Appendix C

Biological Compendium and Potential to Occur Tables



Selected Elements by Scientific Name

California Department of Fish and Wildlife California Natural Diversity Database



Query Criteria:

Quad IS (Lockeford (3812122) OR Lodi North (3812123) OR Clay (3812132) OR Galt (3812133) OR Thornton (3812124) OR Bruceville (3812134) OR Lodi South (3812113) OR Lodi South (3812113) OR Terminous (3812114))
> OR Taxonomic Group IS (Fish OR Birds OR Mammals OR Mammals OR Mammals OR Ferns OR Crustaceans OR Ferns OR Dicots

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Acipenser medirostris pop. 1	AFCAA01031	Threatened	None	G2T1	S1	
green sturgeon - southern DPS						
Agelaius tricolor	ABPBXB0020	None	Threatened	G1G2	S1S2	SSC
tricolored blackbird						
Ambystoma californiense pop. 1	AAAAA01181	Threatened	Threatened	G2G3T3	S3	WL
California tiger salamander - central California DPS						
Ardea alba	ABNGA04040	None	None	G5	S4	
great egret						
Ardea herodias	ABNGA04010	None	None	G5	S4	
great blue heron						
Athene cunicularia	ABNSB10010	None	None	G4	S3	SSC
burrowing owl						
Bombus crotchii	IIHYM24480	None	None	G2	S1S2	
Crotch bumble bee						
Branchinecta lynchi	ICBRA03030	Threatened	None	G3	S3	
vernal pool fairy shrimp						
Branchinecta mesovallensis	ICBRA03150	None	None	G2	S2S3	
midvalley fairy shrimp						
Brasenia schreberi	PDCAB01010	None	None	G5	S3	2B.3
watershield						
Buteo swainsoni	ABNKC19070	None	Threatened	G5	S3	
Swainson's hawk						
Carex comosa	PMCYP032Y0	None	None	G5	S2	2B.1
bristly sedge						
Castilleja campestris var. succulenta	PDSCR0D3Z1	Threatened	Endangered	G4?T2T3	S2S3	1B.2
succulent owl's-clover						
Cicuta maculata var. bolanderi	PDAPI0M051	None	None	G5T4T5	S2?	2B.1
Bolander's water-hemlock						
Coccyzus americanus occidentalis	ABNRB02022	Threatened	Endangered	G5T2T3	S1	
western yellow-billed cuckoo						
Desmocerus californicus dimorphus	IICOL48011	Threatened	None	G3T2T3	S3	
valley elderberry longhorn beetle						
Downingia pusilla	PDCAM060C0	None	None	GU	S2	2B.2
dwarf downingia						



Selected Elements by Scientific Name

California Department of Fish and Wildlife California Natural Diversity Database



Smeeting	Flowers Co. 1-	Fodoval Status	State States	Clahal Dawl	Ctate David	Rare Plant Rank/CDFW
Species	Element Code	Federal Status	State Status	Global Rank	State Rank	SSC or FP
Elanus leucurus white-tailed kite	ABNKC06010	None	None	G5	S3S4	FP
	A D A A D00000	Mana	Maria	0004	00	000
Emys marmorata	ARAAD02030	None	None	G3G4	S3	SSC
western pond turtle	DDMMI OLIODO	Mana	Maria	0.570	00	40.0
Hibiscus lasiocarpos var. occidentalis	PDMAL0H0R3	None	None	G5T3	S3	1B.2
woolly rose-mallow	11001 51/040	Mana	Maria	000	000	
Hydrochara rickseckeri	IICOL5V010	None	None	G2?	S2?	
Ricksecker's water scavenger beetle	A F.O.I IDO4040	Thursday	E. d	04	04	
Hypomesus transpacificus	AFCHB01040	Threatened	Endangered	G1	S1	
Delta smelt	ABNIME 200 44		-	0074	0.4	
Laterallus jamaicensis coturniculus California black rail	ABNME03041	None	Threatened	G3T1	S1	FP
Lathyrus jepsonii var. jepsonii	PDFAB250D2	None	None	G5T2	S2	1B.2
Delta tule pea						
Legenere limosa	PDCAM0C010	None	None	G2	S2	1B.1
legenere						
Lepidurus packardi	ICBRA10010	Endangered	None	G4	S3S4	
vernal pool tadpole shrimp						
Lilaeopsis masonii	PDAPI19030	None	Rare	G2	S2	1B.1
Mason's lilaeopsis						
Limosella australis	PDSCR10030	None	None	G4G5	S2	2B.1
Delta mudwort						
Linderiella occidentalis	ICBRA06010	None	None	G2G3	S2S3	
California linderiella						
Melospiza melodia pop. 1	ABPBXA3013	None	None	G5T3?Q	S3?	SSC
song sparrow ("Modesto" population)						
Nycticorax nycticorax	ABNGA11010	None	None	G5	S4	
black-crowned night heron						
Oncorhynchus mykiss irideus pop. 11 steelhead - Central Valley DPS	AFCHA0209K	Threatened	None	G5T2Q	S2	
Pogonichthys macrolepidotus	AFCJB34020	None	None	G3	S3	SSC
Sacramento splittail						
Rana boylii pop. 5	AAABH01055	Proposed	Endangered	G3T2	S2	
foothill yellow-legged frog - south Sierra DPS		Endangered				
Sagittaria sanfordii	PMALI040Q0	None	None	G3	S3	1B.2
Sanford's arrowhead						
Scutellaria galericulata	PDLAM1U0J0	None	None	G5	S2	2B.2
marsh skullcap						
Scutellaria lateriflora	PDLAM1U0Q0	None	None	G5	S2	2B.2
side-flowering skullcap						
Setophaga petechia	ABPBX03010	None	None	G5	S3S4	SSC
yellow warbler						



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
Spea hammondii	AAABF02020	None	None	G2G3	S3	SSC
western spadefoot						
Spirinchus thaleichthys	AFCHB03010	Candidate	Threatened	G5	S1	
longfin smelt						
Sylvilagus bachmani riparius	AMAEB01021	Endangered	Endangered	G5T1	S1	
riparian brush rabbit						
Symphyotrichum lentum	PDASTE8470	None	None	G2	S2	1B.2
Suisun Marsh aster						
Taxidea taxus	AMAJF04010	None	None	G5	S3	SSC
American badger						
Thamnophis gigas	ARADB36150	Threatened	Threatened	G2	S2	
giant gartersnake						
Trifolium hydrophilum	PDFAB400R5	None	None	G2	S2	1B.2
saline clover						

Record Count: 45

ScientificN CommonN Family Lifeform CRPR GRank SRa	nk OtherStati CESA Fi	A BloomingP Habitat MicroHabi	ElevationL ElevationL	ElevationH E	evationH CAEndemi States	Counties Quads EC	OTotal EOA	EOB	EOC	EOD	EOX	EOU	EOHistoric	EORecent E0	Extant EOF	ossibly EOE	xtirpat EOTh	reatLi Notes Threats Taxonomy Other F	ullScientil Synonyms F	ElementCc USDAPlant CBRReas	or DateAdded L	LastUpdate
Azolla mici Mexican m Azollaceae annual/pei 4.2 G5 S4	None N	e Aug Marshes and swamps	30 100	100	330 FALSE AR, AZ,	BA BUT, COL, Alturas (4:	0	0	0	0	0	0	0 0	0	0	0	0	Too common? Difficult to distinguish from A A	zolla mici Azolla me: P	PPAZO010 AZMI	1/1/1994 0:00	5/26/2021 0:00
Brasenia sr watershiel Cabombac perennial r 2B.3 G5 S3	IUCN_LC None N	e Jun-Sep Marshes and swamps	0 0	2200	7220 FALSE AK, AL,	AR BUT, CAL, Annapolis	43	6	1	0	0	4	32 28	15	39	2	2	3 Many occurrences historical; need field surve	rasenia schreberi P	PDCAB010 BRSC	10/27/2010 0:00	7/14/2021 0:00
Carex com bristly sed _i Cyperacea perennial r 2B.1 G5 S2	IUCN_LC None N	e May-Sep Coastal prairie, Marsh	0 0	625	2050 FALSE AL, AR,	CA CCA, FRE, Big Bend (32	1	7	11	0	4	9 11	21	28	3	1	14 Location, rarity, and endangerment informal (Carex comosa P	PMCYP032 CACO8	1/1/1994 0:00	7/14/2021 0:00
Castilleja c succulent (Orobanch; annual her 1B.2 G4?T2T3 S2S	3 CE F	(Mar)Apr-l' Vernal pools	50 165	750	2460 TRUE CA	FRE, MAD Berenda (99	15	21	2	3	2	56 73	26	97	2	0	34 Threatened by urbanization, agriculture, floc 0	.astilleja c Castilleja c P	PDSCR0D3Z1	1/1/1984 0:00	5/26/2021 0:00
Centromac Parry's rou Asteraceae annual her 4.2 G3T3 S3	None N	e May-Oct Valley and Alkaline, F	0 0	100	330 TRUE CA	BUT, COL, Adin (411)	0	0	0	0	0	0	0 0	0	0	0	0	Threatened by development, habitat alterati 0	entromadia parryi ss P.	PDAST4R0 CEPAR4	5/22/2007 0:00	9/27/2021 0:00
Cicuta mac Bolander's Apiaceae perennial 2B.1 G5T4T5 S2?	None N	e Jul-Sep Marshes and swamps	0 0	200	655 FALSE AZ, CA,	NI CCA, MRN Antioch N	17	0	2	1	0	0	14 11	6	17	0	0	1 Threatened by development, non-native pla 0	icuta maculata var. b P.	PDAPIOMO CIMAB	1/1/1974 0:00	5/26/2021 0:00
Downingia dwarf dow Campanuli annual her 2B.2 GU S2	None N	e Mar-May Valley and foothill gra	1 5	445	1460 FALSE CA, SA	FRE, MER, Allendale	132	13	50	10	6	7	46 95	37	125	2	5	81 Threatened by urbanization, development, a D	Jowningia Downingia P	PDCAM06(DOPU3	1/1/1980 0:00	5/26/2021 0:00
Hibiscus la woolly ros Malvaceae perennial r 1B.2 G5T3 S3	SB_CalBG/ None N	e Jun-Sep Marshes and swamps	0 0	120	395 TRUE CA	BUT, CCA, Bouldin Is	173	0	78	38	16	1	40 82	91	172	0	1	91 Most occurrences are very small. Seriously t F	(ibiscus la Hibiscus c. P	PDMAL0H0R3	1/1/1974 0:00	1/5/2022 0:00
Lasthenia i Ferris' gold Asteraceae annual her 4.2 G3 S3	None N	e Feb-May Vernal pools	20 65	700	2295 TRUE CA	ALA, BUT, Allenswor	0	0	0	0	0	0	0 0	0	0	0	0	Threatened by development and agriculture L	asthenia ferrisiae P	PDAST5L0: LAFE	1/1/2001 0:00	1/5/2022 0:00
Lathyrus j∈ Delta tule Fabaceae perennial 1B.2 G5T2 S2	SB_BerrySl None N	e May-Jul(At Marshes and swamps	0 0	5	15 TRUE CA	CCA, NAP, Antioch N	133	5	20	21	11	2	74 89	44	131	2	0	41 Most populations small. Threatened by agric L	athyrus jepsonii var. P	PDFAB250D2	1/1/1974 0:00	1/5/2022 0:00
Legenere li legenere Campanuli annual her 1B.1 G2 S2	BLM_S; SB_None N	e Apr-Jun Vernal pools	1 5	880	2885 TRUE CA	ALA, LAK, Balls Ferry	83	11	30	10	3	9	20 55	28	74	1	8	59 Many historical occurrences extirpated. Thre L	egenere limosa P	PDCAMOCI LELI	1/1/1974 0:00	5/26/2021 0:00
Lilaeopsis i Mason's lil Apiaceae perennial r 1B.1 G2 S2	CR N	e Apr-Nov Marshes and swamps	0 0	10	35 TRUE CA	ALA, CCA, Antioch N	200	6	86	39	9	1	59 91	109	199	0	1	92 Locally common in Suisun Bay. Threatened I L	ilaeopsis masonii P	PDAPI1903 LIMA7	1/1/1974 0:00	5/26/2021 0:00
Limosella a Delta mud Scrophular perennial s 2B.1 G4G5 S2	None N	e May-Aug Marshes a Streamba	0 0	3	10 FALSE CA, CT,	DE CCA, SAC, Antioch N	59	5	30	11	2	0	11 34	25	59	0	0	36 Threatened by stream bank alteration, levee L	imosella a Limosella : P	PDSCR100: LIAU6	1/1/1994 0:00	3/1/2022 0:00
Sagittaria : Sanford's : Alismatace perennial r 1B.2 G3 S3	BLM_S None N	e May-Oct(N Marshes and swamps	0 0	650	2135 TRUE CA	BUT, CAL, Atwater (:	143	15	41	28	4	10	45 48	95	133	8	2	72 Extirpated from southern California, and mo S	agittaria sanfordii P	PMALI040(SASA2	1/1/1984 0:00	5/26/2021 0:00
Scutellaria marsh skul Lamiaceae perennial r 2B.2 G5 S2	None N	e Jun-Sep Lower montane conif	0 0	2100	6890 FALSE AK, AL,	AZ CCA, ELD, Almanor (39	5	14	4	1	0	15 20	19	39	0	0	13 Possibly threatened by hydrological alteratic S	cutellaria galericulata P	PDLAM1U(SCGA	1/1/1994 0:00	5/26/2021 0:00
Scutellaria side-flowe Lamiaceae perennial r 2B.2 G5 S2	IUCN_LC None N	e Jul-Sep Marshes and swamps	0 0	500	1640 FALSE AK, AL,	AR SAC, SJQ Bouldin Is	13	0	7	5	0	0	1 1	12	13	0	0	1 Known in CA from only three occurrences. N S	cutellaria lateriflora P	PDLAM1U(SCLA2	1/1/1994 0:00	7/14/2021 0:00
Symphyoti Suisun Ma Asteraceae perennial r 1B.2 G2 S2	SB_CalBG/ None N	e (Apr)May-I Marshes and swamps	0 0	3	10 TRUE CA	CCA, NAP, Antioch N	175	6	26	49	15	0	79 92	83	175	0	0	62 Seriously threatened by marsh habitat altera S	ymphyot: Aster chile P	PDASTE84: SYLE2	1/1/1974 0:00	5/26/2021 0:00
Trifolium h saline clov Fabaceae annual her 1B.2 G2 S2	None N	e Apr-Jun Marshes and swamps	0 0	300	985 TRUE CA	ALA, CCA, Altamont	56	1	10	4	1	10	30 27	29	46	3	7	26 Many sites likely extirpated; need current inf 1	rifolium † Trifolium (P	PDFAB400R5	1/1/2001 0:00	5/26/2021 0:00

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 Joaquin County, California



Local office

Sacramento Fish And Wildlife Office

(916) 414-6600

(916) 414-6713

Federal Building 2800 Cottage Way, Room W-2605 Sacramento, CA 95825-1846



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 <u>Ecological Services Program</u> 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 <u>NOAA Fisheries</u> for <u>species under their jurisdiction</u>.

1. Species listed under the <u>Endangered Species Act</u> are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the <u>listing status page</u> for more information. IPaC only shows species that are regulated by USFWS (see FAQ).

2. <u>NOAA Fisheries</u>, 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

Riparian Brush Rabbit Sylvilagus bachmani riparius

Wherever found

No critical habitat has been designated for this species.

https://ecos.fws.gov/ecp/species/6189

Endangered

Birds

NAME STATUS

Yellow-billed Cuckoo Coccyzus americanus

Threatened

There is **final** critical habitat for this species. Your location does not overlap the critical habitat.

https://ecos.fws.gov/ecp/species/3911

Reptiles

NAME STATUS

Giant Garter Snake Thamnophis gigas

Threatened

Wherever found

No critical habitat has been designated for this species.

https://ecos.fws.gov/ecp/species/4482

Amphibians

NAME STATUS

California Tiger Salamander Ambystoma californiense

There is **final** critical habitat for this species. Your location does not overlap the critical habitat.

https://ecos.fws.gov/ecp/species/2076

Threatened

Fishes

NAME STATUS

Delta Smelt Hypomesus transpacificus

https://ecos.fws.gov/ecp/species/321

Wherever found

There is final critical habitat for this species. Your location does not overlap the critical habitat.

Insects

NAME **STATUS**

Monarch Butterfly Danaus plexippus

Candidate

Threatened

Wherever found

No critical habitat has been designated for this species.

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

Valley Elderberry Longhorn Beetle Desmocerus californicus dimorphus

Wherever found

There is **final** critical habitat for this species. Your location does not overlap the critical habitat.

https://ecos.fws.gov/ecp/species/7850

Threatened

Crustaceans

NAME **STATUS**

Vernal Pool Fairy Shrimp Branchinecta lynchi

Threatened

Wherever found

There is final critical habitat for this species. Your location does not overlap the critical habitat.

https://ecos.fws.gov/ecp/species/498

Vernal Pool Tadpole Shrimp Lepidurus packardi

Endangered

Wherever found

There is final critical habitat for this species. Your location does not overlap the critical habitat.

https://ecos.fws.gov/ecp/species/2246

Flowering Plants

NAME **STATUS** Wherever found

There is **final** critical habitat for this species. Your location does not overlap the critical habitat.

https://ecos.fws.gov/ecp/species/8095

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 <u>below</u>.

- 1. The Migratory Birds Treaty Act of 1918.
- 2. The <u>Bald and Golden Eagle Protection Act</u> of 1940.

Additional information can be found using the following links:

- Birds of Conservation Concern https://www.fws.gov/program/migratory-birds/species
- Measures for avoiding and minimizing impacts to birds
 https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide conservation measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf

The birds listed below are birds of particular concern either because they occur on the <u>USFWS Birds of Conservation Concern</u> (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 <u>below</u>. 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 <u>E-bird data mapping tool</u> (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 <u>below</u>.

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.

oresent and breeding in your project area.	
NAME	BREEDING SEASON
Allen's Hummingbird Selasphorus sasin This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9637	Breeds Feb 1 to Jul 15
Bald Eagle Haliaeetus leucocephalus 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.	Breeds Jan 1 to Aug 31
Belding's Savannah Sparrow Passerculus sandwichensis beldingi This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/8	Breeds Apr 1 to Aug 15
Black Swift Cypseloides niger This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/8878	Breeds Jun 15 to Sep 10
Bullock's Oriole Icterus bullockii This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds Mar 21 to Jul 25
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

Common Yellowthroat Geothlypis trichas sinuosa Breeds May 20 to Jul 31 This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/2084 Lawrence's Goldfinch Carduelis lawrencei Breeds Mar 20 to Sep 20 This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9464 Long-eared Owl asio otus Breeds Mar 1 to Jul 15 This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/3631 Breeds Apr 1 to Jul 20 Nuttall's Woodpecker Picoides nuttallii This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9410 Oak Titmouse Baeolophus inornatus Breeds Mar 15 to Jul 15 This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9656 Olive-sided Flycatcher Contopus cooperi Breeds May 20 to Aug 31 This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/3914 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 Western Grebe aechmophorus occidentalis Breeds Jun 1 to Aug 31

Western Grebe aechmophorus occidentalis

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

Breeds Jun 1 to Aug 3

https://ecos.fws.gov/ecp/species/6743

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

Yellow-billed Magpie Pica nuttalli

Breeds Apr 1 to Jul 31

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

https://ecos.fws.gov/ecp/species/9726

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.
- 2. 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.
- 3. 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 (1)

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.

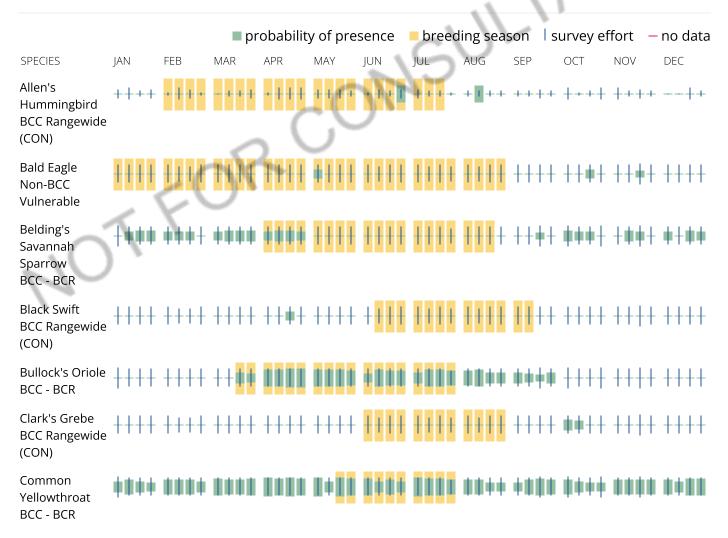
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

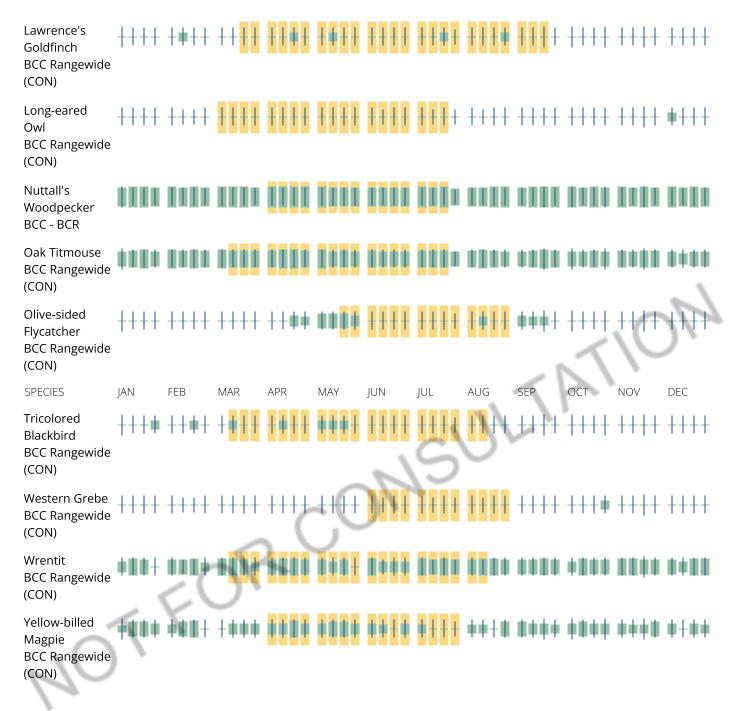
No Data (-)

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.





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 list of migratory birds that potentially occur in my specified location?

The Migratory Bird Resource List is comprised of USFWS <u>Birds of Conservation Concern (BCC)</u> 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 <u>Avian Knowledge Network (AKN)</u>. The AKN data is based on a growing collection of <u>survey, banding, and citizen science datasets</u> 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 (<u>Eagle Act</u> 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 <u>Rapid Avian Information Locator (RAIL) Tool</u>.

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 <u>Avian Knowledge Network (AKN)</u>. This data is derived from a growing collection of <u>survey, banding, and citizen science datasets</u>.

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 or migrating in my 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 query your location using the <u>RAIL Tool</u> and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. 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 <u>Birds of Conservation Concern</u> (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 <u>Fagle Act</u> 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 <u>Northeast Ocean Data Portal</u>. 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 <u>NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf project webpage.</u>

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 <u>Diving Bird Study</u> and the <u>nanotag studies</u> or contact <u>Caleb Spiegel</u> or <u>Pam Loring</u>.

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to <u>obtain a permit</u> 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.

Coastal Barrier Resources System

Projects within the John H. Chafee Coastal Barrier Resources System (CBRS) may be subject to the restrictions on federal expenditures and financial assistance and the consultation requirements of the Coastal Barrier Resources Act (CBRA) (16 U.S.C. 3501 et seq.). For more

information, please contact the local <u>Ecological Services Field Office</u> or visit the <u>CBRA</u> <u>Consultations website</u>. The CBRA website provides tools such as a flow chart to help determine whether consultation is required and a template to facilitate the consultation process.

There are no known coastal barriers at this location.

Data limitations

The CBRS boundaries used in IPaC are representations of the controlling boundaries, which are depicted on the <u>official CBRS maps</u>. The boundaries depicted in this layer are not to be considered authoritative for in/out determinations close to a CBRS boundary (i.e., within the "CBRS Buffer Zone" that appears as a hatched area on either side of the boundary). For projects that are very close to a CBRS boundary but do not clearly intersect a unit, you may contact the Service for an official determination by following the instructions here: https://www.fws.gov/service/coastal-barrier-resources-system-property-documentation

Data exclusions

CBRS units extend seaward out to either the 20- or 30-foot bathymetric contour (depending on the location of the unit). The true seaward extent of the units is not shown in the CBRS data, therefore projects in the offshore areas of units (e.g., dredging, breakwaters, offshore wind energy or oil and gas projects) may be subject to CBRA even if they do not intersect the CBRS data. For additional information, please contact CBRA@fws.gov.

Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the <u>National Wildlife Refuge</u> system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

There are no refuge lands at this location.

Fish hatcheries

There are no fish hatcheries at this location.

Wetlands in the National Wetlands Inventory (NWI)

Impacts to <u>NWI wetlands</u> 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>U.S. Army Corps of Engineers District</u>.

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 <u>NWI map</u> 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 tuberficid 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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Plant Species

Eudicots

Vascular Species

ASTERACEAE - SUNFLOWER FAMILY

* Centaurea solstitialis – yellow star-thistle

FAGACEAE - OAK FAMILY

Quercus lobata – valley oak Quercus wislizeni – interior live oak

MALVACEAE - MALLOW FAMILY

* Malva neglecta – common mallow

POLYGONACEAE - BUCKWHEAT FAMILY

* Polygonum aviculare – prostrate knotweed

Monocots

Vascular Species

POACEAE - GRASS FAMILY

- * Avena barbata slender oat
- * Bromus diandrus ripgut brome
- Cynodon dactylon Bermudagrass
- * Festuca perennis perennial rye grass
- * Hordeum murinum mouse barley



Wildlife Species

Birds

Flycatchers

TYRANNIDAE - TYRANT FLYCATCHERS

Sayornis nigricans - black phoebe

Jays, Magpies and Crows

CORVIDAE - CROWS AND JAYS

Aphelocoma californica - California scrub-jay

Mockingbirds and Thrashers

MIMIDAE - MOCKINGBIRDS AND THRASHERS

Mimus polyglottos - northern mockingbird

Nuthatches

SITTIDAE - NUTHATCHES

Sitta carolinensis - white-breasted nuthatch

Waterfowl

ANATIDAE - DUCKS, GEESE, AND SWANS

Branta canadensis - Canada goose

Woodpeckers

PICIDAE - WOODPECKERS AND ALLIES

Colaptes auratus – northern flicker Dryobates nuttallii – Nuttall's woodpecker

New World Sparrows

PASSERELLIDAE - NEW WORLD SPARROWS

Junco hyemalis - dark-eyed junco



Mammals

Domestic

CANIDAE - WOLVES AND FOXES

* Canis lupus familiaris - domestic dog

Squirrels

SCIURIDAE - SQUIRRELS

Sciurus griseus - western gray squirrel

* Indicates non-native species.



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