

**Appendix B:
Biological Resources Supporting Information**

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Inventory of Rare and Endangered Plants of California



Search Results

81 matches found. Click on scientific name for details

Search Criteria: Quad is one of [3411716:3411717:3311787:3311786:3311785:3411715:3411725:3411726:3411727]

SCIENTIFIC NAME	COMMON NAME	FAMILY	LIFEFORM	FED LIST	STATE LIST	CA RARE PLANT RANK	GENERAL HABITATS	MICRO HABITATS	LOWEST ELEVATION (FT)	HIGHEST ELEVATION (FT)	BLOOMING PERIOD
<i>Yucca brevifolia</i>						CBR					
<i>Calystegia sepium</i> ssp. <i>binghamiae</i>	Santa Barbara morning-glory	Convolvulaceae	perennial rhizomatous herb	None	None	1A	Marshes and swamps		15	15	Aug
<i>Calystegia felix</i>	lucky morning-glory	Convolvulaceae	annual rhizomatous herb	None	None	1B.1	Meadows and seeps, Riparian scrub		100	705	Mar-Sep
<i>Camissoniopsis lewisii</i>	Lewis' evening-primrose	Onagraceae	annual herb	None	None	3	Cismontane woodland, Coastal bluff scrub, Coastal dunes, Coastal scrub, Valley and foothill grassland	Clay (sometimes), Sandy (sometimes)	0	985	Mar-May(Jun)
<i>Phacelia stellaris</i>	Brand's star phacelia	Hydrophyllaceae	annual herb	None	None	1B.1	Coastal dunes, Coastal scrub		5	1310	Mar-Jun
<i>Atriplex coulteri</i>	Coulter's saltbush	Chenopodiaceae	perennial herb	None	None	1B.2	Coastal bluff scrub, Coastal dunes, Coastal scrub, Valley and foothill grassland	Alkaline (sometimes), Clay (sometimes)	10	1510	Mar-Oct

<i>Dudleya densiflora</i>	San Gabriel Mountains dudleya	Crassulaceae	perennial herb	None	None	1B.1	Chaparral, Cismontane woodland, Coastal scrub, Lower montane coniferous forest, Riparian woodland	Granitic	800	2000	Mar-Jul
<i>Eriastrum densifolium</i> ssp. <i>sanctorum</i>	Santa Ana River woollystar	Polemoniaceae	perennial herb	FE	CE	1B.1	Chaparral, Coastal scrub	Gravelly (sometimes), Sandy (sometimes)	300	2000	Apr-Sep
<i>Thelypteris puberula</i> var. <i>sonorensis</i>	Sonoran maiden fern	Thelypteridaceae	perennial rhizomatous herb	None	None	2B.2	Meadows and seeps		165	2000	Jan-Sep
<i>Astragalus brauntonii</i>	Braunton's milk-vetch	Fabaceae	perennial herb	FE	None	1B.1	Chaparral, Coastal scrub, Valley and foothill grassland		15	2100	Jan-Aug
<i>Centromadia pungens</i> ssp. <i>laevis</i>	smooth tarplant	Asteraceae	annual herb	None	None	1B.1	Chenopod scrub, Meadows and seeps, Playas, Riparian woodland, Valley and foothill grassland	Alkaline	0	2100	Apr-Sep
<i>Sagittaria sanfordii</i>	Sanford's arrowhead	Alismataceae	perennial rhizomatous herb (emergent)	None	None	1B.2	Marshes and swamps		0	2135	May-Oct(Nov)
<i>Calochortus catalinae</i>	Catalina mariposa lily	Liliaceae	perennial bulbiferous herb	None	None	4.2	Chaparral, Cismontane woodland, Coastal scrub, Valley and foothill grassland		50	2295	(Feb)Mar-Jun
<i>Convolvulus simulans</i>	small-flowered morning-glory	Convolvulaceae	annual herb	None	None	4.2	Chaparral, Coastal scrub, Valley and foothill grassland	Clay, Seeps, Serpentinite	100	2430	Mar-Jul

<i>Dodecahema leptoceras</i>	slender-horned spineflower	Polygonaceae	annual herb	FE	CE	1B.1	Chaparral, Cismontane woodland, Coastal scrub	Sandy	655	2495	Apr-Jun
<i>Dudleya multicaulis</i>	many-stemmed dudleya	Crassulaceae	perennial herb	None	None	1B.2	Chaparral, Coastal scrub, Valley and foothill grassland	Clay (often)	50	2590	Apr-Jul
<i>Senecio aphanactis</i>	chaparral ragwort	Asteraceae	annual herb	None	None	2B.2	Chaparral, Cismontane woodland, Coastal scrub		50	2625	Jan-Apr(May)
<i>Horkelia cuneata</i> var. <i>puberula</i>	mesa horkelia	Rosaceae	perennial herb	None	None	1B.1	Chaparral, Cismontane woodland, Coastal scrub	Gravelly (sometimes), Sandy (sometimes)	230	2660	Feb-Jul(Sep)
<i>Berberis nevinii</i>	Nevin's barberry	Berberidaceae	perennial evergreen shrub	FE	CE	1B.1	Chaparral, Cismontane woodland, Coastal scrub, Riparian scrub	Gravelly (sometimes), Sandy (sometimes)	230	2705	(Feb)Mar-Jun
<i>Calochortus weedi</i> var. <i>intermedius</i>	intermediate mariposa-lily	Liliaceae	perennial bulbiferous herb	None	None	1B.2	Chaparral, Coastal scrub, Valley and foothill grassland	Rocky	345	2805	May-Jul
<i>Lepidium virginicum</i> var. <i>robinsonii</i>	Robinson's pepper-grass	Brassicaceae	annual herb	None	None	4.3	Chaparral, Coastal scrub		5	2905	Jan-Jul
<i>Juglans californica</i>	Southern California black walnut	Juglandaceae	perennial deciduous tree	None	None	4.2	Chaparral, Cismontane woodland, Coastal scrub, Riparian woodland		165	2955	Mar-Aug
<i>Juncus acutus</i> ssp. <i>leopoldii</i>	southwestern spiny rush	Juncaceae	perennial rhizomatous herb	None	None	4.2	Coastal dunes, Marshes and swamps, Meadows and seeps		10	2955	(Mar)May-Jun

<i>Deinandra paniculata</i>	paniculate tarplant	Asteraceae	annual herb	None	None	4.2	Coastal scrub, Valley and foothill grassland, Vernal pools	Sandy (sometimes), Vernal Mesic (usually)	80	3085	(Mar)Apr-Nov
<i>Asplenium vespertinum</i>	western spleenwort	Aspleniaceae	perennial rhizomatous herb	None	None	4.2	Chaparral, Cismontane woodland, Coastal scrub	Rocky	590	3280	Feb-Jun
<i>Calochortus clavatus</i> var. <i>gracilis</i>	slender mariposa-lily	Liliaceae	perennial bulbiferous herb	None	None	1B.2	Chaparral, Coastal scrub, Valley and foothill grassland		1050	3280	Mar-Jun(Nov)
<i>Phacelia hubbyi</i>	Hubby's phacelia	Hydrophyllaceae	annual herb	None	None	4.2	Chaparral, Coastal scrub, Valley and foothill grassland		0	3280	Apr-Jul
<i>Quercus durata</i> var. <i>gabrielensis</i>	San Gabriel oak	Fagaceae	perennial evergreen shrub	None	None	4.2	Chaparral, Cismontane woodland		1475	3280	Apr-May
<i>Monardella viridis</i>	green monardella	Lamiaceae	perennial rhizomatous herb	None	None	4.3	Broadleafed upland forest, Chaparral, Cismontane woodland		330	3315	Jun-Sep
<i>Microseris douglasii</i> ssp. <i>platycarpha</i>	small-flowered microseris	Asteraceae	annual herb	None	None	4.2	Cismontane woodland, Coastal scrub, Valley and foothill grassland, Vernal pools		50	3510	Mar-May
<i>Brodiaea filifolia</i>	thread-leaved brodiaea	Themidaceae	perennial bulbiferous herb	FT	CE	1B.1	Chaparral, Cismontane woodland, Coastal scrub, Playas, Valley and foothill grassland, Vernal pools	Clay (often)	80	3675	Mar-Jun

Romneya coulteri	Coulter's matilija poppy	Papaveraceae	perennial rhizomatous herb	None	None	4.2	Chaparral, Coastal scrub		65	3935	Mar-Jul(Aug)
Navarretia prostrata	prostrate vernal pool navarretia	Polemoniaceae	annual herb	None	None	1B.2	Coastal scrub, Meadows and seeps, Valley and foothill grassland, Vernal pools		10	3970	Apr-Jul
Imperata brevifolia	California satintail	Poaceae	perennial rhizomatous herb	None	None	2B.1	Chaparral, Coastal scrub, Meadows and seeps, Mojavean desert scrub, Riparian scrub	Mesic	0	3985	Sep-May
Chorizanthe parryi var. parryi	Parry's spineflower	Polygonaceae	annual herb	None	None	1B.1	Chaparral, Cismontane woodland, Coastal scrub, Valley and foothill grassland	Openings, Rocky (sometimes), Sandy (sometimes)	900	4005	Apr-Jun
Quercus engelmannii	Engelmann oak	Fagaceae	perennial deciduous tree	None	None	4.2	Chaparral, Cismontane woodland, Riparian woodland, Valley and foothill grassland		165	4265	Mar-Jun
Androsace elongata ssp. acuta	California androsace	Primulaceae	annual herb	None	None	4.2	Chaparral, Cismontane woodland, Coastal scrub, Meadows and seeps, Pinyon and juniper woodland, Valley and foothill grassland		490	4280	Mar-Jun
Lepechinia fragrans	fragrant pitcher sage	Lamiaceae	perennial shrub	None	None	4.2	Chaparral		65	4300	Mar-Oct

<i>Fimbristylis thermalis</i>	hot springs fimbristylis	Cyperaceae	perennial rhizomatous herb	None	None	2B.2	Meadows and seeps		360	4395	Jul-Sep
<i>Arctostaphylos glandulosa ssp. gabrielensis</i>	San Gabriel manzanita	Ericaceae	perennial evergreen shrub	None	None	1B.2	Chaparral		1950	4920	Mar
<i>Senecio astephanus</i>	San Gabriel ragwort	Asteraceae	perennial herb	None	None	4.3	Chaparral, Coastal bluff scrub		1310	4920	May-Jul
<i>Lathyrus splendens</i>	pride-of- California	Fabaceae	perennial herb	None	None	4.3	Chaparral		655	5005	Mar-Jun
<i>Sidalcea neomexicana</i>	salt spring checkerbloom	Malvaceae	perennial herb	None	None	2B.2	Chaparral, Coastal scrub, Lower montane coniferous forest, Mojavean desert scrub, Playas		50	5020	Mar-Jun
<i>Abronia villosa var. aurita</i>	chaparral sand-verbena	Nyctaginaceae	annual herb	None	None	1B.1	Chaparral, Coastal scrub, Desert dunes	Sandy	245	5250	(Jan)Mar- Sep
<i>Cladium californicum</i>	California saw-grass	Cyperaceae	perennial rhizomatous herb	None	None	2B.2	Marshes and swamps, Meadows and seeps		195	5250	Jun-Sep
<i>Amaranthus watsonii</i>	Watson's amaranth	Amaranthaceae	annual herb	None	None	4.3	Mojavean desert scrub, Sonoran desert scrub		65	5580	Apr-Sep
<i>Calochortus plummerae</i>	Plummer's mariposa-lily	Liliaceae	perennial bulbiferous herb	None	None	4.2	Chaparral, Cismontane woodland, Coastal scrub, Lower montane coniferous forest, Valley and foothill grassland	Granitic, Rocky	330	5580	May-Jul

<i>Monardella australis ssp. jokerstii</i>	Jokerst's monardella	Lamiaceae	perennial rhizomatous herb	None	None	1B.1	Chaparral, Lower montane coniferous forest		4430	5740	Jul-Sep
<i>Lilium humboldtii ssp. ocellatum</i>	ocellated Humboldt lily	Liliaceae	perennial bulbiferous herb	None	None	4.2	Chaparral, Cismontane woodland, Coastal scrub, Lower montane coniferous forest, Riparian woodland		100	5905	Mar-Jul(Aug)
<i>Monardella saxicola</i>	rock monardella	Lamiaceae	perennial rhizomatous herb	None	None	4.2	Chaparral, Closed-cone coniferous forest, Lower montane coniferous forest		1640	5905	Jun-Sep
<i>Chorizanthe leptotheca</i>	Peninsular spineflower	Polygonaceae	annual herb	None	None	4.2	Chaparral, Coastal scrub, Lower montane coniferous forest	Granitic	985	6235	May-Aug
<i>Muhlenbergia californica</i>	California muhly	Poaceae	perennial rhizomatous herb	None	None	4.3	Chaparral, Coastal scrub, Lower montane coniferous forest, Meadows and seeps		330	6560	Jun-Sep
<i>Orobanche valida ssp. valida</i>	Rock Creek broomrape	Orobanchaceae	perennial herb (parasitic)	None	None	1B.2	Chaparral, Pinyon and juniper woodland		3380	6560	May-Sep

<i>Symphyotrichum greatae</i>	Greata's aster	Asteraceae	perennial rhizomatous herb	None	None	1B.3	Broadleafed upland forest, Chaparral, Cismontane woodland, Lower montane coniferous forest, Riparian woodland		985	6595	Jun-Oct
<i>Symphyotrichum defoliatum</i>	San Bernardino aster	Asteraceae	perennial rhizomatous herb	None	None	1B.2	Cismontane woodland, Coastal scrub, Lower montane coniferous forest, Marshes and swamps, Meadows and seeps, Valley and foothill grassland		5	6695	Jul-Nov
<i>Pseudognaphalium leucocephalum</i>	white rabbit-tobacco	Asteraceae	perennial herb	None	None	2B.2	Chaparral, Cismontane woodland, Coastal scrub, Riparian woodland		0	6890	(Jul)Aug- Nov(Dec)
<i>Castilleja gleasoni</i>	Mt. Gleason paintbrush	Orobanchaceae	perennial herb (hemiparasitic)	None	CR	1B.2	Chaparral, Lower montane coniferous forest, Pinyon and juniper woodland	Granitic	3805	7120	May- Jun(Sep)
<i>Monardella macrantha ssp. hallii</i>	Hall's monardella	Lamiaceae	perennial rhizomatous herb	None	None	1B.3	Broadleafed upland forest, Chaparral, Cismontane woodland, Lower montane coniferous forest, Valley and foothill grassland		2395	7200	Jun-Oct

<i>Thysanocarpus rigidus</i>	rigid fringedpod	Brassicaceae	annual herb	None	None	1B.2	Pinyon and juniper woodland		1970	7220	Feb-May
<i>Galium johnstonii</i>	Johnston's bedstraw	Rubiaceae	perennial herb	None	None	4.3	Chaparral, Lower montane coniferous forest, Pinyon and juniper woodland, Riparian woodland		4005	7545	Jun-Jul
<i>Muhlenbergia utilis</i>	aparejo grass	Poaceae	perennial rhizomatous herb	None	None	2B.2	Chaparral, Cismontane woodland, Coastal scrub, Marshes and swamps, Meadows and seeps	Alkaline (sometimes), Serpentinite (sometimes)	80	7630	Mar-Oct
<i>Eriophyllum lanatum</i> var. <i>obovatum</i>	southern Sierra woolly sunflower	Asteraceae	perennial herb	None	None	4.3	Lower montane coniferous forest, Upper montane coniferous forest	Loam, Sandy	3655	8205	Jun-Jul
<i>Galium jepsonii</i>	Jepson's bedstraw	Rubiaceae	perennial rhizomatous herb	None	None	4.3	Lower montane coniferous forest, Upper montane coniferous forest	Granitic, Gravelly (sometimes), Rocky (sometimes)	5055	8205	Jul-Aug
<i>Phacelia mohavensis</i>	Mojave phacelia	Hydrophyllaceae	annual herb	None	None	4.3	Cismontane woodland, Lower montane coniferous forest, Meadows and seeps, Pinyon and juniper woodland		4595	8205	Apr-Aug
<i>Streptanthus bernardinus</i>	Laguna Mountains jewelflower	Brassicaceae	perennial herb	None	None	4.3	Chaparral, Lower montane coniferous forest		2200	8205	May-Aug

<i>Acanthoscyphus parishii</i> var. <i>parishii</i>	Parish's oxytheca	Polygonaceae	annual herb	None	None	4.2	Chaparral, Lower montane coniferous forest	Gravelly (sometimes), Sandy (sometimes)	4005	8530	Jun-Sep
<i>Sidotheca caryophylloides</i>	chickweed oxytheca	Polygonaceae	annual herb	None	None	4.3	Lower montane coniferous forest		3655	8530	Jul-Sep(Oct)
<i>Galium angustifolium</i> ssp. <i>gabrielense</i>	San Antonio Canyon bedstraw	Rubiaceae	perennial herb	None	None	4.3	Chaparral, Lower montane coniferous forest	Granitic, Rocky (sometimes), Sandy (sometimes)	3935	8695	Apr-Aug
<i>Heuchera caespitosa</i>	urn-flowered alumroot	Saxifragaceae	perennial rhizomatous herb	None	None	4.3	Cismontane woodland, Lower montane coniferous forest, Riparian forest, Upper montane coniferous forest	Rocky	3790	8695	May-Aug
<i>Astragalus bicristatus</i>	crested milk-vetch	Fabaceae	perennial herb	None	None	4.3	Lower montane coniferous forest, Upper montane coniferous forest	Carbonate (usually), Rocky (sometimes), Sandy (sometimes)	5580	9005	May-Aug
<i>Claytonia peirsonii</i> ssp. <i>peirsonii</i>	Peirson's spring beauty	Montiaceae	perennial herb	None	None	1B.2	Subalpine coniferous forest, Upper montane coniferous forest	Granitic, Metamorphic, Scree, Talus	4955	9005	(Mar)May-Jun
<i>Lilium parryi</i>	lemon lily	Liliaceae	perennial bulbiferous herb	None	None	1B.2	Lower montane coniferous forest, Meadows and seeps, Riparian forest, Upper montane coniferous forest		4005	9005	Jul-Aug

<i>Linanthus concinnus</i>	San Gabriel linanthus	Polemoniaceae	annual herb	None	None	1B.2	Chaparral, Lower montane coniferous forest, Upper montane coniferous forest		4985	9185	Apr-Jul
<i>Juncus duranii</i>	Duran's rush	Juncaceae	perennial rhizomatous herb	None	None	4.3	Lower montane coniferous forest, Meadows and seeps, Upper montane coniferous forest		5800	9200	Jul-Aug
<i>Diplacus johnstonii</i>	Johnston's monkeyflower	Phrymaceae	annual herb	None	None	4.3	Lower montane coniferous forest		3200	9580	May-Aug
<i>Eriogonum microthecum</i> var. <i>johnstonii</i>	Johnston's buckwheat	Polygonaceae	perennial deciduous shrub	None	None	1B.3	Subalpine coniferous forest, Upper montane coniferous forest	Rocky	6000	9600	Jul-Sep
<i>Eriogonum umbellatum</i> var. <i>minus</i>	alpine sulfur-flowered buckwheat	Polygonaceae	perennial herb	None	None	4.3	Subalpine coniferous forest, Upper montane coniferous forest	Gravelly	5905	10065	Jun-Sep
<i>Eriogonum microthecum</i> var. <i>alpinum</i>	alpine slender buckwheat	Polygonaceae	perennial herb	None	None	4.3	Alpine dwarf scrub, Great Basin scrub	Gravelly (sometimes), Rocky (sometimes)	8205	10825	Jul-Sep

<i>Fritillaria pinetorum</i>	pine fritillary	Liliaceae	perennial bulbiferous herb	None	None	4.3	Chaparral, Lower montane coniferous forest, Pinyon and juniper woodland, Subalpine coniferous forest, Upper montane coniferous forest	Granitic (sometimes), Metamorphic (sometimes)	5695	10825	May- Jul(Sep)
<i>Viola pinetorum</i> ssp. <i>grisea</i>	grey-leaved violet	Violaceae	perennial herb	None	None	1B.2	Meadows and seeps, Subalpine coniferous forest, Upper montane coniferous forest		4920	11155	Apr-Jul
<i>Oreonana vestita</i>	woolly mountain- parsley	Apiaceae	perennial herb	None	None	1B.3	Lower montane coniferous forest, Subalpine coniferous forest, Upper montane coniferous forest		5300	11485	Mar-Sep

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Selected Elements by Scientific Name

California Department of Fish and Wildlife

California Natural Diversity Database



Query Criteria: Quad (Ontario (3411716) OR San Dimas (3411717) OR Yorba Linda (3311787) OR Prado Dam (3311786) OR Corona North (3311785) OR Guasti (3411715) OR Cucamonga Peak (3411725) OR Mt. Baldy (3411726) OR Glendora (3411727))

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Abronia villosa var. aurita</i> chaparral sand-verbena	PDNYC010P1	None	None	G5T2?	S2	1B.1
<i>Accipiter cooperii</i> Cooper's hawk	ABNKC12040	None	None	G5	S4	WL
<i>Agelaius tricolor</i> tricolored blackbird	ABPBXB0020	None	Threatened	G1G2	S1S2	SSC
<i>Aimophila ruficeps canescens</i> southern California rufous-crowned sparrow	ABPBX91091	None	None	G5T3	S3	WL
<i>Ammodramus savannarum</i> grasshopper sparrow	ABPBXA0020	None	None	G5	S3	SSC
<i>Anaxyrus californicus</i> arroyo toad	AAABB01230	Endangered	None	G2G3	S2S3	SSC
<i>Anniella stebbinsi</i> Southern California legless lizard	ARACC01060	None	None	G3	S3	SSC
<i>Antrozous pallidus</i> pallid bat	AMACC10010	None	None	G4	S3	SSC
<i>Aquila chrysaetos</i> golden eagle	ABNKC22010	None	None	G5	S3	FP
<i>Arctostaphylos glandulosa ssp. gabrielensis</i> San Gabriel manzanita	PDERI042P0	None	None	G5T3	S3	1B.2
<i>Arizona elegans occidentalis</i> California glossy snake	ARADB01017	None	None	G5T2	S2	SSC
<i>Artemisiospiza belli belli</i> Bell's sage sparrow	ABPBX97021	None	None	G5T2T3	S3	WL
<i>Asio otus</i> long-eared owl	ABNSB13010	None	None	G5	S3?	SSC
<i>Aspidoscelis hyperythra</i> orange-throated whiptail	ARACJ02060	None	None	G5	S2S3	WL
<i>Aspidoscelis tigris stejnegeri</i> coastal whiptail	ARACJ02143	None	None	G5T5	S3	SSC
<i>Astragalus brauntonii</i> Braunton's milk-vetch	PDFAB0F1G0	Endangered	None	G2	S2	1B.1
<i>Athene cunicularia</i> burrowing owl	ABNSB10010	None	None	G4	S3	SSC
<i>Atractelmis wawona</i> Wawona riffle beetle	IICOL58010	None	None	G3	S1S2	



Selected Elements by Scientific Name
California Department of Fish and Wildlife
California Natural Diversity Database



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Atriplex coulteri</i> Coulter's saltbush	PDCHE040E0	None	None	G3	S1S2	1B.2
<i>Batrachoseps gabrieli</i> San Gabriel slender salamander	AAAAD02110	None	None	G2G3	S2S3	
<i>Berberis nevinii</i> Nevin's barberry	PDBER060A0	Endangered	Endangered	G1	S1	1B.1
<i>Bombus crotchii</i> Crotch bumble bee	IIHYM24480	None	None	G3G4	S1S2	
<i>Brodiaea filifolia</i> thread-leaved brodiaea	PMLIL0C050	Threatened	Endangered	G2	S2	1B.1
<i>Buteo swainsoni</i> Swainson's hawk	ABNKC19070	None	Threatened	G5	S3	
California Walnut Woodland California Walnut Woodland	CTT71210CA	None	None	G2	S2.1	
<i>Callophrys mossii hidakupa</i> San Gabriel Mountains elfin butterfly	IILEPE2206	None	None	G4T1T2	S1S2	
<i>Calochortus clavatus var. gracilis</i> slender mariposa-lily	PMLIL0D096	None	None	G4T2T3	S2S3	1B.2
<i>Calochortus plummerae</i> Plummer's mariposa-lily	PMLIL0D150	None	None	G4	S4	4.2
<i>Calochortus weedii var. intermedius</i> intermediate mariposa-lily	PMLIL0D1J1	None	None	G3G4T2	S3	1B.2
<i>Calystegia felix</i> lucky morning-glory	PDCON040P0	None	None	G1Q	S1	1B.1
<i>Campylorhynchus brunneicapillus sandiegensis</i> coastal cactus wren	ABPBG02095	None	None	G5T3Q	S3	SSC
Canyon Live Oak Ravine Forest Canyon Live Oak Ravine Forest	CTT61350CA	None	None	G3	S3.3	
<i>Castilleja gleasoni</i> Mt. Gleason paintbrush	PDSCR0D140	None	Rare	G2	S2	1B.2
<i>Catostomus santaanae</i> Santa Ana sucker	AFCJC02190	Threatened	None	G1	S1	
<i>Centromadia pungens ssp. laevis</i> smooth tarplant	PDAST4R0R4	None	None	G3G4T2	S2	1B.1
<i>Chaetodipus fallax fallax</i> northwestern San Diego pocket mouse	AMAFD05031	None	None	G5T3T4	S3S4	SSC
<i>Chorizanthe parryi var. parryi</i> Parry's spineflower	PDPGN040J2	None	None	G3T2	S2	1B.1
<i>Cladium californicum</i> California saw-grass	PMCYP04010	None	None	G4	S2	2B.2
<i>Claytonia peirsonii ssp. peirsonii</i> Peirson's spring beauty	PDPOR03121	None	None	G2G3T2	S2	1B.2



Selected Elements by Scientific Name
California Department of Fish and Wildlife
California Natural Diversity Database



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Coastal and Valley Freshwater Marsh Coastal and Valley Freshwater Marsh	CTT52410CA	None	None	G3	S2.1	
Coccyzus americanus occidentalis western yellow-billed cuckoo	ABNRB02022	Threatened	Endangered	G5T2T3	S1	
Coleonyx variegatus abbotti San Diego banded gecko	ARACD01031	None	None	G5T5	S1S2	SSC
Coturnicops noveboracensis yellow rail	ABNME01010	None	None	G4	S1S2	SSC
Crotalus ruber red-diamond rattlesnake	ARADE02090	None	None	G4	S3	SSC
Cypseloides niger black swift	ABNUA01010	None	None	G4	S2	SSC
Diplectrona californica California diplectronan caddisfly	IITRI23010	None	None	G1G2	S1S2	
Dipodomys merriami parvus San Bernardino kangaroo rat	AMAFD03143	Endangered	Candidate Endangered	G5T1	S1	SSC
Dipodomys stephensi Stephens' kangaroo rat	AMAFD03100	Endangered	Threatened	G2	S2	
Dodecahema leptoceras slender-horned spineflower	PDPGN0V010	Endangered	Endangered	G1	S1	1B.1
Dudleya densiflora San Gabriel Mountains dudleya	PDCRA040B0	None	None	G2	S2	1B.1
Dudleya multicaulis many-stemmed dudleya	PDCRA040H0	None	None	G2	S2	1B.2
Elanus leucurus white-tailed kite	ABNKC06010	None	None	G5	S3S4	FP
Empidonax traillii extimus southwestern willow flycatcher	ABPAE33043	Endangered	Endangered	G5T2	S1	
Emys marmorata western pond turtle	ARAAD02030	None	None	G3G4	S3	SSC
Ensatina eschscholtzii klauberi large-blotched salamander	AAAAD04013	None	None	G5T2?	S3	WL
Eremophila alpestris actia California horned lark	ABPAT02011	None	None	G5T4Q	S4	WL
Eriastrum densifolium ssp. sanctorum Santa Ana River woollystar	PDPLM03035	Endangered	Endangered	G4T1	S1	1B.1
Eriogonum microthecum var. johnstonii Johnston's buckwheat	PDPGN083W5	None	None	G5T2	S2	1B.3
Eumops perotis californicus western mastiff bat	AMACD02011	None	None	G4G5T4	S3S4	SSC
Falco columbarius merlin	ABNKD06030	None	None	G5	S3S4	WL



Selected Elements by Scientific Name
California Department of Fish and Wildlife
California Natural Diversity Database



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Fimbristylis thermalis</i> hot springs fimbristylis	PMCYP0B0N0	None	None	G4	S1S2	2B.2
<i>Gila orcuttii</i> arroyo chub	AFCJB13120	None	None	G2	S2	SSC
<i>Glyptostoma gabrielse</i> San Gabriel chestnut	IMGASB1010	None	None	G2	S2	
<i>Gonidea angulata</i> western ridged mussel	IMBIV19010	None	None	G3	S1S2	
<i>Horkelia cuneata var. puberula</i> mesa horkelia	PDROS0W045	None	None	G4T1	S1	1B.1
<i>Icteria virens</i> yellow-breasted chat	ABPBX24010	None	None	G5	S3	SSC
<i>Imperata brevifolia</i> California satintail	PMPOA3D020	None	None	G4	S3	2B.1
<i>Lasiurus cinereus</i> hoary bat	AMACC05030	None	None	G3G4	S4	
<i>Lasiurus xanthinus</i> western yellow bat	AMACC05070	None	None	G4G5	S3	SSC
<i>Laterallus jamaicensis coturniculus</i> California black rail	ABNME03041	None	Threatened	G3G4T1	S1	FP
<i>Lepidium virginicum var. robinsonii</i> Robinson's pepper-grass	PDBRA1M114	None	None	G5T3	S3	4.3
<i>Lepus californicus bennettii</i> San Diego black-tailed jackrabbit	AMAEB03051	None	None	G5T3T4	S3S4	SSC
<i>Lilium parryi</i> lemon lily	PMLIL1A0J0	None	None	G3	S3	1B.2
<i>Linanthus concinnus</i> San Gabriel linanthus	PDPLM090D0	None	None	G2	S2	1B.2
<i>Monardella australis ssp. jokerstii</i> Jokerst's monardella	PDLAM18112	None	None	G4T1?	S1?	1B.1
<i>Monardella macrantha ssp. hallii</i> Hall's monardella	PDLAM180E1	None	None	G5T3	S3	1B.3
<i>Muhlenbergia californica</i> California muhly	PMPOA480A0	None	None	G4	S4	4.3
<i>Muhlenbergia utilis</i> aparejo grass	PMPOA481X0	None	None	G4	S2S3	2B.2
<i>Myotis yumanensis</i> Yuma myotis	AMACC01020	None	None	G5	S4	
<i>Navarretia prostrata</i> prostrate vernal pool navarretia	PDPLM0C0Q0	None	None	G2	S2	1B.2
<i>Neolarra alba</i> white cuckoo bee	IIHYM81010	None	None	GH	SH	



Selected Elements by Scientific Name
California Department of Fish and Wildlife
California Natural Diversity Database



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Neotoma lepida intermedia</i> San Diego desert woodrat	AMAFF08041	None	None	G5T3T4	S3S4	SSC
<i>Nyctinomops femorosaccus</i> pocketed free-tailed bat	AMACD04010	None	None	G5	S3	SSC
<i>Nyctinomops macrotis</i> big free-tailed bat	AMACD04020	None	None	G5	S3	SSC
<i>Oncorhynchus mykiss irideus pop. 10</i> steelhead - southern California DPS	AFCHA0209J	Endangered	None	G5T1Q	S1	
<i>Oreonana vestita</i> woolly mountain-parsley	PDAP11G030	None	None	G3	S3	1B.3
<i>Orobanche valida ssp. valida</i> Rock Creek broomrape	PDORO040G2	None	None	G4T2	S2	1B.2
<i>Ovis canadensis nelsoni</i> desert bighorn sheep	AMALE04013	None	None	G4T4	S3	FP
<i>Perognathus longimembris brevinasus</i> Los Angeles pocket mouse	AMAFD01041	None	None	G5T2	S1S2	SSC
<i>Phacelia stellaris</i> Brand's star phacelia	PDHYD0C510	None	None	G1	S1	1B.1
<i>Phrynosoma blainvillii</i> coast horned lizard	ARACF12100	None	None	G3G4	S3S4	SSC
<i>Poliophtila californica californica</i> coastal California gnatcatcher	ABPBJ08081	Threatened	None	G4G5T3Q	S2	SSC
<i>Pseudognaphalium leucocephalum</i> white rabbit-tobacco	PDAST440C0	None	None	G4	S2	2B.2
<i>Rana boylei</i> foothill yellow-legged frog	AAABH01050	None	Endangered	G3	S3	SSC
<i>Rana muscosa</i> southern mountain yellow-legged frog	AAABH01330	Endangered	Endangered	G1	S1	WL
<i>Rhaphiomidas terminatus abdominalis</i> Delhi Sands flower-loving fly	IIDIP05021	Endangered	None	G1T1	S1	
<i>Rhinichthys osculus ssp. 8</i> Santa Ana speckled dace	AFCJB3705K	None	None	G5T1	S1	SSC
<i>Riversidian Alluvial Fan Sage Scrub</i> Riversidian Alluvial Fan Sage Scrub	CTT32720CA	None	None	G1	S1.1	
<i>Sagittaria sanfordii</i> Sanford's arrowhead	PMALI040Q0	None	None	G3	S3	1B.2
<i>Salvadora hexalepis virgultea</i> coast patch-nosed snake	ARADB30033	None	None	G5T4	S2S3	SSC
<i>Senecio aphanactis</i> chaparral ragwort	PDAST8H060	None	None	G3	S2	2B.2
<i>Setophaga petechia</i> yellow warbler	ABPBX03010	None	None	G5	S3S4	SSC



Selected Elements by Scientific Name
California Department of Fish and Wildlife
California Natural Diversity Database



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Sidalcea neomexicana</i> salt spring checkerbloom	PDMAL110J0	None	None	G4	S2	2B.2
<i>Southern California Arroyo Chub/Santa Ana Sucker Stream</i> Southern California Arroyo Chub/Santa Ana Sucker Stream	CARE2330CA	None	None	GNR	SNR	
<i>Southern Coast Live Oak Riparian Forest</i> Southern Coast Live Oak Riparian Forest	CTT61310CA	None	None	G4	S4	
<i>Southern Cottonwood Willow Riparian Forest</i> Southern Cottonwood Willow Riparian Forest	CTT61330CA	None	None	G3	S3.2	
<i>Southern Sycamore Alder Riparian Woodland</i> Southern Sycamore Alder Riparian Woodland	CTT62400CA	None	None	G4	S4	
<i>Southern Willow Scrub</i> Southern Willow Scrub	CTT63320CA	None	None	G3	S2.1	
<i>Spea hammondi</i> western spadefoot	AAABF02020	None	None	G2G3	S3	SSC
<i>Streptanthus bernardinus</i> Laguna Mountains jewelflower	PDBRA2G060	None	None	G3G4	S3S4	4.3
<i>Symphyotrichum defoliatum</i> San Bernardino aster	PDASTE80C0	None	None	G2	S2	1B.2
<i>Symphyotrichum greatae</i> Greata's aster	PDASTE80U0	None	None	G2	S2	1B.3
<i>Taricha torosa</i> Coast Range newt	AAAAF02032	None	None	G4	S4	SSC
<i>Taxidea taxus</i> American badger	AMAJF04010	None	None	G5	S3	SSC
<i>Thamnophis hammondi</i> two-striped gartersnake	ARADB36160	None	None	G4	S3S4	SSC
<i>Thelypteris puberula var. sonorensis</i> Sonoran maiden fern	PPTHE05192	None	None	G5T3	S2	2B.2
<i>Thysanocarpus rigidus</i> rigid fringedpod	PDBRA2Q070	None	None	G1G2	S2	1B.2
<i>Viola pinetorum ssp. grisea</i> grey-leaved violet	PDVIO04431	None	None	G4G5T3	S3	1B.2
<i>Vireo bellii pusillus</i> least Bell's vireo	ABPBW01114	Endangered	Endangered	G5T2	S2	
<i>Walnut Forest</i> Walnut Forest	CTT81600CA	None	None	G1	S1.1	

Record Count: 120

IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

Location

San Bernardino County, California



Local office

Carlsbad Fish And Wildlife Office

☎ (760) 431-9440

📠 (760) 431-5901

2177 Salk Avenue - Suite 250

Carlsbad, CA 92008-7385

<http://www.fws.gov/carlsbad/>

NOT FOR CONSULTATION

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species¹ and their critical habitats are managed by the [Ecological Services Program](#) of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries²).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact [NOAA Fisheries](#) for [species under their jurisdiction](#).

1. Species listed under the Endangered Species Act are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the [listing status page](#) for more information. IPaC only shows species that are regulated by USFWS (see FAQ).
2. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following species are potentially affected by activities in this location:

Mammals

NAME	STATUS
San Bernardino Merriam's Kangaroo Rat <i>Dipodomys merriami parvus</i> Wherever found There is final critical habitat for this species. The location of the critical habitat is not available. https://ecos.fws.gov/ecp/species/2060	Endangered

Birds

NAME	STATUS
Coastal California Gnatcatcher <i>Polioptila californica californica</i> Wherever found There is final critical habitat for this species. The location of the critical habitat is not available. https://ecos.fws.gov/ecp/species/8178	Threatened
Least Bell's Vireo <i>Vireo bellii pusillus</i> Wherever found There is final critical habitat for this species. The location of the critical habitat is not available. https://ecos.fws.gov/ecp/species/5945	Endangered

Insects

NAME

STATUS

Monarch Butterfly *Danaus plexippus*

Candidate

Wherever found

No critical habitat has been designated for this species.

<https://ecos.fws.gov/ecp/species/9743>

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

THERE ARE NO CRITICAL HABITATS AT THIS LOCATION.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described [below](#).

1. The [Migratory Birds Treaty Act](#) of 1918.
2. The [Bald and Golden Eagle Protection Act](#) of 1940.

Additional information can be found using the following links:

- Birds of Conservation Concern <http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php>

- Measures for avoiding and minimizing impacts to birds <http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php>
- Nationwide conservation measures for birds <http://www.fws.gov/migratorybirds/pdf/management/nationwidestandardconservationmeasures.pdf>

The birds listed below are birds of particular concern either because they occur on the [USFWS Birds of Conservation Concern](#) (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ [below](#). This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the [E-bird data mapping tool](#) (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found [below](#).

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME

BREEDING SEASON (IF A BREEDING SEASON IS INDICATED FOR A BIRD ON YOUR LIST, THE BIRD MAY BREED IN YOUR PROJECT AREA SOMETIME WITHIN THE TIMEFRAME SPECIFIED, WHICH IS A VERY LIBERAL ESTIMATE OF THE DATES INSIDE WHICH THE BIRD BREEDS ACROSS ITS ENTIRE RANGE. "BREEDS ELSEWHERE" INDICATES THAT THE BIRD DOES NOT LIKELY BREED IN YOUR PROJECT AREA.)

Clark's Grebe *Aechmophorus clarkii*

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Breeds Jun 1 to Aug 31

Golden Eagle *Aquila chrysaetos*

Breeds Jan 1 to Aug 31

This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.

<https://ecos.fws.gov/ecp/species/1680>

Marbled Godwit *Limosa fedoa*

Breeds elsewhere

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/9481>

Tricolored Blackbird *Agelaius tricolor*

Breeds Mar 15 to Aug 10

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/3910>

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey

- events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
- To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is $0.25/0.25 = 1$; at week 20 it is $0.05/0.25 = 0.2$.
 - The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season (■)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (—)

A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.

■ probability of presence ■ breeding season | survey effort — no data

SPECIES JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC

Clark's Grebe
 BCC Rangewide (CON)
 (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)



Golden Eagle
 Non-BCC Vulnerable
 (This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.)



Marbled Godwit
 BCC Rangewide (CON)
 (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)



Tricolored Blackbird
 BCC Rangewide (CON)
 (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)



Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

[Nationwide Conservation Measures](#) describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure.

To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. [Additional measures](#) or [permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the migratory birds potentially occurring in my specified location?

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [AKN Phenology Tool](#).

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the [Avian Knowledge Network \(AKN\)](#). This data is derived from a growing collection of [survey, banding, and citizen science datasets](#).

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering, migrating or present year-round in my project area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may refer to the following resources: [The Cornell Lab of Ornithology All About Birds Bird Guide](#), or (if you are unsuccessful in locating the bird of interest there), the [Cornell Lab of Ornithology Neotropical Birds guide](#). If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are [Birds of Conservation Concern](#) (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the [Eagle Act](#) requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the [NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#) project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the [Diving Bird Study](#) and the [nanotag studies](#) or contact [Caleb Spiegel](#) or [Pam Loring](#).

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to [obtain a permit](#) to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be

there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

Facilities

Wildlife refuges and fish hatcheries

REFUGE AND FISH HATCHERY INFORMATION IS NOT AVAILABLE AT THIS TIME

Wetlands in the National Wetlands Inventory

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

WETLAND INFORMATION IS NOT AVAILABLE AT THIS TIME

This can happen when the National Wetlands Inventory (NWI) map service is unavailable, or for very large projects that intersect many wetland areas. Try again, or visit the [NWI map](#) to view wetlands at this location.

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tubercid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

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