded candleflower	Cryptantha cana	This species occurs on open slopes in juniper woodlands and valleys, in sandy, calcareous soil, and on sandstone outcroppings and bluffs, at 1219 - 2300 m elevation.
Flowering Plants	Narrow-stem cryptantha	Cryptantha gracilis	This species is found in joshua tree and pinyon-juniper woodlands, as well as dry slopes, mesas, creosote bush scrub, all in sandy to rocky soils.
Flowering Plants	Schoolcraft catseye	Cryptantha schoolcraftii	In sagebrush scrub, on white-colored volcanic ash deposits at 837 - 1750 m, most locations are in a basalt mesa area along the west side of Black Rock Desert.
Flowering Plants	Silky cryptantha	Cryptantha sericea	This species occurs in open pine-juniper woodlands and fir-mountain brush communities, in sandy to gravelly soils, shaley slopes and sandstone outcrops.
Flowering Plants	Pine Woods cryptantha	Cryptantha simulans	This species found in open conifer forests and shrublands, as well as dry, gravelly sites, slopes, and disturbed areas.
Flowering Plants	Snake River cryptanthea	Cryptantha spiculifera	This species occurs in dry, open slopes and flats in plains and grasslands, sandy or stony ridges, foothills, valleys, and sagebrush steppe.
Flowering Plants	Bodie Hills cusickiella	Cusickiella quadricostata	Rocky flats and windswept slopes and ridges; generally in rocky soils, sometimes in clay soils. Sagebrush (Great Basin scrub) and pinyon-juniper woodland communities, 1890-2800 meters.
Flowering Plants	Intermountain wavewing	Cymopterus basalticus	Reported to occur on bare basaltic, but more often dolomite rocks, barren clays, dolomite outcrops, gravelly hills and alluvial fans, at elevations of 1705 - 2134 meters (5600 - 7000 feet) in desert shrub, pinyon-juniper and sagebrush communities.
Flowering Plants	Pinnate spring-parsley	Cymopterus beckii	Sandy or stony crevices, ledges, and cliff bases on Navajo Sandstone in pinyon-juniper, mountain brush, and ponderosa pine-manzanita conifer-oak, and Douglas fir communities between 1700-2635 m elevation.
Flowering Plants	Uintah Basin springparsley	Cymopterus duchesnensis	Found in cold desert shrub, sagebrush, and juniper communities on sandy clay and clay semi-barrens of the Mancos and Morrison shales (Morrison, Uintah, Wasatch and Green River formations) from 4,700 to 6,800 feet (1,433 to 2,073 meters) elevation.
Flowering Plants	Evert's wafer-parsnip	Cymopterus evertii	Montane populations in Wyoming are on dry, rocky, often disturbed ridges and in meadows with volcanic substrates at 2200-3300 m elevation. Other Wyoming populations are along sandstone ridges with scattered Limber pine (Pinus flexilis) and Utah juniper (Juniperus osteosperma) at elevations of 1770-1800 m. The Utah plants are growing in gravelly soils on limestone outcrops at 2620 m.

Taxa	Common Name	Scientific Name	Preferred Habitat
Flowering Plants	Purple cymopterus	Cymopterus purpurascens	This species occurs on shrubby slopes.
Flowering Plants	Ordate dalea	Dalea ornata	Dry sand, shaley barrens, rocky ridges, gullied bluffs, knolls, and canyon washes with Artemisia to yellow pine.
Flowering Plants	Santa Suzana tarplant	Deinandra minthornii	Within Chaparral and Coastal Sage Scrub communities, in rocky openings, on exposed ridges, and in crevices of sandstone bluffs and outcrops. 280 - 760 meters.
Flowering Plants	Kern County larkspur	Delphinium purpusii	Talus slopes, cliffs, steep rock outcrops, and on and near large boulders; substrate often carbonate. Found within Chaparral, Foothill/Cismontane Woodland, and Pinyon-Juniper Woodland communities. 300 - 1340 meters.
Flowering Plants	Cusick's monkeyflower	Diplacus cusickii	This species occurs in canyons, ditches, washes, black volcanic gravel, volcanic ash and sand, sagebrush areas, as well as on sand talus, diatomaceous slopes, and basalt outcrops, at elevations ranging from 800 to 1,000 meters.
Flowering Plants	Steamboat monkeyflower	Diplacus ovatus	Dry to somewhat moist, often barren, loose, sandy to gravelly slopes derived from siliceous sinter deposited by hot springs in the sagebrush zone, or from highly acidic hydrothermally altered andesite or rhyolite deposits supporting sparse yellow pine woodlands within the pinyon-juniper zone, or possibly on sandy alkaline valley floor deposits in the sagebrush zone, sometimes on adjacent roadsides or washes.
Flowering Plants	Many-stemmed dudleya	Dudleya multicaulis	Often associated with heavy clay soils in barrens, dry stony places, or thinly vegetated openings, within coastal sage scrub, chaparral, and valley and foothill grassland (e.g. southern needlegrass grassland) communities.
Flowering Plants	Panamint dudleya	Dudleya saxosa ssp. saxosa	Mojavean desert scrub and pinyon-juniper woodland; granitic or carbonate (limestone) substrate.
Flowering Plants	None	Dudleya viscida	Grows in dry rocky places, below 1200 ft. elevation in coastal sage scrub.
Flowering Plants	Hall's daisy	Erigeron aequifolius	Broadleaf upland forest, lower montane coniferous forest, pinyon and juniper woodland, upper montane coniferous forest; rocky, granitic soils.
Flowering Plants	Bald daisy	Erigeron calvus	Great Basin Sagebrush Scrub and Desert Scrub communities at the foot of the Inyo Mountains. I 200 meters.
Flowering Plants	White cushion erigeron	Erigeron disparipilus	This species occurs on rocky and gravelly substrates of ridges and slopes, in grassland and sagebrush, at elevations ranging from 600 to 2,200 meters.
Flowering Plants	Fan-leaved fleabane	Erigeron flabellifolius	Grows on scree and talus.
Flowering Plants	Broad fleabane	Erigeron latus	Thin, volcanic soils on gravelly or rocky hillsides and outcrops in the sagebrush zone, near juniper woodlands. 1600-2000 meters elevation.

Taxa	Common Name	Scientific Name	Preferred Habitat
Flowering Plants	Limestone daisy	Erigeron uncialis var. uncialis	This taxon grows in crevices and cracks of limestone outcrops or at the base of cliffs within Great Basin sagebrush scrub, subalpine coniferous forest, or pinyon and juniper woodland at altitudes of 1,900 to 2,900 meters.
Flowering Plants	Untermann's daisy	Erigeron untermannii	Calcareous shales and sandstones, mainly of the Uinta and Green River formations, in various plant communities at elevations ranging from 2073 to 2890 meters. Pinyon-juniper, mountain mahogany, limber and bristlecone pine, and sagebrush communities on calcareous shales and sandstones of the Uinta and Green River Formations between 7,000 and 9,400 feet elevation
Flowering Plants	Ibex buckwheat	Eriogonum ammophilum	This taxon occurs in sandy washes, flats, and dunes and stabilized sand in shadscale, horsebrush, winterfat, rabbitbrush, ephedra, and pinyon-juniper communities at 1460 to 1890 meters elevation.
Flowering Plants	Windloving buckwheat	Eriogonum anemophilum	Wind-loving Buckwheat occurs on bleak, exposed, windswept summits, ridges, and exposed rocky slopes on loose, gravelly to rocky limestone and on volcanic tuff outcrops, and at low elevations on barren clay hills. It occurs in saltbush and sagebrush communities, pinyon-juniper woodlands, and in barren areas, at elevations of 1400-2600 meters.
Flowering Plants	Kaye H. Throne's buckwheat	Eriogonum artificis	This species occurs in sandy to gravelly soil, on volcanic slows, mixed grassland, sagebrush and juniper woodland communities.
Flowering Plants	Beatley buckwheat	Eriogonum beatleyae	Dry volcanic outcrops (Reveal 1989). Volcanic tuffaceous soils, sagebrush communities, pinyon-juniper woodlands at 1,700-2,800 meters elevation.
Flowering Plants	Short-flowered eriogonium	Eriogonum brachyanthum	Creosote bush, other warm desert shrub & shad-scale communities
Flowering Plants	Brandegee's buckwheat	Eriogonum brandegeei	In general, this species is found on barren outcrops of white to grayish soils within open sagebrush and pinyon-juniper communities.
Flowering Plants	Golden buckwheat  Colorado buckwheat	Eriogonum chrysops	This species is found within the cold desert environment of the Owyhee uplands, typically within the Artemisia arbuscula-Poa sandbergii lithosolic association in rocky scabland areas. It occurs in relatively open sites, on flats, gently sloping ridges, and outcrops. The substrate is dry, barren, shallow, gravelly to rocky soil overlying basalt or rhyolite flows.
Flowering Plants	Colorado buckwheat	Eriogonum coloradoense	This species has an extremely broad ecological range; it has been documented on every soil texture, slope, and aspect. It has been found on sedimentary, granitic, and volcanic substrates, with Artemisia species (sagebrush) and Bouteloua gracilis (blue grama) and also with alpine cushion plants. It is found on a variety of geomorphic landforms, usually on talus, fellfields, rock shoots, and ridges, but also on roadsides.
Flowering Plants	Reveal's buckwheat	Eriogonum contiguum	This species occurs on sandy to gravelly flats and slopes, or rocky hills and lower bajadas with Atriplex species. It is found within Creosote Bush Scrub, saltbush, and mesquite communities at elevations of -20 to 900 meters.

Taxa	Common Name	Scientific Name	Preferred Habitat
Flowering Plants	Flat top buckwheat	Eriogonum corymbosum var. smithii	Occurs in desert shrub communities on red "blowsand" of the Entrada Sandstone at 1400 to 1900 m elevation, but mostly between 1585 m and 1710 m. It is associated with purple-sage, matchweed, ephedra-Indian ricegrass, rabbitbrush communities. It occurs on selenium-rich sands and is associated with dunes.
Flowering Plants	Crosbys buckwheat	Eriogonum crosbyae var. crosbyae	Light colored, tuffaceous sandstones and (in Nevada) clay outcrops. Typically, on rolling hills dominated by big sagebrush (Artemisia tridentata). 1650-1700 meters elevation.
Flowering Plants	Cusick's buckwheat	Eriogonum cusickii	occurs on barren flats and hills with dry soil over weathered basalt and welded tuff. Plants in surrounding areas include dwarf sagebrush (Artemesia arbuscula) and western juniper (Juniperus occidentalis). It occurs from 1200 to 1600 m (3940 to 5250 feet) elevation.
Flowering Plants	Churchill Narrows buckwheat	Eriogonum diatomaceum  Eriogonum ephedroides	Dry, relatively barren and undisturbed, white to yellowish tan, often gysiferous, clay to silty diatomaceous deposits of the Coal Valley Formation, with a variable volcanic cobble overburden, on rounded knolls, low ridges, slopes, and especially small drainages on all aspects at elevations of 1300-1410 m, with Atriplex confertifolia, Stanleya pinnata, Sarcobatus baileyi, Artemisia spinescens, Kochia americana, Tetradymia glabrata, and other shadscale zone associates.
Flowering Plants	Ephedra buckwheat	Eriogonum ephedroides	Found in juniper and sagebrush-grass communities on white shale of the Green River Shale Formation at 5,700 feet (1,737 meters) elevation.
Flowering Plants	Wildrose Canyon buckwheat	Eriogonum eremicola	Occurs in sand and gravel of sagebrush, mountain mahogany, and montane conifer woodlands between 2,200 and 3,100 meters elevation.
Flowering Plants	Limestone buckwheat	Eriogonum eremicum	Occurs in shadscale, desert shrub, saltbush communities, and pinyon-juniper woodlands on calcareous substrates at 1555 to 1925 m elevation; substrates include limestone and dolomite.
Flowering Plants	Clokey buckwheat	Eriogonum heermannii var. clokeyi	This species occurs in limestone gravelly to rocky flats, slopes, and washes, saltbush, blackbrush, or sagebrush communities, pinyon-juniper and montane conifer woodlands.
Flowering Plants	Hoffmann's buckwheat	Eriogonum hoffmannii var. hoffmannii	Sandy to gravelly slopes, sagebrush communities, pinyon-juniper woodlands; 1000-1700 meters.
Flowering Plants	Robust Hoffmann's buckwheat	Eriogonum hoffmannii var. robustius	This species is found on dry slopes in Mojave Desert scrub and pinyon-juniper woodlands, generally in sand in elevations of 100-1700 meters.
Flowering Plants	Kern buckwheat	Eriogonum kennedyi var. pinicola	Dry exposed open areas of Pinyon Juniper Woodland. Geology is volcanic - andesitic basalt or rhyo/tuff.

Taxa	Common Name	Scientific Name	Preferred Habitat
Flowering Plants	Lewis buckwheat	Eriogonum lewisii	Dry, exposed, rocky, convex ridge-line knolls and crests underlain by siliceous carbonate, siliceous limestone, or dolomite on all aspects at 1970-2960m elevation. At lower elevations, occasionally found on clay hills derived from silty carbonate or calcium-rich siliceous rock. Co-dominating with Artemisia arbuscula, Chrysothamnus viscidiflorus, Elymus elymoides, and Achnatherum hymenoides.
Flowering Plants	Lobb's buckwheat	Eriogonum lobbii	Habitat is gravelly to rocky or talus slopes, mixed grassland, buckbrush, manzanita, and sagebrush communities, and montane, subalpine, or alpine conifer woodlands. In the high mountains of northwestern California and southwestern Oregon and the southern portion of the North Coast Range of California, plants are frequently associated with serpentine soils. In the Sierra Nevada of eastern California and west-central Nevada, the species is found almost exclusively on granitic soils and infrequently on volcanic ones.
Flowering Plants	Pinyon Mesa buckwheat	Eriogonum mensicola	This species occurs on rocky to gravelly flats and slopes, sagebrush and mountain mahogany communities, pinyon-juniper and montane conifer woodlands.
Flowering Plants	Panamint Mountains buckwheat	Eriogonum microthecum var.	Occurs on gravelly slopes, in sagebrush communities and pinyon-juniper woodlands.
Flowering Plants	Schoolcraft buckwheat	Eriogonum microthecum var. schoolcraftii	Sandy to rocky soil, sagebrush communities, pinyon-juniper woodlands; 1400-2200 meters.
Flowering Plants	Deeth buckwheat	Eriogonum nutans var. glabratum	This taxon occurs in sand on flats and slopes within saltbush and sagebrush communities at elevations 1,500 to 1,900 meters.
Flowering Plants	Calcereous buckwheat	Eriogonum ochrocephalum var. calcareum	Barren white volcanic ash-clay; associates include Artemisia arbuscula, Chrysothammus nauseosus, Sitanion.
Flowering Plants	Craters-of-the-Moon wild buckwheat	Eriogonum ovalifolium var. focarium	Occurs on black volcanic gravel on gentle slopes and flats in sagebrush communities, conifer woodlands; 1600-1900 meters.
Flowering Plants	Deer Lodge buckwheat	Eriogonum pharnaceoides var. cervinum	Occurs on sandy or gravelly slopes, sagebrush and mountain mahogany communities, oak, pinyon-juniper and montane conifer woodlands.
Flowering Plants	Scarlett buckwheat	Eriogonum phoeniceum	Grows on tuffaceous soils in sagebrush communities and pinyon-juniper woodlands. Grows with Eriogonum microthecum, but there is no evidence of hybridization. Elevation: 1710 - 2040 meters.
Flowering Plants	Packard's buckwheat	Eriogonum shockleyi var. packardiae	Oolitic limestone outcrops, sandy loess over basalt, and cobbly desert pavement over deep sandy-loam; in shadscale, mixed desert shrub and sagebrush communities; elevations from 760-1300 m; this species is endemic to southwest Idaho along the Snake River and a few tributaries in Ada and Owyhee cos.

Taxa	Common Name	Scientific Name	Preferred Habitat
Flowering	Shockey's or matted cowpie	Eriogonum shockleyi var.	Occurs on sparsely vegetated sandy-loams, cobbly desert pavement, and
Plants	buckwheat	shockleyi	gravelly calcrete on lacustrine sediments; in shadscale, mixed desert shrub and
			sagebrush communities; elevations from 760-1300 meters.
Flowering	Railroad Canyon buckwheat	Eriogonum soliceps	This species is found in sagebrush communities with gravelly soil, at elevations
Plants			ranging from 2,500 to 2,600 meters.
Flowering	Frisco buckwheat	Eriogonum soredium	Habitat is white limestone (Ordovician) outcrop-surfaces with gravel and
Plants			scattered rocks and boulders in a pinyon-juniper community at 2,010-2,230
			meters elevation.
Flowering	Woodside buckwheat	Eriogonum tumulosum	This species occurs on gravel and/or clay flats and slopes, sagebrush and
Plants			saltbush communities, as well as pinyon and/or juniper woodlands at elevations
			ranging from 1,500 to 2,300 meters.
Flowering	Green buckwheat	Eriogonum umbellatum var.	Sandy to gravelly slopes, sagebrush communities, aspen and montane conifer
Plants		glaberrimum	woodlands; 1600-2300 meters.
Flowering	Clay Hill buckwheat	Eriogonum viridulum	This species occurs in sandy, silty, or clay flats, slopes, and hills, sagebrush or
Plants		66 60	saltbush, and pinyon-juniper woodlands at elevations ranging from 1,400 to
		010 100	2,200 meters.
Flowering	Limestone monkeyflower	Erythranthe calcicola	Grows in Pinyon-juniper woodland, Joshua Tree woodland, and creosote bush
Plants		Cicle Ni Me	scrub on falus and scree slopes.
Flowering	Carson Valley monkeyflower	Erythranthe carsonensis	This species occurs in open areas of Great Basin sagebrush/bitterbrush scrub
Plants		in the last door the	in coarse granite soils on gentle to moderate slopes (0-15 percent), usually on
	.0	Eryun anute Carsonensis	north aspects but also occasionally on south to southwest aspects. Elevation
	3.	Ur. Vila Perov	1400-1580 m (4600-5200 ft).
Flowering	Ackerman's green gentian	Frasera ackermaniae	Ackerman Green Gentian is locally endemic to foothills of the Uintas, in the
Plants	Wig This	W Bolle U	Uinta Basin. It occurs on yellowish clay soil with paleosol inclusions and
	Ackerman's green gentian	11.0 b La Ve,	selenite gypsum fragments. It occurs mixed with Utah juniper, mountain brush
	0, 40,	10.1	and desert scrub.
Flowering	Cathedral Bluff dward gentian	Gentianella tortuosa	Found in sagebrush through spruce-fir forests on shale outcrops of the Green
Plants	100	21/200	River Formation at 8,500 to 10,800 feet (2,591 to 3,292 meters) elevation.
Flowering	Cronquist's forget-me-not	Hackelia cronquistii	North-facing gentle to moderate slopes, with the majority of plants occurring
Plants	Mac		on mid or lower slope areas. Soils are sandy. Usually found with a plant
	12 No		association that includes big sagebrush and indian ricegrass.
Flowering	Jaeger's hesperdianthus	Hesperidanthus jaegeri	Pinyon and juniper woodland, subalpine coniferous forest; rocky crevices, cliffs,
Plants			and limestone clefts.
Flowering	Cooper's rubber-plant	Hymenoxys cooperi var.	This variety is found in open areas, edges of juniper/pine forest, and on
Plants	10 11	canescens	roadsides at elevations ranging from 1,000 to 3,500 meters.
Flowering	Spreading gilia	lpomopsis polycladon	This species is found in gravelly or sandy soils in pinyon-juniper woodlands,
Plants			plains, washes, mesas, and desert shrublands.

Taxa	Common Name	Scientific Name	Preferred Habitat
Flowering Plants	Rock purpusia	Ivesia arizonica var. saxosa	Rock Purpusia occurs in crevices of cliffs and on boulders on volcanic (granitic or ash-flow tuff) and possibly carbonate rocks in the upper mixed-shrub, sagebrush, and pinyon-juniper zones, at elevations of 1500 - 2100 meters.
Flowering Plants	Ash Creek ivesia	lvesia paniculata	Shallow, rocky soils on open volcanic ridges, gravelly flats, and openings within Sagebrush Scrub, Northern Juniper Woodland, Yellow Pine Forest, Lodgepole Forest, and Red Fir Forest communities.
Flowering Plants	Kingston Mountains ivesia	lvesia patellifera	Crevices of granitic rocks within Pinyon-Juniper Woodland communities. 1400 - 2100 meters.
Flowering Plants	Pine Nut Mountains mousetails	Ivesia pityocharis	This species occurs in seasonally saturated soils of sagebrush flats at 2100 to 2700 meters elevation.
Flowering Plants	Grimy ivesia	Ivesia rhypara var. rhypara	Populations of Grimy Ivesia are found on either light-colored ash-tuff or on outcrops of volcanic ash deposited with riverbed gravels. Habitat is low sagebrush or barren without canopy cover and is very dry.
Flowering Plants	Plumas ivesia	Ivesia sericoleuca	Meadows and alkaline flats/gentle slopes, usually on volcanic substrates, sometimes on mixed-alluvium Eocene lake deposits. Habitat is generally vernally moist, drying later in the season; species sometimes also found around vernal pools or seeps. These open habitats are found within Sagebrush Scrub and Yellow Pine Forest communities. 1300 - 2200 meters.
Flowering Plants	Least rush	Juncus hemiendytus var. abjectus	This variety occurs in damp open habitats such as vernal depressions, swales in sagebrush flats, streambeds, forest clearing and alpine meadows at elevations ranging from 1,400 to 3,400 meters.
Flowering Plants	Borrego Balley pepper-grass	Lepidium flavum var. felipense	This variety is found in sandy or alkaline soils on roadsides, washes, floodplains, sagebrush scrub, and mesas, at elevations ranging from 600 to 1,600 meters.
Flowering Plants	Borrego Balley pepper-grass  Huber's pepperplant  Ostler pepperplant  Fremont's bladderpod	Lepidium huberi Lepidium ostleri	In sand or silty sands derived from the Navajo formation, Shinarump member of the Chinle and Moenkopi formations, and Park City and Weber sandstone formations. Found within a variety of shrub-dominated and coniferous forest/woodland communities, including ponderosa pine, lodgepole pine, Douglas fir, spruce-fir, sagebrush, black sagebrush, snowberry, and mountain mahogany communities at 2225 - 2960 meters.
Flowering Plants	Ostler pepperplant	Lepidium ostleri	This species occurs in pinyon-juniper communities, often in shaded sites on Ordovician limestone outcrops with scattered rocks and gravel at elevations of 1,765 to 2,075 meters elevation.
Flowering Plants	Fremont's bladderpod	Lesquerella fremontii	Rocky limestone slopes and ridges in cushion plant-bunchgrass (Festuca idahoensis) communities and in montane meadows with scattered limber pine (Pinus flexilis). Often associated with three-tip sagebrush (Artemisia tripartita).

Taxa	Common Name	Scientific Name	Preferred Habitat
Flowering Plants	Mountain bladderpod	Lesquerella montana	This species is found on banks, rock outcrops, from plains into benchland into stony slopes and mountains, in sagebrush, open scrub oak, ponderosa pine, pinyon-juniper woodlands, and Douglas fir on granitic, often gravelly, non-calcareous soils.
Flowering Plants	Prostrate bladderpod	Lesquerella prostrata	Rangewide habitats include plains, hills, and slopes in sagebrush, grass, and juniper communities, mainly on calcareous substrates, but it can also occur on igneous substrates, it occurs at 1800-2500 m (5900-8200 feet) elevation.
Flowering Plants	None	Lessingia glandulifera var. tomentosa	Desert slopes and arroyos, grassland, hillsides, roadsides, generally sandy soil; Elevation: 900 meters.
Flowering Plants	Common starlily	Leucocrinum montanum	This species is found in sandy to rocky places, short-grass prairie, scrub flats, sagebrush deserts to open montane forests, at elevations ranging from 800 to 2,400 meters.
Flowering Plants	Marquire bitterroot	Lewisia maguirei	This species occurs in dry, sparsely vegetated carbonate scree or shallow gravelly-clay soils on steep slopes and ridgelines of all aspects. In the pinyon-juniper zone at elevations of 2,240 to 2,525 meters.
Flowering Plants	Pioneertown linanthus	Linanthus bernardinus	Joshua tree or pinyon-juniper woodland, mixed scrub, in gravelly granitic soils; Elevation: I 100-1550 meters.
Flowering Plants	Granite prickly phlox	Linanthus pungens	This species is found in open, dry, rocky, or sandy areas, from plains to sagebrush desert, to moderate elevations in the drier mountains.
Flowering Plants	Sagebrush pygmyleaf	Loeflingia squarrosa ssp. artemisiarum	Occurs in dry soils and loose sands of washes, areas bordering clay slicks, and stabilized, low sand dunes. Found in Great Basin scrub and Sonoran Desert scrub most often under Gilia and Linanthus.
Flowering Plants	Taper-tip desert-parsley	Lomatium attenuatum	Volcanic or limestone-derived scree and thin soil in sagebrush-grassland, grassland, open Douglas-fir (Pseudotsuga menziesii), and creek bottom communities.
Flowering Plants	Bentonite biscuitroot	Lomatium bentonitum	This species occurs in pinon-juniper woodlands and clay badlands.
Flowering Plants	Fringed desert-parsley	Lomatium foeniculaceum ssp. fimbriatum	This subspecies occurs in pine woodlands and sagebrush scrub.
Flowering Plants	Ochoco Iomatium	Lomatium ochocense	Open, barren scabland with Artemisia rigida/Poa secunda plant association.
Flowering Plants	Packard's desert parsley	Lomatium packardiae	This species is found within sagebrush communities, on dry, open, rocky clay soils derived from rhyolite or volcanic ash, at elevations of 730 - 2300 meters.
Flowering Plants	Raven's Iomatium	Lomatium ravenii var. ravenii	This taxon typically grows on alkaline soils of flats in sagebrush of Great Basin Scrub at elevations of 1,615 to 1,775 meters.
Flowering Plants	Adobe Iomatium	Lomatium roseanum	Open, dry, basalt talus and scree overlying clay soils on gentle slopes; also occurs directly on black adobe soil. Usually found within low sagebrush vegetation.

Taxa	Common Name	Scientific Name	Preferred Habitat
Flowering Plants	Hoover's Desert parsley	Lomatium tuberosum	This species is often found on loose basalt talus and rocky slopes in sagebrush steppe, typically on north to east facing slopes, but it can also be found in
			channels or open ridgetops on south to southwest facing slopes.
Flowering Plants	Culter's spurred lupine	Lupinus caudatus var. cutleri	Occurs sagebrush plains and in pinyon-juniper woodlands, at elevations of 1800 - 2560 meters.
Flowering Plants	Paradox lupine	Lupinus crassus	Occurs in Pinyon-juniper woodland or sagebrush, on Mancos shale derived soils in the Naturita area, on quaternary alluvium derived from the Chinle Formation in the Paradox Valley, on sparsely vegetated soil, particularly in draws and dry hillsides. It is occasionally found on loamy to clayey soils and even on adobe hill.
Flowering Plants	Mono Lake lupine	Lupinus duranii	Dry volcanic pumice, sand, and gravel within Sagebrush Scrub and coniferous forest communities.
Flowering Plants	Springs Bush Mountain Iupine	Lupinus excubitus var. medius	Pinyon and juniper woodland, Sonoran Desert scrub, desert washes.
Flowering Plants	McGee Meadows Iupine	Lupinus magnificus var. hesperius	Based on occurrence descriptions, this species occurs on foothills on coarse, granite sand or loose, sand slopes surrounded by black oak or in sagebrush community.
Flowering Plants	Nevada lupine	Lupinus nevadensis	Hillsides and valley floors, on dry, sandy, and stony soil with pinyon-juniper and sagebrush; 4400-7000 feet.
Flowering Plants	Inchhigh lupine	Lupinus uncialis	This species is found on limestone, rhyolite, volcanic gravels in open areas, barrens, and talus in sagebrush and pinyon/juniper woodland, at elevations ranging from 1,300 to 1,600 meters.
Flowering Plants	Entrada rushpink	Lygodesmia grandiflora var. entrada	This species occurs in deep sandy soils of Juniper and mixed desert shrub communities at 1340-1465 meters elevation.
Flowering Plants	Dolores River skeletonplant	Lyodesmia grandiflora var. doloresensis	Occurs in dry open places on sandy soils, reddish purple, sandy alluvium and colluvium of the Cutler Formation between the canyon walls and the river in juniper, shadscale, and sagebrush communities, at 1364 - 2032 meters elevation. Some occurrences are along roads, and there are fewer plants away from disturbed roadsides.
Flowering Plants	Ventana stickleaf blazingstar	Mentzelia congesta	This species occurs in sagebrush scrub, disturbed slopes, pine forests, and pinyon/juniper woodlands, at elevations ranging from 1,200 to 2,700 meters.
Flowering Plants	Royal Gorge blazingstar	Mentzelia densa	Occupies dry open areas in washes, roadsides, naturally disturbed sites, and steep rocky slopes. Plants grow in gravel, scree, or on cliffs formed from Precambrian granodiorite and gneiss. The species occurs in pinyon-juniper woodland and lower montane shrubland communities with a poorly developed understory and an open canopy.

Taxa	Common Name	Scientific Name	Preferred Habitat
Flowering Plants	Goodrich's blazingstar	Mentzelia goodrichii	Steep, white, marly, calciferous shale outcrops of the Green River Formation with scattered limber pine, pinyon pine, Douglas fir, mountain mahogany, and rabbitbrush, along escarpment of Willow and Argyle canyons, at 2470-2685 m, mostly southern exposures.
Flowering Plants	Inyo blazingstar	Mentzelia inyoensis	Documented on a variety of substrates including carbonate rocks/gravel, calcareous pumice sand, whitish ash deposits, and clay soils of hillsides, occurs in habitats that include sagebrush scrub, shadscale scrub, and pinyon-juniper woodlands.
Flowering Plants	Horse Canyon stickleaf	Mentzelia multicaulis var. librina	Occurs on barren gray clay soils, on steep shale slopes at elevations 1700 - 2100 meters, in sagebrush, rabbitbrush and pinyon-juniper communities on Manicos Shale and Price River formations.
Flowering Plants	Polished blazingstar	Mentzelia polita	Occurs in open areas in mixed desert shrub communities, in dry washes, arroyos, and steep slopes, on clayey or gravelly limestone or less commonly gypsum soils, at 450-1370 m elevation in Nevada; 1200-1500 m elevation in California.
Flowering Plants	Roan Cliffs blazingstar	Mentzelia rhizomata	This species is known only from steep, shaley talus slopes derived from the Parachute Creek Member of the Green River Formation. The plants are commonly associated with Gambel oak, western chokecherry, mountain mahogany and Utah juniper
Flowering Plants	Nodding silver-puffs	Microseris nutans	This species is found in various soils in brushlands, grasslands, woodlands, and
Flowering Plants	Disappearing monkeyflower	Mimulus evanescens	Grows in sagebrush-juniper plant associations, among rocky rubble and boulders in vernally moist, heavy gravel. It is generally restricted to a narrow ecotone on fluctuating banks of intermittent streams or pools, between sagebrush on the upper bank and emergent, wetland species on the lower bank.
Flowering Plants	Narrow-leaved mondardella	Monardella angustifolia	Rhyolitic ash tuff outcrops between 850- and 1400-meters elevation. These relatively barren areas consist of azonal soils. Surrounding vegetation includes sagebrush steppe and big sagebrush shrubland.
Flowering Plants	Boyd's monardella	Monardella boydii	Desert scrub, juniper woodland, on canyon bottoms and rocky slopes; Elevation: 1400-1650 meters.
Flowering Plants	Clark Mountain monardella	Monardella eremicola	Limestone (occasionally granite) outcrops in pinyon/juniper woodland, canyons, slopes, wash margins; Elevation: 1500-2100 meters.
Flowering Plants	Robison mondardella	Monardella robisonii	Found in Pinyon and Juniper woodland.

Taxa	Common Name	Scientific Name	Preferred Habitat
Flowering Plants	Annual dropseed	Muhlenbergia minutissima	This species is found on rocky slopes and flats, in sandy, gravelly drainages, road cuts, and open sites, as well as pinyon-juniper woodlands, yellow pine and oak-pine forests, pinyon-juniper woodlands, thorn-scrub forests, and oak-gramma savannahs, at elevations ranging from 1,200 to 3,000 meters.
Flowering Plants	Rigid threadbush	Nemacladus rigidus	Desert scrub, juniper or pinyon-juniper woodland, sandy and gravelly wash bottoms, volcanic ash, mostly below 2200 meters.
Flowering Plants	Rock-loving neoparrya	Neoparrya lithophila	Grows on volcanic substrates, in cracks or shelves usually with minimal talus. It is seen in moderate to steep rock outcrops, or outcrops of volcanic soils. It also occurs on sedimentary rock derived from extrusive volcanics (Dry Union Formation at Salida). The surrounding habitat is typically grasslands or pinon-juniper woodlands.
Flowering Plants	Holmgren smewlowskia	Nevada holmgrenii	This species occurs in cracks, cervices, ledges, rubble, talus, or small soil pockets on rock outcrops and cliffs, from high-elevation ridges to north facing walls at lower elevations, on various rock types (e.g. calcareous rock, schist, metamorphic rock, igneous rock). Sites are found in the lower alpine, subalpine conifer, mountain sagebrush, and upper pinyon-juniper zones.
Flowering Plants	Murdock's evening primrose	Oenothera murdockii	Pinyon-juniper woodlands, clay, silty barrens.
Flowering Plants	Short-joint beavertail	Opuntia basilaris var. brachyclada	Joshua tree "woodland", Mohavean desert scrub, pinyon and juniper woodland, sandy soils of slopes just above the desert, mostly at 900- 1800 m. Desert-edge phase of California Chaparral.
Flowering Plants	Tufted cryptanth	Oreocarya caespitosa	Populations are usually restricted to rocky or chalky ridgetops in cushion plant communities. Forb-grass, pinyon-juniper, mountain brush, limber pine, and spruce-fir forests at 1950 to 3120 meters.
Flowering Plants	Rollins' crypthantha	Oreocarya rollinsii	Known from white shale slopes of the Green River Formation; in pinyon-juniper woodlands and cold desert shrubland communities at 5,300 to 5,800 feet (1,615 to 1,768 meters) elevation.
Flowering Plants	Trotter's oreoxis	Oreoxis trotteri	This species grows in crevices or in sandy pockets on the Moab Tongue and (occasionally) the Slick Rock members of the Entrada Sandstone. It is found in the open, although usually on sites with a northern aspect, and, less frequently, in alcoves and along shaded cliff bases. It grows in mixed juniper and warm desert shrub community at 1,359 to 1,573 m elevation.
Flowering Plants	Osterhout's cryptanthia	Oreocarya osterhoutii	This species is found in dry barren sites in shale or reddish-purple decomposed sandstone, or in dry sandy soil in the desert, in blackbrush, mixed desert shrub, oak brush, salt bush, and pinyon-juniper communities at 1,370 to 2,000 meters.
Flowering Plants	Shasta orthocarpus	Orthocarpus pachystachyus	Ultramafic alluvium with sagebrush and native bunchgrasses. 775 - 975 meters.

Taxa	Common Name	Scientific Name	Preferred Habitat
Flowering Plants	Rollin's crypanthia	Oreocarya rollinsii	Known from white shale slopes of the Green River Formation; in pinyon-juniper woodlands and cold desert shrubland communities at 5,300 to 5,800 feet (1,615 to 1,768 meters) elevation.
Flowering Plants	Bessey locoweed	Oxytropis besseyi var. obnapiformis	This taxon grows on barrens, sand dunes, bluffs, hilltops, or knolls in fine-textured or sandy soils or shaley talus in pinyon-juniper and sagebrush communities.
Flowering Plants	Challis crazyweed	Oxytropis besseyi var. salmonensis	Occurs within the shrub-steppe in sandy wash or open lower slopes on fine talus and ash.
Flowering Plants	Wanapum crazyweed	Oxytropis campestris var. wanapum	This taxon grows in open sagebrush communities on volcanic-ash substrates described as whitish clay-silt soils below white ashy layer that are found at the summit of a north-facing ridgeline.
Flowering Plants	Colorado feverfew	Parthenium ligulatum	Barren or semibarren calciferous or gypsiferous outcrops of the Green River, Uinta, Ferron, Summerville, and Carmel formations in salt desert shrub, serviceberry, rabbitbrush, Indian rice-grass, greasebush, galleta, black sagebrush, pygmy sagebrush, and pinyon-juniper communities at 1705-2135 meters.
Flowering Plants	Dwarf lousewort	Pedicularis centranthera	Sagebrush scrub, alluvial fans; 1300 - 1500 meters.
Flowering Plants	Meadow lousewort	Pedicularis crenulata	This species occurs in moist grassy, alpine meadows, and sagebrush basins at elevations ranging from 1,500 to 3,200 meters.
Flowering Plants	Snowball cactus	Pediocactus nigrispinus	Sagebrush, grasslands, and coniferous forests; usually below 1500 meters elevation.
Flowering Plants	Simpson's hedgehof cactus	Pediocactus simpsonii	Pinyon-juniper woodlands, sagebrush, montane and prairie grasslands, and coniferous forests; usually above 1500 meters elevation.
Flowering Plants	Tuhy's breadroot	Pediomelum aromaticum var. tuhyi	Found in pinyon-juniper and mixed desert shrub communities at elevations between 5,600 to 6,500 feet.
Flowering Plants	Kane breadroot	Pediomelum epipsilum	Pinyon-juniper woodland at ca. 1670 meters. on Chinle and Moenkopi formations.
Flowering Plants	Stemless beardtongue	Penstemon acaulis	This species occurs on semi-barren substrates in pinyon-juniper and sagebrush-grass communities elevations of 1,676 to 2,504 meters.
Flowering Plants	Stemless penstemon	Penstemon acaulis var. acaulis	This species occurs on semi-barren substrates in pinyon-juniper and sagebrush-grass communities elevations of 1,676 to 2,504 meters.
Flowering Plants	Yampa beardtongue	Penstemon acaulis var. yampaensis	This species grows in sandy or gravelly or rocky soils of barren or semi-barren shale ridges or slopes, dry, sparsely vegetated limestone outcrops, gypsum hills, and shale ridges, or deposition fans from eroded slopes and alluvial fans in sparsely vegetated areas of pinyon-juniper and sagebrush-grass communities at elevations of 1,780 to 2,200 meters.

Taxa	Common Name	Scientific Name	Preferred Habitat
Flowering	White River beardtoung	Penstemon albifluvis	Habitat is desert shrub communities or pinyon-juniper woodlands on
Plants			substrates composed of fine textured soils and shale fragments, weathered
			from the Green River Formation.
Flowering	Neese narrowleaf penstemon	Penstemon angustifolius var.	Four-winged saltbush, sagebrush-Eriogonum, and juniper communities of sand
Plants		dulcis	dunes.
Flowering	Rosy two-toned beardtongue	Penstemon bicolor ssp. roseus	This subspecies is found on gravelly soils, and roadsides, as well as juniper
Plants			woodlands, desert scrub, talus slopes, and arroyos.
Flowering	Tunnel Springs beardtongue	Penstemon concinnus	Endemic to the Great Basin occurring in pinyon-juniper, blue grama, mountain
Plants			mahogany, cliff rose, and sagebrush communities. Found on calcareous or
			igneous gravels, usually on pale, limestone-derived substrates.
Flowering	Franklin's penstemon	Penstemon franklinii	Occurs in grass-forb-sagebrush and in three-awn, needlegrass, matchweed, and
Plants			black sagebrush communities on sandy-gravelly and sandy soils across a gently
		, dic	sloping landscape.at 1,650 to 1,800 meters elevation.
Flowering	Death Valley beardtongue	Penstemon fruticiformis var.	This species is found in creosote shrublands at elevations ranging from 900 to
Plants		amargosae	I,900 meters.
Flowering	Blue-leaved penstemon	Penstemon glaucinus	At mid-elevations in open understory of pine forests, usually lodgepole or
Plants		13/1/6,001	white-bark, occasionally ponderosa. Also, in open areas dominated by shrub-
		CiCI I N. WILL	grasses on exposed slopes, rims and ridges at higher elevations.
Flowering	Harrington's beardtongue	Penstemon harringtonii	Open sagebrush or, less commonly, pinyon-juniper habitats, on gentle slopes.
Plants		The go II	Soils are typically rocky loams and rocky clay loams derived from coarse
		7 7 18 18 18	calcareous parent materials.
Flowering	Janish's beardtongue	Penstemon janishiae	Hillsides and slopes on clay soil derived volcanic rock with Artemisia to
Plants	15 70	S. SILL SOLVE	pinyon-juniper.
Flowering	Bright penstemon	Penstemon luculentus	This plant is found on partly barren, arid benches and slopes in sandy clay
Plants	7,700 25	Wor you wer	loams of the Uinta Formation and Green River shale in sagebrush communities
	0 27	1E1 410. TIL	with Amelanchier, Chrysothamnus, and Holodiscus.
Flowering	Pahute Mesa beardtongue	Penstemon pahutensis	In loose soil and rock crevices among boulders in pinyon-juniper woodlands
Plants	102 03	W 12 O2	and sagebrush shrublands. 1770-2285 meters elevation.
Flowering	Beautiful penstemon	Penstemon perpulcher	Sandy or loamy soils on the lower and middle Snake River Plains and
Plants	all list and all all all all all all all all all al		surrounding, rolling, sagebrush-dominated foothills. 630-2000 meters elevation.
Flowering	Closed-throated beardtongue	Penstemon personatus	Conifer forests, often moist and with a substantial Shasta red fir component. In
Plants			semi-shade or open places, such as dry hillsides, forest openings and edges, and
			disturbed places such as clearcuts and roadsides; sometimes within Montane
			Chaparral areas. Often on metavolcanic substrates. 1065 - 2120 meters.

Taxa	Common Name	Scientific Name	Preferred Habitat
Flowering Plants	Pinyon penstemon	Penstemon pinorum	Pinyon-juniper, mountain-mahogany, ephedra, oak, sagebrush, and less commonly greasewood communities on Tertiary Claron Formation, i.e., quartzite cobble conglomerate and sandstone to calcareous sandstone and sandy limestone (soils are reddish and gravelly to cobble-like), across slopes of varying degree and aspect (predominately northerly) between 1713 meters and 2072 meters.
Flowering Plants	Bashful beardtongue	Penstemon pudicus	Occurs on steep, rocky slopes in Pinyon-Juniper woodlands, especially along partially shaded washes, at 2300-3050 m (7500 - 10000 feet) elevation. The species occurs in crevices, soil pockets, and coarse rocky soils of felsic volcanic outcrops, boulder piles, on steep protected slopes, and drainage bottoms, mostly on north and east aspects, in the subalpine sagebrush, mountain mahogany, and upper pinyon-juniper zones.
Flowering Plants	Wassuk beardtongue	Penstemon rubicundus	Occurs in desert scrub, sagebrush, pinyon-juniper ecosystems on rocky to gravelly soils on perched tufa shores, steep decomposed granite slopes, rocky slopes, rocky drainage bottoms, disturbed but recovering areas with enhanced runoff, including slopes that were recently burned, where it can be abundant.
Flowering Plants	Neese's Blue Mountain beardtongue	Penstemon scariosus var. cyanomontanus	Occurs in pinyon-juniper or sagebrush-grassland communities, on sandy soil or in sandstone crevices.
Flowering Plants	Short-lobed penstemon	Penstemon seorsus	This species is found in juniper woodlands and sagebrush shrublands at elevations ranging from 1,000 to 2,100 meters.
Flowering Plants	Stephens' beardtongue	Penstemon stephensii	Rocky (usually carbonate) areas, including rock crevices, limestone cliffs, rocky slopes, and washes with sandy conglomerate. Predominantly within Creosote Bush Scrub and Pinyon-Juniper Woodland communities, occasionally within Shadscale Scrub or Sagebrush Scrub. 1160 - 1850 meters.
Flowering Plants	Susanville beardtongue	Penstemon sudans	This species grows in open, sagebrush or woodland dominated, rocky slopes on volcanic or other igneous substrates at elevations of 1,200 to 1,700 meters elevation.
Flowering Plants	Jaeger beardtongue	Penstemon thompsoniae ssp. jaegeri	Gravelly limestone soils on knolls and slopes, in drainages, and under conifers, from the pinyon-juniper to the subalpine conifer zones.
Flowering Plants	Ward's penstemon	Penstemon wardii	This species grows on semi-barren, light-colored clays (often calcareous or gypsiferous) in desert shrub and pinyon-juniper communities at 1,645 to 2,075 meters elevation.
Flowering Plants	Yampa penstemon	Penstemon yampaensis	This species grows in sandy or gravelly or rocky soils of barren or semi-barren shale ridges or slopes, dry, sparsely vegetated limestone outcrops, gypsum hills, and shale ridges, or deposition fans from eroded slopes and alluvial fans in sparsely vegetated areas of pinyon-juniper and sagebrush-grass communities at elevations of 1,780 to 2,200 meters.

Taxa	Common Name	Scientific Name	Preferred Habitat
Flowering	White River beardtongue	Penstemon scariosus var.	Habitat is desert shrub communities or pinyon-juniper woodlands on
Plants		albifluvis	substrates composed of fine textured soils and shale fragments, weathered
			from the Green River Formation.
Flowering	Wild crabapple	Peraphyllum ramosissimum	Oak-sagebrush, pinyon-juniper, mountain brush, and ponderosa pine
Plants			communities at 1500 to 2500 meters.
Flowering	Inyo rock daisy	Perityle inyoensis	Dry, rocky, often carbonate, slopes, within Pinyon-Juniper Woodland and
Plants			Great Basin Scrub communities. 1800 - 2710 meters.
Flowering	Alcove rock-daisy	Perityle specuicola	Occurs on dry sites in alcoves, cliffs, cliff bases, and narrow, protected canyons
Plants			on Navajo Sandstone and Cedar Mesa sandstone formations, and in Permian
			limestone. It is found within desert shrub and hanging garden communities
			along streams and near seeps within pinyon-juniper in Navajo Sandstone and
			Cedar Mesa sandstone formations, and in Permian limestone, along the
Flowering	Hanaupah rock daisy	Perityle villosa	Colorado and San Juan rivers at 1125-1500 m elevation.
Plants Plants	,	000	Occurs in rock crevices in pinyon and juniper woodlands.
Flowering	Cooke's phacelia	Phacelia cookei	Open areas, including disturbed roadsides, seedling conifer plantations, and
Plants		Hicial Ph exher	recently burned sites, on loose volcanic sand. Found within Great Basin
		Cicle I MI IME	(Sagebrush) Scrub and Yellow Pine Forest communities, often with a scattered
			ponderosa pine-juniper overstory.
Flowering	Cronquist's phacelia	Phacelia cronquistiana	Limited to the gypsum-rich Carmel Formation, it occurs on clay outcrops in
<u>Plants</u>	Δ,	711.01.01.	pinyon-juniper-sagebrush and ponderosa pine communities.
Flowering	Clarke phacelia	Phacelia filiae	Grows on pale-colored outcrops and calcareous substrates, gypsiferous
Plants	15 2	SIN COLLEY	sandstone, siltstone, tuffaceous claystone, or limestone of foothills, low knolls,
	Wis This	W BOIL W	or valley floors above the playas in creosote-bursage, shadscale, mixed-shrub,
	71.000	N 00 00	and blackbrush zones.
Flowering	Death Valley round-leaved	Phacelia mustelina	This species occurs in Mohavean desert scrub, pinyon and juniper woodland on
Plants	phacelia	10 H31 130	carbonate or volcanic soils that are gravelly or rocky.
Flowering	Charlotte's pharcelia	Phacelia nashiana	Joshua tree "woodland", Mohavean desert scrub, pinyon and juniper woodland,
Plants	NE MELO	Si Maria	granitic soils.
Flowering	Nine Mile Canyon phacelia	Phacelia novenmillensis	This species grows in dry, open areas with sandy to gravelly soils, typically
Plants	I the		granitic or metamorphic, on disturbed banks within Pinyon-Juniper Woodland,
			Foothill/Cismontane Woodland, Red Fir Forest, and Mixed Evergreen Forest
Flowering	None	Phacelia perityloides var.	communities at elevations of 1,280 to 2,350 meters.  Dry rocky habitats, usually with carbonate substrate, including cliff crevices,
Plants	None		rock crevices, rock walls, and rocky slopes. Found predominantly within
rialius		jaegeri	
			Pinyon-Juniper Woodland communities, including pinyon-littleleaf mountain- mahogany and sagebrush-pinyon-juniper assemblages.
			manogany and sagebrush-pinyon-juniper assemblages.

Taxa	Common Name	Scientific Name	Preferred Habitat
Flowering Plants	Mount Diablo phacelia	Phacelia phacelioides	This species occurs in rocky places, including rocky slopes, peaks, and crests, in the open or in the partial shelter of shrubs. It is found within Chaparral and Foothill/Cismontane Woodland communities.
Flowering Plants	Atwood's pretty phacelia	Phacelia pulchella var. atwoodii	Occurs on thin gypsiferous strata or alluvium contaminated by gypsum in pinyon-juniper, oak, sagebrush, single-leaf ash, and serviceberry communities at 1550 to 1680 meters elevation.
Flowering Plants	Dward phacelia	Phacelia tetramera	This species is found in sagebrush steppe communities, meadows, vernal pools, alkaline flats, and washes.
Flowering Plants	Sunbright	Phemeranthus parviflorus	This species occurs in a wide variety of habits including woodlands, grasslands, chaparral, scrub, canyon washes, mountain slopes and ledges, on sandy, rocky soils, or on outcrops. It can grow at elevations of 0 to 2,700 meters above sea level.
Flowering Plants	Spinescent fameflower	Phemeranthus spinescens	Basaltic outcrops and scablands in sagebrush deserts.
Flowering Plants	Thompson's talinum	Phemeranthus thompsonii	Occurs in shallow, gravelly soils comprised mainly of rounded, silicious pebbles of the Buckhorn Conglomerate of the Cedar Mountain Formation in pinyon-juniper, sagebrush, and ponderosa pine communities.
Flowering Plants	Chambers' twinpod	Physaria chambersii	This species is found in reddish clay, limestone gravel, on dolomite ridges and roadsides, as well as in sagebrush and pinyon-juniper habitats at elevations ranging from 1,500 to 3,200 meters.
Flowering Plants	Dorn's twinpod	Physaria dornii	Dry, sparsely vegetated, calcareous-shaley slopes and ridges dominated by mountain mahogany and rabbitbrush at 1980-2200 meters elevation.
Flowering Plants	Cobre bladderpod	Physaria kingii ssp. cobrensis	This variety occurs in limestone gravel, silt, rocky places with low sagebrush at elevations ranging from 500 to 1,000 meters.
Flowering Plants	Middle Butte bladderpod	Physaria obdeltata	This species grows on clay, silt, or gravel over basal lava flows on barren areas, playas, or in sagebrush at elevations of 1,300 to 1,700 meters.
Flowering Plants	Piceance bladderpod	Physaria parviflora	This species is endemic to outcrops of the Green River Shale Formation in the Piceance Basin. It grows on ledges and slopes of canyons in open areas of pinon juniper communities.
Flowering Plants	Uncompaghre bladderpod	Physaria vicina	This species grows on Mancos shale at the ecotone between pinyon-juniper woodland and salt desert scrub. It also has been found in sandy soils derived from Jurassic sandstones and in sagebrush steppe.
Flowering Plants	Elusive Jacob's-ladder	Polemonium elusum	Occurs where vegetation transitions from sagebrush and mountain mahogany to Douglas-fir woodland.
Flowering Plants	Washington polemonium	Polemonium pectinatum	Occurs in riparian or vernally moist areas, usually in bottomlands, but occasionally on benches and mid-slope depressions. Primarily within sagebrush/bunchgrass communities; and previously within Palouse grasslands.

Taxa	Common Name	Scientific Name	Preferred Habitat
Flowering Plants	Fremont's combleaf	Polyctenium fremontii	This species is found in shallow soil on basalt, sagebrush areas, dry meadows, edge of vernal pools, gravel bars, rocky wash, mud flats, dry streambeds and swales, at elevations ranging from 1,000 to 2,700 meters.
Flowering Plants	Desert prenanthella	Prenanthella exigua	This species occurs in gravelly, sandy, or clay soils, in desert washes and open slopes to steppes of sagebrush-juniper, at elevations ranging from 20 to 1,900 meters.
Flowering Plants	Beartooth large-flowered goldenweed	Pyrrocoma carthamoides var. subsquarrosa	Grassland or sagebrush grassland, often on calcareous soils.
Flowering Plants	Bugleg goldenweed	Pyrrocoma insecticruris	Mountain meadows, sagebrush/grass; 5000-6000 feet elevation.
Flowering Plants	Snake River goldenweed	Pyrrocoma radiata	A grazing-modified sagebrush/grassland community. Usually, a specific soil type that is slightly to very calcareous and often overlays a shale formation.
Flowering Plants	Rough pyrrocoma	Pyrrocoma scaberula	Occurs in grasslands of the Snake River Canyons/Camas Prairie region.
Flowering Plants	California chicory	Rafinesquia californica	This species is found in open areas in chaparral, coastal sage scrub, and oak woodlands at elevations ranging from 100 to 1,500 meters.
Flowering Plants	Bartonberry	Rubus bartonianus  Salvia funerea  Salvia greatae	At least partially shaded in shrub communities on higher riparian terraces along streams and in shrub-dominated ephemeral stream beds, so water is available in abundance at least seasonally. Also, occasionally on lower slopes in mixed shrub communities, but never far from the riparian zone. Soils derived from basalt parent materials.
Flowering Plants	Death Valley sage	Salvia funerea	This species is associated with creosote bush.
Flowering Plants	Orocopia sage	Salvia greatae	Dry washes and fans, below 600 ft, creosote bush scrub.
Flowering Plants	Blaine pincushion	Sclerocactus blainei	Greasewood, galleta grass, shadscale, and sagebrush communities on limestone and igneous gravels with a clay matrix. 1460-1830 meters elevation.
Flowering Plants	Dawson's hookless cactus	Sclerocactus dawsonii	Populations occur primarily on alluvial benches along the Colorado and Gunnison Rivers and their tributaries.
Flowering Plants	Colorado hookless cactus	Sclerocactus glaucus	Populations occur primarily on alluvial benches along the Colorado and Gunnison Rivers and their tributaries.
Flowering Plants	Great Basin fishhook cactus	Sclerocactus pubispinus	Rocky hillsides of woodland and upper desert mountains. Shadscale, sagebrush, winterfat, rabbitbrush, and pinyon-juniper communities on calcareous and dolomitic gravels and outcrops at 1800 to 1955 meters.
Flowering Plants	Bolander's catchfly	Silene hookeri ssp. bolanderi	Usually occurs in grassy openings, sometimes dry rocky slopes, canyons, or roadsides on serpentine and non-serpentine soils.
Flowering Plants	Lost River silene	Silene scaposa var. lobata	Subalpine grassy, gravelly, or rocky slopes, ponderosa pine forests, juniper scrub, sagebrush.

Taxa	Common Name	Scientific Name	Preferred Habitat
Flowering Plants	Jones globemallow	Sphaeralcea caespitosa var. caespitosa	This species is found mainly on the Sevy Dolomite Formation on shallow, calcareous soil or on calcareous or dolomitic gravels, at 1370 to 2000 meters elevation in mixed desert shrub, typically with shadscale, matchweed, rabbitbrush, winterfat and in grass (Indian ricegrass and galleta) communities.
Flowering Plants	Railroad Valley globemallow	Sphaeralcea caespitosa var. williamsiae	Railroad Valley Globemallow occurs in shadscale, Sarcobatus and mixed shrub zones on dry, open, flat to gently sloped, gravelly carbonate soils on alluvium and valley fill, often more abundant on recovering disturbances such as washes and roadsides.
Flowering Plants	Psorlea globemallow	Sphaeralcea psoraloides	Salt and mixed desert shrub communities and pinyon-juniper communities; can occur in areas where vegetation is sparse. Occurs on clayey, silty, sandy, and grayelly semibarrens, often under alkaline conditions.
Flowering Plants	Tall dropseed	Sporobolus compositus var. compositus	This variety occurs in meadows, prairie, plains, and pastures, as well as open woodlands and savannas.
Flowering Plants	Hairy prince's-plume	Stanleya tomentosa var. runcinata	This variety is found in sagebrush communities, knolls, as well as on rocky limestone hillsides, steep grassy banks, and stony clay slopes at elevations ranging from 1,300 to 2,300 meters.
Flowering Plants	Woolly stenotus	Stenotus lanuginosus var. lanuginosus	This variety occurs on basaltic or granitic soils, in open pine forests, alpine meadows, and on sagebrush steppe, at elevations ranging from 300 to 2,900 meters.
Flowering Plants	Long-flowered snowberry	Symphoricarpos longiflorus	This species is found in sagebrush, pinyon-juniper communities, and rocky mountain slopes.
Flowering Plants	Slender-flowered evening- primrose	Tetrapteron graciliflorum	This species occurs in clay soil, grasslands, brushy or open slopes, as well as Yucca, juniper and oak shrublands at elevations ranging from 0 to 800 meters.
Flowering Plants	Alpine greenthread	Thelesperma subnudum var. alþinum	Pinyon-juniper, mountain brush, and western bristlecone pine communities at 2100 to 2745 meters (6890 to 9006 ft).
Flowering Plants	Kanab thelypody	Thelypodiopsis ambigua var. erecta	Occurs in pinyon-juniper and mixed desert shrub communities, on clay hilsides, practically always on degraded purple Chinle shales and mudstones, at 1512 to 1701 meters (4960 to 5580 feet) elevation.
Flowering Plants	Arrow-leaf thelypody	Thelypodium eucosmum	Under or around western juniper in canyons, seasonal creek drainages, and springs.
Flowering Plants	Howell's thelypodium	Thelypodium howellii var. howellii	This species is known from desert shrub communities, alkaline ground.
Flowering Plants	Purple thick-leaved thelypody	Thelypodium laciniatum var. streptanthoides	Found in sagebrush scrub communities.
Flowering Plants	Lone Mountain goldenheads	Tonestus graniticus	This species occurs in crevices in granite cliffs and on bedrock outcrops within pinyon pine woodlands.
Flowering Plants	Hooker's townsend-daisy	Townsendia hookeri	This species is found in grasslands, sagebrush steppe, coniferous woodlands; plains, valleys, and montane habitats.

Taxa	Common Name	Scientific Name	Preferred Habitat
Flowering Plants	Sevier townsendia	Townsendia jonesii var. lutea	Found in salt desert and mixed desert shrub and juniper-sagebrush communities.
Flowering Plants	Mountain townsendia	Townsendia montana	Grows on sandy calcareous soil of grasslands, sagebrush steppe, and woodlands at lower elevations.
Flowering Plants	Scapose daisy	Townsendia scapigera	This species is found in openings in sagebrush at elevations ranging from 1,400 to 3,400 meters.
Flowering Plants	Hairy townsend daisy	Townsendia strigosa	This species occurs in junipers, pinyons, desert scrub, and open places, with shales, sands, and clays at elevations ranging from 1,500 to 2,000 meters.
Flowering Plants	Frisco clover	Trifolium friscanum	This species is restricted to calcareous (Ordovician limestone, dolomite) and volcanic gravels, usually on relatively steep slopes, within pinyon-juniper woodland communities (often with mountain mahogany).
Flowering Plants	Dedecker's clover	Trifolium kingii ssp. dedeckerae	Often in cracks of granite outcrops and on gravelly slopes at 2100-3500 m. in pinyon-juniper woodlands, lower and upper montane coniferous forests, and subalpine coniferous forests.
Flowering Plants	Owyhee clover	Trifolium owyheense	Owyhee Clover occurs on barren slopes, ridges and mounds composed of talus and loose, coarse-grained, crumbly soils derived from rhyolitic ash or diatomaceous tuff at 830- 1650 m elevation within sagebrush-steppe or desert shrub vegetation.
Flowering Plants	Sand puffs	Tuit to a second second section to	Creosote bush, blackbrush, sandy desert shrub, and mixed desert shrub, usually in sand.
Insects	Large aegialian scarab	Aegialia magnifica  Bombus morrisonii	Known only from low, red sand hills and sand blow-outs in an area of ca. 12 km sq that extends South of Mormon Mesa ridge and North and East of the Meadow Valley Wash - Weiser Wash - Muddy River drainage system from the Longandale - Overton exchange on Interstate 90 southward ca. six km to Longandale, Nevada. Site is comprised by typical Mojave Desert vegetation characterized by creosote bush, Mojave yucca, white bur sage, brittlebush, Opuntia cactus, and Atriplex sp.
Insects	Morrison bumblebee	Bombus morrisonii	Typically found in open dry scrub.
Insects	Suckley's cuckoo dumblebee	Bombus suckleyi	The habitats of its known host species, Bombus occidentalis open grassy areas, urban parks and gardens, chaparral and shrub areas, and mountain meadows.
Insects	Barry's hairstreak	Callophrys gryneus chalcosiva	Juniper woodland, abandoned pastures, old fields, barrens, glades, coastal thickets and scrub; with its larval hosts, Juniperus virginiana, J. scopulorum.
Insects	Mattoni's blue	Euphilotes pallescens mattonii	Found primarily in the upper and lower Sonaran Zones, prairies, and sand dunes; found in pinyon-juniper woodlands and rolling prairie grasslands; host plant for the larvae is the buckwheat (Eriogonum microthecum nutt. Var. laxiflorum).
Insects	Mono Basin skipper	Hesperia uncas giulianii	This species occurs in single leaf pinyon woodlands and Great Basin sage scrub on gently rolling hills with sandy soil between 6,800 and 7,500 ft in elevation.

Taxa	Common Name	Scientific Name	Preferred Habitat
Insects	MacNeill sooty wing skipper	Hesperopsis gracielae	Requires stands of quailbush (Atriplex lentiformis) near nectar producing plants, such as heliotrope; often found on quailbush with high leaf water content resulting from shallow groundwater or irrigation runoff.; desert washes, alkali flats, and arid canyons, particularly if they support scrub or chaparral vegetation.
Insects	Coronis fritillary	Speyeria coronis coronis	Various: chaparral, sage lands, open pine forest, canyons, meadows. Hosts are in genus Viola, and oak woodlands.
Lichens	Ciliate strap-lichen	Heterodermia leucomelos	On bark in Sitka spruce and shore pine forests, shrub communities, windswept headlands, edges of dense thickets. Extending further inland in California and southwards, where it occurs on oaks, other trees, and sometimes associated with old-growth forest.
Lichens	Lichen	Hypotrachyna riparia	This species primarily occurs on twigs on shrubs, as well as on twigs and boles of deciduous trees.
Lichens	Idaho Range lichen	Xanthoparmelia idahoensis	Calcareous badlands, barren to sparsely covered with vascular vegetation. Slopes are approximately 45% or less. Surrounding vascular vegetation is shrub steppe, dominated by Artemisia or Atriplex.
Mammals	Nelson's antelope squirrel	Ammospermophilus nelsoni	Habitat consists of dry flat or rolling terrain, with slopes less than 10-14
Mammals	Pygmy rabbit  Gray wolf	Brachylagus idahoensis (Sylivalagus idahoensis)	This rabbit generally occurs in dense stands of big sagebrush growing in deep loose soils. It is highly dependent on sagebrush for food and shelter throughout the year. Unlike most other rabbits, it digs burrows, which are around 3 inches in diameter; a burrow may have multiple entrances. Pygmy rabbits occasionally use of burrows abandoned by other species and may occur in areas of shallower or more compact soils if these sites support sufficient shrub cover
Mammals	Gray wolf	Canis lupus	No particular habitat preference. Minimum of 10,000-13,000 sq km (with low road density) might be necessary to support a viable population. Young are born in an underground burrow that has been abandoned by another mammal or dug by wolf. In Northwest Territories, dens were most commonly located within 50 km of northern tree line, which resulted in maximal availability of caribou during the denning and pup rearing period; within the tundra zone, dens were not preferentially located near caribou calving grounds.

Taxa	Common Name	Scientific Name	Preferred Habitat
Mammals	Wolverine	Gulo gulo luscus, Gulo gulo luteus	Alpine and arctic tundra, boreal and mountain forests (primarily coniferous). Limited to mountains in the south, especially large wilderness areas. Usually in areas with snow on the ground in winter. Riparian areas may be important winter habitat. May disperse through atypical habitat. When inactive, occupies den in cave, rock crevice, under fallen tree, in thicket, or similar site. Terrestrial and may climb trees. Young are born in a den among rocks or tree roots, in hollow log, under fallen tree, or in dense vegetation, including sites under snow.
Mammals	Gunnison's prairie dog	Cynomys gunnisoni	Gunnison's prairie dogs establish their colonies on gently sloping grasslands and semi-desert and montane shrublands, at elevations ranging from 4,600 to 12,000 feet (1,400 to 3,660 meters).
Mammals	White-tailed prairie dog	Cynomys leucurus	This loosely colonial species inhabits open shrublands, semidesert grasslands, and open valleys. It lives at higher elevations and in meadows with more diverse grass and herb cover than do black-tailed prairie dogs. Young are born in underground burrows.
Mammals	Black-tailed prairie dog	Cynomys Iudovicianus	Habitat consists of dry, flat or gently sloping, open grasslands with low, relatively sparse vegetation, including areas overgrazed by cattle. The species occurs in open vacant lots at town edges in some areas. Young are born in underground burrows.
Mammals	Utah prairie dog	Cynomys parvidens	Utah prairie dogs are only found in southwestern and central Utah in open habitats. Habitat consists of swale-type formations where herbaceous vegetation is available. The species requires well, drained deep soil for burrowing.
Mammals	Short-nosed kangaroo rat	Dipodomys nitratoides brevinasus	Habitat for this species includes friable sandy or silty soils in areas with no to moderate shrub cover and scattered herbaceous plants: sparsely vegetated alkali sink communities where soils are generally sandy or silty; valley grassland; saltbush and sink scrub. The species does not tolerate irrigation or cultivation but may re-invade fields no longer under cultivation.
Mammals	Big brown bat	Eptesicus fuscus	Habitats range from high mountains to low deserts, including cities. Summer roosts generally are in buildings, bridges, hollow trees, spaces behind exfoliating bark, rock crevices, tunnels, or cliff swallow nests, in sites that do not get too hot. Maternity colonies may form in attics, barns, rock crevices, or tree cavities. Most adult females return to the same maternity roost site in successive years. Caves, mines, and especially buildings and human-made structures are used for hibernation.

Taxa	Common Name	Scientific Name	Preferred Habitat
Mammals	Spotted bat	Euderma maculatum	This species occurs in various habitats from desert to montane coniferous stands, including open ponderosa pine, pinyon-juniper woodland, canyon bottoms, riparian and river corridors, meadows, open pasture, and hayfields. Active foraging may be mostly in open terrain, including forest clearings, meadows, and open wetlands, sometimes in open areas near buildings.
Mammals	Western red bat BAT,	Lasiurus blossevillii	In California, roosting habitat includes forests and woodlands from lowlands up through mixed conifer forests of mountains; foraging habitat includes grasslands, shrublands, open woodlands and forests, and croplands, but not deserts. Red bats in California appear to be strongly associated with riparian habitats, particularly mature stands of cottonwood/sycamore in the Central Valley and lower reaches of the large rivers that drain the Sierra Nevada (Pierson et al. 2006). They sometimes use orchards, tamarisk, or other nonnative trees; the degree to which sprayed orchard trees serve as viable habitats (versus population sinks) is unknown. In spring and summer, females occur primarily in lowland riparian habitat, whereas males more often are found at higher elevations.
Mammals	Black-tailed jackrabbit	Lepus californicus	Inhabits open plains, fields and deserts, open country with scattered thickets or patches of shrubs. Rests by day in shallow depression (form).
Mammals	White-tailed jackrabbit	Lepus townsendii	Open grasslands and sagebrush plains. At higher elevations found in open areas adjacent to pine forests and in alpine tundra. Rests by day usually in shallow depressions (forms) at base of bush or beside or in cavity in snow. Young are born in a well concealed depression in the ground or in burrows abandoned by other animals.
Mammals	Dark kangaroo mouse	Microdipodops megacephalus	In loose sands and gravel. Found in Shadscale Scrub, Sagebrush Scrub, and Alkali Sink plant communities in the Upper Sonoran life zone. May occur in sand dunes near margins of range. Underground when inactive.
Mammals	Desert Valley kangaroo mouse	Microdipodops megacephalus albiventer	Prefer loose sands and gravel and are found in shadscale scrub, sagebrush scrub, and alkali sink plant communities in the Upper Sonoran life zone. They may occur in sand dunes near the margins of their range (eol.org). Found among bushes growing in soils covered with gravel or on sand dunes.
Mammals	Fletcher dark kangaroo mouse	Microdipodops megacephalus nasutus	Prefer loose sands and gravel and are found in shadscale scrub, sagebrush scrub, and alkali sink plant communities in the Upper Sonoran life zone. They may occur in sand dunes near the margins of their range. Found among bushes growing in soils covered with gravel or on sand dunes.
Mammals	Pale kangaroo mouse	Microdipodops pallidus	Habitat is nearly restricted to fine sands in alkali sink and desert scrub dominated by Atriplex confertifolia (shadscale) or Artemisia tridentata (big sagebrush). This mouse often burrows in areas of soft, windblown sand piled at the bases of shrubs.

Taxa	Common Name	Scientific Name	Preferred Habitat
Mammals	Owens Valley vole	Microtus californicus vallicola	Found in rush/sedge meadow, native meadow, riparian scrub, and ungrazed irrigated pasture.
Mammals	Ash Meadows montane vole	Microtus montanus nevadensis	This species occurs in Inter-Mountain Basins Semi-Desert Shrub Steppes, Inter-Mountain Basins Semi-Desert Grasslands, and North American Arid West Emergent Marsh.
Mammals	Shaw Island vole	Microtus townsendii pugeti	This species occurs in marshes (fresh, brackish, and salt water) under driftwood on beaches, as well as in underground burrows in open grasslands, forests, and dry and agricultural fields.
Mammals	California myotis  Western small-footed myotis  Long-eared myotis	Myotis ciliolabrum	These bats occur in various habitats, including seacoasts, desert scrub, oak- juniper woodlands, montane and humid coastal forests, mountain meadows, canyons, riparian woodlands, grasslands, rural residential areas, and towns. Night roosts are in a wide range of sheltered sites, including trees, shrubs, mines, caves, bridges, and buildings. They roost by day in crevices of various kinds, including rock fissures, tree cavities, spaces behind loose tree bark, and nooks in bridges and buildings; occasionally they roost on small desert shrubs
Mammals	Western small-footed myotis	Myotis ciliolabrum  Myotis evotis	These bats generally inhabit desert, badland, and semiarid habitats; more mesic habitats in the southern part of the range); also, woodlands and dry open forests, riparian zones, and areas near cliffs and outcrop. In Utah, they occur in lowland riparian, desert shrub, juniper-sagebrush, juniper, piñon-juniper, sagebrush-rabbitbrush, sagebrush-greasewood (near piñon-juniper), highland riparian in lodgepole pine forest, montane forest and woodland (Douglas-firaspen), and montane grassland (grass-aspen).
Mammals	Long-eared myotis	Myotis evotis	These bats occupy a diverse array of habitats, including lowland, montane, and subalpine woodlands, forests, shrublands, and meadows, wooded stream courses, and areas over water bodies. Within a particular region, the range of occupied habitats may be more restricted. Daytime roosts are in buildings, railroad trestles, snags and hollow trees, spaces behind loose bark of trees or stumps, mines, caves, rock crevices (including those on the ground), erosional cavities and channels in the ground, and similar sites.

Taxa	Common Name	Scientific Name	Preferred Habitat
Mammals	Fringed bat	Myotis thysanodes	These bats occur primarily at middle elevations in desert, riparian, grassland, and woodland habitats, but they have been recorded at 2,850 meters in
Mammals	Long-legged myotis MYOTIS, LONG-LEGGED	Myotis volans	spruce-fir habitat in New Mexico, and at low elevations along the Pacific Coast.  These bats occur primarily in mountainous areas wooded with coniferous trees, but also may be found in riparian and desert (Baja California) habitats.
	LONG-LEGGED		They may change habitats seasonally. Hibernacula are in caves and mines, but
			winter habits are poorly known. Warm-season daytime roosts are in tree hollows or under loose bark, in crevices among rocks or in cliffs, or in
			buildings, but apparently not in caves or mines (these may be used at night).
Mammals	Yuma myotis MYOTIS, YUMA	Myotis yumanensis	This species is more closely associated with water than most other North American bats. It is found in a wide variety of upland and lowland habitats,
			including riparian, desert scrub, moist woodlands, and forests, usually near
		lic	open water. Foraging occurs over water or in open spaces over land. Warm-
		ally, of	season roosts are in caves, cliff crevices, bridges, buildings, and tunnels, as well
		rep per	as abandoned cliff swallow nests and cavities and nooks in large live trees <b>near</b> water.
Mammals	Allen's chipmunk	Neotamias senex	Coniferous forests and chaparral slopes: Transition and Canadian life zones
Mammals	Monterey dusky-footed woodrat  Big free-tailed bat  Grasshopper Tulare mouse  Mountain goat	Neotoma macrotis luciona	Habitat includes riparian, shrubland, chapparal, and forested woodlands.
Mammals	Big free-tailed bat	Nyctinomops macrotis	Habitat in the southwestern United States and Mexico includes rocky areas in
	.50.0	Ut. Will distably	rugged or hilly country in both lowland and highland areas, including evergreen forest, woodlands, desert scrub, river floodplain-arroyo associations, and
	wis I'm	" SI BES ME T	stream courses in areas of mixed tropical deciduous forest and thorn forest.
	711,000,12	lisoy, usi well	These bats apparently roost primarily in vertical or horizontal crevices near the tops of cliffs, but sometimes they are found in buildings, caves, or
	Oshir	ME atio. Cull	occasionally tree cavities.
Mammals	Grasshopper Tulare mouse	Onychomys torridus tularensis	Habitats include compact soils with a sparse growth of perennial grasses; blue
	SULTION	ru, "He	oak savanna (where rare); desert scrub associations composed of grasses and shrubs; valley sink and saltbush scrub communities dominated by one or more
	Marcel		shrubs; Coast Range saltbush scrub; Great Valley mesquite scrub on the valley
	, the		floor; and valley grassland.
Mammals	Mountain goat	Oreamnos americanus	Alpine and subalpine habitat; steep grassy talus slopes, grassy ledges of cliffs, or alpine meadows. Usually at timberline or above. May seek shelter and food in
			stands of spruce or hemlock in winter. Young are born on rock ledges or
			steep cliffs.

Taxa	Common Name	Scientific Name	Preferred Habitat
Mammals	Desert bighorn sheep	Ovis canadensis nelsoni	Bighorn sheep occur in mesic to xeric, alpine to desert grasslands or shrub-steppe in mountains, foothills, or river canyons. Many of these grasslands are fire-maintained. Suitable escape terrain (cliffs, talus slopes, etc.) is an important feature of the habitat. In winter, Rocky Mountain Bighorns spend as much as 86% of their time within 100 meters of escape terrain, and usually stay within 800 meters of escape terrain throughout the year. Mineral licks are more important in the range of Rocky Mountain Bighorn than in the range of "California" Bighorn, presumably because the soils in the range of the former are generally lower in mineral content. Distribution is correlated with low precipitation levels, especially in winter and spring. Elevation varies considerably, both geographically and seasonally, from as low as 450 meters to over 3,300 meters.
Mammals	Canyon bat	Parastrellus hesperus Perognathus flavus	Habitat includes desert mountain ranges, desert scrub flats, shrub-steppe, rocky canyons, and associated riparian zones, particularly in areas with cliffs and most often (but not always) close to water. In some areas, these bats range into coniferous forest/woodland at higher elevations. Roosts include crevices in cliffs, rock outcrops, caves, mines, and buildings, and possibly sometimes rodent burrows and spaces under rocks. Night roosts may include sagebrush shrubs. The bats hibernate in caves, mine tunnel, or rock crevices. Typically, they visit water and drink immediately after emergence each evening. Young are born in rock crevices or in buildings.
Mammals	Silky pocket mouse	Perognathus flavus	Sandy, sometimes rocky, soils in arid grasslands, shrublands, and pinyon-juniper woodland, in valley bottoms, hillsides, and mesas, sometimes in rather barren areas.
Mammals	San Joaquin pocket mouse	Perognathus flavus  Perognathus inornatus  Perognathus longimembris bangsi	Dry, open, grassy or weedy ground. Arid annual grasslands, savanna, and desert-shrub associations with sandy washes or finely textured soil. Found in low densities in grassland-blue oak savannas up to 1500 ft on east side of San Joaquin Valley. Occurs in alkali sink associations on the floor of the Tulare Basin and in Atriplex and Ephedra associations in the northwestern portion of the Tulare Basin.
Mammals	Palm Springs pocket mouse	Perognathus longimembris bangsi	Habitat consists of creosote bush scrub, on sandy soils, on an west aspect. Habitat consists of desert scrub and riparian, dominated by C. linearis, Larrea tridentata, E. farinosa, A. dumosa, and H. salsola. Site has 20-80% shrub cover on coarse, sandy soils (loosely pucked). Habitat consists of desert scrub, dominated by Larrea tridentata, H. salsola, and E. farinosa; 20% shrub cover on coarse sandy soil with light gravel.

Taxa	Common Name	Scientific Name	Preferred Habitat
Mammals	Yellow-eared pocket mouse	Perognathus mollipilosus xanthonotus	These mice have been found in Joshua tree woodland, desert scrub, pinyon-juniper, mixed and montane chaparral, sagebrush, and bunchgrass habitats, primarily in sandy soils with sparse to moderate shrub cover.
<b>Ma</b> mmals	Coast mole	Scapanaus orarius schefferi	Agricultural land, coastal dunes, grassy meadows, coniferous and deciduous forest and woodland, along streams. Fossorial, occasionally active on surface (especially dispersing juveniles in summer). Quickly recolonizes formerly flooded areas. Breeding nests are located about 15 cm below the surface of the ground. The nest cavity is lined with coarse grass. It is about 20 cm across and has several entrances.
Mammals	Pygmy shrew	Sorex hoyi	Found in a variety of habitats. Appears to prefer grassy openings of boreal forest. Moist habitats are preferred over dry areas.
Mammals	Merriam's shrew	Sorex merriami	Habitats include various grasslands, including grasses in sagebrush scrub and pinyon-juniper woodland, as well as mountain mahogany shrublands and mixed woodlands
Mammals	Preble's shrew	Sorex preblei	Recorded habitats include arid and semiarid shrub-grass associations, openings in montane coniferous forests dominated by sagebrush (Washington), willow-fringed creeks, marshes (Oregon), bunchgrass associations, sagebrush-aspen associations (California), sagebrush-grass associations (Nevada), alkaline shrubland (Utah).
Mammals	Inyo shrew  Brazilian free-tailed bat	Sorex tenellus  Tadarida brasiliensis	Habitats include riparian zones and canyon bottoms; rocky mountain habitat in areas with logs, boulders, or sagebrush scrub); and red fir communities. This species may be more tolerant of dry habitat than are closely related shrews. In Great Basin National Park, this shrew was found at 3,000 m elevation in habitat dominated by Engelmann spruce.
Mammals	Brazilian free-tailed bat	Sorex tenellus Tadarida brasiliensis	Habitat ranges from lowland deserts, shrublands, woodlands, and forests to high mountains. Major roosts are primarily in caves in the southwestern United States; generally, buildings (generally old ones) in the southeastern United States (sometimes in hollow trees), along the U.S. West Coast, and in Jamaica; in both buildings and caves in Puerto Rico. Individuals may roost in cliff faces and other rock crevices, under bridges, on signs, or in cliff swallow nests during migration. Generally, these bats roost high (at least 3 meters) above the ground to allow the amount of free fall required to attain flight. Large maternity colonies inhabit buildings and caves; culverts and bridges may also serve as maternity sites. Individuals tend to return to their natal cave to breed. Foraging bats make use of agricultural landscapes and natural habitats; in Texas, the latter were most important in late summer.

Taxa	Common Name	Scientific Name	Preferred Habitat
Mammals	Fish Spring pocket gopher	Thomomys bottae abstrusus	This species occurs in the lowlands of central, southern, and western Nevada, USA, including the Fish Springs Valley in Nye County. The lowlands consist of primarily of sagebrush, and grasses.
Mammals	San Antonio pocket gopher	Thomomys bottae curatus	Associated with a wide range of vegetation and soil types. Residents of open habitats and meadows, where soils are deep enough to maintain permanent burrow systems. Two subspecies of priority interest are isolated to two valleys, T. b. abstrusus in Fish Spring valley (also known as Litle Fish Lake Valley) in Nye County, and T. b. curtatus in Big Smoky Valley. A third isolate occurs near Eastgate.
Mammals	Wyoming pocket gopher	Thomomys idahoensis	This is a fossorial species. Distribution modeling indicates that T. clusius is limited to areas with Gardner's saltbush, particularly in association with other moderately halophytic species such as winterfat. This suggests an association between T. clusius and salt desert scrub communities typically found in relatively flat areas of fine-textured saline substrates in and near the Great Divide Basin. Within south-central Wyoming, any area containing measurable cover of Gardner's saltbush, particularly on shallow slopes and in combination with winterfat, could be potential habitat for T. clusius. Although habitats characterized by Gardner's saltbush are more common within the range of T. clusius than adjacent areas of Wyoming, they represent a very limited area of potential habitat within a landscape largely dominated by big sagebrush.
Mammals	Idaho pocket gopher	Thomomys idahoensis	Open sagebrush, grassland plains, and subalpine mountain meadows. Fossorial.
Mammals	Merriam's ground squirrel	Of Octionals Contas	Mainly in high desert (sagebrush, shadscale, greasewood, western juniper), grasslands, pastures; also, in river valley bottomland. Generally, in well-drained soils, especially embankments. Often around desert springs and irrigated fields. Makes extensive burrow systems. Young are born in a nest chamber in an underground burrow.
Mammals	Surior	Urocitellus endemicus	Southern Idaho Ground Squirrel populations occur in a mosaic of shrubland and grassland habitats common to foothills rangelands and pastures. They are also frequently associated with mowed fields, primarily alfalfa, found in drainage and valley bottoms.
Mammals	Piute ground squirrel	Urocitellus mollis	Mainly in high desert (sagebrush, shadscale, greasewood). In southwestern Idaho, highest densities were in winterfat-Sandberg's bluegrass communities, with intermediate densities in big sagebrush-dominated communities and lowest densities in shadscale communities; scarce in communities dominated by exotic annuals.

Taxa	Common Name	Scientific Name	Preferred Habitat
Mammals	Townsend's ground squirrel	Urocitellus townsendii	Townsend's ground squirrel historically occurred primarily in native shrub steppe, grasslands, and large patches of sagebrush at the lower edges of forest. A variety of human-modified habitats are now also occupied, including pastures, abandoned fields, orchards, vineyards, hop fields, canal banks, and sites adjacent to irrigated fields and springs. Occupied sites must have ample soil depths to provide space for burrow construction.
Mammals	Kit fox	Vulpes macrotis	Primarily open desert, shrubby or shrub-grass habitat. In central California, found in alkali sink, valley grassland, foothill woodland. In Mohave Desert, occurs in creosote bush; in Great Basin, in shadscale, greasewood and sagebrush. Young are born in an underground den. Den usually has multiple entrances (3 or more) and may be 3-6 m long, reaching 127 cm in depth. In Utah, most dens were on flat, well-drained uplands. Several dens may be used, especially in summer.
Mammals	Swift fox	Vulpes velox  Xerospermophilus mohavensis	Habitat includes open prairie and arid plains, including areas intermixed with winter wheat fields. Viable populations exist in shortgrass prairie-sagebrush steppe transition habitat in southeastern Wyoming. Dens are in burrows. A fox may dig a burrow or use a burrow made by another mammal (e.g., marmot, prairie dog, badger), usually in sandy soil on high ground in open prairies, along fencerows, occasionally in plowed field. An individual may use several different dens throughout the year.
Mammals	Mohave ground squirrel	Xerospermophilus mohavensis	This ground squirrel inhabits desert areas with flat or moderately sloping topography, deep sandy or gravelly friable soils, and an abundance of annual herbaceous vegetation (may be scant during droughts). Habitats include alluvial fans where desert pavement is absent, as well as desert sink shrublands and occasionally rocky areas.
Mammals	Palm Springs round-tailed ground squirrel	Xerospermophilus tereticaudus chlorus	The most favorable habitat appears to be areas where hummocks of sand accumulate at the base of large shrubs that provide burrow sites and adequate cover. The ground squirrels also may occur in areas of coarse sands associated with washes. In some areas, they are numerous in the transition between dunes and creosote bush scrub.
Reptiles	Mohave Desert glossy snake	Arizona elegans candida	This species occurs in barren open sandy desert, desert scrub, rocky washes, and grasslands, with loose soil for easy burrowing.
Reptiles	Desert glossy snake	Arizona elegans eburnata	This species occurs in barren open sandy desert, desert scrub, rocky washes, and grasslands, with loose soil for easy burrowing.
Reptiles	Colorado checkered whiptail	Aspidoscelis neotesselata	This whiptail occurs in valleys, arroyos, canyons, and on hillsides, in areas dominated by plains grassland or juniper woodland, including areas such as parks with frequent human use and habitat disturbance.

Taxa	Common Name	Scientific Name	Preferred Habitat
Reptiles	Northern rubber boa	Charina bottae	Habitat includes woodlands, forest clearings, patchy chaparral, meadows, and grassy savannas, generally not far from water, also riparian zones in arid canyons and sagebrush in some areas. Generally, this snake is found in or under rotting logs or stumps, under rocks or in crevices, or under the bark of dead fallen trees.
Reptiles	Western banded gecko	Coleonyx variegatus	This lizard occurs in a wide range of habitats, including creosote bush and sagebrush desert, pinyon-juniper woodland, and catclaw-cedar-grama grass associations in the eastern part of range and chaparral areas in the west; it occurs in both rocky areas and barren dunes. Refuges during inactivity include rocks, burrows, and spaces beneath vegetative debris or trash.
Reptiles	Miget faded rattle snake	Crotalus viridis concolor	This species occurs in sagebrush communities, and needs rocky outcrops for cover, variable thermal conditions, and hibernation.
Reptiles	Ring-necked snake	Diadophis punctatus	This snake occurs in forests, woodlands, grassland, chaparral, and riparian corridors in arid regions. Habitats are moist, at least seasonally. One or multiple individuals often are found near abandoned buildings and in junk piles in wooded areas. During daylight hours, this snake generally hides underground, in or under logs, or under rocks, stumps or other surface cover. Eggs are laid (often communally) underground or under logs or rocks.
Reptiles	Panamint alligator lizard	Elgaria panamintina	This lizard occurs in regions dominated by scrub desert, Joshua-tree woodland, and the lower edge of the pinyon-juniper belt. Most known locations are in canyon riparian zones below permanent springs; but individuals may range into talus slopes some distance from the immediate riparian zone.
Reptiles	This cum	Gambelia wislizenii	Found in sandy and gravelly desert and semidesert areas with scattered shrubs or other low plants (for example, bunch grass, alkali bush, sagebrush, and creosote bush), especially areas with abundant rodent burrows. Occurs from sea level to approximately 6,000 feet (BLM 2017).
Reptiles	Mesa Verde nightsnake	Hypsiglena chlorophaea Ioreala	Found in a variety of habitats, often arid areas, from chaparral, Sagebrush flats, deserts, suburban lots and gardens, mountain meadows, grassland. Most commonly found in areas with abundant surface cover.
Reptiles	California kingsnake	Lampropeltis californiae	This primarily terrestrial snake occurs in a wide range of habitats, including forest, woodland, shrubland, swamps, marshes, river bottoms, grassland, semidesert, desert, and farmland. Periods of inactivity are spent in crevices or burrow, or under rocks, logs, stumps, vegetation, or other cover.
Reptiles	Sonoran Mountain kingsnake	Lampropeltis pyromelana	Habitats are primarily rocky, montane, and often near streams or springs, but also include lower elevations in mesic canyons. Vegetation may include pinyon-juniper woodland, oak-juniper woodland, pine-oak woodland, pine-Douglas-fir woodland, or chaparral. During daylight hours, this snake may be found among rocks, logs, or dense clumps of vegetation, under objects, or exposed.

Taxa	Common Name	Scientific Name	Preferred Habitat
Reptiles	California Mountain kingsnake	Lampropeltis zonata	Typical habitat of this species consists of moist open coniferous forests, oak woodlands, riparian woodland, chaparral, coastal sage scrub, and openly wooded areas where there are rocks or rotting logs. During periods of inactivity, individuals seek shelter under rocks, logs, bark, or underground.
Reptiles	Western threadsnake	Leptotyphlops humilis	Habitats range from deserts and desert-grasslands to brush-covered mountain slopes, including rocky hillsides, canyon bottoms or washes near stream courses, riparian zones, areas near springs, sandy areas above ocean beaches, and sometimes gardens and farmland. This secretive, fossorial snake sometimes can be found under rocks, wood, or debris, among plant roots, or in crevices, often in loose damp soil.
Reptiles	Desert rosy boa	Lichanura trivirgata	Habitats are diverse and include desert, arid scrub, brushland, sandy plains, rocky slopes, and chaparral-covered foothills, particularly where moisture is available, as around springs, streams, and canyon floors (but these snakes are not dependent on permanent water). This is a mainly terrestrial species, but it sometimes climbs into shrubs.
Reptiles	Smooth greensnake	Opheodrys vernalis	Habitats include meadows, grassy marshes, moist grassy fields at forest edges, mountain shrublands, stream borders, bogs, open moist woodland, abandoned farmland, and vacant lots. This snake has been found hibernating in abandoned ant mounds. Eggs are laid under rotting wood, underground, or under rocks.
Reptiles	Coast horned lizard	Phrynosoma blainvillii	This species occurs in a variety of habitats, including scrubland, grassland, coniferous woods, and broadleaf woodlands; typically, it is found in areas with sandy soil, scattered shrubs, and ant colonies, such as along the edges of arroyo bottoms or dirt roads.
Reptiles	Pygmy short-horned lizard	Phrynosoma douglas <b>s</b> ii	Semiarid plains of sagebrush and bunch grass, to pinyon-juniper woodlands, to pine forests in high mountains. It is usually found in open, shrubby, or openly wooded areas with sparse vegetation at ground level. The soil may vary from rocky to sandy to hardpan, but pockets of fine loose soil or sand are typically present for burrowing. Occurs from 1,000 to 7,200 feet.
Reptiles	Greater short-horned lizard	Phrynosoma hernandesi	Ranges from semiarid plains to high mountains (2,000 to 10,500 feet); occupies a variety of habitats, including sagebrush, open pinyon-juniper woodland, and pine-spruce and spruce-fir forests. Substrate may be stony, sandy, or firm, but some fine, loose soil is usually present.
Reptiles	Southern Desert horned lizard	Phrynosoma platyrhinos calidiarum	Found on sandy flats, alluvial fans, along washes, and at the edges of dunes. Sometimes found on hardpan or among rocks, but patches of sand are generally present. Associated with sagebrush, saltbush, and greasewood in the Great Basin. Elevational range extends from below sea level in desert sinks to about 6,500 feet.

Taxa	Common Name	Scientific Name	Preferred Habitat
Reptiles	Northern Desert horned lizard	Phrynosoma platyrhinos platyrhinos	Found on sandy flats, alluvial fans, along washes, and at the edges of dunes.  Sometimes found on hardpan or among rocks, but patches of sand are
			generally present. Associated with sagebrush, saltbush, and greasewood in the Great Basin. Elevational range extends from below sea level in desert sinks to about 6,500 feet.
Reptiles	Coronado skink	Plestiodon skiltonianus interparietalis	Habitats include grassland, chaparral, pinyon-juniper woodland, open pine or pine-oak woods, and rocky areas near streams. This species is partial to open wooded foothills and is usually associated with rocks, under which it takes shelter (also digs burrows in soil). Eggs are laid in burrows or areas excavated by the female under rocks and stones.
Reptiles	Longnose snake	Rhinocheilus lecontei	Typical habitats include deserts, dry prairies, arid river valleys, thornbush, and shrubland; sometimes oak-hackberry woodland. This snake retreats underground or under rocks by day. Eggs are laid underground or under rocks.
Reptiles	Northern sagebrush lizard	Sceloporus graciosus graciosus	This species occurs in areas of sagebrush and other types of shrublands, mainly in the mountains, preferring open, sunny areas with scattered low bushes.
Reptiles	Desert spiny lizard	Sceloporus magister	This lizard inhabits arid and semiarid regions, from plains to lower mountain slopes, including desert shrubland and woodland, mesquite-yucca grassland, juniper and mesquite woodland, shrubby areas along arroyos and playa edges, and cottonwood/willow zones along rivers.
Reptiles	Desert night lizard	Xantusia vigilis	This lizard lives in arid and semiarid habitats among fallen leaves and trunks of yuccas, agaves, cacti, Joshua trees, and other large plants, also in crevices of rock outcroppings and under logs and bark of foothill pines; it ranges locally into pinyon-juniper, sagebrush-blackbrush, and chaparral-oak.
Snails	Harney Basin duskysnail	Colligyrus depressus	This species occurs in shallow, cold springs, and spring runs with rocky substrates and moderate to steep slopes, in sage scrub desert.
Snails	Poplar Oregonian	Colligyrus depressus  Cryptomastix populi	This species is found primarily on moderately xeric basalt talus in canyons, typically in open situations rockslides and bushy draws, and less often on steep, cool lower slopes of major river basins. The surrounding vegetation is generally sage scrub or cottonwood.
Snails	Trinity shoulderband	Helminthoglypta talmadgei	This species is found in areas with young, sparse conifer cover and more grass; also found in recently burned areas.
Snails	Eureka mountainsnail	Oreohelix eurekensis	An important habitat factor is the presence of limestone talus, outcrops, or high calcium soils. The species also requires shade from vegetation and a well-developed litter layer. This can be found under shrub or tree cover.
Snails	Dalles mountainsnail	Oreohelix variabilis ssp.	This species occurs in areas of talus and basalt with limited vegetation cover.

Taxa	Common Name	Scientific Name	Preferred Habitat
Snails	Whorled mountainsnail	Oreohelix vortex	This species is restricted mostly to large-scale, xeric basalt taluses and boulder fields. Sites are typically dry and open; the most common vegetation is grasses. The species prefers low to medium elevations in large stream valleys; dry open to brushy areas; vicinity of springs; basalt talus. Grasses are common at preferred sites, with some forbs and shrubs. This species occurs in association with basalt boulder fields and talus in xeric habitat. Grasses and occasionally shrubs or forbs are the most common plant associates.
Snails	Lava rock mountainsnail	Oreohelix waltoni	It is associated with basalt (particularly type locality) but also mixed schist/alluvium in rather dry, open areas of sage scrub vegetation. Common plants found at sites are grasses and shrubs including Artemisia, and Celrus; Sorbus, Prunus, and Physocarpus occur locally. It is associated with xeric habitat in basalt talus and mixed schist/alluvium. Dominant plants in the areas include sagebrush, netleaf hackberry, and grasses. This habitat occurs primarily
	006; BLM 2017; NatureServe 2023	unofficial prepulo.  Jinofficial prepulo.  J	section. Much of this habitat occurs in wilderness.

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