

AT-RISK PLANTS: THREATENED, ENDANGERED & SENSITIVE PLANTS

TONTO NATIONAL FOREST

OCTOBER 2024

BACKGROUND

At-Risk plants, also known as Threatened, Endangered and Sensitive Plant (TESP) species, are now being classified by the following statuses (see the description section below for detailed information):

- *Threatened & Endangered* (ESA Federally listed T&E)
- *Species of Conservation Concern (SCC)*
- *Watch*, TNF Specific Ranking
- *Species of Interest (SOI)*, TNF Specific Ranking

As part of the 2012 planning rule requirements, per FSH 1909.12, Chapter 10, section 12.52b, item 1b, the *Species of Conservation Concern (SCC)* list replaced the Regional Forester's Sensitive Plant list for the Tonto National Forest. Throughout the development of the revised 2023 Tonto National Forest Land Management Plan, the forest has continued to review and assess potential *Species of Conservation Concern (SCC)* to recommend to the Regional Forester.

As outlined in FSH 1909.12, Chapter 10, section, 12.52c, the basic criteria for identifying SCC are:

- The species are native to, and known to occur, in the plan area.
- The best available scientific information about the species indicates substantial concern about the species' capability to persist over the long term in the plan area.

In response to the Tonto National Forest Land Management Plan and Draft Environmental Impact Statement, the forest received substantial input on proposed SCC from our state, corporate, and non-profit partners, as well as from interested members of the public and internal staff. Revisions to the recommended list of SCC incorporates the best available scientific information as contributed by these organizations and individuals. Reasons for these changes include newly documented concerns for species persistence, recent changes in ecological conditions on the forest, updated evaluations of risks to species, and new information regarding species distribution.

In drafting the revised Tonto National Forest Land Management Plan (2023), standards and guidelines were developed to maintain or restore ecosystem integrity and ecosystem diversity (coarse-filter approach) to provide sufficient ecological conditions for at-risk plant species. Species-specific components (fine-filter approach) were included in some cases where existing risks to species were not adequately addressed.

As part of developing the standards and guidelines regarding plants during the drafting of the revised Tonto National Forest Land Management Plan an assessment was conducted which included review of plant population status information for the known and recommended SCC plants. It was determined that there are many rare and endemic plant species that have minimal available information to warrant formal designation as SCC. This necessitated the development of the *Watch* and *Species of Interest* statuses for the Tonto National Forest. These two supplementary statuses indicate the need for additional information gathering (project level assessments and opportunistic surveys) for rare and endemic plants that have the potential for SCC consideration—better information will help to determine their future inclusion/exclusion on the SCC list as well as to document any adaptive management needs for these species and ensure their management in accordance with the forest plan.

The 2023 revised Forest Plan includes the following plan components for threatened & endangered, at-risk, and other rare and narrow endemics:

Desired Conditions:

- **WFP-DC-01:** Ecological conditions contribute to the recovery of federally listed threatened and endangered species, conserve proposed and candidate species, maintain viable populations of species of conservation concern, and sustain both common and uncommon native species.
- **WFP-DC-03:** Habitat condition, distribution, and abundance contribute to self-sustaining populations of plant and animal species, including at-risk species, rare, and endemic species.
- **WFP-DC-06:** Locations, status, and life histories (e.g., population trend, threats, and habitat requirements) of at-risk, rare, and endemic species are known and better understood.
- **WFP-DC-08:** Unique plant communities and landscape features (e.g., limestone cliffs, calcareous soils, margins of seeps and springs, canyons/cliffs, hanging gardens) are present to maintain well-distributed populations of associated native, endemic, and rare plant species.

Guidelines:

- **WFP-G-01:** Activities occurring within federally-listed species habitat should apply habitat management objectives and species protection measures from approved recovery plans.
- **WFP-G-02:** Where the Forest Service has entered into a signed conservation agreement that provides guidance on activities or actions to be carried out by the Forest, those activities or actions should be undertaken consistent with the guidance found within the conservation agreement.
- **WFP-G-03:** The best available science and/or conservation measures should be used to contribute to the recovery of federally listed threatened and endangered species, conserve proposed and candidate species, and maintain viable populations of species of conservation concern and rare endemic species.
- **WFP-G-04:** Projects and activities that may negatively impact at-risk species and rare endemic plant species should consider protections and design elements to address impacts, especially considering the timing and location of vulnerable life history processes (e.g., reproduction, molting, migration, and hibernation). Examples of design elements and protections could include but are not limited to timing restrictions, adaptive percent utilization levels, distance buffers and avoidance (e.g., physical removal/damage of plants).
- **WFP-G-07:** New infrastructure or constructed features (e.g., fences, roads, recreation sites, facilities, drinkers, crossings, and culverts) should be designed and maintained to minimize negative impacts to the movement and dispersal of wildlife, fish, and rare plants. Infrastructure and constructed features already present that negatively impact movement and dispersal should be modified or removed when no longer in use in order to improve connectivity. Barriers may be used to protect native species or prevent movement of nonnative species.

AT-RISK PLANT STATUS DESCRIPTIONS

Threatened and Endangered (T&E)

The Tonto has two federally endangered plant species (ESA)—the Arizona cliffrose (*Purshia subintegra*) and the Arizona hedgehog cactus (*Echinocereus arizonicus* subsp. *arizonicus*). The forest is required to consult with FWS during project analysis and planning to ensure that the appropriate conservation measures are implemented to protect and mitigate adverse impacts to the species. Habitat management objectives and species protection measures from approved recovery plans will be incorporated into project analysis and planning.

Species of Conservation Concern (SCC)

As stated in the background section, *Species of Conservation Concern (SCC)* are species native to and known to occur in the plan area; and for which there is substantial concern about the species' ability to persist in the plan area.

The 2012 Planning Rule (36 CFR 219.9(b)) requires that forest plan direction (standards and guidelines) provide ecological conditions necessary to maintain “a viable population” of each species of conservation concern and defines a viable population as, “a population of a species that continues to persist over the long term with sufficient distribution to be resilient and adaptable to stressors and likely future environments.” (36 CFR 219.19).

If the forest receives new, scientific information that indicates that a species should be added or removed from the list, the information will be reviewed and a recommendation will be presented to the Regional Forester for approval (FSH 1909.12, Chapter 20, section 21.22b). SCC species should be screened and evaluated during project level analyses to ensure that management activities do not impair the viability of populations and that desired conditions in the forest plan are being met.

Watch

The forest is also required to provide ecological conditions for other native species, including rare and narrow endemic species (36 CFR 219.10(a)(ii)). These species are labeled as *Watch* species on the Tonto National Forest and tracked in the Forest Service TESP database. Rare species are those that are very uncommon, scarce, or infrequently encountered even though they may not be endangered, threatened, or of conservation concern. Endemic species are limited in distribution to distinct regions or locations and are found nowhere else in the world. These species will be evaluated during project level analyses to ensure that management activities do not impair the viability of populations and that desired conditions in the forest plan are being met. As more information and best available science becomes available Watch species may be reassessed for SCC inclusion.

Species of Interest (SOI)

Species of Interest include species that appear stable and secure with no apparent threats (generally have NatureServe status G4 or G5), but they are locally uncommon or at the edge of their distribution on the Tonto. Other species included are those that have not been documented on the Tonto but have a moderate to high probability of occurring on the Tonto. These species should be opportunistically surveyed during surveys for higher priority species. As more information and best available science becomes available *Species of Interest* may be reassessed for SCC inclusion.

TONTO NATIONAL FOREST AT-RISK PLANT LIST

TABLE 1. AT-RISK PLANTS BY TNF STATUS

SCIENTIFIC NAME	USDA COMMON NAME	USDA CODE	GLOBAL RANK	STATE RANK	NWPL AW/ WMVC
ENDANGERED					
<i>Echinocereus arizonicus</i> subsp. <i>arizonicus</i>	Arizona hedgehog cactus	ECCOA ²	G5T2	S1S2	UPL/UPL
<i>Purshia subintegra</i>	Arizona cliffrose	PUSU2	G2	S2	UPL/UPL
SPECIES OF CONSERVATION CONCERN (SCC)					
<i>Acmspon mearnsii</i> var. <i>equisolensis</i>	Mearns' bird's-foot trefoil	LOMEE ²	G3T1	S1	UPL/UPL
<i>Actaea arizonica</i>	Arizona bugbane	ACAR18	G2	S2	UNK/UNK ³
<i>Agave delamateri</i>	Tonto Basin century plant	AGDE10	G2	S2	UPL/UPL
<i>Agave murpheyi</i>	Murphey's century plant	AGMU	G2?	S2?	UPL/UPL
<i>Agave phillipsiana</i>	Grand Canyon century plant	AGPH	G2	S2S3	UPL/UPL
<i>Carex chihuahuensis</i>	Chihuahuan sedge	CACH4	G3G4	S3	UNK/UNK ³
<i>Carex ultra</i>	Cochise sedge	CAUL	G3	S2S3	FAC/FAC
<i>Desmodium metcalfei</i>	Metcalfe's ticktrefoil	DEME2	G3?	S3	UPL/UPL
<i>Eremogone aberrans</i>	Mt. Dellenbaugh Matted Sandwort	ARAB	G2	S2	UPL/UPL
<i>Erigeron anchana</i>	Sierra Ancha fleabane	ERAN17	G2	S2	UPL/UPL
<i>Erigeron Hodgsoniae</i> ¹	Hodgson's fleabane	—	G1	S1	UPL/UPL
<i>Erigeron piscaticus</i>	Fish Creek fleabane	ERPI9	G1	S1	UPL/UPL
<i>Erigeron pringlei</i>	Pringle's fleabane	ERPR10	G2	S2	UPL/UPL
<i>Eriogonum ripleyi</i>	Fraziers Well buckwheat	ERRI	G2	S2	UPL/UPL
<i>Heuchera eastwoodiae</i>	Senator Mine alumroot	HEEA	G3	S3	UPL/UPL
<i>Heuchera glomerulata</i>	Chiricahua Mountain alumroot	HEGL6	G3	S3	UPL/UPL
<i>Hymenoxys jamesii</i>	Jame's rubberweed	HYJA	G3	S3	UPL/UPL
<i>Lupinus latifolius</i> subsp. <i>leucanthus</i>	broadleaf lupine	LULAL	G5T2?Q	S2S3	FACW/FAC
<i>Mabrya acerifolia</i>	brittlestem	MAAC3	G2	S2	UPL/UPL
<i>Malacothamnus fremontii</i>	Fremon's bushmallow	MAFR2	G4	S1	UPL/UPL
<i>Packera neomexicana</i> var. <i>toumeyi</i>	Toumey's groundsel	PANET2	G5T2	S2	UPL/UPL
<i>Pelazoneuron puberulum</i> var. <i>sonorense</i>	Sonoran maiden fern	THPUS ²	G5T4	S2	UNK/UNK ³
<i>Penstemon nudiflorus</i>	Flagstaff beardtongue	PENU	G2G3	S2S3	UPL/UPL
<i>Perityle gilensis</i> var. <i>gilensis</i>	Gila rockdaisy	PEGIG	G2T2	S2	UPL/UPL
<i>Perityle gilensis</i> var. <i>salensis</i>	Salt River rockdaisy	PEGIS	G2T1	S1	UPL/UPL
<i>Perityle saxicola</i>	Roosevelt Dam rockdaisy	PESA12	G1	S1	UPL/UPL
<i>Rhinotropis rusbyi</i>	Rusby's milkwort	PORU2 ²	G3	S3	UPL/UPL
<i>Rumex orthoneurus</i>	Chiricahua Mountain dock	RUOR3	G3	S3	UNK/UNK ³
<i>Salvia amissa</i>	Santa Catalina Mountain sage	SAAM5	G2	S2	UPL/UPL
<i>Salvia henryi</i>	crimson sage	SAHE3	G2	S2	UPL/UPL

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SCIENTIFIC NAME	USDA COMMON NAME	USDA CODE	GLOBAL RANK	STATE RANK	NWPL AW / WMVC
WATCH					
<i>Abutilon parishii</i>	Parish's Indian mallow	ABPA2	G3	S3S4	UPL/UPL
<i>Agastache rupestris</i>	threadleaf giant hyssop	AGRU	G2G3	S2S3	UPL/UPL
<i>Agave toumeyana</i> var. <i>bella</i>	Toumey's century plant	AGTOB	G3T3	S3	UPL/UPL
<i>Agave toumeyana</i> var. <i>toumeyana</i>	Toumey's century plant	AGTOT	G3T3	S3	UPL/UPL
<i>Agave verdensis</i> ¹	Sacred Mountain Century-Plant	—	G2	S2	UPL/UPL
<i>Allium bigelovii</i>	Bigelow's onion	ALBI	G3	S2S3	UPL/UPL
<i>Anoda abutiloides</i>	Indian anoda	ANAB	G3	S2S3	UPL/UPL
<i>Aquilegia coerulea</i> var. <i>pinetorum</i>	Colorado blue columbine	AQCOP	G5T2T4	S2S3	FACU/FAC
<i>Camissonia pusilla</i>	little wiry suncup	CAPU16	G3G4	S1	UPL/UPL
<i>Camissoniopsis micrantha</i> ¹	miniature suncup	CAMI22 ²	G3?	SNR	UPL/UPL
<i>Carex leucodonta</i>	Huachuca Mountain sedge	CALE12	G3	SNR	FACU/FACU
<i>Chenopodium sonorense</i> ¹	—	—	GNR	S2	UPL/UPL
<i>Cochemiea viridiflora</i>	greenflower nipple cactus	MAVI6 ²	G4	S4	UPL/UPL
<i>Colubrina californica</i>	Las Animas nakedwood	COCA18	G4	S2S3	UPL/UPL
<i>Crassula viridis</i>	pricklyseed pygmyweed	CRVI6	G3	S1	UPL/UPL
<i>Cystopteris utahensis</i>	Utah bladderfern	CYUT2	G3?	S2	UPL/UPL
<i>Draba asprella</i> var. <i>asprella</i>	rough draba	DRASA	G3T3	S2	UPL/UPL
<i>Draba asprella</i> var. <i>stelligera</i>	rough draba	DRASS	G3T3	S3	UPL/UPL
<i>Dudleya saxosa</i> subsp. <i>collomiae</i>	Gila county liveforever	DUSAC	G4T4Q	S4	UPL/UPL
<i>Echinocereus santaritensis</i> ¹	scarlet hedgehog cactus	—	GNR	S3	UPL/UPL
<i>Echinocereus yavapaiensis</i> ¹	Yavapai hedgehog cactus	—	G2G3	S2S3	UPL/UPL
<i>Erigeron saxatilis</i>	rock fleabane	ERSA18	G3	S3	UPL/UPL
<i>Fremontodendron californicum</i>	California flannelbush	FRCA6	G4	S2S3	UPL/UPL
<i>Galinsogeopsis coronopifolia</i>	crowfoot rockdaisy	PECO19 ²	G3G4	S3	UPL/UPL
<i>Galium collomiae</i>	Fossil Hill Creek bedstraw	GACO	G3	S3	UPL/UPL
<i>Hedeoma dentata</i>	dentate false pennyroyal	HEDE2	G3	S4	UPL/UPL
<i>Hedeoma diffusa</i>	spreading false pennyroyal	HEDI	G3	S3	UPL/UPL
<i>Helenium arizonicum</i>	Arizona sneezeweed	HEAR2	G3	S3	FACW/FACW
<i>Heterotheca marginata</i>	Sonora false goldenaster	HEMA20	GNR	SNR	UPL/UPL
<i>Heterotheca zionensis</i>	Zion false goldenaster	HEZI	G4	S2	UPL/UPL
<i>Hieracium carneum</i>	Huachuca hawkweed	HICA4	G3G4	S2	UPL/UPL
<i>Isoetes bolanderi</i>	Bolander's quillwort	ISBO	G4	S1	OBL/OBL
<i>Leucosyris arida</i>	arid tansyaster	ARAR ²	G3G4	S3	UPL/UPL
<i>Limonium limbatum</i>	Trans-Pecos sea lavender	LILI4	G4	S1	FACW/FACW
<i>Mertensia macdougalii</i>	Macdougal's bluebells	MEMA2	G3	SNR	UPL/UPL
<i>Myosurus nitidus</i>	western mousetail	MYNI	G3G4	S2	UPL/UPL
<i>Osmorrhiza brachypoda</i>	California sweetcicely	OSBR	G4	S2	UPL/UPL
<i>Perityle tenella</i>	Springdale rockdaisy	PETE11	G3	S2	UPL/UPL
<i>Phlox cluteana</i>	Navajo Mountain phlox	PHCL	G3	S2	UPL/UPL
<i>Physaria cinerea</i> ¹	basin bladderpod	LECI2 ²	G3	S3	UPL/UPL
<i>Plagiobothrys pringlei</i>	Pringle's popcornflower	PLPR3	G3G4	S2	UPL/UPL
<i>Polypodium x aztecum</i> ¹	—	—	GNR	SNR	UPL/UPL
<i>Polystichum scopolinum</i>	mountain hollyfern	POSC5	G4	S2	UPL/UPL
<i>Triteleia lemmoniae</i>	Oak Creek triteleia	TRLE4	G3	S3	UPL/UPL

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SPECIES OF INTEREST (SOI)					
SCIENTIFIC NAME	USDA COMMON NAME	USDA CODE	GLOBAL RANK	STATE RANK	NWPL AW / WMVC
<i>Acmispon mearnsii</i> var. <i>mearnsii</i>	Mearns' bird's-foot trefoil	LOMEM ²	G3T3	S3	UPL/UPL
<i>Adiantum pedatum</i>	Aleutian maidenhair	ADPE	G5	S5	NA/FAC
<i>Agave ×arizonica</i>	Arizona agave	AGAR8	GNA	SNA	UPL/UPL
<i>Agave parryi</i> var. <i>couesii</i>	Parry's agave	AGPAC	G5TUQ	SNR	UPL/UPL
<i>Agave simplex</i> ¹	desert agave	—	G4	SNR	UPL/UPL
<i>Ageratina rothrockii</i>	Rothrock's snakeroot	AGRO5	G4?	SNR	UPL/UPL
<i>Agrimonia gryposepala</i>	tall hairy agrimony	AGGR2	G5	S4	UPL/UPL
<i>Ambrosia cordifolia</i>	Tucson bur ragweed	AMCO4	G4?	SNR	UPL/UPL
<i>Ambrosia cordifolia</i> x <i>deltoidea</i> ¹	Tucson bur ragweed	—	NR	NR	UPL/UPL
<i>Aquilegia desertorum</i>	desert columbine	AQDE	G4	S4	FAC/FAC ⁴
<i>Astragalus cobrensis</i> var. <i>cobrensis</i>	copper mine milkvetch	ASCOC6	G4T4	S2	UPL/UPL
<i>Astragalus humistratus</i> var. <i>crispulus</i>	groundcover milkvetch	ASHUC	G4G5T3?	S1	UPL/UPL
<i>Boehmeria cylindrica</i>	smallspike false nettle	BOCY	G5	S1S2	OBL/OBL
<i>Carex arizonica</i> ¹	Arizona sedge	—	GNR	SNR	UNK/UNK ³
<i>Cirsium parryi</i>	Parry's thistle	CIPA	G4	S3	FACW/FACW
<i>Crataegus rivularis</i>	river hawthorn	CRRI	G5	S2	FAC/FACW
<i>Cyperus schweinitzii</i>	Schweinitz's flatsedge	CYSC3	G5	S1	FAC/FAC
<i>Danthonia californica</i>	California oatgrass	DACA3	G5	S4	FAC/FAC
<i>Dianthera candicans</i>	Arizona water-willow	JUCA9 ²	G4	S2	UPL/UPL
<i>Dieteria bigelovii</i> var. <i>bigelovii</i>	Bigelow's tansyaster	DIBI8 ²	G4G5T3T4	S2	FACW/FACW
<i>Dryopteris arguta</i>	coastal woodfern	DRAR3	G5	S1	UPL/UPL
<i>Echeandia flavescens</i>	Torrey's craglily	ECFL	G4G5	SNR	UPL/UPL
<i>Eleocharis montana</i>	mountain spikerush	ELMO	G5	S2S3	OBL/OBL
<i>Eleocharis quinqueflora</i>	fewflower spikerush	ELQU2	G5	S2S3	OBL/OBL
<i>Epilobium densiflorum</i>	denseflower willowherb	EPDE4	G5	SNR	FACW/FACW
<i>Epilobium hornemannii</i> subsp. <i>hornemannii</i>	Hornemann's willowherb	EPHOH	G5T5	S3?	UPL/UPL
<i>Epilobium ravenii</i>	leafy willowherb	EPFO ²	G5	S2	UPL/UPL
<i>Eremogone fendleri</i>	Fendler's sandwort	ERFE3	G5	S4	UPL/UPL
<i>Eremogone macradenia</i> var. <i>macradenia</i>	Mojave sandwort	ERMA13	GNRT3T5	SNR	UPL/UPL
<i>Ericameria brachylepis</i>	chaparral goldenbush	ERBR13	G4	S4	UPL/UPL
<i>Erigeron lobatus</i>	lobed fleabane	ERLO6	G4	S4	UPL/UPL
<i>Eriogonum capillare</i>	San Carlos buckwheat	ERCA11	G4	S4	UPL/UPL
<i>Glandularia chiricahensis</i>	Chiricahua Mountain mock vervain	GLCH	G4	S3	UPL/UPL
<i>Graptopetalum rusbyi</i>	San Francisco River leatherpetal	GRRU	G4	S4	UPL/UPL
<i>Gymnocarpium dryopteris</i>	western oakfern	GYDR	G5	S1	FAC/FAC
<i>Hypericum anagalloides</i>	tinker's penny	HYAN2	G5	S2	OBL/OBL
<i>Ivesia multifoliolata</i>	manyleaf mousetail	IVMU2	G4	S4	UPL/UPL
<i>Mentzelia longiloba</i> var. <i>longiloba</i> ¹	Adonis blazingstar	MELO5 ²	G5TNR	S2	UPL/UPL
<i>Mentzelia longiloba</i> var. <i>yavapaiensis</i> ¹	Adonis blazingstar	—	G5T3	S3	UPL/UPL
<i>Montia fontana</i>	annual water minerslettuce	MOFO	G5	NR	OBL/FACW
<i>Muhlenbergia dumosa</i>	bamboo muhly	MUDU3	G3G4	S3	UPL/UPL
<i>Neottia convallarioides</i>	broadlipped twayblade	NECO9	G5	S1	FAC/FAC
<i>Nuphar polysepala</i>	Rocky Mountain pond-lily	NUPO2	G5T5	S1	OBL/OBL
<i>Orobanche uniflora</i>	oneflowered broomrape	ORUN	G5	S1	FACU/FACU
<i>Pediomelum verdiense</i>	Verde Formation breadroot	PEVE10	G1	S1	UPL/UPL
<i>Pellaea ternifolia</i>	Trans-Pecos cliffbrake	PETE2	G5	S2	FACU/FACU
<i>Penstemon virgatus</i>	upright blue beardtongue	PEVI4	G4	S3S4	FACU/FACU
<i>Phacelia corrugata</i>	cleftleaf wildheliotrope	PHCO21	G5TNR	S2S3	UPL/UPL

TABLE 1. AT-RISK PLANTS BY TNF STATUS

SPECIES OF INTEREST (SOI)					
SCIENTIFIC NAME	USDA COMMON NAME	USDA CODE	GLOBAL RANK	STATE RANK	NWPL AW / WMVC
Phaseolus ritensis					
<i>Phaseolus ritensis</i>	Santa Rita Mountain bean	PHRI	G3G4	S2S3	UPL/UPL
<i>Platanthera aquilonis</i>	northern green orchid	PLAQ2	G5	S2S3	OBL/FACW
<i>Platanthera sparsiflora</i>	sparse-flowered bog orchid	PLSP2	G4G5	S3	FACW/FACW
<i>Polystichum lonchitis</i>	northern hollyfern	POLO4	G5	S3	FACU/FACU
<i>Potentilla sanguinea</i>	scarlet cinquefoil	POTHS ²	G1	S1	FACW/FACW
<i>Rubus leucodermis</i>	whitebark raspberry	RULE	G5	S3	FACU/FACU
<i>Salix bebbiana</i>	Bebb willow	SABE2	G5	S2S3	FACW/FACW
<i>Sceptridium dissectum</i>	cutleaf grapefern	SCDI8	G5	SH	FAC/FAC ⁵
<i>Sclerocactus johnsonii</i> subsp. <i>acunensis</i>	redspine fishhook cactus (Acuña cactus)	ECERA ²	G3QT1T2Q	S1	UPL/UPL
<i>Senecio arizonicus</i>	Arizona ragwort	SEAR3	G4	S4	UPL/UPL
<i>Sparganium emersum</i>	European bur-reed	SPEM2	G5	SNR	OBL/OBL
<i>Tamayorkis porphyrea</i>	Cochise adder's-mouth orchid	MAPO15 ²	G4	S2	UPL/UPL
<i>Trichostema brachiatum</i>	fluxweed	TRBR5	G5	S4	UPL/UPL

TABLE 1. AT-RISK PLANTS BY TNF STATUS. At-Risk plants are shown by TNF status with conservation status Global and State Ranks compiled from NatureServe and Arizona Heritage Data Management System (HDMS). Dashes (—) indicate information currently unavailable for the species.

¹ Current scientific name has not been entered into USDA Plants Database (<https://plants.usda.gov/home>).

² USDA plant code from older scientific name in use; current scientific name is not in the USDA Plants Database and does not have a USDA plant code.

³ No wetland indicator status rating in NWPL. Plant description indicates some preference for moisture (wetland indicator status rating is unlikely to be UPL).

⁴ NWPL rates the wetland indicator status of the parent taxon of an older synonym (*Aquilegia Formosa*) for both AW and WMVC regions as FAC however, the current scientific name is not listed.

⁵ NWPL does not show this species as occurring in either AW or WMVC regions of Arizona. Listing wetland indicator status as FAC as it is rated FAC for all other regions from where the plant is known to occur.

TNF STATUSES: **Endangered** – Federally listed (ESA) as endangered; **Species of Conservation Concern (SCC)** – Plant species for which there is substantial concern about the ability of the species to persist; **Watch** – Rare and narrow endemic plant species that are uncommon, scarce, or infrequently encountered on the Tonto even though they may not be endangered, threatened, or species of conservation concern; **Species of Interest (SOI)** – Plant species that are locally uncommon or at the edge of their distribution on the Tonto that appear stable and secure with no apparent threats.

NATURESERVE CONSERVATION STATUS is summarized as a series of ranks derived at global, national, or subnational (state/provincial) levels on a five-point scale from critically imperiled (G1, N1, S1) to secure (G5/N5/S5). Visit the website for more information: <https://explorer.natureserve.org/AboutTheData/Statuses>.

NATIONAL WETLAND PLANT LIST (NWPL) WETLAND INDICATOR STATUSES: Wetland Indicator Statuses for some taxa differ between the Western Mountains, Valleys & Coast (WMVC) and Arid West (AW) regions. **OBL** (Obligate) – Almost always occur in wetlands; **FACW** (Facultative Wetland) – Usually occur in wetlands but may occur in non-wetlands; **FAC** (Facultative) – Occur in wetlands and non-wetlands; **FACU** (Facultative Upland) – Usually occur in non-wetlands but may occur in wetlands. **UPL** (Upland) – Almost never occur in wetlands. Plants not listed in NWPL are classified as UPL (see notations above for exceptions). https://cwbapp.sec.usace.army.mil/nwpl_static/v34/home/home.html

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