

# Installation Summaries from the FY 2006 Survey of Threatened and Endangered Species on Army Lands

June 2007



**FINAL**

U.S. Army Environmental Command  
Aberdeen Proving Ground, Maryland 21010-5401

COVER PAGE: American burying beetle (Endangered) photo taken on Fort Chaffee Maneuver Training Center by Anna (Kiki) Hiott from the Oklahoma Museum of Natural History. This beetle is part of an overwintering study of the American burying beetle being conducted on the installation.

The American burying beetle is recorded on three other Army installations: McAlester Army Ammunition Plant, OK; Camp Gruber Training Site, OK; and Camp Maxey, TX.

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The *Viola oahuensis* (Endangered) is recorded on Kawaihoa Training Area and Schofield Barracks, HI. Photo - USAGHI Environmental Staff

This report, as part of a continuing series, summarizes the Army's Threatened and Endangered species data. Data are obtained from various sources, including the Army Environmental Data Base - Environmental Quality (AEDB-EQ), U.S. Fish and Wildlife Service (FWS), Headquarters Department of Army (HQDA), Installation Management Command (IMCOM) Regions, Major Commands (MACOMs), and Army installations. Installation-level data provide information on federally-listed species occurrences

onsite or contiguous to each installation. Species-level data list all installations on which each species occurs. Corresponding information on federal status, critical habitat, and threatened (T) and endangered (E) species expenditures is provided. Also included in the report is information on species at risk (SAR) and migratory birds, with web links for further information. Photos of representative T & E species found on Army installations are featured, as well as conservation and management efforts.



# Contents

<b>1</b>	<b><a href="#">Executive Summary</a></b> .....	<b>1</b>
<b>2</b>	<b><a href="#">Introduction</a></b> .....	<b>5</b>
	<a href="#">Background</a> .....	5
	<a href="#">Objective</a> .....	5
	<a href="#">Approach</a> .....	5
	<a href="#">Scope</a> .....	6
<b>3</b>	<b><a href="#">Changes from Fiscal Year (FY) 2005 Threatened, Endangered, Proposed and Candidate Species (TEPC) Survey</a></b> .....	<b>9</b>
<b>4</b>	<b><a href="#">Summary Information</a></b> .....	<b>10</b>
	<a href="#">Installation and Species Information</a> .....	10
	<a href="#">Threatened &amp; Endangered (T&amp;E) Species</a> .....	12
	<a href="#">Proposed and Candidate Species</a> .....	13
	<a href="#">What is a Candidate Species</a> .....	13
	<a href="#">FWS Candidate Species</a> .....	13
	<a href="#">NOAA-Fisheries Candidate Species</a> .....	14
	<a href="#">Experimental Populations Under the ESA</a> .....	14
	<a href="#">5-Year Status Review</a> .....	15
	<a href="#">Petition Actions – Delisting</a> .....	15
	<a href="#">Species at Risk</a> .....	16
	<a href="#">Critical Habitat</a> .....	19
	<a href="#">What is Critical Habitat and Adverse Modification</a> .....	19
	<a href="#">Installations Excluded from Critical Habitat Designation Based on Endangered Species Act (ESA) 4(a)(3)(B) and/or 4(b)(2)</a> .....	20
	<a href="#">Expenditures</a> .....	21
	<a href="#">Consistent Reporting</a> .....	22
	<a href="#">Conservation and Management of T&amp;Es on Army Installations</a> .....	23
<b>5</b>	<b><a href="#">Migratory Birds</a></b> .....	<b>27</b>
<b>6</b>	<b><a href="#">Definitions</a></b> .....	<b>30</b>
<b>7</b>	<b><a href="#">Acronyms</a></b> .....	<b>33</b>
<b>8</b>	<b><a href="#">References</a></b> .....	<b>35</b>
<b>Tables:</b>		
	<b><a href="#">Table 1.</a></b> Army’s top 10 T&E expenditures by Installation in FY 2006 .....	<b>2</b>
	<b><a href="#">Table 2.</a></b> Army’s top T&E expenditures for FY 2005 & 2006 .....	<b>3</b>
	<b><a href="#">Table 3.</a></b> Army’s top T&E expenditures by species for FY 2002 thru 2006 .....	<b>3</b>

<a href="#"><u>Table 4.</u></a>	Species Reported in FY 2006 that were not reported in FY 2005.....	9
<a href="#"><u>Table 5.</u></a>	Species removed from installations reporting in FY 2006. ....	9
<a href="#"><u>Table 6.</u></a>	Federal Status of Onsite or Contiguous TEPC Species by Category for FY 2006.....	11
<a href="#"><u>Table 7.</u></a>	Federal status of onsite or contiguous TEPC reported by AMC/ARNG/BRAC/IMA installations. ....	11
<a href="#"><u>Table 8.</u></a>	Installations reporting Threatened & Endangered species for FY 2006 ...	12
<a href="#"><u>Table 9.</u></a>	Installations reporting Candidate species for FY 2006.....	13
<a href="#"><u>Table 10.</u></a>	Critical habitat designated on Army installations, as of end FY 2006.....	20
<a href="#"><u>Table 11.</u></a>	Installations excluded from critical habitat designation.....	21
<a href="#"><u>Table 12.</u></a>	Reportable expenditures (\$K) over the last 5 years (FYs 2002 - 2006).....	21
<a href="#"><u>Table 13.</u></a>	FY 2005 & FY 2006 comparison of reportable expenditures (\$K) by category. ....	22
<a href="#"><u>Table 14.</u></a>	Number of T&E species by fiscal year.....	22

Figures:

<a href="#"><u>Figure 1.</u></a>	Onsite T&E by Category for FY 2006 .....	1
<a href="#"><u>Figure 2.</u></a>	Reportable and Non-reportable T&E expenditures .....	2
<a href="#"><u>Figure 3.</u></a>	Top Ten Species – Army Expenditures .....	4
<a href="#"><u>Figure 4.</u></a>	Most commonly reported T&E species on Army installations in FY 2006.....	12
<a href="#"><u>Figure 5.</u></a>	Army installations with the most onsite T&Es in FY 2006.....	13
<a href="#"><u>Figure 6.</u></a>	A few representative migratory bird species of concern (SOC) .....	28

Appendices:

<a href="#"><u>Appendix A:</u></a>	Installations & the TEPC recorded as Onsite or Contiguous.....	A-1
<a href="#"><u>Appendix B:</u></a>	TEPC & Installations Where Recorded - Sorted by Scientific Name....	B-1
<a href="#"><u>Appendix C:</u></a>	TEPC & Installations Where Recorded - Sorted by Common Name by Category .....	C-1
<a href="#"><u>Appendix D:</u></a>	Installations with T&E Species Onsite .....	D-1
<a href="#"><u>Appendix E:</u></a>	T&E Species found on Army Installations .....	E-1





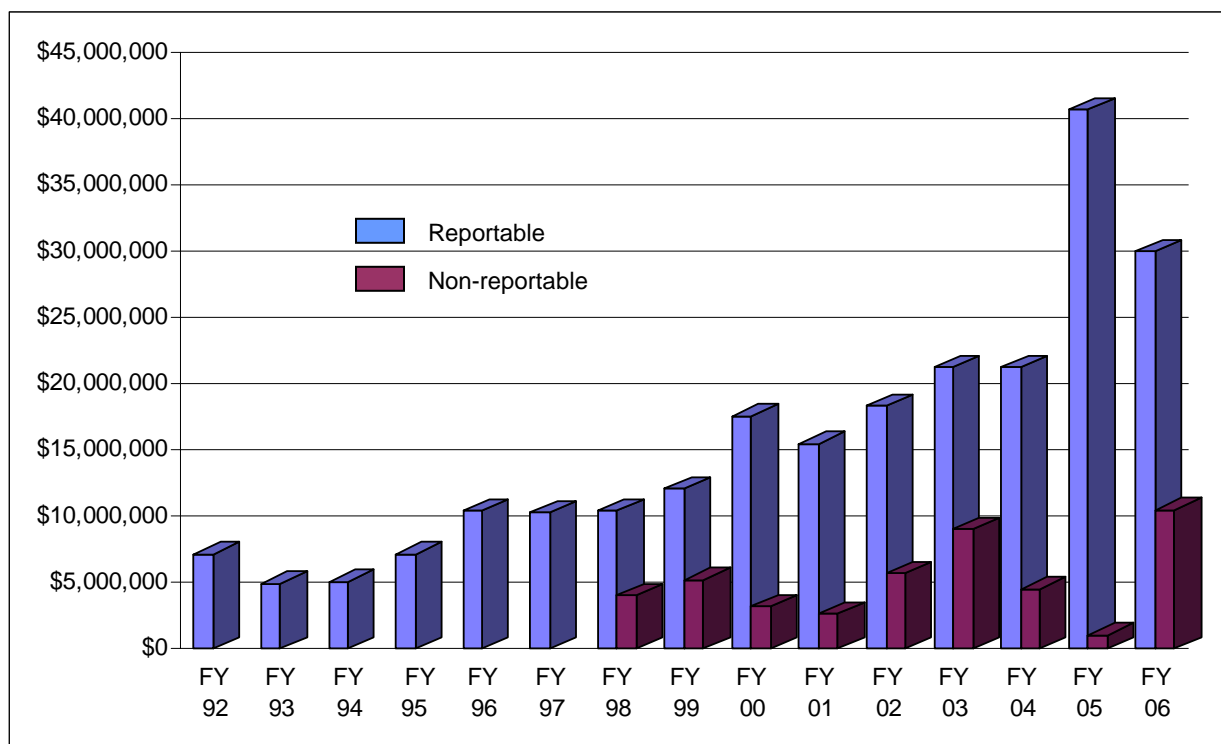
Karner blue butterflies feeding on a butterfly milkweed.  
Photo taken by Tim Wilder, Fort McCoy, WI.



# 1. Executive Summary

As of 1 October 2006, the Army has recorded 174 federally Threatened and Endangered (T&E) (definitions found in section 5) species on 99 installations. During the Fiscal Year (FY) 2006 period, the Army spent approximately \$40.5 million on T&E management. This figure includes Endangered Species Act (ESA) reportable expenses<sup>1</sup> of approximately \$30 million, including expenditures on both onsite and contiguous species; 10 installations spent approximately 61% of this amount on T&E management (Table 1). In addition, about \$10.5 million was spent on non-reportable expenses<sup>2</sup> for onsite and contiguous<sup>3</sup> species. These monetary figures do not include dollars that are expended by military operations or military construction for work-arounds and avoidance. Figure 1 shows reportable and non-reportable expenses from FYs 1992-2006 (non-reportable costs captured 1998 and forward). Table 2 shows the top ten species, in terms of expenditures, for FY 2005 & 2006. Table 3 and Figure 3 present the top 10 species expenditures over the last five-year period – FYs 2002-2006.

The Army has 13 installations with designated critical habitat occurring for one or more species, and two of these installations have unoccupied critical habitat. In FY06, only one installation, Camp San Luis Obispo, was excluded from critical habitat. This exclusion was based on the installation's Integrated Natural Resources Management Plan (INRMP) providing a benefit to the species [ESA Section 4(a)(3)(B)]. Figure 2 shows the breakdown by category of the onsite<sup>4</sup> T&E species for FY 2006. Appendices A, B, and C provide data on all the installations and federally Threatened, Endangered, Proposed and Candidate Species (TEPC) reported in FY 2006. To allow for quick and easy reference, the data have been sorted by installation, scientific name and common name in Appendix A, B, C, respectively.



**Figure 1. Reportable and Non-reportable T&E expenditures.**

<sup>1</sup> Money spent primarily for the conservation of Threatened and Endangered species pursuant to the Endangered Species Act.

<sup>2</sup> Money spent on multi-species projects where no specific amount of money is attributable to individual listed species.

<sup>3</sup> Species known to occupy or otherwise use habitat adjacent to an installation, which may be affected by installation activities.

<sup>4</sup> Species that have been documented on the installation.

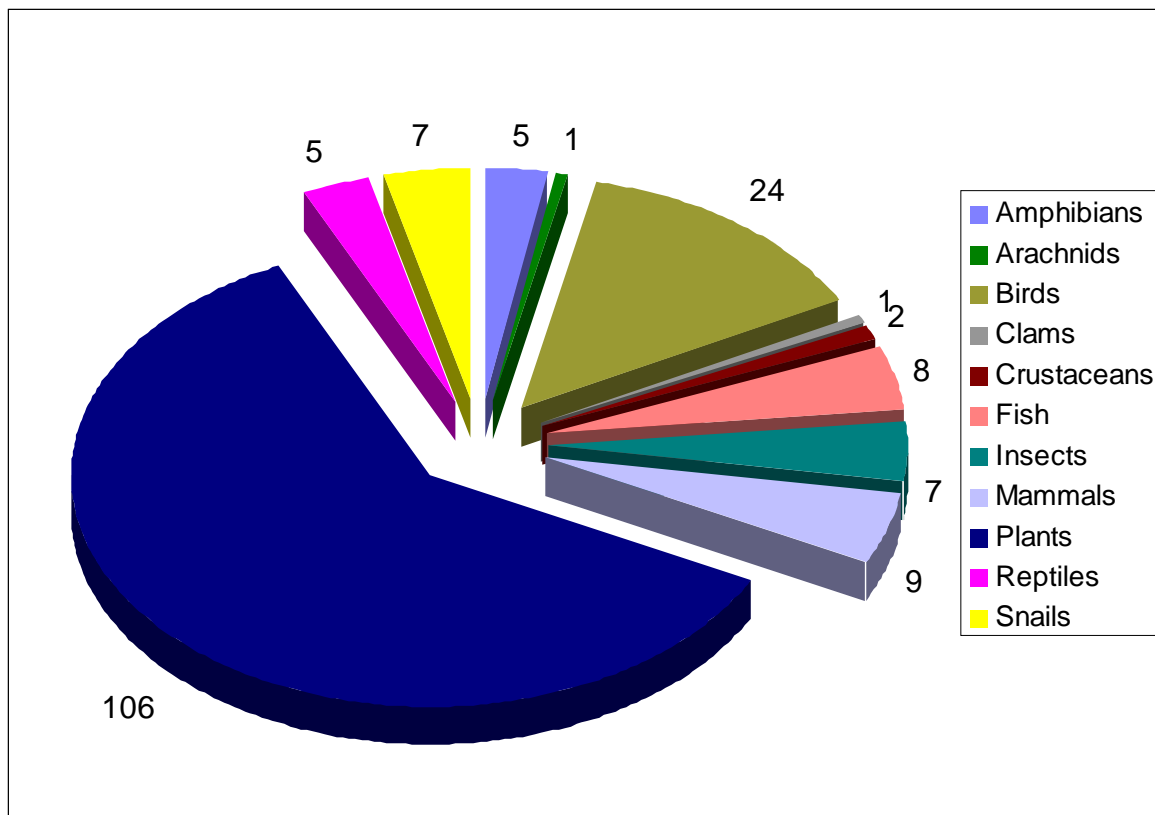


Figure 2. Onsite T&E by Category for FY 2006

Table 1. Army's top 10 T&E expenditures by Installation for FY 2006.

Top Installation Expenditures for FY 2006	
Installation	Reportable Expenditures (\$K)
Pohakulua Training Area	3,937.0
Makua Military Reservation	3,127.7
Fort Irwin/NCTC	2,414.0
Fort Bragg	2,137.0
Aberdeen Proving Ground	2,026.5
Fort Benning	1,243.0
Schofield Barracks	1,009.0
Fort Hood	900.0
Fort Stewart	892.6
Fort Huachuca	652.0

Table 2. Army's top T&E expenditures by Species for FY 2005 & 2006.

Top Expenditures for FY 2005		Top Expenditures for FY 2006	
Species Common Name	Reportable Expenditures (\$K)	Species Common Name	Reportable Expenditures (\$K)
Desert tortoise*	23,690.4	Red-cockaded Woodpecker	5,654.4
Red-cockaded Woodpecker	3,811.3	Bald Eagle	2,576.7
Bald Eagle	2,806.9	Desert tortoise	2,461.9
Indiana bat	1,178.6	Indiana bat	1,594.2
Black-capped Vireo	991.2	Gopher tortoise	1,144.0
Golden-cheeked Warbler	845.0	Black-capped Vireo	1,032.9
Gray bat	757.3	Golden-cheeked Warbler	625.0
Gopher tortoise	725.0	Gray Bat	587.7
Huachuca water-umbel	377.2	Mexican Spotted Owl	382.9
Mexican Spotted Owl	374.4	<i>Spermolepis hawaiiensis</i>	339.4
<b>TOTAL</b>	<b>35,557.3</b>	<b>TOTAL</b>	<b>16,399.1</b>

\* Majority of expenditure due to implementation of conservation measures for the expansion of the National Training Center at Fort Irwin.

Table 3. Army's top T&E expenditures by Species for FY 2002 Through 2006.

Top Species Expenditures for Last Five Years	
Species Common Name	Reportable Expenditures (\$K)
Desert tortoise	29,936.7
Red-cockaded woodpecker	21,832.3
Black-capped Vireo	7,991.6
Golden-cheeked Warbler	7,282.0
Bald Eagle	7,245.1
Indiana bat	5,162.2
Gopher tortoise	4,413.0
Gray bat	3,416.4
Mexican Spotted Owl	2,317.3
Southwestern Willow Flycatcher	2,229.9
<b>TOTAL</b>	<b>90,486.3</b>

Figure 3. TOP TEN SPECIES<sup>5</sup> – ARMY EXPENDITURES



<sup>5</sup> Photo credits: Desert tortoise – Neil Lynn, Fort Irwin; Black-capped Vireo & Golden-cheeked Warbler – Gil Eckridge, Fort Hood; Bald Eagle – Bruce Cole, Holston Army Ammunition Plant; Indiana bat – Adam Mann, Fort Drum; gray bat – Kenton Lohraff, Fort Leonard Wood; Red-cockaded Woodpecker, gopher tortoise, Mexican Spotted Owl, & Southwestern Willow Flycatcher – FWS.

## **2. Introduction**

### **Background**

The Army's mission is to provide national defense. However, as a federal agency, the Army is also required by the Endangered Species Act (ESA) to conserve the federally listed T&E species that occur on the lands where it conducts the training of soldiers, testing of weapons and all other functions essential for national defense. Data collection efforts provide the Army with information that it needs to monitor and manage Threatened, Endangered, Proposed and Candidate Species (TEPC), species at risk (SAR), and their habitats (refer to Section 5 for definitions of acronyms). Each year, installations enter data on TEPC into the Army Environmental Data Base – Environmental Quality (AEDB-EQ) to provide Headquarters, Department of the Army (HQDA) with a list of TEPC occurring within their boundaries and on land contiguous to them. This information gives the Army the ability to assess the status of its TEPC nationwide, to plan for expenditures related to TEPC, to deal proactively with any potential conflicts between TEPC and the military mission and management efforts, and to implement proactive conservation measures that benefit Candidate species and SAR to prevent their listing as T or E.

The information provided in this report only reflects those TEPC that are found on or adjacent to property owned or leased by the Army. The Army also trains on land owned by other military services. Such lands may have restrictions due to listed or proposed species that affect timing, duration and intensity of training for these units, such as Army National Guard (ARNG) training on Camp Pendleton or Eglin Air Force Base. The respective service landowner reports these species, so they are not captured in this report. However, the Army is still required to comply with ESA for actions on these sites; therefore, the Army's financial responsibilities for ESA compliance extends beyond Army owned or leased properties.

The Army Reserve has six installations and approximately 1,500 facilities spread throughout the country. At the end of FY 2006, the installations and the 11 Regional Readiness Commands (RRCs) have been stood up as a separate Command. Recently, the RRC's have been reorganized and consolidated into four Regional Readiness Sustainment Commands (RRSCs), but these four RRSCs won't be functional for a few years. In FY 2006, these facilities reported under the 11 RRCs, each covering multiple states. Therefore, for TEPC species recorded on RRC sites, the specific location or state where the species occurs is not captured for most of the species recorded in this document.

This report may not capture all the TEPC found on installations that are closed or being closed under Base Realignment and Closure (BRAC) law. The Army does not require these installations to submit data into the AEDB-EQ, nor are they required to prepare Integrated Natural Resources Management Plans (INRMPs) under the Sikes Act (Public Law 86-797, as amended; 16 U.S.C. §§ 670-670f). An independent data request was made to update the BRAC installations. These installations may not have an impact on military training or testing, but the presence of listed species could provide tremendous challenges in the effort to dispose of BRAC property.

### **Objective**

The objective of this project is to analyze and report the most current TEPC information from the FY 2006 AEDB-EQ and other available data sources. This data will help the Army comply with its obligations under the ESA and perform its role as an active and effective steward of public land while carrying out its military mission.

### **Approach**

Information summarized by this report is collected from the AEDB-EQ and other sources. TEPC-related AEDB-EQ questions include federal status, presence of critical habitat, and total expenditures for each



species on an installation. The U.S. Army Environmental Command (USAEC) obtained other necessary data and clarifications from the US Fish and Wildlife Service (FWS), National Oceanic and Atmospheric Administration - National Marine Fisheries Service (NOAA Fisheries), HQDA, Major Commands (MACOMs), IMCOM, and Army installations.

## Scope

This report encompasses all Army installations with federally-listed onsite or contiguous species as of the end of FY 2006 (30 September 2006). Federally-listed species include: Threatened, Endangered, Proposed Threatened, Proposed Endangered, or Candidate status. For practical purposes, the survey represents a complete census of Army installations with TEPC. Data in this report are most reflective of current installation summaries, as these data were quality assured/quality controlled at the IMCOM, ARNG, BRAC, RRC, USAEC, and installation levels. The USAEC tracks the interim status of all information, including new federal listings, species status, and critical habitat designations on Army lands.

Representative TEPC species found onsite Army installations.



Recorded onsite Kawaiiloa TA and Schofield Barracks, HI.  
Photo - USAGHI Environmental Staff



Recorded onsite Fort Sam Houston - Camp Bullis, TX.  
Photo - Jean Kreica, Camp Bullis



Recorded onsite Makua MR and Schofield Barracks, HI.  
Photo - USAGHI Environmental Staff



Critical habitat and the species are recorded onsite White Sands Missile Range, NM.  
Photo - Dr. Rob Taylor, WSMR



Recorded onsite Fort Hunter Liggett (FHL), CA.  
Photo - Jackie Hancock, FHL



HI Common Moorhen is recorded onsite Fort Ruger and Ukumehame WETS, HI.  
Photo - Jay Rubinoff, AEC, MD



Recorded onsite Fort Stewart, GA.  
Photo – Dirk Stevenson, Fort Stewart



Recorded onsite Camp Roberts and  
Fort Hunter Liggett, CA.  
Photo – Jackie Hancock, FHL



Recorded onsite Fort AP Hill, VA.  
Photo – Kristine Brown, Fort AP Hill





Recorded onsite Fort Lewis, WA.  
Photo – FWS



Recorded onsite Camp Grayling, MI.  
Photo – FWS



Recorded onsite YTC, WA.  
Photo – Lisa Dunham, YTC

### 3. Changes from Fiscal Year (FY) 2005 Threatened, Endangered, Proposed and Candidate Species (TEPC) Survey

Table 4 presents the species reported by installations for the first time in FY 2006. Nine species recorded by two installations and four properties within the 63<sup>rd</sup> RRC were added since the FY 2005 published report. Two of the nine species are recorded onsite (robust spineflower and southern sea otter) and the remaining are recorded as contiguous. See Appendix B or C for the location of these species.

**Table 4. Species Reported in FY 2006 that were not reported in FY 2005.**

Scientific Name	Common Name	Category	Status	Installation
<i>Acanthomintha obovata</i> ssp. <i>Duttonii</i>	Thornmint, San Mateo	Plant	E	Fort Hunter Liggett
<i>Acipenser medirostris</i>	Sturgeon, green	Fish	T	63 <sup>rd</sup> RRC
<i>Castilleja levisecta</i>	Paintbrush, golden	Plant	T	Fort Lewis
<i>Chorizanthe parryi fernandina</i>	Spineflower, San Fernando Valley	Plant	C	63 <sup>rd</sup> RRC
<i>Chorizanthe robusta</i> (incl. vars. <i>robusta</i> & <i>hartwegii</i> )	Spineflower, Robust (incl. Scotts Valley)	Plant	E	63 <sup>rd</sup> RRC
<i>Enhydra lutris nereis</i>	Otter, southern sea	Mammal	T	63 <sup>rd</sup> RRC
<i>Hypomesus transpacificus</i>	Smelt, delta	Fish	T	63 <sup>rd</sup> RRC
<i>Orcinu orca</i>	Whale, southern resident killer	Mammal	E	Fort Lewis and 70 <sup>th</sup> RRC
<i>Pseudobahia peirsonii</i>	Sunburst, San Joaquin adobe	Plant	T	63 <sup>rd</sup> RRC

Table 5 represents the species no longer reported on or contiguous to any Army installation in FY 2006 due to withdrawal from consideration, new distribution information, installation closures, or the species no longer recorded by an installation. The species in Table 5 represent a total of 12 installations.

**Table 5. Species removed from installations reporting in FY 2006.**

Scientific Name	Common Name	Category	Status	Installation
<i>Achatinella curta</i>	Pupu kuahiwi	Snail	E	Kawailoa Training Area (TA)
<i>Achatinella decipiens</i>	Pupu kuahiwi	Snail	E	Kawailoa TA & Schofield Barracks
<i>Achatinella pulcherrima</i>	Pupu kuahiwi	Snail	E	Kawailoa TA
<i>Bonamia menziesii</i>	No common name	Plant	E	Makua Military Reservation (MR)
<i>Ctenitis squamigera</i>	Pauoa	Plant	E	Makua MR & Schofield Barracks
<i>Cyanea calycina</i>	Haha	Plant	C	Kawailoa TA & Schofield Barracks
<i>Cyanea grimesiana</i> ssp. <i>grimesiana</i>	Haha	Plant	E	Schofield Barracks
<i>Echinocactus horizontalonius</i> var. <i>nicholii</i>	Cactus, Nichol's Turk's head	Plant	E	Yuma Proving Ground
<i>Euphorbia haeleeleana</i>	`Akoko	Plant	E	Makua MR
<i>Festuca hawaiiensis</i>	No common name	Plant	C	Pohakuloa TA
<i>Glaucidium brasilianum cactorum</i>	Pygmy-owl, cactus ferruginous	Bird	Delist	Florence Military Reservation
<i>Hedyotis fluviatilis</i>	Kampua`a	Plant	C	Kawailoa TA
<i>Helianthus eggertii</i>	Sunflower, Eggert's	Plant	Delist	Tullahoma TS
<i>Hemignathus munroi</i>	Akiapola`au	Plant	E	Pohakuloa TA
<i>Limnanthes vinculans</i>	Meadowfoam, sebastopol	Plant	E	63 <sup>rd</sup> RRC
<i>Lobelia niihauensis</i>	No common name	Plant	E	Makua MR & Schofield Barracks
<i>Lobelia oahuensis</i>	No common name	Plant	E	Schofield Barracks
<i>Megalagrion leptodemus</i>	Damselfly, crimson Hawaiian	Insect	C	Schofield Barracks
<i>Melicope hiiakae</i>	Alani	Plant	C	Kawailoa TA
<i>Myrsine fosbergii</i>	Kolea	Plant	C	Kawailoa TA
<i>Nothocestrum latifolium</i>	Aiea	Plant	C	Makua MR & Schofield Barracks
<i>Phyllostegia parviflora</i>	No common name	Plant	E	Kawailoa TA

Table 5 continued

Scientific Name	Common Name	Category	Status	
<i>Platydesma cornuta cornuta</i>	No common name	Plant	C	Kawailoa TA
<i>Platydesma cornuta decurrens</i>	No common name	Plant	C	Makua MR & Schofield Barracks
<i>Pleomele forbesii</i>	Hala pepe	Plant	C	Makua MR & Schofield Barracks
<i>Pteralyxia macrocarpa</i>	Kaulu	Plant	C	Kahuku TA, Makua MR & Schofield Barracks
<i>Pterodroma phaeopygia sandwichensis</i>	Petrel, Hawaiian dark-rumped	Bird	E	Pohakuloa TA
<i>Rana subaquavocalis</i>	Frog, Ramsey Canyon Leopard	Amphibian	None	Fort Huachuca
<i>Schiedea kealiae</i>	Ma'oli'oli	Plant	E	Dillingham Military Reservation
<i>Tetramolopium lepidotum ssp. Lepidotum</i>	No common name	Plant	E	Schofield Barracks
<i>Thalictrum cooleyi</i>	Meadowrue, Cooley's	Plant	E	Military Ocean Sunny Point
<i>Thelypteris boydiae</i>	No common name	Plant	C	Kawailoa TA
<i>Zanthoxylum oahuense</i>	A'e	Plant	C	Kawailoa TA & Schofield Barracks

## 4. Summary Information

### Installation and Species Information

For the FY 2006 reporting period, information was collected from a total of 129 installations that have either onsite or contiguous TEPC. Of those responding, 104 installations (80.6%) reported onsite and 25 installations (19.4%) reported only having contiguous TEPC. No installations reported proposed threatened or proposed endangered species.

Of the 221 TEPC species<sup>5</sup> recorded onsite or contiguous to Army installations in FY 2006, 156 (70.6%) are E, 52 (23.5%) are T, 16 (7.2%) are Candidates, 2 (<1%) are threatened due to similarity of appearance [T(S/A)] (American alligator & desert tortoise) (Table 6). By category, 51.6% of the species are plants, 14.5% are birds, 7.2% are mammals, 5.9% are insects, 6.8% are fish, 5.9% are reptiles, 4.1% are snails, 2.7% are amphibians, 0.9% are crustaceans, <1% are arachnids and clams combined.

The 129 installations with onsite or contiguous TEPC include 11 Army Materiel Command (AMC), 59 ARNG, three Army Reserve Readiness Commands (USAR), six BRAC, 11 IMCOM NE Region (NERO), 9 IMCOM NW Region (NWRO), six IMCOM Pacific Region (PAC), 11 IMCOM SE Region (SERO), and 11 IMCOM SW Region (SWRO) installations. Table 7 summarizes the numbers of TEPC species that occur within the MACOMs, BRAC and IMCOM.



The American alligator is listed as threatened because of its similarity of appearance to the American crocodile (E) and other crocodylians. It is recorded onsite by 6 installations. Photo – Jay Rubinoff, AEC

<sup>5</sup> Species that have more than one federal designation (i.e., T or E depending on location such as the steelhead in WA, or desert tortoise which has T or T(S/A) status) or are subspecies (i.e., Mexican and Northern spotted owls) are recorded as one species.



**Table 6. Federal Status of Onsite or Contiguous TEPC Species by Category for FY 2006.**

	Candidate	Threatened	Endangered	Threatened (S/A)	Total by Category
Amphibians	0	3	2	0	5
Arachnids	0	0	1	0	1
Birds	3	8	20	0	31
Clams	0	0	1	0	1
Crustaceans	0	1	1	0	2
Fish	1	9	7	0	17*
Insects	3	2	8	0	13
Mammals**	1	5	11	0	17*
Plants	4	18	94	0	116
Reptiles	3	6	3	2***	13
Snails	1	0	8	0	9
<b>Total</b>	<b>16</b>	<b>52</b>	<b>156</b>	<b>2</b>	

\* Total is inflated because the salmon and steelhead evolutionary significant units (ESUs) and gray wolf are classified as either T or E depending on location. Therefore, the ESUs and wolf were recorded in both the T and E columns.

\*\* As of 12 March 2007, the Western Great Lakes distinct population segment of gray wolf was removed from the list of Threatened and Endangered wildlife.

\*\*\*Includes the T(S/A) for desert tortoise, which is also listed as threatened on a number of installations

**Table 7. Federal status of onsite or contiguous TEPC reported by AMC/ARNG/BRAC/IMCOM installations.**

	Candidate	Threatened	Endangered	Threatened (S/A)	TOTAL # of Species	# of Records Reported	# Installations W/ Onsite T&Es
<b>AMC</b>	0	3	6	1	10	17	8
<b>Army National Guard Bureau*</b>	2	27	44	2	74	121	43
<b>Army Reserve</b>	1	15	9	0	25	27	3
<b>BRAC</b>	0	2	3	0	5	8	4
<b>NERO</b>	0	3	4	0	7	18	8
<b>NWRO**</b>	7	10	9	0	25	38	7
<b>PAC</b>	2	2	77	0	81	109	5
<b>SERO</b>	0	6	17	1	24	46	10
<b>SWRO</b>	4	9	26	0	39	52	11

\* The desert tortoise was recorded in two columns (Threatened and Threatened (S/A), but recorded as only one species in total.

\*\* The steelhead was recorded in two columns (Threatened and Endangered), but recorded as only one species in total.

## Threatened and Endangered (T&E) Species

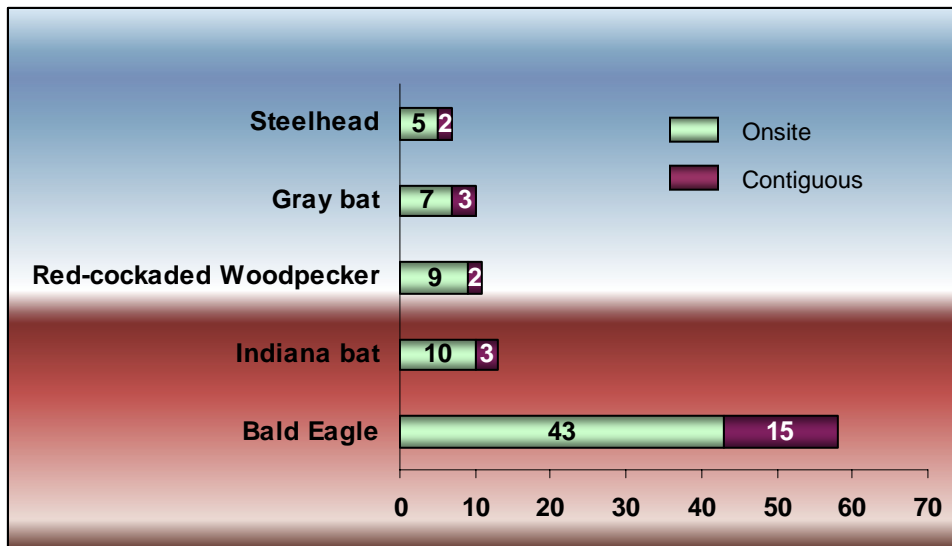
A total of 206 different T&E species (419 occurrences) were identified by 128 of the 129 installations that reported having onsite or contiguous TEPC. Of the 128 installations, 99 reported having onsite and contiguous or just onsite T&E species. The remaining 29 installations reported having only contiguous T&E species. Of the 206 T&E species, 174 species occurred onsite and the remaining 32 species were reported as being contiguous to at least one installation and not onsite at any installation (Table 8). See Appendix D and E, respectively, for a list of installations with T&E species onsite and of all the T&E species found onsite Army installations.

**Table 8. Installations reporting Threatened & Endangered species for FY 2006.**

	Onsite	Contiguous Only	Total
<b>Number of Installations</b>	99	29	128
<b>Number of Distinct Species</b>	174	32	206
<b>Number of Species Occurrences</b>	326	93	419

The Bald Eagle was the most commonly reported T&E species on Army installations. Fifty eight installations reported the Bald Eagle, of which 43 of them identified the eagle as onsite. Fourteen of the installations recorded the Bald Eagle as the only T&E species found onsite. The Indiana bat is second to the eagle with 13 installations reporting the bat as onsite or contiguous; the Red-cockaded Woodpecker is third with 11 installations recording them (Table 9).

**Figure 4. Most commonly reported T&E species on Army installations in FY 2006.**



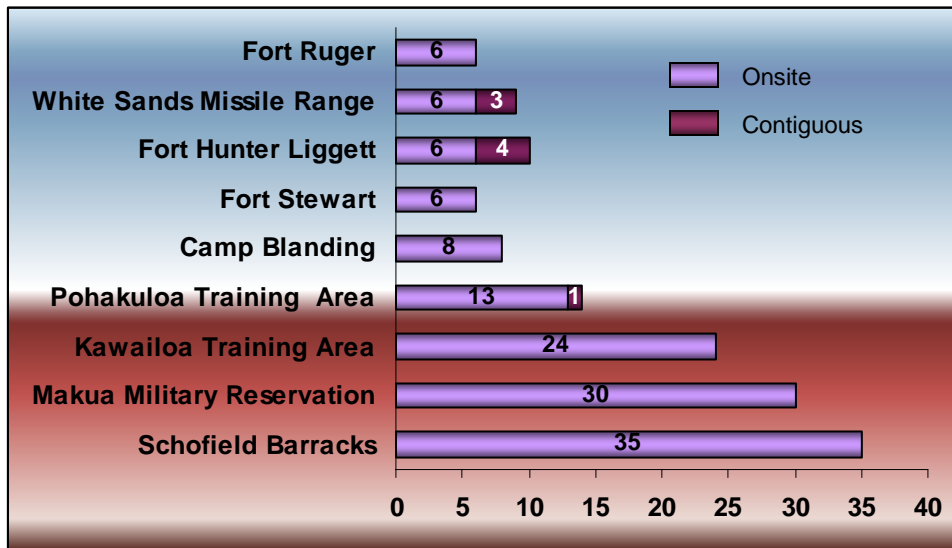
IMCOM Pacific Region installations have the most T&E species recorded onsite: Schofield Barracks with 35 onsite T&E species, followed by Makua Military Reservation with 30, Kawaiiloa Training Area with 24, and Pohakuloa Training Area with 13. A distant fifth is Camp Blanding (ARNG) with 8. Table 10 identifies the installations with the most recorded onsite T&E species.

The Ma`o hau hele (*Hibiscus brackenridgei*) is one of the many endangered plants found on the Makua Military Reservation, HI. Photo credit - USAGHI Environmental Staff





**Figure 5. Army installations with the most onsite T&Es in FY 2006.**



### Proposed and Candidate Species

A total of 16 distinct Candidate species were identified from the 129 installations that reported having onsite or contiguous TEPC. No installations reported having proposed species. A total of 11 installations reported having Candidate species on or contiguous to them. One of these installations reported having only a Candidate species on or contiguous to them. One Candidate species was reported as only contiguous to an installation. All but one of the 16 distinct Candidate species identified on Army lands occurred within at least one (1) installation's boundary (Table 9).

**Table 9. Installations reporting Candidate species for FY 2006.**

	Onsite	Contiguous	Total
<b>Number of Installations</b>	10	1	<b>11</b>
<b>Number of Distinct Species</b>	15	1	<b>16</b>

### What is a Candidate Species?

#### FWS Candidate Species:

First and foremost, Candidate species are not afforded protection under the ESA. However, these species are eligible for listing and could be proposed for listing or be emergency listed at any time. There are two ways in which a species becomes a candidate species. The first route is via petition and the second route is a FWS internal process.

1) Petition: A person and/or group submits a petition to the FWS to list a species under the ESA. Petitions are a factual argument justifying why a species should be listed in accordance with any of the five listing factors [ESA Section 4(a)(1)]. When the FWS receives such a petition, they have 90-days to determine, and then publish in the Federal Register, whether the information in the petition and within their files presents substantial scientific or commercial information indicating that listing the species may be warranted. There are two possible outcomes of a 90-day finding:

a) If the FWS determines that the information available does not warrant listing of the species, then the FWS takes no further action on the petition and the species is no longer considered for listing, at least at that time.

b) If the FWS determines that listing **may** be warranted, then the FWS will initiate a 12-month status review of the species to determine if proposing a rule to list the species **is** warranted. The FWS reviews all the available scientific and commercial information on the species and then after the 12-month period, publishes their findings in the Federal Register. There are three potential outcomes of a 12-month review, and they are:

- (i) Listing is not warranted,
- (ii) Listing is warranted, but precluded by higher listing priority actions; species becomes a candidate, or
- (iii) Listing is warranted, and a rule to list the species is proposed.

A species becomes a candidate species if a “(ii)” finding is made.

2) FWS internal process: On 5 December 1996 (61 FR 64481), the FWS made a final decision to include as candidate species those species for which they had sufficient information on file on the biological vulnerability and threat(s) to support issuance of a proposed rule to list the species, but for which a proposed rule is precluded. This standard for making a species a candidate is identical to the standard for making a “warranted-but-precluded” 12-month finding on a petition to list.

Therefore, all candidate species are species which the FWS has sufficient information on file to support a proposal to list as endangered or threatened, but in which issuance of a proposed rule is currently precluded by higher priority listing actions.

### **National Marine Fisheries Service (NOAA-Fisheries) Candidate Species**

The process NOAA-Fisheries uses to classify a species as a candidate is virtually the same as FWS, but with one difference. If on a 90-day finding NOAA-Fisheries determines that a petition to list a species presents substantial scientific information indicating the petitioned action may be warranted, then they will classify the species as a candidate. Therefore, a positive 90-day finding, and not the 12-month finding as with FWS, is the criterion designating candidate status to a species.

In summary, Candidate species will remain as such until the FWS or NOAA-Fisheries, depending on who has jurisdiction over the species, determines that listing is not warranted, proposes the species for listing, or emergency lists the species within its authority under section 4(b)(7) of the ESA. Once a species is proposed for listing, it is afforded some protection under the ESA.

### **Experimental Populations Under the ESA**

The FWS and NOAA-Fisheries have the authority to reintroduce populations of a listed species into unoccupied portions of the species’ historical range when doing so would foster the conservation and recovery of the species. Under section 10(j) of the Act, FWS or NOAA-Fisheries can designate reintroduced populations established outside the species’ current range, but within its historical range, as “experimental.”

FWS or NOAA-Fisheries determines whether an experimental population is “essential” or “non-essential” to the continued existence of the species. Regulatory restrictions are considerably different between the two designations.

Species designated as “essential experimental populations” are afforded the full protection of the ESA. However, according to the FWS’ Threatened and Endangered Species System queried in February 2006, no reintroduced listed species have been given this designation. All experimental population designations to date have been “non-essential.”

Under ESA Section 9, a reintroduced species designated as a “non-essential experimental population” (NEP) is treated as threatened or proposed threatened, depending on where it is located.

Within a National Wildlife Refuge or unit of the National Park System, a NEP is treated as a threatened species in which all the provisions of the ESA apply. When a NEP is located on other Federal property,



the population is treated as a proposed species and section 7(a)(1) and section 7(a)(4) apply. ESA Section 7(a)(4) requires Federal agencies to confer (not consult) with FWS or NOAA-Fisheries on actions that are likely to jeopardize the continued existence of a proposed species. The results of a conference are advisory in nature and do not restrict agencies from carrying out, funding, or authorizing activities.

### **5-Year Status Review**

Section 4(c)(2)(A) of the ESA requires the FWS and NOAA Fisheries to conduct a review of all listed species at least once every five years. This 5-year review is to assist the agencies in determining whether the listed species should be removed from the ESA list, uplisted from threatened to endangered, downlisted from endangered to threatened, or status quo.

The 5-year review considers all new information available at the time of the review. In conducting these reviews, FWS and NOAA Fisheries consider the best scientific and commercial data that has become available since the current listing determination or most recent status review, such as:

- A. Species biology including, but not limited to, population trends, distribution, abundance, demographics, and genetics;
- B. Habitat conditions including, but not limited to, amount, distribution, and suitability;
- C. Conservation measures that have been implemented that benefit the species;
- D. Threat status and trends (see five factors under heading "How Do We Determine Whether a Species is Endangered or Threatened?"); and
- E. Other new information, data, or corrections including, but not limited to, taxonomic or nomenclatural changes, identification of erroneous information contained in the List, and improved analytical methods.

Information submitted by an installation could provide the agencies with a better understanding of a species to support its potential downlisting or delisting. A 5-year review also gives an installation the opportunity to furnish the FWS or NOAA Fisheries with information on how their INRMP provides a benefit to a species that has had critical habitat designated on the installation.

There have been no species within the past year that have had a change in status resulting from a 5-year review that impact an Army installation.

### **Petition Action - Delisting**

Petitions are not only submitted to FWS or NOAA Fisheries for the listing of species, they are also submitted for the delisting of species, as well as uplisting species, designation of critical habitat and removal of critical habitat. As with a petition to list, a delisting petition must address the factors that lead to the listing of the species in the first place. The FWS or NOAA Fisheries then have 90 days to review the petition and available information and then publish their findings in the Federal Register. This time frame of 90-days is not always adhered to. Due to other priorities and staffing issues, 90-day findings are sometimes rendered beyond the 90 day period. An intent to sue or court orders are sometimes the impetus to complete 90-day findings, or 12-month reviews or 5-year status reviews.

The process continues along the same lines as the listing petition, with either a determination that the petition action may be warranted or is not warranted. If warranted, a 12 month review is conducted and the outcome can either be a proposed rule to delist or downlist, or a not warranted finding. The most recent delisting of a species that resulted, in part, from this process is the Western Great Lakes DPS of gray wolf, which became officially delisted on 12 March 2007. Section 4(g)(1) of the ESA requires that a recovered species must be monitored for at least five years after delisting. If there are signs that the delisted/recovered population is experiencing population declines or threats, then the FWS or NOAA Fisheries could propose to list that species again, or a third party could submit a petition to list the species.



The gray wolf is recorded on both Camp Ripley, MN and Fort McCoy, WI. The Western Great Lakes Distinct Population Segment of gray wolf that occurs on these installations has recently been delisted. These two installations no longer have to consult with the FWS on actions that may impact the gray wolf. Photo – Tim Wilder, Fort McCoy, WI

### Species at Risk

The DoD Legacy Program funded a cooperative FWS and DoD project to identify species at risk<sup>6</sup> on military installations. NatureServe prepared the report and delivered it to DoD in 2002 (DoD 2002). In 2004, NatureServe submitted a revised report to DoD that provided more in-depth analyses of SAR within installations and in buffer areas surrounding installations (DoD 2004). Species identified in the report occur on or within a two-kilometer buffer of a military site. The report is not inclusive of all Army installations. The report does not capture Army Reserve properties other than the Army Reserve installations that are a part of IMCOM or many of the Army National Guard sites. The report also does not, nor was it intended to, specifically address migratory birds of concern as referenced in Executive Order 13186 -- Responsibilities of Federal Agencies To Protect Migratory Birds, but some of these bird species are also identified as SAR. The 2004 report is a useful resource for identifying SAR that may be on or near DoD property. The 2004 report can be accessed at the following web address: [https://www.denix.osd.mil/denix/Public/Library/NCR/endangered\\_sp.html](https://www.denix.osd.mil/denix/Public/Library/NCR/endangered_sp.html)

On 29 July 2005, HQDA established policy to manage SAR and their habitats in order to preclude the need for federal listing or prepare installations for imminent listings. The policy specifically focuses on Tier 1 installations. The Army issued policy and implementing guidance of the SAR program on 15 Sept 2006. This policy focuses on the proactive conservation of SAR. The goal of the program is to support military readiness and sustainability while furthering conservation of declining species. The top four priority SAR species are as follows:

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<sup>6</sup> Species at risk (SAR); species that are classified by NatureServe scientists as critically imperiled (G1 or T1) or imperiled (G2 or T2) on a global scale or Candidate species under the ESA (DoD 2002).



The gopher tortoise is not listed in SC, GA, FL, and eastern AL, but it has been petitioned for listing. It is recorded on five Army installations. A significant effort is underway to prevent the listing of the eastern gopher tortoise population. A memorandum of understanding has been signed (June 2006) by many parties to show their commitment to conserve the tortoise. In addition, a candidate conservation agreement is being developed to guide the parties on how to implement management and conservation efforts that will benefit the gopher tortoise by enhancing - their population, habitat and protection from threats. Impacts to training would be significant if this species was listed. **Photo – US Forest Service**



The Mohave ground squirrel (MGS) is an imperiled species (G2). It was unsuccessfully petitioned for listing in 1995 and is currently a species listed as threatened by the State of CA. It is found within the recently Annexed Western Expansion Area of the National Training Center (NTC) – Fort Irwin, CA. The NTC & Fort Irwin voluntarily provides the same level of protection to the MGS as that of a fully protected, federally-listed species. Accordingly, the NTC surveys new locations for the presence of the MGS annually, and monitors known populations every three years. This picture was taken during one of those surveys, where each squirrel is sexed, weighed, measured, and finally PIT (Passive Integrated Transponder) tagged for future identification. Listing of the species would impact training at NTC & Fort Irwin. **Photo – Brian Shomo, Fort Irwin, CA**





The Columbian Basin population of sage grouse is a distinct population segment of the Greater Sage Grouse. Yakima Training Center (YTC), WA, records the grouse as onsite. YTC has developed and implemented a sage grouse management plan and actively participates in regional sage grouse initiatives and working groups. Part of their conservation effort is augmenting the population by releasing birds captured from offsite locations. Based on these efforts, FWS concluded in 2002 that threats related to military training were not imminent, and designated it as a Category 6 Candidate species. Basically, current threats, thanks to YTC, do not warrant a proposed rule to list the species. **Photo – Lisa Dunham, YTC**



The desert cymopterus was petitioned for listing in 2003, but after a 12-month review, FWS determined that a proposed listing rule was not warranted. This perennial herb grows in an area that was recently annexed by the NTC to expand its training range. It grows, blooms, and senesces within a two-month period in late winter and early spring. The inflorescence resembles a purple golf ball, and the diminutive flowers are pollinated by flies attracted to the floral scent of rotten meat. The plant was first observed on Army lands in 2001, triggering a series of surveys and the creation of a protected conservation area. As a result, Army and FWS surveys have discovered additional populations in the region, both on the base and off. If listed, this species would impact training on Fort Irwin. **Photo – Mark Hessing, Fort Irwin, CA**

## Critical Habitat

The FWS and NOAA-Fisheries have designated critical habitat for 474 species; 13 of those species have designations **on** 14 Army installations (Table 10). There is a total of 15 occurrences of critical habitat on Army installations and of these, two of the designations are on unoccupied critical habitat, which means that the species is not known to occur within the area designated as critical habitat but the area contains those constituent elements essential to the conservation of the species.

### What is Critical Habitat and Adverse Modification?

Section 3 of the ESA defines critical habitat as, "(i) the specific areas within the geographic area occupied by the species ... on which are found those physical or biological features (I) **essential to the conservation of the species** and (II) which may require special management considerations or protection; and (ii) specific areas outside the geographic area occupied by the species at the time it is listed ... upon a determination ... that such areas are essential for the conservation of the species." "Conservation" means the use of all methods and procedures that are necessary to bring a listed species to the point at which listing under ESA is no longer necessary, or in other words, "recovery."

Federal agencies are to ensure that their actions do not result in the destruction or adverse modification of critical habitat, which would be an action that has "a direct or indirect alteration that appreciably diminishes the value of critical habitat for **both the survival AND recovery** of a listed species. Such alterations include, but are not limited to, alterations adversely modifying any of those physical or biological features that were the basis for determining the habitat to be critical." (50 CFR Part 402.02). The FWS' application of "destruction or adverse modification" has been identical to a jeopardy determination. With each classification having similar thresholds, the FWS and other Federal agencies regarded the designation of statutory critical habitat as providing little additional protection other than for unoccupied areas. Although, for unoccupied critical habitat, survival is not a factor, so by regulatory definition, it would appear impossible to reach the "survival and recovery" threshold; therefore, there is no value of critical habitat on such lands other than the regulatory burden it places upon the Federal agency.

Recently, however, a few Federal and Circuit court rulings have basically redefined "destruction or adverse modification" to mean impacts on **either survival OR recovery**. The courts believe this is more in line with the statutory definition of critical habitat, which ties critical habitat to conservation (recovery) and not just survival. This new application of the ESA would clearly separate "jeopardy" and "destruction or adverse modification" with the latter now having a lower threshold. Application of this new definition would mean an action could result in the "destruction or adverse modification" of critical habitat without reaching the "jeopardy" threshold. An action proposed on unoccupied critical habitat could now be subject to the "destruction or adverse modification" threshold.

On 9 Dec 04, FWS issued a director's memorandum stating that FWS should no longer rely on the regulatory definition of "destruction or adverse modification" in their evaluation of Federal actions. Instead, FWS Regions are to use conservation of the species as their threshold. On 4 January 2006, Army issued critical habitat guidance that address' the changes in the critical habitat designation process and adverse modification threshold. The policy can be found at the following website:

<http://aec.army.mil/usaec/natural/natural01.html>

The list of critical habitat occurrences on Army installations decreased by one from what was recorded in FY 2005. Kawaihoa Training Area no longer reports critical habitat for the O'ahu 'elepaio. Critical habitat for the species had been incorrectly recorded for the installation. The critical habitat is located adjacent to, but not onsite. A total of 12 species (one species comprises two subspecies – Mexican and Northern Spotted Owls) have critical habitat designated on 13 installations, two of which are unoccupied. Table 10 identifies the installations with designated critical habitat and the associated species.



**Table 10. Critical habitat designated on Army installations, as of end FY 2006.**

MACOM/ Region	Installation	Federal Status	Category	Scientific Name	Common Name	Species Onsite or Contiguous
ARNG	Camp Navajo	T	Bird	<a href="#"><i>Strix occidentalis lucida</i></a>	Mexican spotted owl	Onsite
ARNG	Fort Ruger	E	Plant	<a href="#"><i>Cyperus trachysanthos</i></a>	Pu`uka`a	Onsite
ARNG	Fort Ruger	E	Plant	<a href="#"><i>Spermolepis hawaiiensis</i></a>	No common name	Onsite
ARNG	Kanaio Wets	E	Insect	<a href="#"><i>Manduca blackburni</i></a>	Blackburn's sphinx moth	Onsite
ARNG	Kekaha Wets	E	Plant	<a href="#"><i>Panicum niihauense</i></a>	Lau `ehu	Onsite
ARNG	Santa Cruz Armory	T	Plant	<a href="#"><i>Holocarpha macradenia</i></a>	Santa Cruz tarplant	Onsite
ARNG	Warrenton/Camp Rilea	T	Insect	<a href="#"><i>Speyeria zerene hippolyta</i></a>	Oregon silverspot butterfly	Onsite
NWRO	Fort Lewis	T	Bird	<a href="#"><i>Strix occidentalis caurina</i></a>	Northern spotted owl	Contiguous
PAC	Makua Military Reservation	E	Bird	<a href="#"><i>Chasiempis sandwichensis ibidis</i></a>	O'ahu 'elepaio	Onsite
PAC	Pohakuloa TA	E	Bird	<a href="#"><i>Loxioides bailleui</i></a>	Palila	Contiguous
PAC	Schofield Barracks Military Reservation	E	Bird	<a href="#"><i>Chasiempis sandwichensis ibidus</i></a>	O'ahu 'elepaio	Onsite
SWRO	Fort Huachuca	E	Plant	<a href="#"><i>Lilaeopsis schaffneriana var. recurva</i></a>	Huachuca water-umbel	Onsite
SWRO	Fort Irwin	T	Reptile	<a href="#"><i>Gopherus agassizii</i></a>	Desert tortoise	Onsite
SWRO	White Sands Missile Range	E	Plant	<a href="#"><i>Hedeoma todsenii</i></a>	Todsen's pennyroyal	Onsite

**Installations Excluded from Critical Habitat Designation Based on ESA 4(a)(3)(B) and/or 4(b)(2)**

On 24 November 2003, the President signed the National Defense Authorization Act for FY 2004 (NDAA) (Public Law 108-136). Contained within this law are a number of environmental provisions that impact the military. Specifically, Section 318 precludes the FWS and NOAA-Fisheries from designating critical habitat on any areas owned, controlled, or designated for use by the DoD, if such areas are subject to an INRMP that provides a benefit to the species subject to critical habitat designation [ESA 4(a)(3)(B)]. The conference report states that Congress expects the Secretary of the Interior to establish criteria in determining if an INRMP provides benefits to the species. The FWS has produced a draft of these criteria, which are undergoing an internal review. If the FWS/NOAA-Fisheries do not determine an INRMP provides a benefit to the species, then the applicable regulatory agency can designate critical habitat on the respective installation. The act also amends the ESA by requiring the FWS or NOAA-Fisheries to consider the impacts of critical habitat designation on national security. Therefore, the FWS or NOAA-Fisheries may preclude designation of critical habitat on a military reservation if they conclude, regardless of the status of an INRMP, that such a designation would have a significant impact on national

security [ESA 4(b)(2)]. However, neither FWS nor NOAA-Fisheries can exclude an area as critical habitat solely based on 4(b)(2) if the exclusion would result in the extinction of the species concerned. Although, the ESA does not prevent FWS from excluding lands as critical habitat even if such exclusion would prevent the conservation of the species. Lastly, NDAA section 318 does not affect the prohibition on the taking of listed species or the requirements to consult and to not jeopardize the species.

Over the past fiscal year, only one Army installation has been excluded from critical habitat designation based on these ESA amendments. This exclusion was based on 4(a)(3)(B). One factor for the exclusion was that the installation provided essential information to the FWS that was necessary for them to make their determination. Such proactive measures have proven to be very beneficial to Army installations.

To make the “benefit” determination of an INRMP, the FWS has been using the following criteria: (1) A current INRMP must be complete and provide a conservation benefit to the species; (2) the plan must provide assurances that the conservation management strategies will be implemented; and (3) the plan must provide assurances that the conservation management strategies will be effective, by providing for periodic monitoring and revisions as necessary. Table 11 lists the one installation that the FWS excluded from critical habitat designation in FY2006.

**Table 11. Installations excluded from critical habitat designation.**

INSTALLATION	SPECIES	EXCLUSION	DATE
Camp San Luis Obispo	California red-legged frog	4(a)(3)(B)	4/13/06

## Expenditures

T&E expenditures are broken down into reportable and non-reportable expenditures. Reportable expenditures include money spent primarily for the conservation of T&E species pursuant to the ESA, in which the expenditures can be identified for a specific species. Non-reportable expenditures are money spent on multi-species projects where no specific amount of money is attributable to individual listed species. Table 12 provides a summary of Army reportable expenses from FYs 2002 - 2006.

In reportable expenditures, a total of \$29,917K was spent for T&E species in FY 2006, which includes funds spent on T&E research and development projects. This figure is the second highest FY expenditure. Expenditures for all species categories is provided in Table 13. Although expenditures for specific Candidate species is not yet a requirement for AEDB-EQ reporting, a number of installations did report a total of approximately \$417K in expenditures for such species in FY 2006.

Approximately \$116K was spent by AMC, ARNG spent about \$1,373K reportable expenditures in FY 2006, and no funds were expended by BRAC for this period. Under the IMCOM in FY 2006, the NERO spent approximately \$2,097K, NWRO \$788K, PAC \$8,557K, SERO \$6,425K, SWRO \$6,391K and Army Reserves \$469K on reportable species. An additional \$10,460.5K was spent in non-reportable expenditures in FY 2006.

A total of approximately \$5,779K was spent on species proposed for federal listing, candidate species and other species at risk. Implementing proactive conservation measures for these species and their habitats can help preclude the need for federal listing, which would enable installations to continue their military mission without ESA compliance requirements. For those species in which listing may be eminent, these proactive efforts can assist an installation in becoming prepared so mission impacts are minimal and/or manageable.

**Table 12. Reportable expenditures (\$K) over the last 5 years (FYs 2002 - 2006).**

Year (FY)	2006	2005	2004	2003	2002
Reportable Expenditures (\$K)	29,917.2	40,997.6	21,271.4	21,274.8	18,369.3

**Table 13. FY 2005 & FY 2006 comparison of reportable expenditures (\$K) by category.**

FY 2005 Expenditures (\$K)		FY 2006 Expenditures (\$K)	
Mammals	2,332.2	Mammals	2,951.0
Birds	9,500.4	Birds	11,322.5
Reptiles	24,436.8	Reptiles	3,655.7
Amphibians	161.0	Amphibians	409.1
Fish	213.7	Fish	398.0
Arachnids	100.0	Arachnids	215.0
Insects	735.0	Insects	665.0
Snails	191.0	Snails	383.0
Crustaceans	118.8	Crustaceans	291.1
Plants	3,208.7	Plants	9,691.2

## Consistent Reporting

The Army is frequently asked for information on T&E species. However, the intricacy of the data results in multiple answers to the question, “How many T&E species are on Army lands?” For consistency, the number provided, unless other data are specifically requested, will be the number of different T&E species recorded as onsite<sup>7</sup>, not contiguous to, Army installations. A Threatened or Endangered species may be recorded on more than one installation, but it is only counted once. Species that have more than one status (i.e., threatened in one part of its range and endangered in another) are recorded as one species. This rationale also applies to listed subspecies, such as the Northern Spotted Owl (*Strix occidentalis caurina*) Mexican Spotted Owl (*Strix occidentalis lucida*), which are reported as one species even though they are listed separately. Table 14 shows these numbers for FY 2000 through FY 2006. In the table, the number of installations reflects the number of distinct installations that have recorded one or more T&E species onsite.

**Table 14. Number of T&E species by fiscal year.**

	Fiscal Year	# of species	# of installations
Onsite	2000	170	94
	2001	172	99
	2002	170 <sup>a</sup>	92 <sup>a</sup>
	2003	175	95
	2004	177	100
	2005	188	102
	2006	174	99

<sup>a</sup> Figures for FY 2002 are not official.

<sup>7</sup> Proposed species are not included in this number, even though for management purposes the Army considers them the same as T&E species.

## Conservation and Management of T&Es on Army Installations

Over the last five years, the Army has spent an average of \$32.4 million annually on T&E related management and conservation projects. Below are some examples of the numerous projects being implemented by Army installations that support ESA compliance and overall conservation of T&Es. These efforts also benefit the numerous plant and animal species that share habitat with T&Es.



Army installations on Hawaii record dozens of listed plant species onsite. Many of these species are on the brink of extinction having fewer than 50 individuals left in the wild. These HI plants are in trouble for many reasons, such as being – out- competed by invasive plant species, eaten or trampled by feral hogs and goats, and impacted by fire.

The US Army Garrison in Hawaii has taken huge steps in conserving these plant species. They have established growth chambers for seed germination trials of endangered Hawaiian plants. They use the plants for reintroduction and restoration purposes. The extinction of two plants species has been prevented thanks to their efforts (*Cyanea superba* and *Phyllostegia kaalaensis*).

Other plant conservation efforts include controlling invasive plant species, restoring degraded habitat, and erecting fences to protect listed plants from ungulates.

As you can see from the photo to the left, erecting fences can be a very difficult and hazardous endeavor. Even so, the Army still implements these extreme measures to protect the highly endangered plants and animals and prevent them from being wiped out.

**Photos – USAGHI Environmental Staff**







The Red-cockaded Woodpecker (E) is recorded onsite nine Army installations (see Appendices B or C). These installations conduct prescribed burns to manage habitat for the Red-cockaded Woodpecker (RCW) and sustain the health of the southern pine forest ecosystem. Fire is essential for maintaining a healthy and productive southern pine ecosystem with open canopy and thick grass/forb ground layer – which is exactly what the RCW needs. Without fire, pine forests are converted to thick pine/hardwood forests with dense shrub/scrub understory – not good for the RCW. Maintaining the pine ecosystem also benefits numerous other plant and animal species, such as the gopher tortoise.

Fire can be good and in some places, it's essential. Without frequent fires in the fire-adapted pine forests, fuels (woody debris and dry grasses) build up and the potential for devastating fires increases. If fire reaches the canopy, the trees are killed and RCW habitat is lost. Many species lose out.

The Army is considered a leader in RCW recovery. In fact, Fort Bragg has already achieved the recovery goal for the North Carolina Sandhills East Primary Core RCW population.

The double stripe around the tree indicates the presence of an RCW cavity.

**Photo – Elizabeth Evans, Fort Bragg.**



The Lane Mountain milk-vetch (E) is a member of the pea family and grows in four remote populations, three of which are on the National Training Center (NTC) and Fort Irwin, CA. The plant is vine-like, and is often hidden in the canopy of its supporting host plant. This picture shows the rare situation where a milk-vetch has overtopped its host. In collaboration with the FWS, the Army conducts a yearly census of all four populations. It's a big job – it takes hours of dirt road driving and hiking to access each study plot, and to inspect each shrub for the cryptic milk-vetch.

**Photo – Mark Hessing, Fort Irwin**





One cause for the decline of the desert tortoise (T) is predation by ravens and coyotes. These predators are aided by human habits, and are increasing in density. One proposed solution to the problem is to protect juvenile tortoises until they are too large for raven predation. Fort Irwin, CA, is the home of the first desert tortoise hatchery in the Mojave Desert -- the FISS (Fort Irwin Study Site). Baby tortoises hatch and grow inside a large, mesh enclosure, and are released after about five years. During a period of extreme drought, tortoises in the FISS received supplemental water via an irrigation system. The tortoises in this picture were drinking water that had pooled near a support post.  
**Photo – Mark Massar, Fort Irwin**



Fort Hood, TX, has been so successful in managing two federally-listed endangered songbirds, the Black-capped Vireo (E, photo on left) and the Golden-cheeked Warbler (E), that the installation has the largest breeding populations of both species and is the only site to meet and surpass regional recovery goals. Other species of concern, especially grass and shrubland species, have directly benefited from a broad range of management techniques such as prescribed burning, mulching overgrown shrubland for rejuvenation, and Integrated Training Area Management actions to encourage use of trails for non-tactical movement. Fort Hood has succeeded in balancing the needs of wildlife with its number-one mission, to train and prepare soldiers.



Brown-headed Cowbirds parasitize (lay eggs in other bird's nests) the nests of the Black-capped Vireo and Golden-cheeked Warbler. This decreases the breeding success of these species. To reduce this impact and promote the conservation of the birds, Fort Hood captures and removes cowbirds from the installation. This effort has been very effective and beneficial to the species.

**Photos – Gil Eckrich, Fort Hood**



Fort Leonard Wood (FLW), MO, periodically monitors gray bat (*E*) populations on the installation with the use of mist nets at riparian corridors and occasionally assist with special research projects. A distinguishing characteristic of gray bats is that the wings are attached at the ankles. Harp traps are utilized by visiting researcher Richard Lance (ERDC) for DNA analysis of various populations of gray bats. FLW also surveys Indiana bat populations at hibernacula during the winter months and protects day roost trees during the Spring through Autumn on the installation.

**Photos - Kenton Lohraff, FLW**



## 5. Migratory Birds

On 28 February 2007, the FWS published the **final rule** (72FR8931) on the take of migratory birds by the Armed Forces. This rule is a requirement of Section 318 of the NDAA of 2003, which exempted DoD from the **incidental take of migratory birds during military readiness activities**. In short, the rule requires DoD to confer and cooperate with FWS to develop appropriate conservation measures to minimize or mitigate actions that have or may have a significant adverse effect on a population of migratory bird species. Though it is anticipated that the probability is low for any action to reach the level of significant adverse effect on a population, the species most likely to experience negative impacts at a population level would be those identified as species of concern. Even so, Army installations implement programs for the management and conservation of birds that minimize and/or mitigate impacts associated with military readiness activities.

The Executive Order (EO) 13186 - Responsibilities of Federal Agencies to Protect Migratory Birds, requires each Federal agency to develop and implement, a Memorandum of Understanding (MOU) with the FWS that shall promote the conservation of migratory bird populations. The MOU, amongst other things, require federal agencies to minimize the unintentional take of migratory birds, with emphasis on species of concern. The DoD **MOU** focus is on **actions that are not classified as military readiness activities**.

Although the focus of the EO is on migratory bird species of concern, there is no one-source that specifically identifies all the different species of concern. There are currently seven different sources, listed below, that identify these species of concern. The most basic geographical unit by which migratory birds are designated as species of concern is the Bird Conservation Region (BCR). The species of concern identified within these BCRs are the species DoD are to be most concerned about. The resources below specifically identify which bird species are considered migratory bird species of concern on a BCR or national level.

- Birds of Conservation Concern (BCC) published by the FWS  
<http://www.fws.gov/migratorybirds/reports/BCC02/BCC2002.pdf>
- North American Waterbird Conservation Plan (NAWCP)  
<http://www.waterbirdconservation.org/pubs/>
- United States Shorebird Conservation Plan (USSCP)  
<http://www.fws.gov/shorebirdplan/>
- Partners in Flight Bird Conservation Plans (PIFBCP)  
<http://www.partnersinflight.org/>
- North American Waterfowl Management Plan (NAWMP)  
<http://www.fws.gov/birdhabitat/NAWMP/Planstrategy.shtm>
- Listed threatened and endangered bird species  
[http://ecos.fws.gov/tess\\_public/SpeciesReport.do?groups=B&listingType=L](http://ecos.fws.gov/tess_public/SpeciesReport.do?groups=B&listingType=L)
- Game birds below desired population sizes (GBBDPS)  
<http://www.fws.gov/migratorybirds/reports/status04/GBBDC%20LIST.pdf>

USAEC assisted DoD Partners in Flight with the development of a database that identifies the bird species of concern associated with the resources above as well as the DoD installations found within each BCR. The database can be viewed at:

<http://dodpif.org/BCRMap.htm>

At this site, you can identify the BCR where your installation occurs and view all the migratory bird species of concern within that BCR.

Army has issued two policies relating to migratory birds. These policies can be found at:

<http://aec.army.mil/usaec/natural/natural01.html>



**Figure 6. A few representative migratory bird species of concern (SOC)**



PIFBCP identifies the Merlin as a SOC in BCR's 9 and 18.  
Photo – Jay Rubinoff, AEC



The Wood Duck is recorded as a SOC in the GBBDPS, PIFBCP (BCRs 10, 17, 26 and 30), and the NAWMP. Photo - FWS



The Little Blue Heron is recorded in the PIFBCP (BCRs 26, 31, & 37), the NAWCP and as a national SOC in the BCC. Photo – Gil Eckrich, Fort Hood



The Burrowing Owl is listed in the PIFBCP (14 BCRs) and as a national SOC in the BCC.  
Photo – Matthew Hamilton, Fort Irwin



The Field Sparrow is listed as a SOC by PIFBCP (15 BCRs) and the BCC.  
Photo – Gil Eckrich, Fort Hood



The California Quail is listed as a SOC in the PIFBCP; however, the species is not a migratory bird and is not afforded protection under the MBTA. Photo – FWS



The Red-headed Woodpecker is listed in the PIFBCP (22 BCRs) and as a national SOC in the BCC.

**Photo – Chris Eberly, DoD PIF**



The Ruddy Turnstone is listed as a SOC in the USSCP and PIFBCP (BCRs 27 & 31).

**Photo – FWS**



## 6. Definitions

**Biological Opinion** – The document that states the opinion of the FWS/ NOAA-Fisheries as to whether or not a federal agency's proposed action is likely to jeopardize the continued existence of a listed species or result in the destruction or adverse modification of critical habitat.

**Category** – Species are divided into the following categories in this report:

amphibians	insects
arachnids	mammals
birds	plants
crustaceans	reptiles
clams	snails
fish	

**Constituent Elements** – Physical and biological features of designated or proposed critical habitat essential to the conservation of the species, including, but not limited to: (1) space for individual and population growth, and for normal behavior; (2) food, water, air, light, minerals, or other nutritional or physiological requirements; (3) cover or shelter; (4) sites for breeding, reproduction, rearing of offspring, germination, or seed dispersal; and (5) habitats that are protected from disturbance or are representative of the historical geographic and ecological distributions of a species.

**Consultation** – The process in which each Federal agency consults with FWS/NOAA-Fisheries to insure that any action they authorize, fund, or carry out is not likely to **jeopardize** the continued existence of a listed species or result in the destruction or **adverse modification** of designated critical habitat. In fulfilling these requirements, each agency is to use the best scientific and commercial data available. Consultation can be conducted as follows:

**Formal Consultation** – The process between USFWS/ NOAA-Fisheries and a federal agency that commences when the federal agency determines its action may adversely affect a listed species or critical habitat. The federal agency then submits a written request for consultation with USFWS/ NOAA-Fisheries. The process concludes with the issuance of a Biological Opinion from the USFWS/ NOAA-Fisheries, stating whether or not the action is likely to result in jeopardy to the species or adverse modification of critical habitat.

**Informal Consultation** – The informal consultation process that may be requested by a federal agency, a designated non-federal representative, or other applicant. Informal consultation may include such topics as which species occur in the proposed action area, and what effect the action may have on listed species or critical habitats. Informal consultation often concludes with USFWS/ NOAA-Fisheries providing written concurrence with the federal agency's determination that its action is not likely to adversely affect listed species or critical habitat.

**Critical Habitat** – ESA Section 3(5)(A) “(i) the specific areas within the geographical area occupied by the [listed] species, at the time it is listed in accordance with the provisions of section 4 of this Act, on which are found those physical or biological features (I) essential to the conservation of the species and (II) which may require special management considerations or protection; and (ii) specific areas outside the geographical area occupied by the species at the time it is listed in accordance with the provisions of section 4 of this Act, upon a determination by the Secretary that such areas are essential for the conservation of the species.”

**Distinct Species** – A species may occur on several installations, but is only counted once for purposes of assessing the number of distinct species found Army-wide. For example, species X may occur on five installations, but when the total number of species is presented, species X is only counted once. In addition, a species that has two listed subspecies (i.e., Mexican and northern spotted owls) or has multiple evolutionary significant units listed (i.e., salmon and steelhead) is only counted as one species.

**Expenditures** – The total cost for managing each federally listed T&E species for which funds were expended during the reporting fiscal year. Guidelines for reporting T&E expenditures are provided by the USFWS. Guidance is based on the notion of "reasonably identifiable Federal Expenditures made primarily for the conservation of Endangered and Threatened species pursuant to this [Threatened and Endangered Species] Act."

**Federal Status**

**E** – Federally Endangered

**T** – Federally Threatened

**T(S/A)** – Threatened due to Similarity of Appearance

**PE** – Federally Proposed as Endangered (none reported this FY)

**PT** – Federally Proposed as Threatened (none reported this FY)

**C** – Candidate for Federal Listing

**Federal Action [Proposed Action]** – Any activity permitted, funded, or conducted by a federal agency.

**G#** - Global conservation status ranks of species, assigned by NatureServe scientists:

**G1** – Critically imperiled globally because of extreme rarity or because of some factor(s) making it especially vulnerable to extinction. Typically 5 or fewer occurrences or very few remaining individuals (<1,000).

**G2** – Imperiled globally because of rarity or because of some factor(s) making it very vulnerable to extinction or elimination. Typically 6 to 20 occurrences or few remaining individuals (1,000 to 3,000).

**Installation** – The term installation includes active military installations, state ARNG offices, ARNG training sites, Army ammunition plants and depots, and regional support centers for the Army Reserve. Analyses in this report do not make a distinction between the various types. In some cases it was difficult to define "installation" data because some ARNG state offices, for example, reported on an individual basis, while others reported at the state level.

**Installation Management Command (IMCOM)** - Installations, excluding the National Guard installations, are divided into five U.S. regions; Northeast, Northwest, Southeast, Southwest, and Pacific Regions. IMCOM Regions are responsible for supporting installation base operations. The southeast and southwest regions have recently been merged into a Western Regional Office.

**Jeopardy Biological Opinion** – A Biological Opinion issued by the USFWS or NOAA-Fisheries stating that a proposed action is likely to jeopardize the continued existence of listed species or result in the destruction or adverse modification of critical habitat.

**Non-jeopardy Biological Opinion** – A Biological Opinion issued by the USFWS or NOAA-Fisheries stating that a proposed action may affect, but is not likely to jeopardize the continued existence of listed species or result in adverse modification of critical habitat.

**Species Occurrence** – An occurrence is equivalent to an individual record. For example, a species that occurs on three installations is recorded as having three occurrences.

**S/A – Similarity of Appearance** – A species that closely resembles a Threatened or Endangered species may be given the federal status of the species it resembles. Similarities of Appearance species are denoted with a T(S/A) or E(S/A). However, no distinction is made between S/A and T&E for reporting purposes.

**Species at Risk (SAR)** – Species that are Candidates under the ESA and/or are considered to be critically imperiled (global rank of G1 or T1) or imperiled (global rank of G2 or T2) and have not been federally listed (DoD 2004).

## **Species Location**

**Contiguous** – Species known to occupy or otherwise use habitat adjacent to an installation, which may be affected by installation military activities and land management practices. Contiguous species are of concern to installations because of the possibility that they may at some future time be found on the installation or the installation activities may affect the species and be included in the action area for assessing potential effects.

**Onsite** – Species that have been documented on the installation.

**T #** – The status of infraspecific taxa (subspecies or varieties) following a species' global rank:

**T1** – Subspecies or variety critically imperiled globally because of extreme rarity or because of some factor(s) making it especially vulnerable to extinction.

**T2** – Subspecies or variety imperiled globally because of rarity or because of some factor(s) making it very vulnerable to extinction or elimination.

**T&E** – The term T&E includes only federally Threatened and Endangered species. These two statuses include S/A species.

**TEPC** – The term includes all federally Threatened, Endangered, Proposed, and Candidate species on Army lands.

**Tier 1 Installations** – Installations that have an Army-wide strategic and enduring training mission capability.

## 7. Acronyms

<b>AAP</b>	Army Ammunition Plant
<b>AD</b>	Army Depot
<b>AEDB-EQ</b>	Army Environmental Data Base – Environmental Quality
<b>AMC</b>	US Army Materiel Command
<b>ARNG</b>	Army National Guard
<b>ATEC</b>	Army Test and Evaluation Command
<b>BCC</b>	Birds of Conservation Concern
<b>BCR</b>	Bird Conservation Region
<b>BG</b>	Brigadier General
<b>BRAC</b>	Base Realignment and Closure
<b>CFR</b>	Code of Federal Regulations
<b>CH</b>	Critical Habitat
<b>DoD</b>	Department of Defense
<b>EO</b>	Executive Order
<b>EQR</b>	Environmental Quality Report
<b>ESA</b>	Endangered Species Act
<b>FR</b>	Federal Register
<b>FWS</b>	U.S. Fish and Wildlife Service
<b>FY</b>	Fiscal Year
<b>G1</b>	Global Rank of Critically Imperiled
<b>G2</b>	Global Rank of Imperiled
<b>GBBDPS</b>	Game Birds Below Desired Population Sizes
<b>HQ</b>	Headquarters
<b>HQDA</b>	Headquarters, Department of Army
<b>IMCOM</b>	Installation Management Command
<b>INRMP</b>	Installation Natural Resources Management Plan
<b>LTA</b>	Local Training Area
<b>MACOM</b>	Major Command
<b>MDW</b>	Military District of Washington
<b>MEDCOM</b>	Medical Command
<b>MIL</b>	Military
<b>MOU</b>	Memorandum of Understanding
<b>MTMC</b>	US Army Military Traffic Management Command
<b>NAWMP</b>	North American Waterfowl Management Plan
<b>NAWCP</b>	North American Waterbird Conservation Plan
<b>NDAA</b>	National Defense Authorization Act
<b>NERO</b>	Installation Management Agency, Northeast Region
<b>NOAA-Fisheries</b>	National Oceanic and Atmospheric Administration - National Marine Fisheries Service
<b>NWRO</b>	Installation Management Agency, Northwest Region
<b>OMS</b>	Organizational Maintenance Shop
<b>QA/QC</b>	Quality Assurance/Quality Control
<b>PAC</b>	Installation Management Agency, Pacific Region
<b>PIT</b>	Passive Integrated Transponder
<b>PIFBCP</b>	Partners in Flight Bird Conservation Plans
<b>RFTA</b>	Reserve Forces Training Area
<b>RRC</b>	Regional Readiness Command
<b>RSRVTN</b>	Reservation
<b>SAR</b>	Species at Risk
<b>SERDP</b>	Strategic Environmental Research & Development Program
<b>SERO</b>	Installation Management Agency, Southeast Region
<b>SMDC</b>	US Army Space & Missile Defense Command
<b>STARC</b>	State Area Command
<b>SWRO</b>	Installation Management Agency, Southwest Region



<b>T1</b>	Subspecies or Varieties with Global Rank of Critically Imperiled
<b>T2</b>	Subspecies or Varieties with Global Rank of Imperiled
<b>T&amp;E</b>	Threatened and Endangered species
<b>T(S/A)</b>	Threatened due to similarity of appearance
<b>TA</b>	Training Area
<b>TEPC</b>	Threatened, Endangered, Proposed, and Candidate species
<b>TML</b>	Terminal
<b>TS</b>	Training Site
<b>USACE</b>	U.S. Army Corps of Engineers
<b>USAEC</b>	U.S. Army Environmental Center
<b>USARC</b>	U.S. Army Reserve Command
<b>USARPAC</b>	U.S. Army Pacific Command
<b>USARSO</b>	U.S. Army South Command
<b>USC</b>	United States Code
<b>USMA</b>	U.S. Military Academy
<b>USSCP</b>	United States Shorebird Conservation Plan
<b>WETS</b>	Weekend Training Site
<b>UTES</b>	Unit Training Equipment Site

## 8. References

Army Environmental Data Base – Environmental Quality

Code of Federal Regulations - Title 50 - Wildlife and Fisheries - Part 402.02

Department of Defense. July 2002. Species of Concern (SOC) on Department of Defense Installations. Prepared and submitted by NatureServe, under contract with DoD.

Department of Defense. January 2004. Species at Risk on Department of Defense Installations. Prepared and submitted by NatureServe, under contract with DoD.

Endangered Species Act of 1973 - Public Law 93-205, as amended (16 U.S.C. 1531, *et seq.*)

National Defense Authorization Act 2004 - Public Law 108-136

Rubinoff, J., S. Sekscienski, S. Belfit and T. Wills. March 2006. Installation Summaries from the FY 2005 Survey of Threatened and Endangered Species on Army Lands. Technical Report (TR) 2006002, USAEC.



**A cluster of Indiana bats in a hibernaculum. The Indiana bat is an endangered species that is recorded onsite 10 Army installations (see Appendices B or C). Photo taken by Kenton Lohraff, Fort Leonard Wood, MO**

## **Appendix A: Installations & the TES recorded as Onsite or Contiguous**



IMA Region/ MACOM	Installation	FWS			Common Name	Scientific Name (Genus species)	Onsite/ Contiguous	Federal Listing Status	Critical Habitat Onsite
		State	Region	Category					
AMC	Anniston Army Depot	AL	4	Plant	Grass, Tennessee yellow-eyed	<i>Xyris tennesseensis</i>	Onsite	E	N
AMC	Blue Grass Army Depot	KY	4	Bird	Eagle, bald	<i>Haliaeetus leucocephalus</i>	Contiguous	T	N
				Mammal	Bat, gray	<i>Myotis grisescens</i>	Contiguous	E	N
				Mammal	Bat, Indiana	<i>Myotis sodalis</i>	Contiguous	E	N
				Plant	Clover, running buffalo	<i>Trifolium stoloniferum</i>	Onsite	E	N
AMC	Deseret Chemical Depot	UT	6	Bird	Eagle, bald	<i>Haliaeetus leucocephalus</i>	Contiguous	T	N
AMC	Hawthorne Army Depot	NV	1	Bird	Eagle, bald	<i>Haliaeetus leucocephalus</i>	Onsite	T	N
				Fish	Trout, Lahontan cutthroat	<i>Oncorhynchus clarki henshawi</i>	Contiguous	T	N
AMC	Holston AAP	TN	4	Bird	Eagle, bald	<i>Haliaeetus leucocephalus</i>	Onsite	T	N
				Mammal	Bat, gray	<i>Myotis grisescens</i>	Onsite	E	N
AMC	Iowa AAP	IA	3	Mammal	Bat, Indiana	<i>Myotis sodalis</i>	Onsite	E	N
AMC	Lone Star AAP	TX	2	Reptile	Alligator, American	<i>Alligator mississippiensis</i>	Onsite	T(S/A)	N
AMC	McAlester AAP	OK	2	Insect	Beetle, American burying	<i>Nicrophorus americanus</i>	Onsite	E	N
AMC	Newport Chemical Depot	IN	3	Bird	Eagle, bald	<i>Haliaeetus leucocephalus</i>	Onsite	T	N
				Mammal	Bat, Indiana	<i>Myotis sodalis</i>	Onsite	E	N
AMC	Riverbank AAP	CA	1	Insect	Beetle, valley elderberry longhorn	<i>Desmocerus californicus dimorphus</i>	Contiguous	T	N
AMC	Sierra Army Depot	CA	1	Insect	Skipper, Carson wandering	<i>Pseudocopaeodes eunus obscurus</i>	Contiguous	E	N
ARNG	(Clinton) Truman Reservoir TS	MO	3	Bird	Eagle, bald	<i>Haliaeetus leucocephalus</i>	Onsite	T	N
ARNG	Auburn Training Site	ME	5	Plant	Pogonia, small whorled	<i>Isotria medeoloides</i>	Onsite	E	N
ARNG	BG Thomas B. Baker TS	MD	5	Plant	Harperella	<i>Ptilimnium nodosum</i>	Onsite	E	N
ARNG	Camp Ashland	NE	6	Bird	Eagle, bald	<i>Haliaeetus leucocephalus</i>	Onsite	T	N
ARNG	Camp Atterbury	IN	3	Bird	Eagle, bald	<i>Haliaeetus leucocephalus</i>	Onsite	T	N
				Mammal	Bat, Indiana	<i>Myotis sodalis</i>	Onsite	E	N
ARNG	Camp Beauregard	LA	4	Bird	Woodpecker, red-cockaded	<i>Picoides borealis</i>	Contiguous	E	N
ARNG	Camp Blanding	FL	4	Reptile	Alligator, American	<i>Alligator mississippiensis</i>	Onsite	T(S/A)	N
				Bird	Jay, Florida scrub	<i>Aphelocoma coerulescens</i>	Onsite	T	N
				Reptile	Snake, eastern indigo	<i>Drymarchon corais couperi</i>	Onsite	T	N
				Bird	Eagle, bald	<i>Haliaeetus leucocephalus</i>	Onsite	T	N
				Bird	Stork, wood	<i>Mycteria americana</i>	Onsite	E	N
				Bird	Woodpecker, red-cockaded	<i>Picoides borealis</i>	Onsite	E	N
				Mammal	Panther, Florida	<i>Puma concolor coryi</i>	Onsite	E	N
Plant	Rhododendron, Chapman	<i>Rhododendron chapmanii</i>	Onsite	E	N				
ARNG	Camp Bowie	TX	2	Bird	Vireo, black-capped	<i>Vireo atricapillus</i>	Onsite	E	N
ARNG	Camp Crowder	MO	3	Fish	Cavefish, Ozark	<i>Amblyopsis rosae</i>	Contiguous	T	N
				Bird	Eagle, bald	<i>Haliaeetus leucocephalus</i>	Contiguous	T	N

IMA Region/ MACOM	Installation	FWS			Common Name	Scientific Name (Genus species)	Onsite/ Contiguous	Federal Listing Status	Critical Habitat Onsite
		State	Region	Category					
ARNG	Camp Grafton	ND	6	Bird	Plover, piping	<i>Charadrius melodus</i>	Contiguous	T	N
ARNG	Camp Grayling	MI	3	Bird	Warbler, Kirtland's	<i>Dendroica kirtlandii</i>	Onsite	E	N
				Bird	Eagle, bald	<i>Haliaeetus leucocephalus</i>	Onsite	T	N
				Reptile	Massasauga, eastern	<i>Sistrurus catenatus catenatus</i>	Onsite	C	N
				Plant	Goldenrod, Houghton's	<i>Solidago houghtonii</i>	Onsite	T	N
ARNG	Camp Gruber Training Site	OK	2	Insect	Beetle, American burying	<i>Nicrophorus americanus</i>	Onsite	E	N
ARNG	Camp Guernsey	WY	6	Bird	Eagle, bald	<i>Haliaeetus leucocephalus</i>	Onsite	T	N
ARNG	Camp J.T. Robinson	AR	4	Bird	Eagle, bald	<i>Haliaeetus leucocephalus</i>	Contiguous	T	N
ARNG	Camp Mabry	TX	2	Bird	Warbler, golden-cheeked	<i>Dendroica chrysoparia</i>	Onsite	E	N
ARNG	Camp Maxey	TX	2	Insect	Beetle, American burying	<i>Nicrophorus americanus</i>	Onsite	E	N
ARNG	Camp Murray	WA	1	Bird	Eagle, bald	<i>Haliaeetus leucocephalus</i>	Onsite	T	N
ARNG	Camp Navajo	AZ	2	Bird	Owl, Mexican spotted	<i>Strix occidentalis lucida</i>	Onsite	T	Y
ARNG	Camp Perry	OH	3	Bird	Eagle, bald	<i>Haliaeetus leucocephalus</i>	Onsite	T	N
ARNG	Camp Ripley	MN	3	Mammal	Wolf, gray	<i>Canis lupus</i>	Onsite	T	N
				Bird	Eagle, bald	<i>Haliaeetus leucocephalus</i>	Onsite	T	N
ARNG	Camp Roberts	CA	1	Crustacean	Fairy shrimp, vernal pool	<i>Branchinecta lynchi</i>	Onsite	T	N
				Plant	Amole, purple	<i>Chlorogalum purpureum</i>	Onsite	T	N
				Bird	Condor, California	<i>Gymnogyps californianus</i>	Contiguous	E	N
				Bird	Eagle, bald	<i>Haliaeetus leucocephalus</i>	Onsite	T	N
				Fish	Steelhead (Southern California)	<i>Oncorhynchus mykiss</i>	Onsite	E	N
				Bird	Vireo, least Bell's	<i>Vireo bellii pusillus</i>	Contiguous	E	N
				Mammal	Fox, San Joaquin kit	<i>Vulpes macrotis mutica</i>	Onsite	E	N
ARNG	Camp San Luis Obispo	CA	1	Plant	Thistle, Chorro Creek bog	<i>Cirsium fontinale var. obispoense</i>	Onsite	E	N
				Bird	Condor, California	<i>Gymnogyps californianus</i>	Onsite	E	N
				Snail	Snail, Morro shoulderband	<i>Helminthoglypta walkeriana</i>	Contiguous	E	N
				Fish	Steelhead (Southern California)	<i>Oncorhynchus mykiss</i>	Onsite	E	N
				Amphibian	Frog, California red-legged	<i>Rana aurora draytonii</i>	Onsite	T	N
ARNG	Camp Shelby	MS	4	Bird	Vireo, least Bell's	<i>Vireo bellii pusillus</i>	Onsite	E	N
				Reptile	Alligator, American	<i>Alligator mississippiensis</i>	Onsite	T(S/A)	N
				Reptile	Tortoise, gopher	<i>Gopherus polyphemus</i>	Onsite	T	N
				Plant	Quillwort, Louisiana	<i>Isoetes louisianensis</i>	Onsite	E	N
				Bird	Woodpecker, red-cockaded	<i>Picoides borealis</i>	Contiguous	E	N
				Reptile	Snake, black pine	<i>Pituophis melanoleucus lodingi</i>	Onsite	C	N
ARNG	Camp Smith Training Site	NY	5	Fish	Sturgeon, shortnose	<i>Acipenser brevirostrum</i>	Contiguous	E	N
				Bird	Eagle, bald	<i>Haliaeetus leucocephalus</i>	Contiguous	T	N

IMA Region/ MACOM	Installation	FWS			Common Name	Scientific Name (Genus species)	Onsite/ Contiguous	Federal Listing Status	Critical Habitat Onsite
		State	Region	Category					
ARNG	Catoosa Range/TS	TN	4	Plant	Skullcap, large-flowered	<i>Scutellaria montana</i>	Onsite	T	N
ARNG	Cedar City	UT	6	Mammal	Prairie dog, Utah	<i>Cynomys parvidens</i>	Contiguous	T	N
ARNG	Chevak Armory	AK	7	Bird	Eider, Stellar's	<i>Polysticta stellari</i>	Contiguous	T	N
ARNG	Clark County Complex	NV	1	Reptile	Tortoise, desert	<i>Gopherus agassizii</i>	Contiguous	T	N
ARNG	Corvallis/Camp Adair	OR	1	Bird	Eagle, bald	<i>Haliaeetus leucocephalus</i>	Contiguous	T	N
				Insect	Butterfly, Fender's blue	<i>Icaricia icarioides fenderi</i>	Contiguous	E	N
				Plant	Lupine, Kincaid's	<i>Lupinus sulphureus kincaidii</i>	Onsite	T	N
				Plant	Checker-mallow, Nelson's	<i>Sidalcea nelsoniana</i>	Onsite	T	N
				Bird	Owl, northern spotted	<i>Strix occidentalis caurina</i>	Contiguous	T	N
ARNG	Douglas Armory	WY	6	Mammal	Mouse, Preble's meadow jumping	<i>Zapus hudsonius preblei</i>	Contiguous	T	N
ARNG	Elim Armory	AK	7	Bird	Eider, spectacled	<i>Somateria fischeri</i>	Contiguous	T	N
ARNG	Florence Mil Rsvtn	AZ	2	Reptile	Tortoise, desert	<i>Gopherus agassizii</i>	Onsite	T(S/A)	N
ARNG	Fort Chaffee	AR	4	Bird	Eagle, bald	<i>Haliaeetus leucocephalus</i>	Contiguous	T	N
				Insect	Beetle, American burying	<i>Nicrophorus americanus</i>	Onsite	E	N
ARNG	Fort McClellan	AL	4	Plant	Button, Mohr's Barbara's	<i>Marshallia mohrii</i>	Onsite	T	N
				Mammal	Bat, gray	<i>Myotis grisescens</i>	Onsite	E	N
				Plant	Grass, Tennessee yellow-eyed	<i>Xyris tennesseensis</i>	Onsite	E	N
ARNG	Fort Pickett	VA	5	Bird	Eagle, bald	<i>Haliaeetus leucocephalus</i>	Onsite	T	N
				Fish	Logperch, Roanoke	<i>Percina rex</i>	Onsite	E	N
				Plant	Sumac, Michaux's	<i>Rhus michauxii</i>	Onsite	E	N
ARNG	Fort Ruger	HI	1	Bird	Duck, Hawaiian	<i>Anas wyvilliana</i>	Onsite	E	N
				Plant	Pu'uka'a	<i>Cyperus trachysanthos</i>	Onsite	E	Y
				Bird	Coot, Hawaiian	<i>Fulica americana alai</i>	Onsite	E	N
				Bird	Moorhen, Hawaiian common	<i>Gallinula chloropus sandvicensis</i>	Onsite	E	N
				Plant	Schiedea, diamond head	<i>Schiedea adamantis</i>	Onsite	E	N
				Plant	No common name	<i>Spermolepis hawaiiensis</i>	Onsite	E	Y
ARNG	Garrison TS	ND	6	Bird	Plover, piping	<i>Charadrius melodus</i>	Contiguous	T	N
ARNG	Greenville, Utes2	KY	4	Mammal	Bat, gray	<i>Myotis grisescens</i>	Contiguous	E	N
ARNG	Hilo (Keaukaha) Military Rsvtn	HI	1	Bird	Hawk, Hawaiian	<i>Buteo solitarius</i>	Onsite	E	N
				Mammal	Bat, Hawaiian hoary	<i>Lasiurus cinereus semotus</i>	Onsite	E	N
ARNG	HQ STARC	MO	3	Bird	Eagle, bald	<i>Haliaeetus leucocephalus</i>	Onsite	T	N
				Bird	Tern, least	<i>Sterna antillarum</i>	Contiguous	E	N
ARNG	Kanaio Wets	HI	1	Insect	Moth, Blackburn's sphinx	<i>Manduca blackburni</i>	Onsite	E	Y
				Plant	Ohai	<i>Sesbania tomentosa</i>	Onsite	E	N
ARNG	Kekaha Wets	HI	1	Bird	Stilt, Hawaiian	<i>Himantopus mexicanus knudseni</i>	Onsite	E	N

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		State	Region	Category					
ARNG	Kekaha Wets (cont'd)			Plant	Lau `ehu	<i>Panicum niihauense</i>	Onsite	E	Y
ARNG	Kingwood	WV	5	Plant	Clover, running buffalo	<i>Trifolium stoloniferum</i>	Onsite	E	N
ARNG	Kwigillingok Scout Armory	AK	7	Bird	Eider, Stellar's	<i>Polysticta stellari</i>	Contiguous	T	N
ARNG	Leesburg Training Site	SC	4	Plant	Coneflower, smooth	<i>Echinacea laevigata</i>	Onsite	E	N
				Plant	Loosestrife, rough-leaved	<i>Lysimachia asperulaefolia</i>	Onsite	E	N
				Bird	Woodpecker, red-cockaded	<i>Picoides borealis</i>	Onsite	E	N
ARNG	Macon Training Site	MO	3	Bird	Eagle, bald	<i>Haliaeetus leucocephalus</i>	Onsite	T	N
				Mammal	Bat, Indiana	<i>Myotis sodalis</i>	Onsite	E	N
ARNG	NHNG Training Site	NH	5	Plant	Pogonia, small whorled	<i>Isotria medeoloides</i>	Onsite	E	N
ARNG	Santa Cruz Armory	CA	1	Plant	Tarplant, Santa Cruz	<i>Holocarpha macradenia</i>	Onsite	T	Y
ARNG	Sea Girt/Oms 25	NJ	5	Plant	Amaranth, Seabeach	<i>Amaranthus pumilus</i>	Onsite	T	N
				Bird	Plover, piping	<i>Charadrius melodus</i>	Onsite	T	N
				Bird	Tern, least	<i>Sterna antillarum</i>	Onsite	E	N
ARNG	Shaktoolik Armory	AK	7	Bird	Eider, spectacled	<i>Somateria fischeri</i>	Onsite	T	N
ARNG	St George/Oms 10b	UT	6	Plant	Bear-poppy, Dwarf	<i>Arctomecon humilis</i>	Onsite	E	N
ARNG	St Michael Armory	AK	7	Bird	Eider, spectacled	<i>Somateria fischeri</i>	Contiguous	T	N
ARNG	State Military Reservation	NH	5	Insect	Butterfly, Karner blue	<i>Lycaeides melissa samuelis</i>	Onsite	E	N
ARNG	Stebbins Armory	AK	7	Bird	Eider, spectacled	<i>Somateria fischeri</i>	Onsite	T	N
ARNG	Stewart River Training Area	AK	7	Bird	Eider, spectacled	<i>Somateria fischeri</i>	Contiguous	T	N
ARNG	Ukumehame Wets	HI	1	Bird	Duck, Hawaiian	<i>Anas wyvilliana</i>	Onsite	E	N
				Bird	Goose, Hawaiian	<i>Branta sandvicensis</i>	Onsite	E	N
				Bird	Coot, Hawaiian	<i>Fulica americana alai</i>	Onsite	E	N
				Bird	Moorhen, Hawaiian common	<i>Gallinula chloropus sandvicensis</i>	Onsite	E	N
				Bird	Stilt, Hawaiian	<i>Himantopus mexicanus knudseni</i>	Onsite	E	N
ARNG	Unalakleet Armory	AK	7	Bird	Eider, spectacled	<i>Somateria fischeri</i>	Onsite	T	N
ARNG	Warrenton/Camp Rilea	OR	1	Bird	Murrelet, marbled	<i>Brachyramphus marmoratus marmoratus</i>	Contiguous	T	N
				Bird	Plover, western snowy	<i>Charadrius alexandrinus nivosus</i>	Contiguous	T	N
				Mammal	Sea-lion, Steller	<i>Eumetopias jubatus</i>	Contiguous	T	N
				Bird	Eagle, bald	<i>Haliaeetus leucocephalus</i>	Onsite	T	N
				Bird	Pelican, brown	<i>Pelecanus occidentalis</i>	Contiguous	E	N
				Insect	Butterfly, Oregon silverspot	<i>Speyeria zerene hippolyta</i>	Onsite	T	Y
				Bird	Owl, northern spotted	<i>Strix occidentalis caurina</i>	Contiguous	T	N
ARNG	Williston TS	ND	6	Bird	Plover, piping	<i>Charadrius melodus</i>	Contiguous	T	N
BRAC	Fort Ord	CA	1	Plant	Spineflower, Monterey	<i>Chorizanthe pungens var. pungens</i>	Onsite	T	N
BRAC	Indiana AAP	IN	3	Mammal	Bat, gray	<i>Myotis grisescens</i>	Onsite	E	N
				Mammal	Bat, Indiana	<i>Myotis sodalis</i>	Onsite	E	N



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BRAC	Ravenna AAP	OH	3	Bird	Eagle, bald	<i>Haliaeetus leucocephalus</i>	Contiguous	T	N
BRAC	Rocky Mountain Arsenal	CO	6	Bird	Eagle, bald	<i>Haliaeetus leucocephalus</i>	Onsite	T	N
BRAC	Savanna Depot Activity	IL	3	Bird	Eagle, bald	<i>Haliaeetus leucocephalus</i>	Onsite	T	N
				Clam	Pearlymussel, Higgins' eye	<i>Lampsilis higginsii</i>	Onsite	E	N
BRAC	Sunflower AAP	MO	3	Bird	Eagle, bald	<i>Haliaeetus leucocephalus</i>	Contiguous	T	N
NERO	Aberdeen Proving Ground	MD	5	Fish	Sturgeon, shortnose	<i>Acipenser brevirostrum</i>	Onsite	E	N
				Fish	Darter, Maryland	<i>Etheostoma sellare</i>	Contiguous	E	N
				Bird	Eagle, bald	<i>Haliaeetus leucocephalus</i>	Onsite	T	N
NERO	Adelphi Laboratory Center	MD	5	Bird	Eagle, bald	<i>Haliaeetus leucocephalus</i>	Onsite	T	N
NERO	Devens Reserve Training Facility	MA	5	Bird	Eagle, bald	<i>Haliaeetus leucocephalus</i>	Contiguous	T	N
NERO	Fort A P Hill	VA	5	Bird	Eagle, bald	<i>Haliaeetus leucocephalus</i>	Onsite	T	N
				Plant	Pink, swamp	<i>Helonias bullata</i>	Onsite	T	N
				Plant	Pogonia, small whorled	<i>Isotria medeoloides</i>	Onsite	E	N
NERO	Fort Belvoir	VA	5	Bird	Eagle, bald	<i>Haliaeetus leucocephalus</i>	Onsite	T	N
				Plant	Pogonia, small whorled	<i>Isotria medeoloides</i>	Onsite	E	N
NERO	Fort Dix	NJ	5	Bird	Eagle, bald	<i>Haliaeetus leucocephalus</i>	Onsite	T	N
NERO	Fort Drum	NY	5	Mammal	Bat, Indiana	<i>Myotis sodalis</i>	Contiguous	E	N
NERO	Fort Eustis	VA	5	Bird	Eagle, bald	<i>Haliaeetus leucocephalus</i>	Onsite	T	N
NERO	Fort Lee	VA	5	Bird	Eagle, bald	<i>Haliaeetus leucocephalus</i>	Contiguous	T	N
				Reptile	Turtle, bog	<i>Clemmys muhlenbergii</i>	Contiguous	T	N
NERO	Picatinny Arsenal	NJ	5	Mammal	Bat, Indiana	<i>Myotis sodalis</i>	Onsite	E	N
				Fish	Sturgeon, shortnose	<i>Acipenser brevirostrum</i>	Contiguous	E	N
NERO	West Point Mil Reservation	NY	5	Bird	Eagle, bald	<i>Haliaeetus leucocephalus</i>	Onsite	T	N
				Fish	Sturgeon, shortnose	<i>Acipenser brevirostrum</i>	Contiguous	E	N
NWRO	Dugway Proving Ground	UT	6	Bird	Eagle, bald	<i>Haliaeetus leucocephalus</i>	Contiguous	T	N
NWRO	Fort Carson	CO	6	Fish	Darter, Arkansas	<i>Etheostoma cragini</i>	Onsite	C	N
				Bird	Eagle, bald	<i>Haliaeetus leucocephalus</i>	Contiguous	T	N
				Plant	Ladies'-tresses, Ute	<i>Spiranthes diluvialis</i>	Contiguous	T	N
				Bird	Owl, Mexican spotted	<i>Strix occidentalis lucida</i>	Contiguous	T	N
NWRO	Fort Leavenworth	KS	6	Bird	Eagle, bald	<i>Haliaeetus leucocephalus</i>	Onsite	T	N
				Fish	Sturgeon, pallid	<i>Scaphirhynchus albus</i>	Onsite	E	N
NWRO	Fort Leonard Wood	MO	3	Bird	Eagle, bald	<i>Haliaeetus leucocephalus</i>	Onsite	T	N
				Mammal	Bat, gray	<i>Myotis grisescens</i>	Onsite	E	N
				Mammal	Bat, Indiana	<i>Myotis sodalis</i>	Onsite	E	N

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NWRO	Fort Lewis	WA	1	Bird	Murrelet, marbled	<i>Brachyramphus marmoratus marmoratus</i>	Contiguous	T	N
				Plant	Paintbrush, golden	<i>Castilleja levisecta</i>	Contiguous	T	N
				Bird	Lark, Streaked horned	<i>Eremophila alpestris strigata</i>	Onsite	C	N
				Insect	Butterfly, Whulge Checkerspot	<i>Euphydryas editha taylori</i>	Onsite	C	N
				Bird	Eagle, bald	<i>Haliaeetus leucocephalus</i>	Onsite	T	N
				Plant	Howellia, water	<i>Howellia aquatilis</i>	Onsite	T	N
				Fish	Steelhead (Lower Columbia River)	<i>Oncorhynchus mykiss</i>	Onsite	T	N
				Fish	Salmon, chinook (Puget Sound)	<i>Oncorhynchus tshawytscha</i>	Onsite	T	N
				Mammal	Whale, southern resident killer	<i>Orcinu orca</i>	Contiguous	E	N
				Insect	Skipper, Mardon	<i>Polites mardon</i>	Onsite	C	N
				Fish	Trout, bull	<i>Salvelinus confluentus</i>	Onsite	T	N
				Bird	Owl, northern spotted	<i>Strix occidentalis caurina</i>	Contiguous	T	Y
				Mammal	Pocket gopher, Mazama	<i>Thomomys mazama</i>	Onsite	C	N
NWRO	Fort McCoy	WI	3	Mammal	Wolf, gray	<i>Canis lupus</i>	Onsite	E	N
				Bird	Eagle, bald	<i>Haliaeetus leucocephalus</i>	Onsite	T	N
				Insect	Butterfly, Karner blue	<i>Lycaeides melissa samuelis</i>	Onsite	E	N
NWRO	Fort Riley	KS	6	Bird	Plover, piping	<i>Charadrius melodus</i>	Onsite	T	N
				Bird	Eagle, bald	<i>Haliaeetus leucocephalus</i>	Onsite	T	N
				Fish	Shiner, Topeka	<i>Notropis topeka</i>	Onsite	E	N
				Bird	Tern, least	<i>Sterna antillarum</i>	Onsite	E	N
NWRO	Rock Island Arsenal	IL	3	Bird	Eagle, bald	<i>Haliaeetus leucocephalus</i>	Onsite	T	N
NWRO	Yakima Training Center	WA	1	Bird	Grouse, greater sage	<i>Centrocercus urophasianus phaios</i>	Onsite	C	N
				Plant	Daisy, basalt	<i>Erigeron basalticus</i>	Onsite	C	N
				Bird	Eagle, bald	<i>Haliaeetus leucocephalus</i>	Onsite	T	N
				Fish	Steelhead (Upper Columbia River)	<i>Oncorhynchus mykiss</i>	Onsite	E	N
				Fish	Steelhead (Middle Columbia River)	<i>Oncorhynchus mykiss</i>	Onsite	T	N
				Fish	Salmon, chinook (Snake River)	<i>Oncorhynchus tshawytscha</i>	Onsite	T	N
				Fish	Trout, bull	<i>Salvelinus confluentus</i>	Contiguous	T	N
PAC	Kahuku Training Area	HI	1	Plant	Haha	<i>Cyanea koolauensis</i>	Onsite	E	N
				Plant	Nioi	<i>Eugenia koolauensis</i>	Onsite	E	N
				Plant	Nanu	<i>Gardenia mannii</i>	Onsite	E	N
				Plant	Ohe`ohe	<i>Tetraplasandra gymnocarpa</i>	Onsite	E	N
PAC	Kawailoa Training Area	HI	1	Snail	Pupu kuahiwi	<i>Achatinella apexfulva</i>	Onsite	E	N
				Snail	Pupu kuahiwi	<i>Achatinella bulimoides</i>	Onsite	E	N
				Snail	Pupu kuahiwi	<i>Achatinella byronii</i>	Onsite	E	N
				Snail	Pupu kuahiwi	<i>Achatinella lila</i>	Onsite	E	N
				Snail	Pupu kuahiwi	<i>Achatinella livida</i>	Onsite	E	N

IMA		FWS			Common Name	Scientific Name (Genus species)	Onsite/ Contiguous	Federal	Critical
Region/ MACOM	Installation	State	Region	Category				Listing	Habitat
							Status	Onsite	
PAC	Kawailoa Training Area (cont'd)			Snail	Pupu kuahiwi	<i>Achatinella sowerbyana</i>	Onsite	E	N
				Plant	`Akoko	<i>Chamaesyce rockii</i>	Onsite	E	N
				Plant	Haha	<i>Cyanea acuminata</i>	Onsite	E	N
				Plant	No common name	<i>Cyanea crispa</i>	Onsite	E	N
				Plant	Haha	<i>Cyanea humboldtiana</i>	Onsite	E	N
				Plant	Haha	<i>Cyanea koolauensis</i>	Onsite	E	N
				Plant	Haha	<i>Cyanea st-johnii</i>	Onsite	E	N
				Plant	Ha`iwale	<i>Cyrtandra dentata</i>	Onsite	E	N
				Plant	Ha`iwale	<i>Cyrtandra viridiflora</i>	Onsite	E	N
				Plant	Nanu	<i>Gardenia mannii</i>	Onsite	E	N
				Plant	No common name	<i>Hesperomannia arborescens</i>	Onsite	E	N
				Plant	No common name	<i>Lycopodium nutans</i>	Onsite	E	N
				Plant	Alani	<i>Melicope lydgatei</i>	Onsite	E	N
				Plant	Kolea	<i>Myrsine juddii</i>	Onsite	E	N
				Plant	No common name	<i>Phyllostegia hirsuta</i>	Onsite	E	N
				Plant	No common name	<i>Pteris lidgatei</i>	Onsite	E	N
				Plant	No common name	<i>Sanicula purpurea</i>	Onsite	E	N
				Plant	Ohe`ohe	<i>Tetraplasandra gymnocarpa</i>	Onsite	E	N
				Plant	No common name	<i>Viola oahuensis</i>	Onsite	E	N
		PAC	Makua Military Reservation	HI	1	Snail	Pupu kuahiwi	<i>Achatinella mustelina</i>	Onsite
Plant	Mahoe					<i>Alectryon macrococcus</i>	Onsite	E	N
Plant	No common name					<i>Alsinidendron obovatum</i>	Onsite	E	N
Plant	Kamanomano					<i>Cenchrus agrimonoides</i>	Onsite	E	N
Plant	`Akoko					<i>Chamaesyce celastroides</i> var. <i>kaenana</i>	Onsite	E	N
Plant	`Akoko					<i>Chamaesyce herbstii</i>	Onsite	E	N
Bird	Elepaio, Oahu					<i>Chasiempis sandwichensis</i> <i>ibidis</i>	Onsite	E	Y
Plant	Haha					<i>Cyanea grimesiana</i> ssp. <i>obatae</i>	Onsite	E	N
Plant	Haha					<i>Cyanea longiflora</i>	Onsite	E	N
Plant	No common name					<i>Cyanea superba</i>	Onsite	E	N
Plant	Ha`iwale					<i>Cyrtandra dentata</i>	Onsite	E	N
Plant	Oha					<i>Delissea subcordata</i>	Onsite	E	N
Plant	Na`ena`e					<i>Dubautia herbstobatae</i>	Onsite	E	N
Plant	Mehamehame					<i>Flueggea neowawraea</i>	Onsite	E	N
Plant	No common name					<i>Hedyotis degeneri</i>	Onsite	E	N
Plant	No common name					<i>Hedyotis parvula</i>	Onsite	E	N
Plant	No common name					<i>Hesperomannia arbuscula</i>	Onsite	E	N
Plant	Ma`o hau hele					<i>Hibiscus brackenridgei</i>	Onsite	E	N
Plant	Anaunau					<i>Lepidium arbuscula</i>	Onsite	E	N
Plant	Nehe					<i>Lipochaeta tenuifolia</i>	Onsite	E	N
Plant	Ma`aloe					<i>Neraudia angulata</i>	Onsite	E	N
Plant	Kulu`i					<i>Nototrichium humile</i>	Onsite	E	N
Plant	No common name					<i>Phyllostegia kaalaensis</i>	Onsite	E	N
Plant	Lo`ulu					<i>Pritchardia kaalae</i>	Onsite	E	N
Plant	No common name					<i>Sanicula mariversa</i>	Onsite	E	N
Plant	No common name					<i>Schiedea kaalae</i>	Onsite	E	N
Plant	No common name					<i>Schiedea nuttallii</i>	Onsite	E	N
Plant	No common name					<i>Spermolepis hawaiiensis</i>	Onsite	E	N
Plant	No common name					<i>Tetramolopium filiforme</i>	Onsite	E	N
Plant	Pamakani					<i>Viola chamissoniana</i> ssp. <i>chamissoniana</i>	Onsite	E	N

IMA Region/ MACOM	Installation	FWS			Common Name	Scientific Name (Genus species)	Onsite/ Contiguous	Federal Listing Status	Critical Habitat Onsite
		State	Region	Category					
PAC	Pohakuloa Training Area	HI	1	Plant	No common name	<i>Asplenium fragile var. insulare</i>	Onsite	E	N
				Plant	Honohono	<i>Haplostachys haplostachya</i>	Onsite	E	N
				Plant	Kio`ele	<i>Hedyotis coriacea</i>	Onsite	E	N
				Mammal	Bat, Hawaiian hoary	<i>Lasiurus cinereus semotus</i>	Onsite	E	N
				Bird	Palila	<i>Loxioides bailleui</i>	Contiguous	E	Y
				Plant	No common name	<i>Neraudia ovata</i>	Onsite	E	N
				Plant	Po`e	<i>Portulaca sclerocarpa</i>	Onsite	E	N
				Plant	No common name	<i>Silene hawaiiensis</i>	Onsite	T	N
				Plant	No common name	<i>Silene lanceolata</i>	Onsite	E	N
				Plant	Popolo ku mai	<i>Solanum incompletum</i>	Onsite	E	N
				Plant	No common name	<i>Spermolepis hawaiiensis</i>	Onsite	E	N
				Plant	No common name	<i>Stenogyne angustifolia var. angustifolia</i>	Onsite	E	N
				Plant	No common name	<i>Tetramolopium arenarium</i>	Onsite	E	N
				Plant	A`e	<i>Zanthoxylum hawaiiense</i>	Onsite	E	N
				PAC	Schofield Barracks	HI	1	Plant	No common name
Snail	Pupu kuahiwi	<i>Achatinella byronii</i>	Onsite					E	N
Snail	Pupu kuahiwi	<i>Achatinella mustelina</i>	Onsite					E	N
Snail	Pupu kuahiwi	<i>Achatinella sowerbyana</i>	Onsite					E	N
Plant	Mahoe	<i>Alectryon macrococcus</i>	Onsite					E	N
Plant	No common name	<i>Alsinidendron trinerve</i>	Onsite					E	N
Plant	`Akoko	<i>Chamaesyce rockii</i>	Onsite					E	N
Bird	Elepaio, Oahu	<i>Chasiempis sandwichensis ibidis</i>	Onsite					E	Y
Plant	Haha	<i>Cyanea acuminata</i>	Onsite					E	N
Plant	Haha	<i>Cyanea grimesiana ssp. obatae</i>	Onsite					E	N
Plant	Haha	<i>Cyanea koolauensis</i>	Onsite					E	N
Plant	Ha`iwale	<i>Cyrtandra subumbellata</i>	Onsite					E	N
Plant	Ha`iwale	<i>Cyrtandra viridiflora</i>	Onsite					E	N
Plant	haha	<i>Delissea subcordata</i>	Onsite					E	N
Plant	No common name	<i>Diellia falcata</i>	Onsite					E	N
Plant	Mehamehame	<i>Flueggea neowawraea</i>	Onsite					E	N
Plant	Nanu	<i>Gardenia mannii</i>	Onsite					E	N
Plant	No common name	<i>Hesperomannia arborescens</i>	Onsite					E	N
Plant	Aupaka	<i>Isodendron longifolium</i>	Onsite					T	N
Plant	Ohe	<i>Joinvillea ascendens ascendens</i>	Onsite					C	N
Plant	Kamakahala	<i>Labordia cyrtandrae</i>	Onsite					E	N
Plant	Anaunau	<i>Lepidium arbuscula</i>	Onsite					E	N
Plant	No common name	<i>Lobelia gaudichaudii ssp. koolauensis</i>	Onsite					E	N
Plant	No common name	<i>Lycopodium nutans</i>	Onsite					E	N
Plant	No common name	<i>Phyllostegia hirsuta</i>	Onsite					E	N
Plant	No common name	<i>Phyllostegia kaalaensis</i>	Onsite					E	N
Plant	No common name	<i>Phyllostegia mollis</i>	Onsite					E	N
Plant	Kuahiwi laukahi	<i>Plantago princeps</i>	Onsite					E	N
Plant	No common name	<i>Pteris lidgatei</i>	Onsite					E	N
Plant	No common name	<i>Sanicula purpurea</i>	Onsite					E	N
Plant	No common name	<i>Schiedea hookeri</i>	Onsite					E	N
Plant	No common name	<i>Schiedea kaalae</i>	Onsite					E	N



IMA Region/ MACOM	Installation	FWS			Common Name	Scientific Name (Genus species)	Onsite/ Contiguous	Federal Listing Status	Critical Habitat Onsite
		State	Region	Category					
PAC	Schofield Barracks (cont'd)			Plant	No common name	<i>Stenogyne kanehoana</i>	Onsite	E	N
				Plant	Opuhe	<i>Urera kaalae</i>	Onsite	E	N
				Plant	Pamakani	<i>Viola chamissoniana ssp. chamissoniana</i>	Onsite	E	N
				Plant	No common name	<i>Viola oahuensis</i>	Onsite	E	N
PAC	Tripler Army Medical Center	HI	1	Insect	Damselfly, orangeblack Hawaiian	<i>Megalagrion xanthomelas</i>	Onsite	C	N
SERO	Fort Benning	GA	4	Reptile	Alligator, American	<i>Alligator mississippiensis</i>	Onsite	T(S/A)	N
				Bird	Eagle, bald	<i>Haliaeetus leucocephalus</i>	Onsite	T	N
				Bird	Stork, wood	<i>Mycteria americana</i>	Onsite	E	N
				Bird	Woodpecker, red-cockaded	<i>Picoides borealis</i>	Onsite	E	N
				Plant	Trillium, relict	<i>Trillium reliquum</i>	Onsite	E	N
SERO	Fort Bragg	GA	4	Plant	Loosestrife, rough-leaved	<i>Lysimachia asperulaefolia</i>	Onsite	E	N
				Insect	Butterfly, Saint Francis' satyr	<i>Neonympha mitchellii francisci</i>	Onsite	E	N
				Bird	Woodpecker, red-cockaded	<i>Picoides borealis</i>	Onsite	E	N
				Plant	Sumac, Michaux's	<i>Rhus michauxii</i>	Onsite	E	N
				Plant	Chaffseed, American	<i>Schwalbea americana</i>	Onsite	E	N
SERO	Fort Buchanan	PR	4	Reptile	Boa, Puerto Rican	<i>Epicrates inornatus</i>	Onsite	E	N
				Plant	Palo de rosa	<i>Ottoschulzia rhodoxylon</i>	Onsite	E	N
SERO	Fort Campbell	KY	4	Mammal	Bat, gray	<i>Myotis grisescens</i>	Onsite	E	N
				Mammal	Bat, Indiana	<i>Myotis sodalis</i>	Onsite	E	N
SERO	Fort Gordon	GA	4	Reptile	Alligator, American	<i>Alligator mississippiensis</i>	Onsite	T(S/A)	N
				Bird	Eagle, bald	<i>Haliaeetus leucocephalus</i>	Contiguous	T	N
				Bird	Stork, wood	<i>Mycteria americana</i>	Contiguous	E	N
				Bird	Woodpecker, red-cockaded	<i>Picoides borealis</i>	Onsite	E	N
SERO	Fort Jackson	SC	4	Plant	Coneflower, smooth	<i>Echinacea laevigata</i>	Onsite	E	N
				Plant	Loosestrife, rough-leaved	<i>Lysimachia asperulaefolia</i>	Onsite	E	N
				Bird	Woodpecker, red-cockaded	<i>Picoides borealis</i>	Onsite	E	N
SERO	Fort Knox	KY	4	Bird	Eagle, bald	<i>Haliaeetus leucocephalus</i>	Onsite	T	N
				Mammal	Bat, gray	<i>Myotis grisescens</i>	Onsite	E	N
				Mammal	Bat, Indiana	<i>Myotis sodalis</i>	Onsite	E	N
SERO	Fort Rucker	AL	4	Bird	Eagle, bald	<i>Haliaeetus leucocephalus</i>	Contiguous	T	N
				Mammal	Bat, gray	<i>Myotis grisescens</i>	Contiguous	E	N
SERO	Fort Stewart	GA	4	Fish	Sturgeon, shortnose	<i>Acipenser brevirostrum</i>	Onsite	E	N
				Amphibian	Salamander, flatwoods	<i>Ambystoma cingulatum</i>	Onsite	T	N
				Reptile	Snake, eastern indigo	<i>Drymarchon corais couperi</i>	Onsite	T	N
				Bird	Eagle, bald	<i>Haliaeetus leucocephalus</i>	Onsite	T	N
				Bird	Stork, wood	<i>Mycteria americana</i>	Onsite	E	N
				Bird	Woodpecker, red-cockaded	<i>Picoides borealis</i>	Onsite	E	N
SERO	Military Ocean Tml Sunny Point	NC	4	Reptile	Alligator, American	<i>Alligator mississippiensis</i>	Onsite	T(S/A)	N

IMA Region/ MACOM	Installation	FWS			Common Name	Scientific Name (Genus species)	Onsite/ Contiguous	Federal Listing Status	Critical Habitat Onsite
		State	Region	Category					
SERO	Military Ocean Tml Sunny Point (cont'd)			Reptile	Turtle, loggerhead sea	<i>Caretta caretta</i>	Contiguous	T	N
				Reptile	Turtle, green sea	<i>Chelonia mydas</i>	Contiguous	T	N
				Reptile	Turtle, leatherback sea	<i>Dermochelys coriacea</i>	Contiguous	E	N
				Bird	Eagle, bald	<i>Haliaeetus leucocephalus</i>	Onsite	T	N
				Reptile	Turtle, Kemp's ridley sea	<i>Lepidochelys kempii</i>	Contiguous	E	N
				Plant	Loosestrife, rough-leaved	<i>Lysimachia asperulaefolia</i>	Onsite	E	N
				Bird	Woodpecker, red-cockaded	<i>Picoides borealis</i>	Onsite	E	N
		Mammal	Manatee, West Indian	<i>Trichechus manatus</i>	Contiguous	E	N		
SERO	Redstone Arsenal	AL	4	Plant	Potato-bean, Price's	<i>Apios priceana</i>	Onsite	T	N
				Bird	Eagle, bald	<i>Haliaeetus leucocephalus</i>	Onsite	T	N
				Mammal	Bat, gray	<i>Myotis grisescens</i>	Onsite	E	N
				Mammal	Bat, Indiana	<i>Myotis sodalis</i>	Contiguous	E	N
				Crustacean	Shrimp, Alabama cave	<i>Palaemonias alabamae</i>	Onsite	E	N
SWRO	Fort Bliss	TX-NM	2	Plant	Cactus, Sneed pincushion	<i>Coryphantha sneedii var. sneedii</i>	Onsite	E	N
				Plant	Cactus, Kuenzler hedgehog	<i>Echinocereus fendleri var. kuenzleri</i>	Onsite	E	N
				Bird	Falcon, northern aplomado	<i>Falco femoralis septentrionalis</i>	Onsite	E	N
				Bird	Eagle, bald	<i>Haliaeetus leucocephalus</i>	Onsite	T	N
SWRO	Fort Hood	TX	2	Bird	Warbler, golden-cheeked	<i>Dendroica chrysoparia</i>	Onsite	E	N
				Bird	Crane, whooping	<i>Grus americana</i>	Onsite	E	N
				Bird	Eagle, bald	<i>Haliaeetus leucocephalus</i>	Onsite	T	N
				Bird	Vireo, black-capped	<i>Vireo atricapillus</i>	Onsite	E	N
SWRO	Fort Huachuca	AZ	2	Amphibian	Salamander, Sonora tiger	<i>Ambystoma tigrinum stebbinsi</i>	Onsite	E	N
				Bird	Cuckoo, Yellow-billed	<i>Coccyzus americanus</i>	Onsite	C	N
				Bird	Flycatcher, southwestern willow	<i>Empidonax traillii extimus</i>	Contiguous	E	N
				Plant	Fleabane, lemmon	<i>Erigeron lemmonii</i>	Onsite	C	N
				Mammal	Bat, lesser long-nosed	<i>Leptonycteris curasoae yerbabuena</i>	Onsite	E	N
				Plant	Water-umbel, Huachuca	<i>Lilaeopsis schaffneriana ssp. recurva</i>	Onsite	E	Y
				Fish	Spikedace	<i>Meda fulgida</i>	Contiguous	T	N
				Snail	Springsnail, Huachuca	<i>Pyrgulopsis thompsoni</i>	Onsite	C	N
				Bird	Owl, Mexican spotted	<i>Strix occidentalis lucida</i>	Onsite	T	N
		Fish	Minnow, loach	<i>Tiaroga cobitis</i>	Contiguous	T	N		
SWRO	Fort Hunter Liggett	CA	1	Plant	Thornmint, San Mateo	<i>Acanthomintha obovata ssp. Duttonii</i>	Contiguous	E	N
				Amphibian	Salamander, California tiger	<i>Ambystoma californiense</i>	Contiguous	T	N

IMA Region/ MACOM	Installation	FWS			Common Name	Scientific Name (Genus species)	Onsite/ Contiguous	Federal Listing Status	Critical Habitat Onsite
		State	Region	Category					
SWRO	Fort Hunter Liggett (cont'd)			Crustacean	Fairy shrimp, vernal pool	<i>Branchinecta lynchi</i>	Onsite	T	N
				Amphibian	Toad, Arroyo	<i>Bufo californicus</i>	Onsite	E	N
				Plant	Amole, purple	<i>Chlorogalum purpureum</i>	Onsite	T	N
				Bird	Condor, California	<i>Gymnogyps californianus</i>	Onsite	E	N
				Bird	Eagle, bald	<i>Haliaeetus leucocephalus</i>	Onsite	T	N
				Amphibian	Frog, California red-legged	<i>Rana aurora draytonii</i>	Contiguous	T	N
				Bird	Vireo, least Bell's	<i>Vireo bellii pusillus</i>	Contiguous	E	N
		Mammal	Fox, San Joaquin kit	<i>Vulpes macrotis mutica</i>	Onsite	E	N		
SWRO	Fort Irwin	CA	1	Plant	Milk-vetch, Lane Mountain	<i>Astragalus jaegerianus</i>	Onsite	E	N
				Reptile	Tortoise, desert	<i>Gopherus agassizii</i>	Onsite	T	Y
SWRO	Fort Polk	LA	4	Bird	Woodpecker, red-cockaded	<i>Picoides borealis</i>	Onsite	E	N
				Reptile	Snake, Louisiana Pine	<i>Pituophis ruthveni</i>	Onsite	C	N
SWRO	Fort Sam Houston	TX	2	Arachnid	Meshweaver, Madla's Cave	<i>Cicurina madla</i>	Onsite	E	N
				Bird	Warbler, golden-cheeked	<i>Dendroica chrysoparia</i>	Onsite	E	N
				Insect	Ground beetle	<i>Rhadine exilis</i>	Onsite	E	N
				Insect	Ground beetle	<i>Rhadine infernalis</i>	Onsite	E	N
				Bird	Vireo, black-capped	<i>Vireo atricapillus</i>	Onsite	E	N
SWRO	Fort Sill	OK	2	Bird	Vireo, black-capped	<i>Vireo atricapillus</i>	Onsite	E	N
SWRO	Parks RFTA	CA	1	Amphibian	Salamander, California tiger	<i>Ambystoma californiense</i>	Onsite	T	N
				Amphibian	Frog, California red-legged	<i>Rana aurora draytonii</i>	Onsite	T	N
				Mammal	Fox, San Joaquin kit	<i>Vulpes macrotis mutica</i>	Contiguous	E	N
SWRO	Presidio Of Monterey	CA	1	Plant	Piperia, Yadon's	<i>Piperia Yadonii</i>	Onsite	E	N
SWRO	White Sands Missile Range	NM	2	Mammal	Wolf, gray	<i>Canis lupus</i>	Contiguous	E	N
				Bird	Cuckoo, Yellow-billed	<i>Coccyzus americanus</i>	Onsite	C	N
				Bird	Flycatcher, southwestern willow	<i>Empidonax traillii extimus</i>	Contiguous	E	N
				Bird	Falcon, northern aplomado	<i>Falco femoralis septentrionalis</i>	Onsite	E	N
				Bird	Eagle, bald	<i>Haliaeetus leucocephalus</i>	Onsite	T	N
				Plant	Pennyroyal, Todsens	<i>Hedeoma todsenii</i>	Onsite	E	Y
				Mammal	Jaguar	<i>Panthera onca</i>	Onsite	E	N
				Bird	Pelican, brown	<i>Pelecanus occidentalis</i>	Onsite	E	N
				Bird	Tern, least	<i>Sterna antillarum</i>	Onsite	E	N
				Bird	Owl, Mexican spotted	<i>Strix occidentalis lucida</i>	Contiguous	T	N
USAR	63rd RRC - AFRC Fresno	CA	1	Plant	Sunburst, San Joaquin adobe	<i>Pseudobahia peirsonii</i>	Contiguous	T	N
	63rd RRC - BT Collins Enclave			Crustacean	Fairy shrimp, vernal pool	<i>Branchinecta lynchi</i>	Onsite	T	N
	63rd RRC - March USARC			Mammal	Kangaroo rat, Stephens'	<i>Dipodomys stephensi</i>	Contiguous	E	N

IMA Region/ MACOM	Installation	FWS			Common Name	Scientific Name (Genus species)	Onsite/ Contiguous	Federal Listing Status	Critical Habitat Onsite
		State	Region	Category					
USAR	63rd RRC - March USARC			Bird	Shrike, San Clemente loggerhead	<i>Lanius ludovicianus mearnsi</i>	Contiguous	E	N
	63rd RRC - Mare Island USAR Center			Fish	Sturgeon, green	<i>Acipenser medirostris</i>	Contiguous	T	N
				Fish	Smelt, delta	<i>Hypomesus transpacificus</i>	Contiguous	T	N
				Fish	Steelhead (Central California Coastal)	<i>Oncorhynchus mykiss</i>	Contiguous	T	N
				Fish	Steelhead (Central Valley California)	<i>Oncorhynchus mykiss</i>	Contiguous	T	N
				Fish	Salmon, chinook (Sacramento River - winter run)	<i>Oncorhynchus tshawytscha</i>	Contiguous	E	N
				Fish	Salmon, Chinook (Central Valley Spring Run)	<i>Oncorhynchus tshawytscha</i>	Contiguous	T	N
	63rd RRC - Moss Landing LTA			Bird	Plover, western snowy	<i>Charadrius alexandrinus nivosus</i>	Contiguous	T	N
	63rd RRC - Moss Landing and LTA- Marina			Plant	Spineflower, Monterey	<i>Chorizanthe pungens var. pungens</i>	Onsite	T	N
				Plant	Spineflower, Robust (incl. Scotts Valley)	<i>Chorizanthe robusta (incl. vars. robusta &amp; hartwegii)</i>	Onsite	E	N
				Mammal	Otter, southern sea	<i>Enhydra lutris nereis</i>	Onsite	T	N
			Bird	Pelican, brown (Entire pop, except U.S. Atlantic Coast, FL, AL	<i>Pelecanus occidentalis</i>	Onsite	E	N	
			Plant	Gilia, Monterey	<i>Gilia tenuiflora ssp.arenaria</i>	Contiguous	E	N	
	63rd RRC - PFC Bacciglieri			Amphibian	Frog , California red- legged	<i>Rana aurora draytonii</i>	Contiguous	T	N
	63rd RRC - Quinones AFRC			Mammal	Fox, San Joaquin kit	<i>Vulpes macrotis mutica</i>	Contiguous	E	N
63rd RRC - Tustin			Plant	Spineflower, San Fernado Valley	<i>Chorizanthe parryi fernandina</i>	Contiguous	C	N	
63rd RRC - Victorville USAR Center and ASF			Reptile	Tortoise, desert	<i>Gopherus agassizii</i>	Contiguous	T	N	
USAR	70th RRC - Vail Tree Farm	WA	1	Bird	Murrelet, marbled	<i>Brachyramphus marmoratus marmoratus</i>	Onsite	T	N
				Bird	Eagle, bald	<i>Haliaeetus leucocephalus</i>	Onsite	T	N
	70th RRC - Vail Tree Farm & Weyhauser LTA			Bird	Owl, northern spotted	<i>Strix occidentalis caurina</i>	Onsite	T	N
	70th RRC-Pier 23			Fish	Salmon, chinook (Puget Sound)	<i>Oncorhynchus tshawytscha</i>	Onsite	T	N
				Mammal	Whale, southern resident killer	<i>Orcinu orca</i>	Contiguous	E	N
			Fish	Trout, bull	<i>Salvelinus confluentus</i>	Onsite	T	N	
USAR	88th RRC - Twinsburg USARC	OH	3	Mammal	Bat, Indiana	<i>Myotis sodalis</i>	Onsite	E	N



## **Appendix B: TES & Installations Where Recorded - Sorted by Scientific Name**

Scientific Name (Genus, species)	Common Name	Federal Listing Status	Category	IMA Region/ MACOM	FWS Region	Installation	State	Onsite/ Contiguous	Critical Habitat Onsite
<i>Abutilon sandwicense</i>	No common name	E	Plant	PAC	1	Schofield Barracks	HI	Onsite	N
<i>Acanthomintha obovata</i> ssp. <i>Duttonii</i>	Thornmint, San Mateo	E	Plant	SWRO	1	Fort Hunter Liggett	CA	Contiguous	N
<i>Achatinella apexfulva</i>	Pupu kuahiwi	E	Snail	PAC	1	Kawailoa Training Area	HI	Onsite	N
<i>Achatinella bulimoides</i>	Pupu kuahiwi	E	Snail	PAC	1	Kawailoa Training Area	HI	Onsite	N
<i>Achatinella byronii</i>	Pupu kuahiwi	E	Snail	PAC	1	Kawailoa Training Area	HI	Onsite	N
				PAC	1	Schofield Barracks	HI	Onsite	N
<i>Achatinella lila</i>	Pupu kuahiwi	E	Snail	PAC	1	Kawailoa Training Area	HI	Onsite	N
<i>Achatinella livida</i>	Pupu kuahiwi	E	Snail	PAC	1	Kawailoa Training Area	HI	Onsite	N
<i>Achatinella mustelina</i>	Pupu kuahiwi	E	Snail	PAC	1	Makua Military Reservation	HI	Onsite	N
				PAC	1	Schofield Barracks	HI	Onsite	N
<i>Achatinella sowerbyana</i>	Pupu kuahiwi	E	Snail	PAC	1	Kawailoa Training Area	HI	Onsite	N
				PAC	1	Schofield Barracks	HI	Onsite	N
<i>Acipenser brevirostrum</i>	Sturgeon, shortnose	E	Fish	ARNG	5	Camp Smith Training Site	NY	Contiguous	N
				NERO	5	Aberdeen Proving Ground	MD	Onsite	N
				NERO	5	West Point Mil Reservation	NY	Contiguous	N
				SERO	4	Fort Stewart	GA	Onsite	N
<i>Acipenser medirostris</i>	Sturgeon, green	T	Fish	USAR	1	63rd RRC - Mare Island USAR Center	CA	Contiguous	N
<i>Alectryon macrococcus</i>	Mahoe	E	Plant	PAC	1	Makua Military Reservation	HI	Onsite	N
				PAC	1	Schofield Barracks	HI	Onsite	N
<i>Alligator mississippiensis</i>	Alligator, American	T(S/A)	Reptile	AMC	2	Lone Star AAP	TX	Onsite	N
				ARNG	4	Camp Blanding	FL	Onsite	N
				ARNG	4	Camp Shelby	MS	Onsite	N
				SERO	4	Fort Benning	GA	Onsite	N
				SERO	4	Fort Gordon	GA	Onsite	N
				SERO	4	Military Ocean Tml Sunny Point	NC	Onsite	N
<i>Alsinidendron obovatum</i>	No common name	E	Plant	PAC	1	Makua Military Reservation	HI	Onsite	N

Scientific Name (Genus, species)	Common Name	Federal Listing Status	Category	IMA Region/ MACOM	FWS Region	Installation	State	Onsite/ Contiguous	Critical Habitat Onsite
<i>Alsinidendron trinerve</i>	No common name	E	Plant	PAC	1	Schofield Barracks	HI	Onsite	N
<i>Amaranthus pumilus</i>	Amaranth, Seabeach	T	Plant	ARNG	5	Sea Girt/Oms 25	NJ	Onsite	N
<i>Amblyopsis rosae</i>	Cavefish, Ozark	T	Fish	ARNG	3	Camp Crowder	MO	Contiguous	N
<i>Ambystoma californiense</i>	Salamander, California tiger	T	Amphibian	SWRO	1	Fort Hunter Liggett	CA	Contiguous	N
				SWRO	1	Parks RFTA	CA	Onsite	N
<i>Ambystoma cingulatum</i>	Salamander, flatwoods	T	Amphibian	SERO	4	Fort Stewart	GA	Onsite	N
<i>Ambystoma tigrinum stebbinsi</i>	Salamander, Sonora tiger	E	Amphibian	SWRO	2	Fort Huachuca	AZ	Onsite	N
<i>Anas wyvilliana</i>	Duck, Hawaiian	E	Bird	ARNG	1	Fort Ruger	HI	Onsite	N
				ARNG	1	Ukumehame Wets	HI	Onsite	N
<i>Aphelocoma coerulescens</i>	Jay, Florida Scrub	T	Bird	ARNG	4	Camp Blanding	FL	Onsite	N
<i>Apios priceana</i>	Potato-bean, Price's	T	Plant	SERO	4	Redstone Arsenal	AL	Onsite	N
<i>Arctomecon humilis</i>	Bear-poppy, Dwarf	E	Plant	ARNG	6	St George/Oms 10b	UT	Onsite	N
<i>Asplenium fragile var. insulare</i>	No common name	E	Plant	PAC	1	Pohakuloa Training Area	HI	Onsite	N
<i>Astragalus jaegerianus</i>	Milk-vetch, Lane Mountain	E	Plant	SWRO	1	Fort Irwin	CA	Onsite	N
<i>Brachyramphus marmoratus marmoratus</i>	Murrelet, Marbled	T	Bird	ARNG	1	Warrenton/Camp Rilea	OR	Contiguous	N
				NWRO	1	Fort Lewis	WA	Contiguous	N
				USAR	1	70th RRC - Vail Tree Farm	WA	Onsite	N
<i>Branchinecta lynchi</i>	Fairy shrimp, vernal pool	T	Crustacean	ARNG	1	Camp Roberts	CA	Onsite	N
				SWRO	1	Fort Hunter Liggett	CA	Onsite	N
				USAR	1	63rd RRC - BT Collins Enclave	CA	Onsite	N
<i>Branta sandvicensis</i>	Goose, Hawaiian	E	Bird	ARNG	1	Ukumehame Wets	HI	Onsite	N
<i>Bufo californicus</i>	Toad, Arroyo	E	Amphibian	SWRO	1	Fort Hunter Liggett	CA	Onsite	N
<i>Buteo solitarius</i>	Hawk, Hawaiian	E	Bird	ARNG	1	Hilo (Keaukaha) Military Rsrvt	HI	Onsite	N
<i>Canis lupus</i>	Wolf, gray	T	Mammal	ARNG	3	Camp Ripley	MN	Onsite	N
				NWRO	3	Fort McCoy	WI	Onsite	N
				SWRO	2	White Sands Missile Range	NM	Contiguous	N

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<i>Caretta caretta</i>	Turtle, loggerhead sea	T	Reptile	SERO	4	Military Ocean Tml Sunny Point	NC	Contiguous	N
<i>Castilleja levisecta</i>	Paintbrush, golden	T	Plant	NWRO	1	Fort Lewis	WA	Contiguous	N
<i>Cenchrus agrimonioides</i>	Kamanomano	E	Plant	PAC	1	Makua Military Reservation	HI	Onsite	N
<i>Centrocercus urophasianus phaios</i>	Grouse, Greater Sage	C	Bird	NWRO	1	Yakima Training Center	WA	Onsite	N
<i>Chamaesyce celastroides var. kaenana</i>	`Akoko	E	Plant	PAC	1	Makua Military Reservation	HI	Onsite	N
<i>Chamaesyce herbstii</i>	`Akoko	E	Plant	PAC	1	Makua Military Reservation	HI	Onsite	N
<i>Chamaesyce rockii</i>	`Akoko	E	Plant	PAC	1	Kawaihoa Training Area	HI	Onsite	N
				PAC	1	Schofield Barracks	HI	Onsite	N
<i>Charadrius alexandrinus nivosus</i>	Plover, Western Snowy	T	Bird	ARNG	1	Warrenton/Camp Rilea	OR	Contiguous	N
				USAR	1	63rd RRC - Moss Landing LTA	CA	Contiguous	N
<i>Charadrius melodus</i>	Plover, Piping	T	Bird	ARNG	6	Camp Grafton	ND	Contiguous	N
				ARNG	6	Garrison TS	ND	Contiguous	N
				ARNG	5	Sea Girt/Oms 25	NJ	Onsite	N
				ARNG	6	Williston TS	ND	Contiguous	N
				NWRO	6	Fort Riley	KS	Onsite	N
<i>Chasiempis sandwichensis ibidis</i>	Elepaio, Oahu	E	Bird	PAC	1	Makua Military Reservation	HI	Onsite	Y
				PAC	1	Schofield Barracks	HI	Onsite	Y
<i>Chelonia mydas</i>	Turtle, green sea	T	Reptile	SERO	4	Military Ocean Tml Sunny Point	NC	Contiguous	N
<i>Chlorogalum purpureum</i>	Amole, purple	T	Plant	ARNG	1	Camp Roberts	CA	Onsite	N
				SWRO	1	Fort Hunter Liggett	CA	Onsite	N
<i>Chorizanthe parryi fernandina</i>	Spineflower, San Fernando Valley	C	Plant	USAR	1	63rd RRC - Tustin	CA	Contiguous	N
<i>Chorizanthe pungens var. pungens</i>	Spineflower, Monterey	T	Plant	BRAC	1	Fort Ord	CA	Onsite	N
				USAR	1	63rd RRC - Moss Landing and LTA-Marina	CA	Onsite	N
<i>Chorizanthe robusta (incl. vars. robusta &amp; hartwegii)</i>	Spineflower, Robust (incl. Scotts Valley)	E	Plant	USAR	1	63rd RRC - Moss Landing and LTA-Marina	CA	Onsite	N
<i>Cicurina madla</i>	Meshweaver, Madla's Cave	E	Arachnid	SWRO	2	Fort Sam Houston	TX	Onsite	N



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<i>Cirsium fontinale</i> <i>var.obispoense</i>	Thistle, Chorro Creek bog	E	Plant	ARNG	1	Camp San Luis Obispo	CA	Onsite	N
<i>Clemmys muhlenbergii</i>	Turtle, bog	T	Reptile	NERO	5	Picatinny Arsenal	NJ	Contiguous	N
<i>Coccyzus americanus</i>	Cuckoo, Yellow-billed	C	Bird	SWRO	2	Fort Huachuca	AZ	Onsite	N
				SWRO	2	White Sands Missile Range	NM	Onsite	N
<i>Coryphantha sneedii</i> var. <i>sneedii</i>	Cactus, Sneed pincushion	E	Plant	SWRO	2	Fort Bliss	TX-NM	Onsite	N
<i>Cyanea acuminata</i>	Haha	E	Plant	PAC	1	Kawailoa Training Area	HI	Onsite	N
				PAC	1	Schofield Barracks	HI	Onsite	N
<i>Cyanea crispa</i>	No common name	E	Plant	PAC	1	Kawailoa Training Area	HI	Onsite	N
<i>Cyanea grimesiana</i> ssp. <i>obatae</i>	Haha	E	Plant	PAC	1	Makua Military Reservation	HI	Onsite	N
				PAC	1	Schofield Barracks	HI	Onsite	N
<i>Cyanea humboldtiana</i>	Haha	E	Plant	PAC	1	Kawailoa Training Area	HI	Onsite	N
<i>Cyanea koolauensis</i>	Haha	E	Plant	PAC	1	Kahuku Training Area	HI	Onsite	N
				PAC	1	Kawailoa Training Area	HI	Onsite	N
				PAC	1	Schofield Barracks	HI	Onsite	N
<i>Cyanea longiflora</i>	Haha	E	Plant	PAC	1	Makua Military Reservation	HI	Onsite	N
<i>Cyanea st-johnii</i>	Haha	E	Plant	PAC	1	Kawailoa Training Area	HI	Onsite	N
<i>Cyanea superba</i>	No common name	E	Plant	PAC	1	Makua Military Reservation	HI	Onsite	N
<i>Cynomys parvidens</i>	Prairie dog, Utah	T	Mammal	ARNG	6	Cedar City	UT	Contiguous	N
<i>Cyperus trachysanthos</i>	Pu`uka`a	E	Plant	ARNG	1	Fort Ruger	HI	Onsite	Y
<i>Cyrtandra dentata</i>	Ha`iwale	E	Plant	PAC	1	Kawailoa Training Area	HI	Onsite	N
				PAC	1	Makua Military Reservation	HI	Onsite	N
<i>Cyrtandra subumbellata</i>	Ha`iwale	E	Plant	PAC	1	Schofield Barracks	HI	Onsite	N
<i>Cyrtandra viridiflora</i>	Ha`iwale	E	Plant	PAC	1	Kawailoa Training Area	HI	Onsite	N
				PAC	1	Schofield Barracks	HI	Onsite	N
<i>Delissea subcordata</i>	Oha	E	Plant	PAC	1	Makua Military Reservation	HI	Onsite	N
				PAC	1	Schofield Barracks	HI	Onsite	N

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<i>Dendroica chrysoparia</i>	Warbler, Golden-cheeked	E	Bird	ARNG	2	Camp Mabry	TX	Onsite	N
				SWRO	2	Fort Hood	TX	Onsite	N
				SWRO	2	Fort Sam Houston	TX	Onsite	N
<i>Dendroica kirtlandii</i>	Warbler, Kirtland's	E	Bird	ARNG	3	Camp Grayling	MI	Onsite	N
<i>Dermochelys coriacea</i>	Turtle, leatherback sea	E	Reptile	SERO	4	Military Ocean Tml Sunny Point	NC	Contiguous	N
<i>Desmocerus californicus dimorphus</i>	Beetle, valley elderberry longhorn	T	Insect	AMC	1	Riverbank AAP	CA	Contiguous	N
<i>Diellia falcata</i>	No common name	E	Plant	PAC	1	Schofield Barracks	HI	Onsite	N
<i>Dipodomys stephensi</i>	Kangaroo rat, Stephens'	E	Mammal	USAR	1	63rd RRC - March USARC	CA	Contiguous	N
<i>Drymarchon corais couperi</i>	Snake, eastern indigo	T	Reptile	ARNG	4	Camp Blanding	FL	Onsite	N
				SERO	4	Fort Stewart	GA	Onsite	N
<i>Dubautia herbstobatae</i>	Na'ena'e	E	Plant	PAC	1	Makua Military Reservation	HI	Onsite	N
<i>Echinacea laevigata</i>	Coneflower, smooth	E	Plant	ARNG	4	Leesburg Training Site	SC	Onsite	N
				SERO	4	Fort Jackson	SC	Onsite	N
<i>Echinocereus fendleri var. kuenzleri</i>	Cactus, Kuenzler hedgehog	E	Plant	SWRO	2	Fort Bliss	TX-NM	Onsite	N
<i>Empidonax traillii extimus</i>	Flycatcher, Southwestern Willow	E	Bird	SWRO	2	Fort Huachuca	AZ	Contiguous	N
				SWRO	2	White Sands Missile Range	NM	Contiguous	N
<i>Enhydra lutris nereis</i>	Otter, southern sea	T	Mammal	USAR	1	63rd RRC - Moss Landing and LTA-Marina	CA	Onsite	N
<i>Epicrates inornatus</i>	Boa, Puerto Rican	E	Reptile	SERO	4	Fort Buchanan	PR	Onsite	N
<i>Eremophila alpestris strigata</i>	Lark, Streaked Horned	C	Bird	NWRO	1	Fort Lewis	WA	Onsite	N
<i>Erigeron basalticus</i>	Daisy, basalt	C	Plant	NWRO	1	Yakima Training Center	WA	Onsite	N
<i>Erigeron lemmonii</i>	Fleabane, lemmon	C	Plant	SWRO	2	Fort Huachuca	AZ	Onsite	N
<i>Etheostoma cragini</i>	Darter, Arkansas	C	Fish	NWRO	6	Fort Carson	CO	Onsite	N
<i>Etheostoma sellare</i>	Darter, Maryland	E	Fish	NERO	5	Aberdeen Proving Ground	MD	Contiguous	N
<i>Eugenia koolauensis</i>	Nioi	E	Plant	PAC	1	Kahuku Training Area	HI	Onsite	N
<i>Eumetopias jubatus</i>	Sea-lion, Steller	T	Mammal	ARNG	1	Warrenton/Camp Rilea	OR	Contiguous	N

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<i>Euphydryas editha taylori</i>	Butterfly, Whulge Checkerspot	C	Insect	NWRO	1	Fort Lewis	WA	Onsite	N		
<i>Falco femoralis septentrionalis</i>	Falcon, Northern Aplomado	E	Bird	SWRO	2	Fort Bliss	TX-NM	Onsite	N		
				SWRO	2	White Sands Missile Range	NM	Onsite	N		
<i>Flueggea neowawraea</i>	Mehamehame	E	Plant	PAC	1	Makua Military Reservation	HI	Onsite	N		
				PAC	1	Schofield Barracks	HI	Onsite	N		
<i>Fulica americana alai</i>	Coot, Hawaiian	E	Bird	ARNG	1	Fort Ruger	HI	Onsite	N		
				ARNG	1	Ukumehame Wets	HI	Onsite	N		
<i>Gallinula chloropus sandvicensis</i>	Moorhen, Hawaiian Common	E	Bird	ARNG	1	Fort Ruger	HI	Onsite	N		
				ARNG	1	Ukumehame Wets	HI	Onsite	N		
<i>Gardenia mannii</i>	Nanu	E	Plant	PAC	1	Kahuku Training Area	HI	Onsite	N		
				PAC	1	Kawailoa Training Area	HI	Onsite	N		
				PAC	1	Schofield Barracks	HI	Onsite	N		
<i>Gilia tenuiflora ssp.arenaria</i>	Gilia, Monterey	E	Plant	USAR	1	63rd RRC - Moss Landing LTA and Marina	CA	Contiguous	N		
<i>Gopherus agassizii</i>	Tortoise, desert	T	Reptile	ARNG	1	Clark County Complex	NV	Contiguous	N		
				T(S/A)	Reptile	ARNG	2	Florence Mil Rsvtn	AZ	Onsite	N
				T		SWRO	1	Fort Irwin	CA	Onsite	Y
				T		USAR	1	63rd RRC - Victorville USAR Center and ASF	CA	Contiguous	N
<i>Gopherus polyphemus</i>	Tortoise, gopher	T	Reptile	ARNG	4	Camp Shelby	MS	Onsite	N		
<i>Grus americana</i>	Crane, Whooping	E	Bird	SWRO	2	Fort Hood	TX	Onsite	N		
<i>Gymnogyps californianus</i>	Condor, California	E	Bird	ARNG	1	Camp Roberts	CA	Contiguous	N		
				ARNG	1	Camp San Luis Obispo	CA	Onsite	N		
				SWRO	1	Fort Hunter Liggett	CA	Onsite	N		
<i>Haliaeetus leucocephalus</i>	Eagle, Bald	T	Bird	AMC	4	Blue Grass Army Depot	KY	Contiguous	N		
				AMC	6	Deseret Chemical Depot	UT	Contiguous	N		
				AMC	1	Hawthorne Army Depot	NV	Onsite	N		

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<i>Haliaeetus leucocephalus</i> (cont'd)	Eagle, Bald			AMC	4	Holston AAP	TN	Onsite	N
				AMC	3	Newport Chemical Depot	IN	Onsite	N
				ARNG	3	(Clinton) Truman Reservoir TS	MO	Onsite	N
				ARNG	6	Camp Ashland	NE	Onsite	N
				ARNG	3	Camp Atterbury	IN	Onsite	N
				ARNG	4	Camp Blanding	FL	Onsite	N
				ARNG	3	Camp Crowder	MO	Contiguous	N
				ARNG	3	Camp Grayling	MI	Onsite	N
				ARNG	6	Camp Guernsey	WY	Onsite	N
				ARNG	4	Camp J.T. Robinson	AR	Contiguous	N
				ARNG	1	Camp Murray	WA	Onsite	N
				ARNG	3	Camp Perry	OH	Onsite	N
				ARNG	3	Camp Ripley	MN	Onsite	N
				ARNG	1	Camp Roberts	CA	Onsite	N
				ARNG	5	Camp Smith Training Site	NY	Contiguous	N
				ARNG	1	Corvallis/Camp Adair	OR	Contiguous	N
				ARNG	4	Fort Chaffee	AR	Contiguous	N
				ARNG	5	Fort Pickett	VA	Onsite	N
				ARNG	3	HQ STARC	MO	Onsite	N
				ARNG	3	Macon Training Site	MO	Onsite	N
				ARNG	1	Warrenton/Camp Rilea	OR	Onsite	N
				BRAC	3	Ravenna AAP	OH	Contiguous	N
				BRAC	6	Rocky Mountain Arsenal	CO	Onsite	N
		BRAC	3	Savanna Depot Activity	IL	Onsite	N		
		BRAC	3	Sunflower AAP	MO	Contiguous	N		
		NERO	5	Aberdeen Proving Ground	MD	Onsite	N		



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<i>Haliaeetus leucocephalus</i> (cont'd)	Eagle, Bald			NERO	5	Adelphi Laboratory Center	MD	Onsite	N
				NERO	5	Devens Reserve Training Facility	MA	Contiguous	N
				NERO	5	Fort A P Hill	VA	Onsite	N
				NERO	5	Fort Belvoir	VA	Onsite	N
				NERO	5	Fort Dix	NJ	Onsite	N
				NERO	5	Fort Eustis	VA	Onsite	N
				NERO	5	Fort Lee	VA	Contiguous	N
				NERO	5	West Point Mil Reservation	NY	Onsite	N
				NWRO	6	Dugway Proving Ground	UT	Contiguous	N
				NWRO	6	Fort Carson	CO	Contiguous	N
				NWRO	6	Fort Leavenworth	KS	Onsite	N
				NWRO	3	Fort Leonard Wood	MO	Onsite	N
				NWRO	1	Fort Lewis	WA	Onsite	N
				NWRO	3	Fort McCoy	WI	Onsite	N
				NWRO	6	Fort Riley	KS	Onsite	N
				NWRO	3	Rock Island Arsenal	IL	Onsite	N
				NWRO	1	Yakima Training Center	WA	Onsite	N
				SERO	4	Fort Benning	GA	Onsite	N
				SERO	4	Fort Gordon	GA	Contiguous	N
				SERO	4	Fort Knox	KY	Onsite	N
				SERO	4	Fort Rucker	AL	Contiguous	N
				SERO	4	Fort Stewart	GA	Onsite	N
				SERO	4	Military Ocean Tml Sunny Point	NC	Onsite	N
		SERO	4	Redstone Arsenal	AL	Onsite	N		
		SWRO	2	Fort Bliss	TX- NM	Onsite	N		
		SWRO	2	Fort Hood	TX	Onsite	N		

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<i>Haliaeetus leucocephalus</i> (cont'd)	Bald, Eagle			SWRO	1	Fort Hunter Liggett	CA	Onsite	N
				SWRO	2	White Sands Missile Range	NM	Onsite	N
				USAR	2	70th RRC - Vail Tree Farm	WA	Onsite	N
<i>Haplostachys haplostachya</i>	Honohono	E	Plant	PAC	1	Pohakuloa Training Area	HI	Onsite	N
<i>Hedeoma todsenii</i>	Pennyroyal, Todsen's	E	Plant	SWRO	2	White Sands Missile Range	NM	Onsite	Y
<i>Hedyotis coriacea</i>	Kio`ele	E	Plant	PAC	1	Pohakuloa Training Area	HI	Onsite	N
<i>Hedyotis degeneri</i>	No common name	E	Plant	PAC	1	Makua Military Reservation	HI	Onsite	N
<i>Hedyotis parvula</i>	No common name	E	Plant	PAC	1	Makua Military Reservation	HI	Onsite	N
<i>Helminthoglypta walkeriana</i>	Snail, Morro shoulderband	E	Snail	ARNG	1	Camp San Luis Obispo	CA	Contiguous	N
<i>Helonias bullata</i>	Pink, swamp	T	Plant	NERO	5	Fort A P Hill	VA	Onsite	N
<i>Hesperomannia arborescens</i>	No common name	E	Plant	PAC	1	Kawailoa Training Area	HI	Onsite	N
				PAC	1	Schofield Barracks	HI	Onsite	N
				PAC	1	Makua Military Reservation	HI	Onsite	N
<i>Hesperomannia arbuscula</i>	No common name	E	Plant	PAC	1	Makua Military Reservation	HI	Onsite	N
<i>Hibiscus brackenridgei</i>	Ma`o hau hele	E	Plant	PAC	1	Makua Military Reservation	HI	Onsite	N
<i>Himantopus mexicanus knudseni</i>	Stilt, Hawaiian	E	Bird	ARNG	1	Kekaha Wets	HI	Onsite	N
				ARNG	1	Ukumehame Wets	HI	Onsite	N
<i>Holocarpha macradenia</i>	Tarplant, Santa Cruz	T	Plant	ARNG	1	Santa Cruz Armory	CA	Onsite	Y
<i>Howellia aquatilis</i>	Howellia, water	T	Plant	NWRO	1	Fort Lewis	WA	Onsite	N
<i>Hypomesus transpacificus</i>	Smelt, delta	T	Fish	USAR	1	63rd RRC - Mare Island USAR Center	CA	Contiguous	N
<i>Icaricia icarioides fenderi</i>	Butterfly, Fender's blue	E	Insect	ARNG	1	Corvallis/Camp Adair	OR	Contiguous	N
<i>Isodendron longifolium</i>	Aupaka	T	Plant	PAC	1	Schofield Barracks	HI	Onsite	N
<i>Isoetes louisianensis</i>	Quillwort, Louisiana	E	Plant	ARNG	4	Camp Shelby	MS	Onsite	N
<i>Isotria medeoloides</i>	Pogonia, small whorled	E	Plant	ARNG	5	Auburn Training Site	ME	Onsite	N
				ARNG	5	NHNG Training Site	NH	Onsite	N
				NERO	5	Fort A P Hill	VA	Onsite	N

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<i>Isotria medeoloides (cont'd)</i>	Pogonia, small whorled			NERO	5	Fort Belvoir	VA	Onsite	N
<i>Joinvillea ascendens ascendens</i>	Ohe	C	Plant	PAC	1	Schofield Barracks	HI	Onsite	N
<i>Labordia cyrtandrae</i>	Kamakahala	E	Plant	PAC	1	Schofield Barracks	HI	Onsite	N
<i>Lampsilis higginsii</i>	Pearlymussel, Higgins' eye	E	Clam	BRAC	3	Savanna Depot Activity	IL	Onsite	N
<i>Lanius ludovicianus mearnsi</i>	Shrike, San Clemente Loggerhead	E	Bird	USAR	1	63rd RRC - March USARC	CA	Contiguous	N
<i>Lasiurus cinereus semotus</i>	Bat, Hawaiian hoary	E	Mammal	ARNG	1	Hilo (Keaukaha) Military Rsrvt	HI	Onsite	N
				PAC	1	Pohakuloa Training Area	HI	Onsite	N
<i>Lepidium arbuscula</i>	Anaunau	E	Plant	PAC	1	Makua Military Reservation	HI	Onsite	N
				PAC	1	Schofield Barracks	HI	Onsite	N
<i>Lepidochelys kempii</i>	Turtle, Kemp's ridley sea	E	Reptile	SERO	4	Military Ocean Tml Sunny Point	NC	Contiguous	N
<i>Leptonycteris curasoae yerbabuena</i>	Bat, lesser long-nosed	E	Mammal	SWRO	2	Fort Huachuca	AZ	Onsite	N
<i>Lilaeopsis schaffneriana ssp. recurva</i>	Water-umbel, Huachuca	E	Plant	SWRO	2	Fort Huachuca	AZ	Onsite	Y
<i>Lipochaeta tenuifolia</i>	Nehe	E	Plant	PAC	1	Makua Military Reservation	HI	Onsite	N
<i>Lobelia gaudichaudii ssp. koolauensis</i>	No common name	E	Plant	PAC	1	Schofield Barracks	HI	Onsite	N
<i>Loxioides bailleui</i>	Palila	E	Bird	PAC	1	Pohakuloa Training Area	HI	Contiguous	Y
<i>Lupinus sulphureus kincaidii</i>	Lupine, Kincaid's	T	Plant	ARNG	1	Corvallis/Camp Adair	OR	Onsite	N
<i>Lycaeides melissa samuelis</i>	Butterfly, Karner blue	E	Insect	ARNG	5	State Military Reservation	NH	Onsite	N
				NWRO	3	Fort McCoy	WI	Onsite	N
<i>Lycopodium nutans</i>	No common name	E	Plant	PAC	1	Kawailoa Training Area	HI	Onsite	N
				PAC	1	Schofield Barracks	HI	Onsite	N
<i>Lysimachia asperulaefolia</i>	Loosestrife, rough-leaved	E	Plant	ARNG	4	Leesburg Training Site	SC	Onsite	N
				SERO	4	Fort Bragg	GA	Onsite	N
				SERO	4	Fort Jackson	SC	Onsite	N
				SERO	4	Military Ocean Tml Sunny Point	NC	Onsite	N
<i>Manduca blackburni</i>	Moth, Blackburn's sphinx	E	Insect	ARNG	1	Kanaio Wets	HI	Onsite	Y
<i>Marshallia mohrii</i>	Button, Mohr's Barbara's	T	Plant	ARNG	4	Fort McClellan	AL	Onsite	N

Scientific Name (Genus, species)	Common Name	Federal Listing Status	Category	IMA Region/ MACOM	FWS Region	Installation	State	Onsite/ Contiguous	Critical Habitat Onsite
<i>Meda fulgida</i>	Spikedace	T	Fish	SWRO	2	Fort Huachuca	AZ	Contiguous	N
<i>Megalagrion xanthomelas</i>	Damselfly, orangeblack Hawaiian	C	Insect	PAC	1	Tripler Army Medical Center	HI	Onsite	N
<i>Melicope lydgatei</i>	Alani	E	Plant	PAC	1	Kawailoa Training Area	HI	Onsite	N
<i>Mycteria americana</i>	Stork, Wood	E	Bird	ARNG	4	Camp Blanding	FL	Onsite	N
				SERO	4	Fort Benning	GA	Onsite	N
				SERO	4	Fort Gordon	GA	Contiguous	N
				SERO	4	Fort Stewart	GA	Onsite	N
<i>Myotis grisescens</i>	Bat, gray	E	Mammal	AMC	4	Blue Grass Army Depot	KY	Contiguous	N
				AMC	4	Holston AAP	TN	Onsite	N
				ARNG	4	Fort McClellan	AL	Onsite	N
				ARNG	4	Greenville, Utes2	KY	Contiguous	N
				BRAC	3	Indiana AAP	IN	Onsite	N
				NWRO	3	Fort Leonard Wood	MO	Onsite	N
				SERO	4	Fort Campbell	KY	Onsite	N
				SERO	4	Fort Knox	KY	Onsite	N
				SERO	4	Fort Rucker	AL	Contiguous	N
SERO	4	Redstone Arsenal	AL	Onsite	N				
<i>Myotis sodalis</i>	Bat, Indiana	E	Mammal	AMC	4	Blue Grass Army Depot	KY	Contiguous	N
				AMC	3	Iowa AAP	IA	Onsite	N
				AMC	3	Newport Chemical Depot	IN	Onsite	N
				ARNG	3	Camp Atterbury	IN	Onsite	N
				ARNG	3	Macon Training Site	MO	Onsite	N
				BRAC	3	Indiana AAP	IN	Onsite	N
				NERO	5	Fort Drum	NY	Contiguous	N
				NERO	5	Picatinny Arsenal	NJ	Onsite	N
NWRO	3	Fort Leonard Wood	MO	Onsite	N				

Scientific Name (Genus, species)	Common Name	Federal Listing Status	Category	IMA Region/ MACOM	FWS Region	Installation	State	Onsite/ Contiguous	Critical Habitat Onsite
<i>Myotis sodalis (cont'd)</i>	Bat, Indiana			SERO	4	Fort Campbell	KY	Onsite	N
				SERO	4	Fort Knox	KY	Onsite	N
				SERO	4	Redstone Arsenal	AL	Contiguous	N
				USAR	3	88th RRC - Twinsburg USARC	OH	Onsite	N
<i>Myrsine juddii</i>	Kolea	E	Plant	PAC	1	Kawailoa Training Area	HI	Onsite	N
<i>Neonympha mitchellii francisci</i>	Butterfly, Saint Francis' satyr	E	Insect	SERO	4	Fort Bragg	GA	Onsite	N
<i>Neraudia angulata</i>	Ma'aloa	E	Plant	PAC	1	Makua Military Reservation	HI	Onsite	N
<i>Neraudia ovata</i>	No common name	E	Plant	PAC	1	Pohakuloa Training Area	HI	Onsite	N
<i>Nicrophorus americanus</i>	Beetle, American burying	E	Insect	AMC	2	McAlester AAP	OK	Onsite	N
				ARNG	2	Camp Gruber Training Site	OK	Onsite	N
				ARNG	2	Camp Maxey	TX	Onsite	N
				ARNG	4	Fort Chaffee	AR	Onsite	N
<i>Nototrichium humile</i>	Kulu`i	E	Plant	PAC	1	Makua Military Reservation	HI	Onsite	N
<i>Notropis topeka</i>	Shiner, Topeka	E	Fish	NWRO	6	Fort Riley	KS	Onsite	N
<i>Oncorhynchus clarki henshawi</i>	Trout, Lahontan cutthroat	T	Fish	AMC	1	Hawthorne Army Depot	NV	Contiguous	N
<i>Oncorhynchus mykiss</i>	Steelhead (Southern California)	E	Fish	ARNG	1	Camp Roberts	CA	Onsite	N
<i>Oncorhynchus mykiss</i>	Steelhead (Southern California)	E	Fish	ARNG	1	Camp San Luis Obispo	CA	Onsite	N
<i>Oncorhynchus mykiss</i>	Steelhead (Lower Columbia River)	T	Fish	NWRO	1	Fort Lewis	WA	Onsite	N
<i>Oncorhynchus mykiss</i>	Steelhead (Upper Columbia River)	E	Fish	NWRO	1	Yakima Training Center	WA	Onsite	N
<i>Oncorhynchus mykiss</i>	Steelhead (Middle Columbia River)	T	Fish	NWRO	1	Yakima Training Center	WA	Onsite	N
<i>Oncorhynchus mykiss</i>	Steelhead (Central California Coastal)	T	Fish	USAR	1	63rd RRC - Mare Island USAR Center	CA	Contiguous	N
<i>Oncorhynchus mykiss</i>	Steelhead (Central Valley California)	T	Fish	USAR	1	63rd RRC - Mare Island USAR Center	CA	Contiguous	N
<i>Oncorhynchus tshawytscha</i>	Salmon, chinook (Puget Sound)	T	Fish	NWRO	1	Fort Lewis	WA	Onsite	N
<i>Oncorhynchus tshawytscha</i>	Salmon, chinook (Snake River)	T	Fish	NWRO	1	Yakima Training Center	WA	Onsite	N
<i>Oncorhynchus tshawytscha</i>	Salmon, chinook (Sacramento River - winter run)	E	Fish	USAR	1	63rd RRC - Mare Island USAR Center	CA	Contiguous	N



Scientific Name (Genus, species)	Common Name	Federal Listing Status	Category	IMA Region/ MACOM	FWS Region	Installation	State	Onsite/ Contiguous	Critical Habitat Onsite
<i>Oncorhynchus tshawytscha</i>	Salmon, Chinook (Central Valley Spring Run)	T	Fish	USAR	1	63rd RRC - Mare Island USAR Center	CA	Contiguous	N
<i>Oncorhynchus tshawytscha</i>	Salmon, chinook (Puget Sound)	T	Fish	USAR	1	70th RRC-Pier 23	WA	Onsite	N
<i>Orcinu orca</i>	Whale, southern resident killer	E	Mammal	NWRO	1	Fort Lewis	WA	Contiguous	N
				USAR	1	70th RRC-Pier 23	WA	Contiguous	N
<i>Ottoschulzia rhodoxylon</i>	Palo de rosa	E	Plant	SERO	4	Fort Buchanan	PR	Onsite	N
<i>Palaemonias alabamae</i>	Shrimp, Alabama cave	E	Crustacean	SERO	4	Redstone Arsenal	AL	Onsite	N
<i>Panicum niihauense</i>	Lau `ehu	E	Plant	ARNG	1	Kekaha Wets	HI	Onsite	Y
<i>Panthera onca</i>	Jaguar	E	Mammal	SWRO	2	White Sands Missile Range	NM	Onsite	N
<i>Pelecanus occidentalis</i>	Pelican, Brown	E	Bird	ARNG	1	Warrenton/Camp Rilea	OR	Contiguous	N
				SWRO	2	White Sands Missile Range	NM	Onsite	N
				USAR	1	63rd RRC - Moss Landing and LTA-Marina	CA	Onsite	N
<i>Percina rex</i>	Logperch, Roanoke	E	Fish	ARNG	5	Fort Pickett	VA	Onsite	N
<i>Phyllostegia hirsuta</i>	No common name	E	Plant	PAC	1	Kawailoa Training Area	HI	Onsite	N
				PAC	1	Schofield Barracks	HI	Onsite	N
<i>Phyllostegia kaalaensis</i>	No common name	E	Plant	PAC	1	Makua Military Reservation	HI	Onsite	N
				PAC	1	Schofield Barracks	HI	Onsite	N
<i>Phyllostegia mollis</i>	No common name	E	Plant	PAC	1	Schofield Barracks	HI	Onsite	N
<i>Picoides borealis</i>	Woodpecker, Red-cockaded	E	Bird	ARNG	4	Camp Beauregard	LA	Contiguous	N
				ARNG	4	Camp Blanding	FL	Onsite	N
				ARNG	4	Camp Shelby	MS	Contiguous	N
				ARNG	4	Leesburg Training Site	SC	Onsite	N
				SERO	4	Fort Benning	GA	Onsite	N
				SERO	4	Fort Bragg	GA	Onsite	N
				SERO	4	Fort Gordon	GA	Onsite	N
SERO	4	Fort Jackson	SC	Onsite	N				

Scientific Name (Genus, species)	Common Name	Federal Listing Status	Category	IMA Region/ MACOM	FWS Region	Installation	State	Onsite/ Contiguous	Critical Habitat Onsite
<i>Picoides borealis (cont'd)</i>	Woodpecker, Red-cockaded			SERO	4	Fort Stewart	GA	Onsite	N
				SERO	4	Military Ocean Tml Sunny Point	NC	Onsite	N
				SWRO	4	Fort Polk	LA	Onsite	N
<i>Piperia Yadonii</i>	Piperia, Yadon's	E	Plant	SWRO	1	Presidio Of Monterey	CA	Onsite	N
<i>Pituophis melanoleucus lodingi</i>	Snake, black pine	C	Reptile	ARNG	4	Camp Shelby	MS	Onsite	N
<i>Pituophis ruthveni</i>	Snake, Louisiana Pine	C	Reptile	SWRO	4	Fort Polk	LA	Onsite	N
<i>Plantago princeps</i>	Kuahiwi laukahi	E	Plant	PAC	1	Schofield Barracks	HI	Onsite	N
<i>Polites mardon</i>	Skipper, Mardon	C	Insect	NWRO	1	Fort Lewis	WA	Onsite	N
<i>Polysticta stellari</i>	Eider, Stellar's	T	Bird	ARNG	7	Chevak Armory	AK	Contiguous	N
				ARNG	7	Kwigillingok Scout Armory	AK	Contiguous	N
<i>Portulaca sclerocarpa</i>	Po`e	E	Plant	PAC	1	Pohakuloa Training Area	HI	Onsite	N
<i>Pritchardia kaalae</i>	Lo`ulu	E	Plant	PAC	1	Makua Military Reservation	HI	Onsite	N
<i>Pseudobahia peirsonii</i>	Sunburst, San Joaquin adobe	T	Plant	USAR	1	63rd RRC - AFRC Fresno	CA	Contiguous	N
<i>Pseudocopaeodes eunus obscurus</i>	Skipper, Carson wandering	E	Insect	AMC	1	Sierra Army Depot	CA	Contiguous	N
<i>Pteris lidgatei</i>	No common name	E	Plant	PAC	1	Kawailoa Training Area	HI	Onsite	N
				PAC	1	Schofield Barracks	HI	Onsite	N
<i>Ptilimnium nodosum</i>	Harperella	E	Plant	ARNG	5	BG Thomas B. Baker TS	MD	Onsite	N
<i>Puma concolor coryi</i>	Panther, Florida	E	Mammal	ARNG	4	Camp Blanding	FL	Onsite	N
<i>Pyrgulopsis thompsoni</i>	Springsnail, Huachuca	C	Snail	SWRO	2	Fort Huachuca	AZ	Onsite	N
<i>Rana aurora draytonii</i>	Frog , California red-legged	T	Amphibian	ARNG	1	Camp San Luis Obispo	CA	Onsite	N
				SWRO	1	Fort Hunter Liggett	CA	Contiguous	N
				SWRO	1	Parks RFTA	CA	Onsite	N
				USAR	1	63rd RRC - PFC Bacciglieri	CA	Contiguous	N
<i>Rhadine exilis</i>	Ground beetle	E	Insect	SWRO	2	Fort Sam Houston	TX	Onsite	N
<i>Rhadine infernalis</i>	Ground beetle	E	Insect	SWRO	2	Fort Sam Houston	TX	Onsite	N

Scientific Name (Genus, species)	Common Name	Federal Listing Status	Category	IMA Region/ MACOM	FWS Region	Installation	State	Onsite/ Contiguous	Critical Habitat Onsite
<i>Rhododendron chapmanii</i>	Rhododendron, Chapman	E	Plant	ARNG	4	Camp Blanding	FL	Onsite	N
<i>Rhus michauxii</i>	Sumac, Michaux's	E	Plant	ARNG	5	Fort Pickett	VA	Onsite	N
				SERO	4	Fort Bragg	GA	Onsite	N
<i>Salvelinus confluentus</i>	Trout, bull	T	Fish	NWRO	1	Fort Lewis	WA	Onsite	N
				NWRO	1	Yakima Training Center	WA	Contiguous	N
				USAR	1	70th RRC-Pier 23	WA	Onsite	N
<i>Sanicula mariversa</i>	No common name	E	Plant	PAC	1	Makua Military Reservation	HI	Onsite	N
<i>Sanicula purpurea</i>	No common name	E	Plant	PAC	1	Kawailoa Training Area	HI	Onsite	N
				PAC	1	Schofield Barracks	HI	Onsite	N
<i>Scaphirhynchus albus</i>	Sturgeon, pallid	E	Fish	NWRO	6	Fort Leavenworth	KS	Onsite	N
<i>Schiedea adamantis</i>	Schiedea, diamond head	E	Plant	ARNG	1	Fort Ruger	HI	Onsite	N
<i>Schiedea hookeri</i>	No common name	E	Plant	PAC	1	Schofield Barracks	HI	Onsite	N
<i>Schiedea kaalae</i>	No common name	E	Plant	PAC	1	Makua Military Reservation	HI	Onsite	N
				PAC	1	Schofield Barracks	HI	Onsite	N
<i>Schiedea nuttallii</i>	No common name	E	Plant	PAC	1	Makua Military Reservation	HI	Onsite	N
<i>Schwalbea americana</i>	Chaffseed, American	E	Plant	SERO	4	Fort Bragg	GA	Onsite	N
<i>Scutellaria montana</i>	Skullcap, large-flowered	T	Plant	ARNG	4	Catoosa Range/TS	TN	Onsite	N
<i>Sesbania tomentosa</i>	Ohai	E	Plant	ARNG	1	Kanaio Wets	HI	Onsite	N
<i>Sidalcea nelsoniana</i>	Checker-mallow, Nelson's	T	Plant	ARNG	1	Corvallis/Camp Adair	OR	Onsite	N
<i>Silene hawaiiensis</i>	No common name	T	Plant	PAC	1	Pohakuloa Training Area	HI	Onsite	N
<i>Silene lanceolata</i>	No common name	E	Plant	PAC	1	Pohakuloa Training Area	HI	Onsite	N
<i>Sistrurus catenatus catenatus</i>	Massasauga, eastern	C	Reptile	ARNG	3	Camp Grayling	MI	Onsite	N
<i>Solanum incompletum</i>	Popolo ku mai	E	Plant	PAC	1	Pohakuloa Training Area	HI	Onsite	N
<i>Solidago houghtonii</i>	Goldenrod, Houghton's	T	Plant	ARNG	3	Camp Grayling	MI	Onsite	N
<i>Somateria fischeri</i>	Eider, Spectacled	T	Bird	ARNG	7	Elim Armory	AK	Contiguous	N

Scientific Name (Genus, species)	Common Name	Federal Listing Status	Category	IMA Region/ MACOM	FWS Region	Installation	State	Onsite/ Contiguous	Critical Habitat Onsite
<i>Somateria fischeri</i> (cont'd)	Eider, Spectacled			ARNG	7	Shaktoolik Armory	AK	Onsite	N
				ARNG	7	St Michael Armory	AK	Contiguous	N
				ARNG	7	Stebbins Armory	AK	Onsite	N
				ARNG	7	Stewart River Training Area	AK	Contiguous	N
				ARNG	7	Unalakleet Armory	AK	Onsite	N
<i>Spermolepis hawaiiensis</i>	No common name	E	Plant	ARNG	1	Fort Ruger	HI	Onsite	Y
				PAC	1	Makua Military Reservation	HI	Onsite	N
				PAC	1	Pohakuloa Training Area	HI	Onsite	N
<i>Speyeria zerene hippolyta</i>	Butterfly, Oregon silverspot	T	Insect	ARNG	1	Warrenton/Camp Rilea	OR	Onsite	Y
<i>Spiranthes diluvialis</i>	Ladies'-tresses, Ute	T	Plant	NWRO	6	Fort Carson	CO	Contiguous	N
<i>Stenogyne angustifolia</i> var. <i>angustifolia</i>	No common name	E	Plant	PAC	1	Pohakuloa Training Area	HI	Onsite	N
<i>Stenogyne kanehoana</i>	No common name	E	Plant	PAC	1	Schofield Barracks	HI	Onsite	N
<i>Sterna antillarum</i>	Tern, Least	E	Bird	ARNG	3	HQ STARC	MO	Contiguous	N
				ARNG	5	Sea Girt/Oms 25	NJ	Onsite	N
				NWRO	6	Fort Riley	KS	Onsite	N
				SWRO	2	White Sands Missile Range	NM	Onsite	N
<i>Strix occidentalis caurina</i>	Owl, Northern Spotted	T	Bird	ARNG	1	Corvallis/Camp Adair	OR	Contiguous	N
				ARNG	1	Warrenton/Camp Rilea	OR	Contiguous	N
				NWRO	1	Fort Lewis	WA	Contiguous	Y
				USAR	1	70th RRC - Vail Tree Farm & Weyhauser LTA	WA	Onsite	N
<i>Strix occidentalis lucida</i>	Owl, Mexican Spotted	T	Bird	ARNG	2	Camp Navajo	AZ	Onsite	Y
				NWRO	6	Fort Carson	CO	Contiguous	N
				SWRO	2	Fort Huachuca	AZ	Onsite	N
				SWRO	2	White Sands Missile Range	NM	Contiguous	N
<i>Tetramolopium arenarium</i>	No common name	E	Plant	PAC	1	Pohakuloa Training Area	HI	Onsite	N

Scientific Name (Genus, species)	Common Name	Federal Listing Status	Category	IMA Region/ MACOM	FWS Region	Installation	State	Onsite/ Contiguous	Critical Habitat Onsite
<i>Tetramolopium filiforme</i>	No common name	E	Plant	PAC	1	Makua Military Reservation	HI	Onsite	N
<i>Tetraplasandra gymnocarpa</i>	Ohe`ohe	E	Plant	PAC	1	Kahuku Training Area	HI	Onsite	N
				PAC	1	Kawailoa Training Area	HI	Onsite	N
<i>Thomomys mazama</i>	Pocket gopher, Mazama	C	Mammal	NWRO	1	Fort Lewis	WA	Onsite	N
<i>Tiaroga cobitis</i>	Minnow, loach	T	Fish	SWRO	2	Fort Huachuca	AZ	Contiguous	N
<i>Trichechus manatus</i>	Manatee, West Indian	E	Mammal	SERO	4	Military Ocean Tml Sunny Point	NC	Contiguous	N
<i>Trifolium stoloniferum</i>	Clover, running buffalo	E	Plant	AMC	4	Blue Grass Army Depot	KY	Onsite	N
				ARNG	5	Kingwood	WV	Onsite	N
<i>Trillium reliquum</i>	Trillium, relict	E	Plant	SERO	4	Fort Benning	GA	Onsite	N
<i>Urera kaalae</i>	Opuhe	E	Plant	PAC	1	Schofield Barracks	HI	Onsite	N
<i>Viola chamissoniana ssp. chamissoniana</i>	Pamakani	E	Plant	PAC	1	Makua Military Reservation	HI	Onsite	N
				PAC	1	Schofield Barracks	HI	Onsite	N
<i>Viola oahuensis</i>	No common name	E	Plant	PAC	1	Kawailoa Training Area	HI	Onsite	N
				PAC	1	Schofield Barracks	HI	Onsite	N
<i>Vireo atricapillus</i>	Vireo, Black-capped	E	Bird	ARNG	2	Camp Bowie	TX	Onsite	N
				SWRO	2	Fort Hood	TX	Onsite	N
				SWRO	2	Fort Sam Houston	TX	Onsite	N
				SWRO	2	Fort Sill	OK	Onsite	N
<i>Vireo bellii pusillus</i>	Vireo, Least Bell's	E	Bird	ARNG	1	Camp Roberts	CA	Contiguous	N
				ARNG	1	Camp San Luis Obispo	CA	Onsite	N
				SWRO	1	Fort Hunter Liggett	CA	Contiguous	N
<i>Vulpes macrotis mutica</i>	Fox, San Joaquin kit	E	Mammal	ARNG	1	Camp Roberts	CA	Onsite	N
				SWRO	1	Fort Hunter Liggett	CA	Onsite	N
				SWRO	1	Parks RFTA	CA	Contiguous	N
				USAR	1	63rd RRC - Quinones AFRC	CA	Contiguous	N
<i>Xyris tennesseensis</i>	Grass, Tennessee yellow-eyed	E	Plant	AMC	4	Anniston Army Depot	AL	Onsite	N



Scientific Name (Genus, species)	Common Name	Federal Listing Status	Category	IMA Region/ MACOM	FWS Region	Installation	State	Onsite/ Contiguous	Critical Habitat Onsite
<i>Xyris tennesseensis</i> (cont'd)	Grass, Tennessee yellow-eyed			ARNG	4	Fort McClellan	AL	Onsite	N
<i>Zanthoxylum hawaiiense</i>	A`e	E	Plant	PAC	1	Pohakuloa Training Area	HI	Onsite	N
<i>Zapus hudsonius preblei</i>	Mouse, Preble's meadow jumping	T	Mammal	ARNG	6	Douglas Armory	WY	Contiguous	N

## **Appendix C: TES & Installations Where Recorded - Sorted by Common Name**

Common Name	Scientific Name (Genus species)	Federal Listing Status	Category	IMA		FWS Region	Installation	Onsite/ State Contiguous		Critical Habitat Onsite
				Region/ MACOM	Region					
`Akoko	<i>Chamaesyce rockii</i>	E	Plant	PAC	1	Kawailoa Training Area	HI	Onsite	N	
`Akoko	<i>Chamaesyce celastroides</i> <i>var. kaenana</i>	E	Plant	PAC	1	Makua Military Reservation	HI	Onsite	N	
`Akoko	<i>Chamaesyce herbstii</i>	E	Plant	PAC	1	Makua Military Reservation	HI	Onsite	N	
`Akoko	<i>Chamaesyce rockii</i>	E	Plant	PAC	1	Schofield Barracks	HI	Onsite	N	
A`e	<i>Zanthoxylum hawaiiense</i>	E	Plant	PAC	1	Pohakuloa Training Area	HI	Onsite	N	
Alani	<i>Melicope lydgatei</i>	E	Plant	PAC	1	Kawailoa Training Area	HI	Onsite	N	
Alligator, American	<i>Alligator mississippiensis</i>	T(S/A)	Reptile	AMC	2	Lone Star AAP	TX	Onsite	N	
				ARNG	4	Camp Blanding	FL	Onsite	N	
				ARNG	4	Camp Shelby	MS	Onsite	N	
				SERO	4	Fort Benning	GA	Onsite	N	
				SERO	4	Fort Gordon	GA	Onsite	N	
				SERO	4	Military Ocean Tml Sunny Point	NC	Onsite	N	
Amaranth, Seabeach	<i>Amaranthus pumilus</i>	T	Plant	ARNG	5	Sea Girt/Oms 25	NJ	Onsite	N	
Amole, purple	<i>Chlorogalum purpureum</i>	T	Plant	ARNG	1	Camp Roberts	CA	Onsite	N	
				SWRO	1	Fort Hunter Liggett	CA	Onsite	N	
Anaunau	<i>Lepidium arbuscula</i>	E	Plant	PAC	1	Makua Military Reservation	HI	Onsite	N	
				PAC	1	Schofield Barracks	HI	Onsite	N	
Aupaka	<i>Isodendrion longifolium</i>	T	Plant	PAC	1	Schofield Barracks	HI	Onsite	N	
Bat, gray	<i>Myotis grisescens</i>	E	Mammal	AMC	4	Blue Grass Army Depot	KY	Contiguous	N	
				AMC	4	Holston AAP	TN	Onsite	N	
				ARNG	4	Fort McClellan	AL	Onsite	N	
				ARNG	4	Greenville, Utes2	KY	Contiguous	N	
				BRAC	3	Indiana AAP	IN	Onsite	N	
				NWRO	3	Fort Leonard Wood	MO	Onsite	N	
				SERO	4	Fort Campbell	KY	Onsite	N	
				SERO	4	Fort Knox	KY	Onsite	N	
				SERO	4	Fort Rucker	AL	Contiguous	N	
				SERO	4	Redstone Arsenal	AL	Onsite	N	
Bat, Hawaiian hoary	<i>Lasiurus cinereus semotus</i>	E	Mammal	ARNG	1	Hilo (Keaukaha) Military Rsrvtm	HI	Onsite	N	
				PAC	1	Pohakuloa Training Area	HI	Onsite	N	
Bat, Indiana	<i>Myotis sodalis</i>	E	Mammal	AMC	4	Blue Grass Army Depot	KY	Contiguous	N	
				AMC	3	Iowa AAP	IA	Onsite	N	
				AMC	3	Newport Chemical Depot	IN	Onsite	N	
				ARNG	3	Camp Atterbury	IN	Onsite	N	
				ARNG	3	Macon Training Site	MO	Onsite	N	
				BRAC	3	Indiana AAP	IN	Onsite	N	
				NERO	5	Fort Drum	NY	Contiguous	N	
				NERO	5	Picatinny Arsenal	NJ	Onsite	N	
				NWRO	3	Fort Leonard Wood	MO	Onsite	N	
				SERO	4	Fort Campbell	KY	Onsite	N	
				SERO	4	Fort Knox	KY	Onsite	N	
SERO	4	Redstone Arsenal	AL	Contiguous	N					

Common Name	Scientific Name (Genus species)	Federal Listing Status	Category	IMA		FWS Region	Installation	Onsite/ State Contiguous		Critical Habitat Onsite
				Region/ MACOM						
Bat, Indiana (cont'd)				USAR	3	88th RRC - Twinsburg USARC	OH	Onsite	N	
Bat, lesser long-nosed	<i>Leptonycteris curasoae yerbabuena</i>	E	Mammal	SWRO	2	Fort Huachuca	AZ	Onsite	N	
Bear-poppy, Dwarf	<i>Arcomecon humilis</i>	E	Plant	ARNG	6	St George/Oms 10b	UT	Onsite	N	
Beetle, American burying	<i>Nicrophorus americanus</i>	E	Insect	AMC	2	McAlester AAP	OK	Onsite	N	
				ARNG	2	Camp Gruber Training Site	OK	Onsite	N	
				ARNG	2	Camp Maxey	TX	Onsite	N	
				ARNG	4	Fort Chaffee	AR	Onsite	N	
Beetle, valley elderberry longhorn	<i>Desmocerus californicus dimorphus</i>	T	Insect	AMC	1	Riverbank AAP	CA	Contiguous	N	
Boa, Puerto Rican	<i>Epicrates inornatus</i>	E	Reptile	SERO	4	Fort Buchanan	PR	Onsite	N	
Butterfly, Fender's blue	<i>Icaricia icarioides fenderi</i>	E	Insect	ARNG	1	Corvallis/Camp Adair	OR	Contiguous	N	
Butterfly, Karner blue	<i>Lycaeides melissa samuelis</i>	E	Insect	ARNG	5	State Military Reservation	NH	Onsite	N	
				NWRO	3	Fort McCoy	WI	Onsite	N	
Butterfly, Oregon silverspot	<i>Speyeria zerene hippolyta</i>	T	Insect	ARNG	1	Warrenton/Camp Rilea	OR	Onsite	Y	
Butterfly, Saint Francis' satyr	<i>Neonympha mitchellii francisci</i>	E	Insect	SERO	4	Fort Bragg	GA	Onsite	N	
Butterfly, Whulge Checkerspot	<i>Euphydryas editha taylori</i>	C	Insect	NWRO	1	Fort Lewis	WA	Onsite	N	
Button, Mohr's Barbara's	<i>Marshallia mohrii</i>	T	Plant	ARNG	4	Fort McClellan	AL	Onsite	N	
Cactus, Kuenzler hedgehog	<i>Echinocereus fendleri var. kuenzleri</i>	E	Plant	SWRO	2	Fort Bliss	TX- NM	Onsite	N	
Cactus, Sneed pincushion	<i>Coryphantha sneedii var. sneedii</i>	E	Plant	SWRO	2	Fort Bliss	TX- NM	Onsite	N	
Cavefish, Ozark	<i>Amblyopsis rosae</i>	T	Fish	ARNG	3	Camp Crowder	MO	Contiguous	N	
Chaffseed, American	<i>Schwalbea americana</i>	E	Plant	SERO	4	Fort Bragg	GA	Onsite	N	
Checker-mallow, Nelson's	<i>Sidalcea nelsoniana</i>	T	Plant	ARNG	1	Corvallis/Camp Adair	OR	Onsite	N	
Clover, running buffalo	<i>Trifolium stoloniferum</i>	E	Plant	AMC	4	Blue Grass Army Depot	KY	Onsite	N	
				ARNG	5	Kingwood	WV	Onsite	N	
Condor, California	<i>Gymnogyps californianus</i>	E	Bird	ARNG	1	Camp Roberts	CA	Contiguous	N	
				ARNG	1	Camp San Luis Obispo	CA	Onsite	N	
				SWRO	1	Fort Hunter Liggett	CA	Onsite	N	
Coneflower, smooth	<i>Echinacea laevigata</i>	E	Plant	ARNG	4	Leesburg Training Site	SC	Onsite	N	
				SERO	4	Fort Jackson	SC	Onsite	N	
Coot, Hawaiian	<i>Fulica americana alai</i>	E	Bird	ARNG	1	Fort Ruger	HI	Onsite	N	
				ARNG	1	Ukumehame Wets	HI	Onsite	N	
Crane, Whooping	<i>Grus americana</i>	E	Bird	SWRO	2	Fort Hood	TX	Onsite	N	
Cuckoo, Yellow-billed	<i>Coccyzus americanus</i>	C	Bird	SWRO	2	Fort Huachuca	AZ	Onsite	N	
				SWRO	2	White Sands Missile Range	NM	Onsite	N	
Daisy, basalt	<i>Erigeron basalticus</i>	C	Plant	NWRO	1	Yakima Training Center	WA	Onsite	N	
Damselfly, orangeblack Hawaiian	<i>Megalagrion xanthomelas</i>	C	Insect	PAC	1	Tripler Army Medical Center	HI	Onsite	N	
Darter, Arkansas	<i>Etheostoma cragini</i>	C	Fish	NWRO	6	Fort Carson	CO	Onsite	N	

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		Status	Category						
Darter, Maryland	<i>Etheostoma sellare</i>	E	Fish	NERO	5	Aberdeen Proving Ground	MD	Contiguous	N
Duck, Hawaiian	<i>Anas wyvilliana</i>	E	Bird	ARNG	1	Fort Ruger	HI	Onsite	N
				ARNG	1	Ukumehame Wets	HI	Onsite	N
Eagle, Bald	<i>Haliaeetus leucocephalus</i>	T	Bird	AMC	4	Blue Grass Army Depot	KY	Contiguous	N
				AMC	6	Deseret Chemical Depot	UT	Contiguous	N
				AMC	1	Hawthorne Army Depot	NV	Onsite	N
				AMC	4	Holston AAP	TN	Onsite	N
				AMC	3	Newport Chemical Depot	IN	Onsite	N
				ARNG	3	(Clinton) Truman Reservoir TS	MO	Onsite	N
				ARNG	6	Camp Ashland	NE	Onsite	N
				ARNG	3	Camp Atterbury	IN	Onsite	N
				ARNG	4	Camp Blanding	FL	Onsite	N
				ARNG	3	Camp Crowder	MO	Contiguous	N
				ARNG	3	Camp Grayling	MI	Onsite	N
				ARNG	6	Camp Guernsey	WY	Onsite	N
				ARNG	4	Camp J.T. Robinson	AR	Contiguous	N
				ARNG	1	Camp Murray	WA	Onsite	N
				ARNG	3	Camp Perry	OH	Onsite	N
				ARNG	3	Camp Ripley	MN	Onsite	N
				ARNG	1	Camp Roberts	CA	Onsite	N
				ARNG	5	Camp Smith Training Site	NY	Contiguous	N
				ARNG	1	Corvallis/Camp Adair	OR	Contiguous	N
				ARNG	4	Fort Chaffee	AR	Contiguous	N
				ARNG	5	Fort Pickett	VA	Onsite	N
				ARNG	3	HQ STARC	MO	Onsite	N
				ARNG	3	Macon Training Site	MO	Onsite	N
				ARNG	1	Warrenton/Camp Rilea	OR	Onsite	N
				BRAC	3	Ravenna AAP	OH	Contiguous	N
				BRAC	6	Rocky Mountain Arsenal	CO	Onsite	N
				BRAC	3	Savanna Depot Activity	IL	Onsite	N
BRAC	3	Sunflower AAP	MO	Contiguous	N				
NERO	5	Aberdeen Proving Ground	MD	Onsite	N				
NERO	5	Adelphi Laboratory Center	MD	Onsite	N				
NERO	5	Devens Reserve Training Facility	MA	Contiguous	N				
NERO	5	Fort A P Hill	VA	Onsite	N				
NERO	5	Fort Belvoir	VA	Onsite	N				
NERO	5	Fort Dix	NJ	Onsite	N				
NERO	5	Fort Eustis	VA	Onsite	N				
NERO	5	Fort Lee	VA	Contiguous	N				



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				Region/ MACOM	Region			State	Contiguous	
Eagle, Bald (con'td)				NERO	5	West Point Mil Reservation	NY	Onsite	N	
				NWRO	6	Dugway Proving Ground	UT	Contiguous	N	
				NWRO	6	Fort Carson	CO	Contiguous	N	
				NWRO	6	Fort Leavenworth	KS	Onsite	N	
				NWRO	3	Fort Leonard Wood	MO	Onsite	N	
				NWRO	1	Fort Lewis	WA	Onsite	N	
				NWRO	3	Fort McCoy	WI	Onsite	N	
				NWRO	6	Fort Riley	KS	Onsite	N	
				NWRO	3	Rock Island Arsenal	IL	Onsite	N	
				NWRO	1	Yakima Training Center	WA	Onsite	N	
				SERO	4	Fort Benning	GA	Onsite	N	
				SERO	4	Fort Gordon	GA	Contiguous	N	
				SERO	4	Fort Knox	KY	Onsite	N	
				SERO	4	Fort Rucker	AL	Contiguous	N	
				SERO	4	Fort Stewart	GA	Onsite	N	
				SERO	4	Military Ocean Tml Sunny Point	NC	Onsite	N	
				SERO	4	Redstone Arsenal	AL	Onsite	N	
				SWRO	2	Fort Bliss	TX- NM	Onsite	N	
				SWRO	2	Fort Hood	TX	Onsite	N	
				SWRO	1	Fort Hunter Liggett	CA	Onsite	N	
SWRO	2	White Sands Missile Range	NM	Onsite	N					
USAR	2	70th RRC - Vail Tree Farm	WA	Onsite	N					
Eider, Spectacled	<i>Somateria fischeri</i>	T	Bird	ARNG	7	Elim Armory	AK	Contiguous	N	
				ARNG	7	Shaktoolik Armory	AK	Onsite	N	
				ARNG	7	St Michael Armory	AK	Contiguous	N	
				ARNG	7	Stebbins Armory	AK	Onsite	N	
				ARNG	7	Stewart River Training Area	AK	Contiguous	N	
				ARNG	7	Unalakleet Armory	AK	Onsite	N	
Eider, Stellar's	<i>Polysticta stellari</i>	T	Bird	ARNG	7	Chevak Armory	AK	Contiguous	N	
				ARNG	7	Kwigillingok Scout Armory	AK	Contiguous	N	
Elepaio, Oahu	<i>Chasiempis sandwichensis ibidis</i>	E	Bird	PAC	1	Makua Military Reservation	HI	Onsite	Y	
				PAC	1	Schofield Barracks	HI	Onsite	Y	
Fairy shrimp, vernal pool	<i>Branchinecta lynchi</i>	T	Crustacean	ARNG	1	Camp Roberts	CA	Onsite	N	
				SWRO	1	Fort Hunter Liggett	CA	Onsite	N	
				USAR	1	63rd RRC - BT Collins Enclave	CA	Onsite	N	
Falcon, Northern Aplomado	<i>Falco femoralis septentrionalis</i>	E	Bird	SWRO	2	Fort Bliss	TX- NM	Onsite	N	
				SWRO	2	White Sands Missile Range	NM	Onsite	N	
Fleabane, lemmon	<i>Erigeron lemmonii</i>	C	Plant	SWRO	2	Fort Huachuca	AZ	Onsite	N	
Flycatcher, Southwestern Willow	<i>Empidonax traillii extimus</i>	E	Bird	SWRO	2	Fort Huachuca	AZ	Contiguous	N	

Common Name	Scientific Name (Genus species)	Federal Listing Status	Category	IMA Region/ MACOM	FWS Region	Installation	State	Onsite/ Contiguous	Critical Habitat Onsite
Flycatcher, Southwestern Willow (cont'd)				SWRO	2	White Sands Missile Range	NM	Contiguous	N
Fox, San Joaquin kit	<i>Vulpes macrotis mutica</i>	E	Mammal	ARNG	1	Camp Roberts	CA	Onsite	N
				SWRO	1	Fort Hunter Liggett	CA	Onsite	N
				SWRO	1	Parks RFTA	CA	Contiguous	N
				USAR	1	63rd RRC - Quinones AFRC	CA	Contiguous	N
Frog , California red- legged	<i>Rana aurora draytonii</i>	T	Amphibian	ARNG	1	Camp San Luis Obispo	CA	Onsite	N
				SWRO	1	Fort Hunter Liggett	CA	Contiguous	N
				SWRO	1	Parks RFTA	CA	Onsite	N
				USAR	1	63rd RRC - PFC Bacciglieri	CA	Contiguous	N
Gilia, Monterey	<i>Gilia tenuiflora ssp.arenaria</i>	E	Plant	USAR	1	63rd RRC - Moss Landing LTA and Marina	CA	Contiguous	N
Goldenrod, Houghton's	<i>Solidago houghtonii</i>	T	Plant	ARNG	3	Camp Grayling	MI	Onsite	N
Goose, Hawaiian	<i>Branta sandvicensis</i>	E	Bird	ARNG	1	Ukumehame Wets	HI	Onsite	N
Grass, Tennessee yellow-eyed	<i>Xyris tennesseensis</i>	E	Plant	AMC	4	Anniston Army Depot	AL	Onsite	N
				ARNG	4	Fort McClellan	AL	Onsite	N
Ground beetle	<i>Rhadine exilis</i>	E	Insect	SWRO	2	Fort Sam Houston	TX	Onsite	N
Ground beetle	<i>Rhadine infernalis</i>	E	Insect	SWRO	2	Fort Sam Houston	TX	Onsite	N
Grouse, Greater Sage	<i>Centrocercus urophasianus phaios</i>	C	Bird	NWRO	1	Yakima Training Center	WA	Onsite	N
Ha`iwale	<i>Cyrtandra dentata</i>	E	Plant	PAC	1	Kawailoa Training Area	HI	Onsite	N
Ha`iwale	<i>Cyrtandra viridiflora</i>	E	Plant	PAC	1	Kawailoa Training Area	HI	Onsite	N
Ha`iwale	<i>Cyrtandra dentata</i>	E	Plant	PAC	1	Makua Military Reservation	HI	Onsite	N
Ha`iwale	<i>Cyrtandra subumbellata</i>	E	Plant	PAC	1	Schofield Barracks	HI	Onsite	N
Ha`iwale	<i>Cyrtandra viridiflora</i>	E	Plant	PAC	1	Schofield Barracks	HI	Onsite	N
Haha	<i>Cyanea koolauensis</i>	E	Plant	PAC	1	Kahuku Training Area	HI	Onsite	N
Haha	<i>Cyanea acuminata</i>	E	Plant	PAC	1	Kawailoa Training Area	HI	Onsite	N
Haha	<i>Cyanea humboldtiana</i>	E	Plant	PAC	1	Kawailoa Training Area	HI	Onsite	N
Haha	<i>Cyanea koolauensis</i>	E	Plant	PAC	1	Kawailoa Training Area	HI	Onsite	N
Haha	<i>Cyanea st-johnii</i>	E	Plant	PAC	1	Kawailoa Training Area	HI	Onsite	N
Haha	<i>Cyanea grimesiana ssp. obatae</i>	E	Plant	PAC	1	Makua Military Reservation	HI	Onsite	N
Haha	<i>Cyanea longiflora</i>	E	Plant	PAC	1	Makua Military Reservation	HI	Onsite	N
Haha	<i>Cyanea acuminata</i>	E	Plant	PAC	1	Schofield Barracks	HI	Onsite	N
Haha	<i>Cyanea grimesiana ssp. obatae</i>	E	Plant	PAC	1	Schofield Barracks	HI	Onsite	N
Haha	<i>Cyanea koolauensis</i>	E	Plant	PAC	1	Schofield Barracks	HI	Onsite	N
Haha	<i>Delissea subcordata</i>	E	Plant	PAC	1	Schofield Barracks	HI	Onsite	N
Harperella	<i>Ptilimnium nodosum</i>	E	Plant	ARNG	5	BG Thomas B. Baker TS	MD	Onsite	N
Hawk, Hawaiian	<i>Buteo solitarius</i>	E	Bird	ARNG	1	Hilo (Keaukaha) Military Rsrvt	HI	Onsite	N

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		Listing		Region/			State	Contiguous	
		Status		MACOM	Region				Onsite
Honohono	<i>Haplostachys haplostachya</i>	E	Plant	PAC	1	Pohakuloa Training Area	HI	Onsite	N
Howellia, water	<i>Howellia aquatilis</i>	T	Plant	NWRO	1	Fort Lewis	WA	Onsite	N
Jaguar	<i>Panthera onca</i>	E	Mammal	SWRO	2	White Sands Missile Range	NM	Onsite	N
Jay, Florida Scrub	<i>Aphelocoma coerulescens</i>	T	Bird	ARNG	4	Camp Blanding	FL	Onsite	N
Kamakahala	<i>Labordia cyrtandrae</i>	E	Plant	PAC	1	Schofield Barracks	HI	Onsite	N
Kamanomano	<i>Cenchrus agrimonioides</i>	E	Plant	PAC	1	Makua Military Reservation	HI	Onsite	N
Kangaroo rat, Stephens'	<i>Dipodomys stephensi</i>	E	Mammal	USAR	1	63rd RRC - March USARC	CA	Contiguous	N
Kio`ele	<i>Hedyotis coriacea</i>	E	Plant	PAC	1	Pohakuloa Training Area	HI	Onsite	N
Kolea	<i>Myrsine juddii</i>	E	Plant	PAC	1	Kawaiiloa Training Area	HI	Onsite	N
Kuahiwi laukahi	<i>Plantago princeps</i>	E	Plant	PAC	1	Schofield Barracks	HI	Onsite	N
Kulu`i	<i>Nototrichium humile</i>	E	Plant	PAC	1	Makua Military Reservation	HI	Onsite	N
Ladies'-tresses, Ute	<i>Spiranthes diluvialis</i>	T	Plant	NWRO	6	Fort Carson	CO	Contiguous	N
Lark, Streaked Horned	<i>Eremophila alpestris strigata</i>	C	Bird	NWRO	1	Fort Lewis	WA	Onsite	N
Lau`ehu	<i>Panicum niihauense</i>	E	Plant	ARNG	1	Kekaha Wets	HI	Onsite	Y
Lo`ulu	<i>Pritchardia kaalae</i>	E	Plant	PAC	1	Makua Military Reservation	HI	Onsite	N
Logperch, Roanoke	<i>Percina rex</i>	E	Fish	ARNG	5	Fort Pickett	VA	Onsite	N
Loosestrife, rough-leaved	<i>Lysimachia asperulaefolia</i>	E	Plant	ARNG	4	Leesburg Training Site	SC	Onsite	N
				SERO	4	Fort Bragg	GA	Onsite	N
				SERO	4	Fort Jackson	SC	Onsite	N
				SERO	4	Military Ocean Tml Sunny Point	NC	Onsite	N
Lupine, Kincaid's	<i>Lupinus sulphureus kincaidii</i>	T	Plant	ARNG	1	Corvallis/Camp Adair	OR	Onsite	N
Ma`o hau hele	<i>Hibiscus brackenridgei</i>	E	Plant	PAC	1	Makua Military Reservation	HI	Onsite	N
Ma`aloa	<i>Neraudia angulata</i>	E	Plant	PAC	1	Makua Military Reservation	HI	Onsite	N
Mahoe	<i>Alectryon macrococcus</i>	E	Plant	PAC	1	Makua Military Reservation	HI	Onsite	N
				PAC	1	Schofield Barracks	HI	Onsite	N
Manatee, West Indian	<i>Trichechus manatus</i>	E	Mammal	SERO	4	Military Ocean Tml Sunny Point	NC	Contiguous	N
Massasauga, eastern	<i>Sistrurus catenatus catenatus</i>	C	Reptile	ARNG	3	Camp Grayling	MI	Onsite	N
Mehamehame	<i>Flueggea neowawraea</i>	E	Plant	PAC	1	Makua Military Reservation	HI	Onsite	N
				PAC	1	Schofield Barracks	HI	Onsite	N
Meshweaver, Madla's Cave	<i>Cicurina madla</i>	E	Arachnid	SWRO	2	Fort Sam Houston	TX	Onsite	N
Milk-vetch, Lane Mountain	<i>Astragalus jaegerianus</i>	E	Plant	SWRO	1	Fort Irwin	CA	Onsite	N
Minnow, loach	<i>Tiaroga cobitis</i>	T	Fish	SWRO	2	Fort Huachuca	AZ	Contiguous	N
Moorhen, Hawaiian Common	<i>Gallinula chloropus sandvicensis</i>	E	Bird	ARNG	1	Fort Ruger	HI	Onsite	N
				ARNG	1	Ukumehame Wets	HI	Onsite	N
Moth, Blackburn's sphinx	<i>Manduca blackburni</i>	E	Insect	ARNG	1	Kanaio Wets	HI	Onsite	Y

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		Status	Category						
Mouse, Preble's meadow jumping	<i>Zapus hudsonius preblei</i>	T	Mammal	ARNG	6	Douglas Armory	WY	Contiguous	N
Murrelet, Marbled	<i>Brachyramphus marmoratus marmoratus</i>	T	Bird	ARNG	1	Warrenton/Camp Rilea	OR	Contiguous	N
				NWRO	1	Fort Lewis	WA	Contiguous	N
				USAR	1	70th RRC - Vail Tree Farm	WA	Onsite	N
Na`ena`e	<i>Dubautia herbstobatae</i>	E	Plant	PAC	1	Makua Military Reservation	HI	Onsite	N
Nanu	<i>Gardenia mannii</i>	E	Plant	PAC	1	Kahuku Training Area	HI	Onsite	N
				PAC	1	Kawailoa Training Area	HI	Onsite	N
				PAC	1	Schofield Barracks	HI	Onsite	N
Nehe	<i>Lipochaeta tenuifolia</i>	E	Plant	PAC	1	Makua Military Reservation	HI	Onsite	N
Nioi	<i>Eugenia koolauensis</i>	E	Plant	PAC	1	Kahuku Training Area	HI	Onsite	N
No common name	<i>Abutilon sandwicense</i>	E	Plant	PAC	1	Schofield Barracks	HI	Onsite	N
No common name	<i>Alsinidendron obovatum</i>	E	Plant	PAC	1	Makua Military Reservation	HI	Onsite	N
No common name	<i>Alsinidendron trinerve</i>	E	Plant	PAC	1	Schofield Barracks	HI	Onsite	N
No common name	<i>Asplenium fragile var. insulare</i>	E	Plant	PAC	1	Pohakuloa Training Area	HI	Onsite	N
No common name	<i>Cyanea crispa</i>	E	Plant	PAC	1	Kawailoa Training Area	HI	Onsite	N
No common name	<i>Cyanea superba</i>	E	Plant	PAC	1	Makua Military Reservation	HI	Onsite	N
No common name	<i>Diellia falcata</i>	E	Plant	PAC	1	Schofield Barracks	HI	Onsite	N
No common name	<i>Hedyotis degeneri</i>	E	Plant	PAC	1	Makua Military Reservation	HI	Onsite	N
No common name	<i>Hedyotis parvula</i>	E	Plant	PAC	1	Makua Military Reservation	HI	Onsite	N
No common name	<i>Hesperomannia arborescens</i>	E	Plant	PAC	1	Kawailoa Training Area	HI	Onsite	N
						Schofield Barracks	HI	Onsite	N
No common name	<i>Hesperomannia arbuscula</i>	E	Plant	PAC	1	Makua Military Reservation	HI	Onsite	N
No common name	<i>Hesperomannia arbuscula</i>	E	Plant	PAC	1	Makua Military Reservation	HI	Onsite	N
No common name	<i>Lobelia gaudichaudii ssp. koolauensis</i>	E	Plant	PAC	1	Schofield Barracks	HI	Onsite	N
No common name	<i>Lycopodium nutans</i>	E	Plant	PAC	1	Kawailoa Training Area	HI	Onsite	N
						Schofield Barracks	HI	Onsite	N
No common name	<i>Neraudia ovata</i>	E	Plant	PAC	1	Pohakuloa Training Area	HI	Onsite	N
No common name	<i>Phyllostegia hirsuta</i>	E	Plant	PAC	1	Kawailoa Training Area	HI	Onsite	N
						Schofield Barracks	HI	Onsite	N
No common name	<i>Phyllostegia kaalaensis</i>	E	Plant	PAC	1	Makua Military Reservation	HI	Onsite	N
						Schofield Barracks	HI	Onsite	N
No common name	<i>Phyllostegia mollis</i>	E	Plant	PAC	1	Schofield Barracks	HI	Onsite	N
No common name	<i>Pteris lidgatei</i>	E	Plant	PAC	1	Kawailoa Training Area	HI	Onsite	N
						Schofield Barracks	HI	Onsite	N
No common name	<i>Sanicula mariversa</i>	E	Plant	PAC	1	Makua Military Reservation	HI	Onsite	N

Common Name	Scientific Name (Genus species)	Federal Listing Status	Category	IMA Region/ MACOM	FWS Region	Installation	Onsite/ State Contiguous		Critical Habitat Onsite
No common name	<i>Sanicula purpurea</i>	E	Plant	PAC	1	Kawailoa Training Area	HI	Onsite	N
						Schofield Barracks	HI	Onsite	N
No common name	<i>Schiedea hookeri</i>	E	Plant	PAC	1	Schofield Barracks	HI	Onsite	N
No common name	<i>Schiedea kaalae</i>	E	Plant	PAC	1	Makua Military Reservation	HI	Onsite	N
						Schofield Barracks	HI	Onsite	N
No common name	<i>Schiedea nuttallii</i>	E	Plant	PAC	1	Makua Military Reservation	HI	Onsite	N
No common name	<i>Silene hawaiiensis</i>	T	Plant	PAC	1	Pohakuloa Training Area	HI	Onsite	N
No common name	<i>Silene lanceolata</i>	E	Plant	PAC	1	Pohakuloa Training Area	HI	Onsite	N
No common name	<i>Spermolepis hawaiiensis</i>	E	Plant	ARNG	1	Fort Ruger	HI	Onsite	Y
						Makua Military Reservation	HI	Onsite	N
						Pohakuloa Training Area	HI	Onsite	N
No common name	<i>Stenogyne angustifolia</i> var. <i>angustifolia</i>	E	Plant	PAC	1	Pohakuloa Training Area	HI	Onsite	N
No common name	<i>Stenogyne kanehoana</i>	E	Plant	PAC	1	Schofield Barracks	HI	Onsite	N
No common name	<i>Tetramolopium arenarium</i>	E	Plant	PAC	1	Pohakuloa Training Area	HI	Onsite	N
No common name	<i>Tetramolopium filiforme</i>	E	Plant	PAC	1	Makua Military Reservation	HI	Onsite	N
No common name	<i>Viola oahuensis</i>	E	Plant	PAC	1	Kawailoa Training Area	HI	Onsite	N
						Schofield Barracks	HI	Onsite	N
Oha	<i>Delissea subcordata</i>	E	Plant	PAC	1	Makua Military Reservation	HI	Onsite	N
Ohai	<i>Sesbania tomentosa</i>	E	Plant	ARNG	1	Kanaio Wets	HI	Onsite	N
Ohe	<i>Joinvillea ascendens ascendens</i>	C	Plant	PAC	1	Schofield Barracks	HI	Onsite	N
Ohe`ohe	<i>Tetraplasandra gymnocarpa</i>	E	Plant	PAC	1	Kahuku Training Area	HI	Onsite	N
				PAC	1	Kawailoa Training Area	HI	Onsite	N
Opuhe	<i>Urera kaalae</i>	E	Plant	PAC	1	Schofield Barracks	HI	Onsite	N
Otter, southern sea	<i>Enhydra lutris nereis</i>	T	Mammal	USAR	1	63rd RRC - Moss Landing and LTA-Marina	CA	Onsite	N
Owl, Mexican Spotted	<i>Strix occidentalis lucida</i>	T	Bird	ARNG	2	Camp Navajo	AZ	Onsite	Y
				NWRO	6	Fort Carson	CO	Contiguous	N
				SWRO	2	Fort Huachuca	AZ	Onsite	N
				SWRO	2	White Sands Missile Range	NM	Contiguous	N
Owl, Northern Spotted	<i>Strix occidentalis caurina</i>	T	Bird	ARNG	1	Corvallis/Camp Adair	OR	Contiguous	N
				ARNG	1	Warrenton/Camp Rilea	OR	Contiguous	N
				NWRO	1	Fort Lewis	WA	Contiguous	Y
				USAR	1	70th RRC - Vail Tree Farm & Weyhauser LTA	WA	Onsite	N
Paintbrush, golden	<i>Castilleja levisecta</i>	T	Plant	NWRO	1	Fort Lewis	WA	Contiguous	N
Palila	<i>Loxioides bailleui</i>	E	Bird	PAC	1	Pohakuloa Training Area	HI	Contiguous	Y

Common Name	Scientific Name (Genus species)	Federal Listing		IMA Region/ MACOM	FWS Region	Installation	Onsite/ State Contiguous		Critical Habitat Onsite
		Status	Category						
Palo de rosa	<i>Ottoschulzia rhodoxylon</i>	E	Plant	SERO	4	Fort Buchanan	PR	Onsite	N
Pamakani	<i>Viola chamissoniana ssp. chamissoniana</i>	E	Plant	PAC	1	Makua Military Reservation	HI	Onsite	N
				PAC	1	Schofield Barracks	HI	Onsite	N
Panther, Florida	<i>Puma concolor coryi</i>	E	Mammal	ARNG	4	Camp Blanding	FL	Onsite	N
Pearlymussel, Higgins' eye	<i>Lampsilis higginsii</i>	E	Clam	BRAC	3	Savanna Depot Activity	IL	Onsite	N
Pelican, Brown	<i>Pelecanus occidentalis</i>	E	Bird	ARNG	1	Warrenton/Camp Rilea	OR	Contiguous	N
				SWRO	2	White Sands Missile Range	NM	Onsite	N
				USAR	1	63rd RRC - Moss Landing and LTA-Marina	CA	Onsite	N
Pennyroyal, Todsens	<i>Hedeoma todsenii</i>	E	Plant	SWRO	2	White Sands Missile Range	NM	Onsite	Y
Pink, swamp	<i>Helonias bullata</i>	T	Plant	NERO	5	Fort A P Hill	VA	Onsite	N
Piperia, Yadon's	<i>Piperia Yadonii</i>	E	Plant	SWRO	1	Presidio Of Monterey	CA	Onsite	N
Plover, Piping	<i>Charadrius melodus</i>	T	Bird	ARNG	6	Camp Grafton	ND	Contiguous	N
				ARNG	6	Garrison TS	ND	Contiguous	N
				ARNG	5	Sea Girt/Oms 25	NJ	Onsite	N
				ARNG	6	Williston TS	ND	Contiguous	N
				NWRO	6	Fort Riley	KS	Onsite	N
Plover, Western Snowy	<i>Charadrius alexandrinus nivosus</i>	T	Bird	ARNG	1	Warrenton/Camp Rilea	OR	Contiguous	N
				USAR	1	63rd RRC - Moss Landing LTA	CA	Contiguous	N
Po'e	<i>Portulaca sclerocarpa</i>	E	Plant	PAC	1	Pohakuloa Training Area	HI	Onsite	N
Pocket gopher, Mazama	<i>Thomomys mazama</i>	C	Mammal	NWRO	1	Fort Lewis	WA	Onsite	N
Pogonia, small whorled	<i>Isotria medeoloides</i>	E	Plant	ARNG	5	Auburn Training Site	ME	Onsite	N
				ARNG	5	NHNG Training Site	NH	Onsite	N
				NERO	5	Fort A P Hill	VA	Onsite	N
				NERO	5	Fort Belvoir	VA	Onsite	N
Popolo ku mai	<i>Solanum incompletum</i>	E	Plant	PAC	1	Pohakuloa Training Area	HI	Onsite	N
Potato-bean, Price's	<i>Apios priceana</i>	T	Plant	SERO	4	Redstone Arsenal	AL	Onsite	N
Prairie dog, Utah	<i>Cynomys parvidens</i>	T	Mammal	ARNG	6	Cedar City	UT	Contiguous	N
Pu`uka`a	<i>Cyperus trachysanthos</i>	E	Plant	ARNG	1	Fort Ruger	HI	Onsite	Y
Pupu kuahiwi	<i>Achatinella apexfulva</i>	E	Snail	PAC	1	Kawailoa Training Area	HI	Onsite	N
Pupu kuahiwi	<i>Achatinella bulimoides</i>	E	Snail	PAC	1	Kawailoa Training Area	HI	Onsite	N
Pupu kuahiwi	<i>Achatinella byronii</i>	E	Snail	PAC	1	Kawailoa Training Area	HI	Onsite	N
Pupu kuahiwi	<i>Achatinella lila</i>	E	Snail	PAC	1	Kawailoa Training Area	HI	Onsite	N
Pupu kuahiwi	<i>Achatinella livida</i>	E	Snail	PAC	1	Kawailoa Training Area	HI	Onsite	N
Pupu kuahiwi	<i>Achatinella sowerbyana</i>	E	Snail	PAC	1	Kawailoa Training Area	HI	Onsite	N
Pupu kuahiwi	<i>Achatinella mustelina</i>	E	Snail	PAC	1	Makua Military Reservation	HI	Onsite	N
Pupu kuahiwi	<i>Achatinella byronii</i>	E	Snail	PAC	1	Schofield Barracks	HI	Onsite	N



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		Status	Category		Region	Installation	State	Contiguous	
Pupu kuahiwi	<i>Achatinella mustelina</i>	E	Snail	PAC	1	Schofield Barracks	HI	Onsite	N
Pupu kuahiwi	<i>Achatinella sowerbyana</i>	E	Snail	PAC	1	Schofield Barracks	HI	Onsite	N
Quillwort, Louisiana	<i>Isoetes louisianensis</i>	E	Plant	ARNG	4	Camp Shelby	MS	Onsite	N
Rhododendron, Chapman	<i>Rhododendron chapmanii</i>	E	Plant	ARNG	4	Camp Blanding	FL	Onsite	N
Salamander, California tiger	<i>Ambystoma californiense</i>	T	Amphibian	SWRO	1	Fort Hunter Liggett	CA	Contiguous	N
				SWRO	1	Parks RFTA	CA	Onsite	N
Salamander, flatwoods	<i>Ambystoma cingulatum</i>	T	Amphibian	SERO	4	Fort Stewart	GA	Onsite	N
Salamander, Sonora tiger	<i>Ambystoma tigrinum stebbinsi</i>	E	Amphibian	SWRO	2	Fort Huachuca	AZ	Onsite	N
Salmon, chinook (Puget Sound)	<i>Oncorhynchus tshawytscha</i>	T	Fish	NWRO	1	Fort Lewis	WA	Onsite	N
Salmon, chinook (Snake River)	<i>Oncorhynchus tshawytscha</i>	T	Fish	NWRO	1	Yakima Training Center	WA	Onsite	N
Salmon, chinook (Puget Sound)	<i>Oncorhynchus tshawytscha</i>	T	Fish	USAR	1	70th RRC-Pier 23	WA	Onsite	N
Salmon, chinook (Sacramento River - winter run)	<i>Oncorhynchus tshawytscha</i>	E	Fish	USAR	1	63rd RRC - Mare Island USAR Center	CA	Contiguous	N
Salmon, Chinook (Central Valley Spring Run)	<i>Oncorhynchus tshawytscha</i>	T	Fish	USAR	1	63rd RRC - Mare Island USAR Center	CA	Contiguous	N
Schiedea, diamond head	<i>Schiedea adamantis</i>	E	Plant	ARNG	1	Fort Ruger	HI	Onsite	N
Sea-lion, Steller	<i>Eumetopias jubatus</i>	T	Mammal	ARNG	1	Warrenton/Camp Rilea	OR	Contiguous	N
Shiner, Topeka	<i>Notropis topeka</i>	E	Fish	NWRO	6	Fort Riley	KS	Onsite	N
Shrike, San Clemente Loggerhead	<i>Lanius ludovicianus mearnsi</i>	E	Bird	USAR	1	63rd RRC - March USARC	CA	Contiguous	N
Shrimp, Alabama cave	<i>Palaemonias alabamae</i>	E	Crustacean	SERO	4	Redstone Arsenal	AL	Onsite	N
Skipper, Carson wandering	<i>Pseudocopaesodes eunus obscurus</i>	E	Insect	AMC	1	Sierra Army Depot	CA	Contiguous	N
Skipper, Mardon	<i>Polites mardon</i>	C	Insect	NWRO	1	Fort Lewis	WA	Onsite	N
Skullcap, large- flowered	<i>Scutellaria montana</i>	T	Plant	ARNG	4	Catoosa Range/TS	TN	Onsite	N
Smelt, delta	<i>Hypomesus transpacificus</i>	T	Fish	USAR	1	63rd RRC - Mare Island USAR Center	CA	Contiguous	N
Snail, Morro shoulderband	<i>Helminthoglypta walkeriana</i>	E	Snail	ARNG	1	Camp San Luis Obispo	CA	Contiguous	N
Snake, black pine	<i>Pituophis melanoleucus lodingi</i>	C	Reptile	ARNG	4	Camp Shelby	MS	Onsite	N
Snake, eastern indigo	<i>Drymarchon corais couperi</i>	T	Reptile	ARNG	4	Camp Blanding	FL	Onsite	N
				SERO	4	Fort Stewart	GA	Onsite	N
Snake, Louisiana Pine	<i>Pituophis ruthveni</i>	C	Reptile	SWRO	4	Fort Polk	LA	Onsite	N
Spikedace	<i>Meda fulgida</i>	T	Fish	SWRO	2	Fort Huachuca	AZ	Contiguous	N
Spineflower, Monterey	<i>Chorizanthe pungens var. pungens</i>	T	Plant	BRAC	1	Fort Ord	CA	Onsite	N
				USAR	1	63rd RRC - Moss Landing and LTA- Marina	CA	Onsite	N
Spineflower, Robust (incl. Scotts Valley)	<i>Chorizanthe robusta (incl. vars. robusta &amp; hartwegii)</i>	E	Plant	USAR	1	63rd RRC - Moss Landing and LTA- Marina	CA	Onsite	N

Common Name	Scientific Name (Genus species)	Federal Listing		IMA Region/ MACOM	FWS		Onsite/ State Contiguous		Critical Habitat Onsite
		Status	Category		Region	Installation	State	Contiguous	
Spineflower, San Fernado Valley	<i>Chorizanthe parryi fernandina</i>	C	Plant	USAR	1	63rd RRC - Tustin	CA	Contiguous	N
Springsnail, Huachuca	<i>Pyrgulopsis thompsoni</i>	C	Snail	SWRO	2	Fort Huachuca	AZ	Onsite	N
Steelhead (Southern California)	<i>Oncorhynchus mykiss</i>	E	Fish	ARNG	1	Camp Roberts	CA	Onsite	N
Steelhead (Southern California)	<i>Oncorhynchus mykiss</i>	E	Fish	ARNG	1	Camp San Luis Obispo	CA	Onsite	N
Steelhead (Upper Columbia River)	<i>Oncorhynchus mykiss</i>	E	Fish	NWRO	1	Yakima Training Center	WA	Onsite	N
Steelhead (Middle Columbia River)	<i>Oncorhynchus mykiss</i>	T	Fish	NWRO	1	Yakima Training Center	WA	Onsite	N
Steelhead (Central California Coastal)	<i>Oncorhynchus mykiss</i>	T	Fish	USAR	1	63rd RRC - Mare Island USAR Center	CA	Contiguous	N
Steelhead (Central Valley California)	<i>Oncorhynchus mykiss</i>	T	Fish	USAR	1	63rd RRC - Mare Island USAR Center	CA	Contiguous	N
Steelhead (Lower Columbia River)	<i>Oncorhynchus mykiss</i>	T	Fish	NWRO	1	Fort Lewis	WA	Onsite	N
Stilt, Hawaiian	<i>Himantopus mexicanus knudseni</i>	E	Bird	ARNG	1	Kekaha Wets	HI	Onsite	N
				ARNG	1	Ukumehame Wets	HI	Onsite	N
Stork, Wood	<i>Mycteria americana</i>	E	Bird	ARNG	4	Camp Blanding	FL	Onsite	N
				SERO	4	Fort Benning	GA	Onsite	N
				SERO	4	Fort Gordon	GA	Contiguous	N
				SERO	4	Fort Stewart	GA	Onsite	N
Sturgeon, green	<i>Acipenser medirostris</i>	T	Fish	USAR	1	63rd RRC - Mare Island USAR Center	CA	Contiguous	N
Sturgeon, pallid	<i>Scaphirhynchus albus</i>	E	Fish	NWRO	6	Fort Leavenworth	KS	Onsite	N
Sturgeon, shortnose	<i>Acipenser brevirostrum</i>	E	Fish	ARNG	5	Camp Smith Training Site	NY	Contiguous	N
				NERO	5	Aberdeen Proving Ground	MD	Onsite	N
				NERO	5	West Point Mil Reservation	NY	Contiguous	N
				SERO	4	Fort Stewart	GA	Onsite	N
Sumac, Michaux's	<i>Rhus michauxii</i>	E	Plant	ARNG	5	Fort Pickett	VA	Onsite	N
				SERO	4	Fort Bragg	GA	Onsite	N
Sunburst, San Joaquin adobe	<i>Pseudobahia peirsonii</i>	T	Plant	USAR	1	63rd RRC - AFRC Fresno	CA	Contiguous	N
Tarplant, Santa Cruz	<i>Holocarpha macradenia</i>	T	Plant	ARNG	1	Santa Cruz Armory	CA	Onsite	Y
Tern, Least	<i>Sterna antillarum</i>	E	Bird	ARNG	3	HQ STARC	MO	Contiguous	N
				ARNG	5	Sea Girt/Oms 25	NJ	Onsite	N
				NWRO	6	Fort Riley	KS	Onsite	N
				SWRO	2	White Sands Missile Range	NM	Onsite	N
Thistle, Chorro Creek bog	<i>Cirsium fontinale var.obispoense</i>	E	Plant	ARNG	1	Camp San Luis Obispo	CA	Onsite	N
Thornmint, San Mateo	<i>Acanthomintha obovata ssp. Duttonii</i>	E	Plant	SWRO	1	Fort Hunter Liggett	CA	Contiguous	N
Toad, Arroyo	<i>Bufo californicus</i>	E	Amphibian	SWRO	1	Fort Hunter Liggett	CA	Onsite	N
Tortoise, desert	<i>Gopherus agassizii</i>	T	Reptile	ARNG	1	Clark County Complex	NV	Contiguous	N
		T(S/A)	Reptile	ARNG	2	Florence Mil Rsvrtn	AZ	Onsite	N
		T	Reptile	SWRO	1	Fort Irwin	CA	Onsite	Y
		T	Reptile	USAR	1	63rd RRC - Victorville USAR Center and ASF	CA	Contiguous	N
Tortoise, gopher	<i>Gopherus polyphemus</i>	T	Reptile	ARNG	4	Camp Shelby	MS	Onsite	N

Common Name	Scientific Name (Genus species)	Federal Listing		IMA Region/ MACOM	FWS Region	Installation	Onsite/ State Contiguous		Critical Habitat Onsite	
		Status	Category				State	Contiguous		
Trillium, relict	<i>Trillium reliquum</i>	E	Plant	SERO	4	Fort Benning	GA	Onsite	N	
Trout, bull	<i>Salvelinus confluentus</i>	T	Fish	NWRO	1	Fort Lewis	WA	Onsite	N	
				NWRO	1	Yakima Training Center	WA	Contiguous	N	
				USAR	1	70th RRC-Pier 23	WA	Onsite	N	
Trout, Lahontan cutthroat	<i>Oncorhynchus clarki henshawi</i>	T	Fish	AMC	1	Hawthorne Army Depot	NV	Contiguous	N	
Turtle, bog	<i>Clemmys muhlenbergii</i>	T	Reptile	NERO	5	Picatinny Arsenal	NJ	Contiguous	N	
Turtle, green sea	<i>Chelonia mydas</i>	T	Reptile	SERO	4	Military Ocean Tml Sunny Point	NC	Contiguous	N	
Turtle, Kemp's ridley sea	<i>Lepidochelys kempii</i>	E	Reptile	SERO	4	Military Ocean Tml Sunny Point	NC	Contiguous	N	
Turtle, leatherback sea	<i>Dermochelys coriacea</i>	E	Reptile	SERO	4	Military Ocean Tml Sunny Point	NC	Contiguous	N	
Turtle, loggerhead sea	<i>Caretta caretta</i>	T	Reptile	SERO	4	Military Ocean Tml Sunny Point	NC	Contiguous	N	
Vireo, Black-capped	<i>Vireo atricapillus</i>	E	Bird	ARNG	2	Camp Bowie	TX	Onsite	N	
				SWRO	2	Fort Hood	TX	Onsite	N	
				SWRO	2	Fort Sam Houston	TX	Onsite	N	
				SWRO	2	Fort Sill	OK	Onsite	N	
Vireo, Least Bell's	<i>Vireo bellii pusillus</i>	E	Bird	ARNG	1	Camp Roberts	CA	Contiguous	N	
				ARNG	1	Camp San Luis Obispo	CA	Onsite	N	
				SWRO	1	Fort Hunter Liggett	CA	Contiguous	N	
Warbler, Golden-cheeked	<i>Dendroica chrysoparia</i>	E	Bird	ARNG	2	Camp Mabry	TX	Onsite	N	
				SWRO	2	Fort Hood	TX	Onsite	N	
				SWRO	2	Fort Sam Houston	TX	Onsite	N	
Warbler, Kirtland's	<i>Dendroica kirtlandii</i>	E	Bird	ARNG	3	Camp Grayling	MI	Onsite	N	
Water-umbel, Huachuca	<i>Lilaeopsis schaffneriana ssp.recurva</i>	E	Plant	SWRO	2	Fort Huachuca	AZ	Onsite	Y	
Whale, southern resident killer	<i>Orcinu orca</i>	E	Mammal	NWRO	1	Fort Lewis	WA	Contiguous	N	
				USAR	1	70th RRC-Pier 23	WA	Contiguous	N	
Wolf, gray	<i>Canis lupus</i>	T	Mammal	ARNG	3	Camp Ripley	MN	Onsite	N	
				E	NWRO	3	Fort McCoy	WI	Onsite	N
				E	SWRO	2	White Sands Missile Range	NM	Contiguous	N
Woodpecker, Red-cockaded	<i>Picooides borealis</i>	E	Bird	ARNG	4	Camp Beauregard	LA	Contiguous	N	
				ARNG	4	Camp Blanding	FL	Onsite	N	
				ARNG	4	Camp Shelby	MS	Contiguous	N	
				ARNG	4	Leesburg Training Site	SC	Onsite	N	
				SERO	4	Fort Benning	GA	Onsite	N	
				SERO	4	Fort Bragg	GA	Onsite	N	
				SERO	4	Fort Gordon	GA	Onsite	N	
				SERO	4	Fort Jackson	SC	Onsite	N	
				SERO	4	Fort Stewart	GA	Onsite	N	
				SERO	4	Military Ocean Tml Sunny Point	NC	Onsite	N	
SWRO	4	Fort Polk	LA	Onsite	N					

## **Appendix D: Installations with T&E Species Onsite**

<b>TIM Region/ MACOM</b>	<b>Installation</b>	<b>State</b>	<b>TIM Region/ MACOM</b>	<b>Installation</b>	<b>State</b>
AMC	Anniston Army Depot	AL	ARNG	Camp San Luis Obispo	CA
AMC	Blue Grass Army Depot	KY	ARNG	Camp Shelby	MS
AMC	Hawthorne Army Depot	NV	ARNG	Catoosa Range/TS	TN
AMC	Holston AAP	TN	ARNG	Corvallis/Camp Adair	OR
AMC	Iowa AAP	IA	ARNG	Florence Mil Rsrvtn	AZ
AMC	Lone Star AAP	TX	ARNG	Fort Chaffee	AR
AMC	McAlester AAP	OK	ARNG	Fort McClellan	AL
AMC	Newport Chemical Depot	IN	ARNG	Fort Pickett	VA
ARNG	(Clinton) Truman Reservoir TS	MO	ARNG	Fort Ruger	HI
ARNG	Auburn Training Site	ME	ARNG	Hilo (Keaukaha) Military Rsrvtn	HI
ARNG	BG Thomas B. Baker TS	MD	ARNG	HQ STARC	MO
ARNG	Camp Ashland	NE	ARNG	Kanaio Wets	HI
ARNG	Camp Atterbury	IN	ARNG	Kekaha Wets	HI
ARNG	Camp Blanding	FL	ARNG	Kingwood	WV
ARNG	Camp Bowie	TX	ARNG	Leesburg Training Site	SC
ARNG	Camp Grayling	MI	ARNG	Macon Training Site	MO
ARNG	Camp Gruber Training Site	OK	ARNG	NHNG Training Site	NH
ARNG	Camp Guernsey	WY	ARNG	Santa Cruz Armory	CA
ARNG	Camp Mabry	TX	ARNG	Sea Girt/Oms 25	NJ
ARNG	Camp Maxey	TX	ARNG	Shaktolik Armory	AK
ARNG	Camp Murray	WA	ARNG	St George/Oms 10b	UT
ARNG	Camp Navajo	AZ	ARNG	State Military Reservation	NH
ARNG	Camp Perry	OH	ARNG	Stebbins Armory	AK
ARNG	Camp Ripley	MN	ARNG	Ukumehame Wets	HI
ARNG	Camp Roberts	CA	ARNG	Unalakleet Armory	AK

<b>TIM Region/ MACOM</b>	<b>Installation</b>	<b>State</b>	<b>TIM Region/ MACOM</b>	<b>Installation</b>	<b>State</b>
ARNG	Warrenton/Camp Rilea	OR	SERO	Fort Benning	GA
BRAC	Fort Ord	CA	SERO	Fort Bragg	GA
BRAC	Indiana AAP	IN	SERO	Fort Buchanan	PR
BRAC	Rocky Mountain Arsenal	CO	SERO	Fort Campbell	KY
BRAC	Savanna Depot Activity	IL	SERO	Fort Gordon	GA
NERO	Aberdeen Proving Ground	MD	SERO	Fort Jackson	SC
NERO	Adelphi Laboratory Center	MD	SERO	Fort Knox	KY
NERO	Fort A P Hill	VA	SERO	Fort Stewart	GA
NERO	Fort Belvoir	VA	SERO	Military Ocean Tml Sunny Point	NC
NERO	Fort Dix	NJ	SERO	Redstone Arsenal	AL
NERO	Fort Eustis	VA	SWRO	Fort Bliss	TX-NM
NERO	Picatinny Arsenal	NJ	SWRO	Fort Hood	TX
NERO	West Point Mil Reservation	NY	SWRO	Fort Huachuca	AZ
NWRO	Fort Leavenworth	KS	SWRO	Fort Hunter Liggett	CA
NWRO	Fort Leonard Wood	MO	SWRO	Fort Irwin	CA
NWRO	Fort Lewis	WA	SWRO	Fort Polk	LA
NWRO	Fort McCoy	WI	SWRO	Fort Sam Houston	TX
NWRO	Fort Riley	KS	SWRO	Fort Sill	OK
NWRO	Rock Island Arsenal	IL	SWRO	Parks RFTA	CA
NWRO	Yakima Training Center	WA	SWRO	Presidio Of Monterey	CA
PAC	Kahuku Training Area	HI	SWRO	White Sands Missile Range	NM
PAC	Kawailoa Training Area	HI	USAR	63rd RRC	CA
PAC	Makua Military Reservation	HI	USAR	70th RRC - Vail Tree Farm	WA
PAC	Pohakuloa Training Area	HI	USAR	88th RRC - Twinsburg USARC	OH
PAC	Schofield Barracks	HI			



## **Appendix E: T&E Species found on Army Installations**

Scientific Name (Genus, species)	Common Name	Federal Listing Status	Scientific Name (Genus, species)	Common Name	Federal Listing Status
<i>Abutilon sandwicense</i>	No common name	E	<i>Branchinecta lynchi</i>	Fairy shrimp, vernal pool	T
<i>Achatinella apexfulva</i>	Pupu kuahiwi	E	<i>Branta sandvicensis</i>	Goose, Hawaiian	E
<i>Achatinella bulimoides</i>	Pupu kuahiwi	E	<i>Bufo californicus</i>	Toad, Arroyo	E
<i>Achatinella byronii</i>	Pupu kuahiwi	E	<i>Buteo solitarius</i>	Hawk, Hawaiian	E
<i>Achatinella lila</i>	Pupu kuahiwi	E	<i>Canis lupus</i>	Wolf, gray	T,E
<i>Achatinella livida</i>	Pupu kuahiwi	E	<i>Cenchrus agrimonioides</i>	Kamanomano	E
<i>Achatinella mustelina</i>	Pupu kuahiwi	E	<i>Chamaesyce celastroides</i> var. <i>kaenana</i>	`Akoko	E
<i>Achatinella sowerbyana</i>	Pupu kuahiwi	E	<i>Chamaesyce herbstii</i>	`Akoko	E
<i>Acipenser brevirostrum</i>	Sturgeon, shortnose	E	<i>Chamaesyce rockii</i>	`Akoko	E
<i>Alectryon macrococcus</i>	Mahoe	E	<i>Charadrius melodus</i>	Plover, piping	T
<i>Alligator mississippiensis</i>	Alligator, American	T(S/A)	<i>Chasiempis sandwichensis ibidis</i>	Elepaio, Oahu	E
<i>Alsinidendron obovatum</i>	No common name	E	<i>Chlorogalum purpureum</i>	Amole, purple	T
<i>Alsinidendron trinerve</i>	No common name	E	<i>Chorizanthe pungens</i> var. <i>pungens</i>	Spineflower, Monterey	T
<i>Amaranthus pumilus</i>	Amaranth, Seabeach	T	<i>Chorizanthe robusta</i> (incl. vars. <i>robusta</i> & <i>hartwegii</i> )	Spineflower, Robust (incl. Scotts Valley)	E
<i>Ambystoma californiense</i>	Salamander, California tiger	T	<i>Cicurina madla</i>	Meshweaver, Madla's Cave	E
<i>Ambystoma cingulatum</i>	Salamander, flatwoods	T	<i>Cirsium fontinale</i> var. <i>obispoense</i>	Thistle, Chorro Creek bog	E
<i>Ambystoma tigrinum stebbinsi</i>	Salamander, Sonora tiger	E	<i>Coryphantha sneedii</i> var. <i>sneedii</i>	Cactus, Sneed pincushion	E
<i>Anas wyvilliana</i>	Duck, Hawaiian	E	<i>Cyanea acuminata</i>	Haha	E
<i>Aphelocoma coerulescens</i>	Jay, Florida scrub	T	<i>Cyanea crispa</i>	No common name	E
<i>Apios priceana</i>	Potato-bean, Price's	T	<i>Cyanea grimesiana</i> ssp. <i>obatae</i>	Haha	E
<i>Arctomecon humilis</i>	Bear-poppy, Dwarf	E	<i>Cyanea humboldtiana</i>	Haha	E
<i>Asplenium fragile</i> var. <i>insulare</i>	No common name	E	<i>Cyanea koolauensis</i>	Haha	E
<i>Astragalus jaegerianus</i>	Milk-vetch, Lane Mountain	E	<i>Cyanea longiflora</i>	Haha	E
<i>Brachyramphus marmoratus</i> <i>marmoratus</i>	Murrelet, marbled	T	<i>Cyanea st-johnii</i>	Haha	E

Scientific Name (Genus, species)	Common Name	Federal Listing Status	Scientific Name (Genus, species)	Common Name	Federal Listing Status
<i>Cyanea superba</i>	No common name	E	<i>Gymnogyps californianus</i>	Condor, California	E
<i>Cyperus trachysanthos</i>	Pu`uka`a	E	<i>Haliaeetus leucocephalus</i>	Eagle, bald	T
<i>Cyrtandra dentata</i>	Ha`iwale	E	<i>Haplostachys haplostachya</i>	Honohono	E
<i>Cyrtandra subumbellata</i>	Ha`iwale	E	<i>Hedeoma todsenii</i>	Pennyroyal, Todsens	E
<i>Cyrtandra viridiflora</i>	Ha`iwale	E	<i>Hedyotis coriacea</i>	Kio`ele	E
<i>Delissea subcordata</i>	Oha	E	<i>Hedyotis degeneri</i>	No common name	E
<i>Dendroica chrysoparia</i>	Warbler, golden-cheeked	E	<i>Hedyotis parvula</i>	No common name	E
<i>Dendroica kirtlandii</i>	Warbler, Kirtland's	E	<i>Helonias bullata</i>	Pink, swamp	T
<i>Diellia falcata</i>	No common name	E	<i>Hesperomannia arborescens</i>	No common name	E
<i>Drymarchon corais couperi</i>	Snake, eastern indigo	T	<i>Hesperomannia arbuscula</i>	No common name	E
<i>Dubautia herbstobatae</i>	Na`ena`e	E	<i>Hibiscus brackenridgei</i>	Ma`o hau hele	E
<i>Echinacea laevigata</i>	Coneflower, smooth	E	<i>Himantopus mexicanus knudseni</i>	Stilt, Hawaiian	E
<i>Echinocereus fendleri</i> var. <i>kuenzleri</i>	Cactus, Kuenzler hedgehog	E	<i>Holocarpha macradenia</i>	Tarplant, Santa Cruz	T
<i>Enhydra lutris nereis</i>	Otter, southern sea	T	<i>Howellia aquatilis</i>	Howellia, water	T
<i>Epicrates inornatus</i>	Boa, Puerto Rican	E	<i>Isodendron longifolium</i>	Aupaka	T
<i>Eugenia koolauensis</i>	Nioi	E	<i>Isoetes louisianensis</i>	Quillwort, Louisiana	E
<i>Falco femoralis septentrionalis</i>	Falcon, northern aplomado	E	<i>Isotria medeoloides</i>	Pogonia, small whorled	E
<i>Flueggea neowawraea</i>	Mehamehame	E	<i>Labordia cyrtandrae</i>	Kamakahala	E
<i>Fulica americana alai</i>	Coot, Hawaiian	E	<i>Lampsilis higginsii</i>	Pearlymussel, Higgins' eye	E
<i>Gallinula chloropus sandvicensis</i>	Moorhen, Hawaiian common	E	<i>Lasiurus cinereus semotus</i>	Bat, Hawaiian hoary	E
<i>Gardenia mannii</i>	Nanu	E	<i>Lepidium arbuscula</i>	Anaunau	E
<i>Gopherus agassizii</i>	Tortoise, desert	T	<i>Leptonycteris curasoae yerbabuena</i>	Bat, lesser long-nosed	E
<i>Gopherus polyphemus</i>	Tortoise, gopher	T	<i>Lilaeopsis schaffneriana</i> ssp. <i>recurva</i>	Water-umbel, Huachuca	E
<i>Grus americana</i>	Crane, whooping	E	<i>Lipochaeta tenuifolia</i>	Nehe	E

Scientific Name (Genus, species)	Common Name	Federal Listing Status	Scientific Name (Genus, species)	Common Name	Federal Listing Status
<i>Lobelia gaudichaudii</i> ssp. <i>koolauensis</i>	No common name	E	<i>Pelecanus occidentalis</i>	Pelican, brown	E
<i>Lupinus sulphureus kincaidii</i>	Lupine, Kincaid's	T	<i>Percina rex</i>	Logperch, Roanoke	E
<i>Lycaeides melissa samuelis</i>	Butterfly, Karner blue	E	<i>Phyllostegia hirsuta</i>	No common name	E
<i>Lycopodium nutans</i>	No common name	E	<i>Phyllostegia kaalaensis</i>	No common name	E
<i>Lysimachia asperulaefolia</i>	Loosestrife, rough- leaved	E	<i>Phyllostegia mollis</i>	No common name	E
<i>Manduca blackburni</i>	Moth, Blackburn's sphinx	E	<i>Picoides borealis</i>	Woodpecker, red- cockaded	E
<i>Marshallia mohrii</i>	Button, Mohr's Barbara's	T	<i>Piperia Yadonii</i>	Piperia, Yadon's Kuahiwi laukahi	E
<i>Melicope lydgatei</i>	Alani	E	<i>Plantago princeps</i>		E
<i>Mycteria americana</i>	Stork, wood	E	<i>Portulaca sclerocarpa</i>	Po`e	E
<i>Myotis grisescens</i>	Bat, gray	E	<i>Pritchardia kaalae</i>	Lo`ulu	E
<i>Myotis sodalis</i>	Bat, Indiana	E	<i>Pteris lidgatei</i>	No common name	E
<i>Myrsine juddii</i>	Kolea	E	<i>Ptilimnium nodosum</i>	Harperella	E
<i>Neonympha mitchellii francisci</i>	Butterfly, Saint Francis' satyr	E	<i>Puma concolor coryi</i>	Panther, Florida	E
<i>Neraudia angulata</i>	Ma'aloa	E	<i>Rana aurora draytonii</i>	Frog , California red- legged	T
<i>Neraudia ovata</i>	No common name	E	<i>Rhadine exilis</i>	Ground beetle	E
<i>Nicrophorus americanus</i>	Beetle, American burying	E	<i>Rhadine infernalis</i>	Ground beetle	E
<i>Nototrichium humile</i>	Kulu`i	E	<i>Rhododendron chapmanii</i>	Rhododendron, Chapman	E
<i>Notropis topeka</i>	Shiner, Topeka	E	<i>Rhus michauxii</i>	Sumac, Michaux's	E
<i>Oncorhynchus mykiss</i>	Steelhead	E	<i>Salvelinus confluentus</i>	Trout, bull	T
<i>Oncorhynchus tshawytscha</i>	Salmon, Chinook	T	<i>Sanicula mariversa</i>	No common name	E
<i>Ottoschulzia rhodoxylon</i>	Palo de rosa	E	<i>Sanicula purpurea</i>	No common name	E
<i>Palaemonias alabamae</i>	Shrimp, Alabama cave	E	<i>Scaphirhynchus albus</i>	Sturgeon, pallid	E
<i>Panicum niihauense</i>	Lau `ehu	E	<i>Schiedea adamantis</i>	Schiedea, diamond head	E
<i>Panthera onca</i>	Jaguar	E	<i>Schiedea hookeri</i>	No common name	E

Scientific Name (Genus, species)	Common Name	Federal Listing Status	Scientific Name (Genus, species)	Common Name	Federal Listing Status
<i>Schiedea kaalae</i>	No common name	E	<i>Viola oahuensis</i>	No common name	E
<i>Schiedea nuttallii</i>	No common name	E	<i>Vireo atricapillus</i>	Vireo, black-capped	E
<i>Schwalbea americana</i>	Chaffseed, American	E	<i>Vireo bellii pusillus</i>	Vireo, least Bell's	E
<i>Scutellaria montana</i>	Skullcap, large-flowered	T	<i>Vulpes macrotis mutica</i>	Fox, San Joaquin kit	E
<i>Sesbania tomentosa</i>	Ohai	E	<i>Xyris tennesseensis</i>	Grass, Tennessee yellow-eyed	E
<i>Sidalcea nelsoniana</i>	Checker-mallow, Nelson's	T	<i>Zanthoxylum hawaiiense</i>	A`e	E
<i>Silene hawaiiensis</i>	No common name	T			
<i>Silene lanceolata</i>	No common name	E			
<i>Solanum incompletum</i>	Popolo ku mai	E			
<i>Solidago houghtonii</i>	Goldenrod, Houghton's	T			
<i>Somateria fischeri</i>	Eider, spectacled	T			
<i>Spermolepis hawaiiensis</i>	No common name	E			
<i>Speyeria zerene hippolyta</i>	Butterfly, Oregon silverspot	T			
<i>Stenogyne angustifolia</i> var. <i>angustifolia</i>	No common name	E			
<i>Stenogyne kanehoana</i>	No common name	E			
<i>Sterna antillarum</i>	Tern, least	E			
<i>Strix occidentalis</i>	Owl, northern & Mexican spotted	T			
<i>Tetramolopium arenarium</i>	No common name	E			
<i>Tetramolopium filiforme</i>	No common name	E			
<i>Tetraplasandra gymnocarpa</i>	Ohe`ohe	E			
<i>Trifolium stoloniferum</i>	Clover, running buffalo	E			
<i>Trillium reliquum</i>	Trillium, relict	E			
<i>Urera kaalae</i>	Opuhe	E			
<i>Viola chamissoniana</i> ssp. <i>chamissoniana</i>	Pamakani	E			