



# DoD Environmental Planning and Conservation Webinar Series



Department of Defense's Participation in the Avian Knowledge Network

October 5, 2022

*Please mute your phones*



Audio Dial-In: 800-300-3070

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Twitter: @DoDNatRes



# *Department of Defense's Participation in the Avian Knowledge Network*

Hosted by: DoD Environmental Planning and Conservation Webinar Series

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US Army Engineer Research and Development Center  
Environmental Lab, Ecological Resources Branch  
Technical Coordinator, DoD Partners in Flight  
Program Director, DoD AKN Program  
Chair, National AKN Steering Committee

**05 October 2022**



**US Army Corps  
of Engineers®**

**AVIAN**  
KNOWLEDGE NETWORK

Unclassified





# AGENDA

## DoD's coordinated and strategic approach to the AKN

### Background/Context

- Need for avian database
- What is the AKN
- How did DoD get involved
- AKN Data Enterprise System
  - Data Management Solution
  - Decision Support Tools

### DoD AKN Program

- DoD endorsement and mandate
- Team & Partners
- Program Management Plan
- OSD & Military Service Actions

### Tasks, Tools & Training

- Data Discovery Survey
- DoD AKN Portal
- Contract Language
- Mission Sensitive Species Initiative
- Training and Support

### DoD Case & Use Studies

### Next steps

### Wrap-up



# Why? Migratory Bird Responsibilities

DoD, as other federal agencies, has significant regulatory, management, and stewardship responsibilities related to migratory birds. These requirements are driven primarily by the Migratory Bird Treaty Act (MBTA), the “Military Readiness Rule” (50 CFR § 21.15) and Executive Order (EO) 13186 “Responsibilities of Federal Agencies to Protect Migratory Birds”. In accordance with EO 13186, the DoD has also established a Memorandum of Understanding with the US Fish and Wildlife Service outlining the management and stewardship activities DoD will implement for migratory bird conservation.

Data and information from ongoing surveys, inventories and monitoring are essential to make informed management decisions, to efficiently and effectively meet regulatory requirements, conduct environmental analyses, and support planning to adaptively manage migratory bird populations in the context of mission activities. As such, the DoD spends millions of dollars annually to collect these data.



# Why? Legal Drivers and Policies

- Migratory Bird Treaty Act (PL 65-186; 16 USC 703 *et seq.*)
- Sikes Act (PL 105-85, as amended through 2004 including PL 108-136; 16 USC 670 *et seq.*)
- Executive Order 13186 *Responsibilities of Federal Agencies to Protect Migratory Birds*
- National Environmental Policy Act, as amended. (PL. 91-190, 42 U.S.C. 4321-4347, as amended by Pub. L. 94-52)
- Endangered Species Act (16 U.S.C. 1531-1544, 87 Stat. 884), as amended – PL. 93-205
- DoD Instruction 4715.03, *Natural Resources Conservation Program*
  - **Prioritize species**
  - **Facilitate and encourage collaboration with partners**
  - **Focus research and planning efforts**
  - **Increase information sharing**





# Why? DoD Data Issues

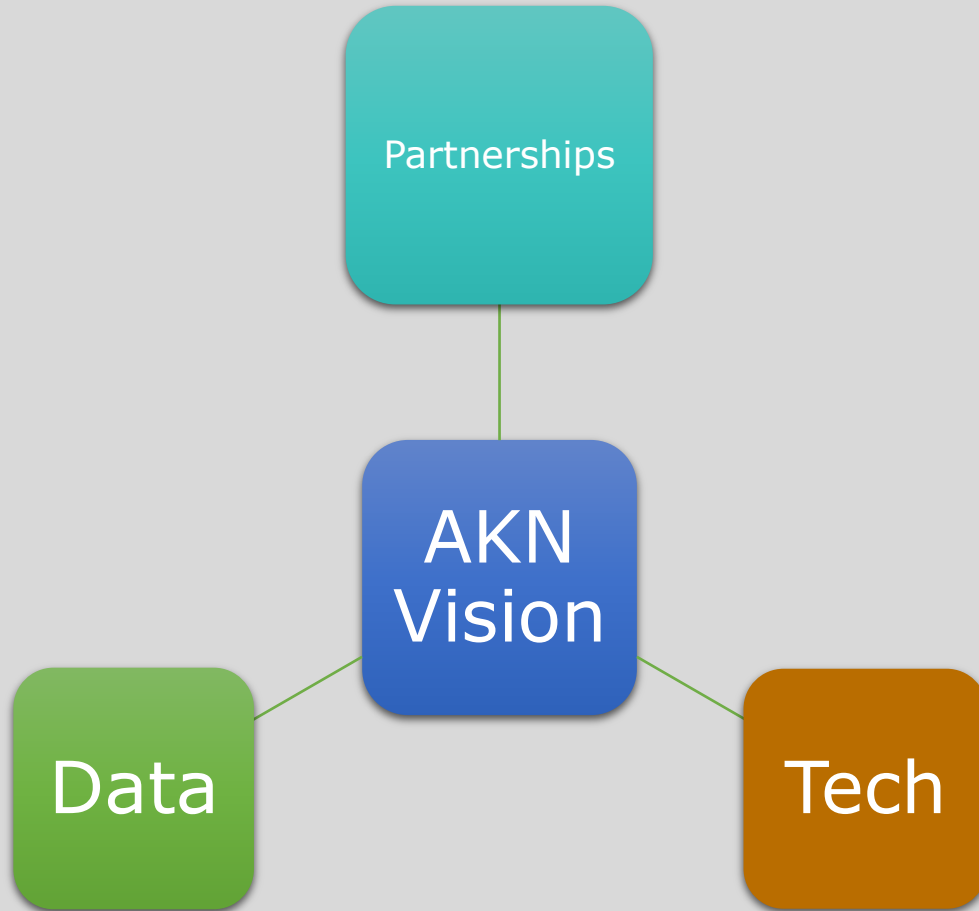
DoD holds large amounts of avian data but faces significant challenges to fully utilize and optimize these data.

These challenges include:

- (1) inefficient access to data for regulatory requirements, environmental analyses, and planning
- (2) a lack of visibility on avian species population trends and management across the Military Services and broader landscapes
- (3) a lack of a centralized, secure data repository resulting data loss during personnel turnover.



# *What?* Avian Knowledge Network



## AKN Mission

Support a network of partnerships, data, and technology to improve bird conservation, management, and research across organizational boundaries and spatial scales.

# What? Avian Knowledge Network



Current sponsors, partners and hosts of the AKN

Arizona Game & Fish

Audubon Rockies

Bird Conservancy of the Rockies

Bird Studies Canada

Bureau of Land Management

Bureau of Ocean Energy Management

Collaborative Forest Landscape Restoration Program

Colorado Parks and Wildlife

Colorado State Land Board

Conabio

Cornell Lab of Ornithology

Federal Highway Administration

Four Forest Restoration Initiative

Great Basin Bird Observatory

Great Northern Landscape Conservation Cooperative

Great Plains Landscape Conservation Cooperative

Integrated Waterbird Management and Monitoring

Intermountain Bird Observatory

Kansas Department of Wildlife, Parks, and Tourism

Klamath Bird Observatory

Lesser Prairie-Chicken Initiative

Montana Fish, Wildlife and Parks

Montana Natural Heritage Program

National Fish and Wildlife Foundation

National Park Service

Nebraska Game and Parks Commission

New Mexico Game and Fish

North Dakota Game and Fish Department

Northern Great Plains Joint Venture

Oaks and Prairies Joint Venture

Oklahoma Department of Wildlife Conservation

Oregon Department of Fish & Wildlife

Pacific Birds Habitat Joint Venture

Pacific Flyway Council

Partners in Flight

Pheasants Forever

Point Blue Conservation Science

Pronatura

Ricketts Conservation Foundation

Rio Grande Joint Venture

RiversEdge West

Sage Grouse Initiative

Sonoran Joint Venture

South Dakota Game, Fish and Parks

Tennessee Wildlife Resources Agency

Texas Parks and Wildlife Department

The Dolores River Restoration Partnership

Tracy Aviary

United States Department of Defense

United States Farm Service Agency

United States Fish & Wildlife Service

United States Forest Service

University of Montana Avian Science Center

USDA Natural Resource Conservation Service

Utah Division of Wildlife Resources

Warren Resources, Inc.

Washington Department of Fish & Wildlife

Western Association of Fish & Wildlife Agencies

World Wildlife Fund

Wyoming Game and Fish Department

Wyoming Natural Diversity Database





# *What?* AKN Data Solutions

Through a series of **data analysis** and **decision-support tools** AKN offers DoD real-time data solutions by





- (1) allowing efficient access to data for regulatory requirements, environmental analyses, and planning
- (2) creating visibility on avian species population trends and management across the Services and broader landscapes and
- (3) offering secure, centralized data repository and archive.



# *How?* Federal Agency Partnership

1. Sponsored by Council for the Conservation of Migratory Birds – 32 federal agencies that participate under Executive Order 13186 on the Responsibilities of Federal Agencies to Protect Migratory Birds
2. Federal Avian Data Center created a National-scale AKN thematic node providing data aggregation and delivery portal, as well as a repository for reporting tools, for Council member agencies.
3. Initial and continuing supporters include US Fish and Wildlife Service, Department of Defense, Bureau of Land Management, National Park Service, US Forest Service, Bureau of Ocean Energy Management, and Federal Highway Administration

# AKN Tool Types

Group Name	Description	Example Tools
 Get Data In	General tools that get your data into the AKN and help you manage those data	Biologists (data entry), Project Leaders (management)
 Discover Data	General tools that let you discover what data sources are available across the AKN	Data Catalog, Data Downloader
 Explore Data	General tools that let you explore, query, and analyze AKN data	Observation Map, Phenology, Analyst
 Make Decisions	Tools leveraging AKN data for specific users, research, or decision support	RAIL, Pacific NW Climate Change, Avian Vul, SNMIS, PLUMA

**AKN**

```
graph TD; AKN[AKN] --> DMS[Data Management Solution]; AKN --> DSS[Decision Support System];
```

The diagram illustrates the relationship between AKN and two other systems. A grey rounded rectangle labeled 'AKN' is at the top left. Two blue arrows originate from its bottom edge and point to the right. The top arrow points to a green rounded rectangle labeled 'Data Management Solution'. The bottom arrow points to an orange rounded rectangle labeled 'Decision Support System'.

**Data Management  
Solution**

**Decision Support  
System**

**AKN**



```
graph LR; AKN[AKN] --> DMS[Data Management Solution]
```

A diagram showing a grey rounded rectangle labeled 'AKN' with a blue arrow pointing down and then right to a green rounded rectangle labeled 'Data Management Solution'.

**Data Management  
Solution**





# Data Types

## *Today:*

- Point Count
- Linear Transects
- Area Search
- Secretive Marshbird
- Colony Counts
- Other specialty surveys

## *Future:*

- BASH
- Banding
- Nest
- Sensor and machine-collected data
- Others - based on partners and funding



# DATA ENTRY AND UPLOAD

## General

Enter the following information about your visit.

[Quick Tips >>](#)

Date ⓘ

2010-06-24

Visit ⓘ

1

Data Sharing ⓘ

RAW

Observer ⓘ

Neipert, Elizabeth

## Points Surveyed

Check the points you surveyed and enter a start time for each (end time will be calculated from protocol definition). Mark here if you visited a point but no species were detected.

[Quick Tips >>](#)

<input type="checkbox"/>	Point ⓘ	Start Time ⓘ	End Time	Detections? ⓘ	Notes ⓘ
<input type="checkbox"/>	FW_222			<input checked="" type="radio"/> yes <input type="radio"/> no	
<input type="checkbox"/>	FW_223			<input checked="" type="radio"/> yes <input type="radio"/> no	
<input type="checkbox"/>	FW_249			<input checked="" type="radio"/> yes <input type="radio"/> no	
<input type="checkbox"/>	FW_279			<input checked="" type="radio"/> yes <input type="radio"/> no	



# DATA ENTRY AND UPLOAD

## Site Conditions

Enter the following data about your visit for this date.

 [Quick Tips >>](#)


### Site Conditions Location

Select each of the points below and fill out the site conditions for each.

(You must first choose at least one point from the Point Surveyed grid above.)


#### WEATHER

Temperature (C) 

Wind Speed (mph) 

Wind Direction 


 


Precipitation 


 

Cloud Cover 

#### OTHER

Ambient Noise Level 

Sunrise 



# DATA ENTRY AND UPLOAD

## Observations

Species observations with details, layout and titles dependent on protocol.















[Quick Tips >>](#)

- ☐ Separate observations on individual rows
- ☐ Scroll observations (not compatible with all browsers)

Observation Protocol: [VCP100Sx](#)

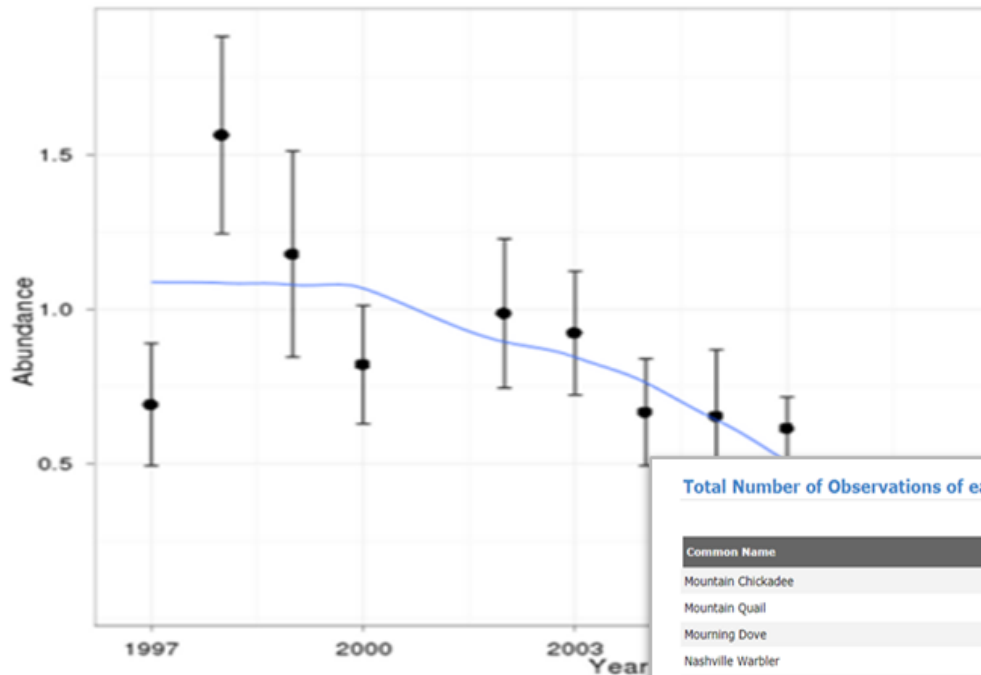
Total Birds Counted: 7

[Download CSV](#)

Point 	Time 	Species 	Time Bin 	Count 	Detection 	Distance 	AnimalSex 	Notes	
DI-10A	07:21	RWBL	1	1	S	52	Male		
DI-10A	07:21	RWBL	1	1	V	52	Male		
DI-10A	07:22	TUVU	2	1	V	FLO			
DI-10A	07:24	LASP	4	1	V	26			
DI-10A	07:24	LASP	4	1	V	94			
DI-10A	07:25	LASP	5	1	C	53			

# TOOLS IF YOU HAVE DATA IN AKN

Trend in Abundance over YearCollected. Generalized additive trend estimate of Abundance by Year with locally weighed (loess) smoother. Estimate for Species = Song Sparrow Using Locally Weighed (loess) Smoother

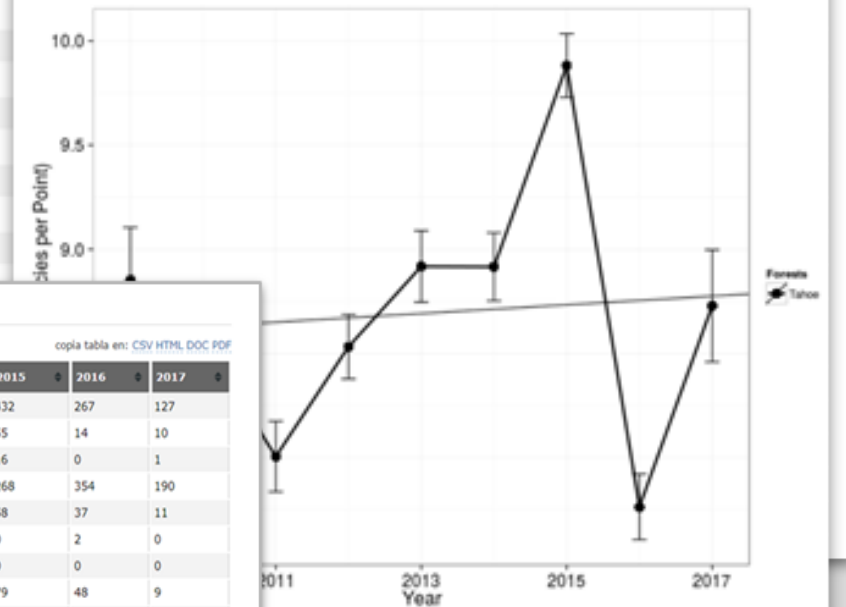


Point-level Estimates of Mean Species Richness from Point Count Data Summarized by Transect

copla tabla en: CSV HTML DOC PDF

Transect	Year	Richness	Variance	Standard Error	Sample Size
SI01A	2009	3.12			
SI01B	2009	3.88			
SI02A	2009	3.25			
SI02B	2009	3.88			
SI05A	2009	2.75			
SI05B	2009	1.5			
SI06A	2009	2			
SI06B	2009	1.5			
SI07A	2009	5			
SI07B	2009	5.5			
SI08A	2009	6.63			

Simple linear trend estimate of Richness (Species per Point) by Year



Total Number of Observations of each Species by Year

copla tabla en: CSV HTML DOC PDF

Common Name	2009	2010	2011	2012	2013	2014	2015	2016	2017
Mountain Chickadee	166	386	294	461	504	469	432	267	127
Mountain Quail	34	17	31	41	26	29	55	14	10
Mourning Dove	0	7	4	1	18	6	16	0	1
Nashville Warbler	58	154	92	244	229	274	268	354	190
Northern Flicker	21	17	42	36	44	55	58	37	11
Northern Rough-winged Swallow	0	0	0	0	0	0	0	2	0
Oak Titmouse	0	0	0	0	1	0	0	0	0
Olive-sided Flycatcher	23	25	54	40	61	43	79	48	9
Orange-crowned Warbler	6	23	10	21	44	29	46	44	20

Data Analyst

[https://data.pointblue.org/apps/authentication/pb\\_login.php?returnURL=https%3A%2F%2Fdata.pointblue.org%2F%2Fapps%2Fanalysts%2F&app=Analysts+Toolbox](https://data.pointblue.org/apps/authentication/pb_login.php?returnURL=https%3A%2F%2Fdata.pointblue.org%2F%2Fapps%2Fanalysts%2F&app=Analysts+Toolbox)



**AKN**



```
graph TD; AKN[AKN] --> DSS[Decision Support System];
```

**Decision Support  
System**

# DECISION SUPPORT TOOLS

	<b>AKN – FADC</b>	<b>AKN – RAIL</b>	<b>IPaC</b>
<b>System Owner</b>	AKN Partners	AKN Partners	USFWS
<b>Species Covered</b>	All Birds	All Birds	Birds of Conservation Concern (BCC) All Endangered Species
<b>Scale</b>	Specific to selected geographic area	Variable scales can be selected	Specific to selected geographic area
<b>Information Available</b>	Year round presence/absence for all species Tools for trend data Resources for managing project impacts	Species Conservation status Species-specific life history trait Population estimates at multiple scales	List of BCC/ESA species in footprint Year round presence/absence data General species information
<b>Unique Benefit</b>	Visual access to wide range of bird data	Integrates population estimates from Avian Conservation Assessment Database (ACAD)	Allows 1 stop for regulatory compliance

# TOOLS AVAILABLE IF YOU DO NOT HAVE DATA IN AKN



## Observations Map

<https://avianknowledge.net/index.php/observations-map/>



## Data Catalog & Downloader

<https://avianknowledge.net/index.php/phenology-tool/>



## Phenology Tool

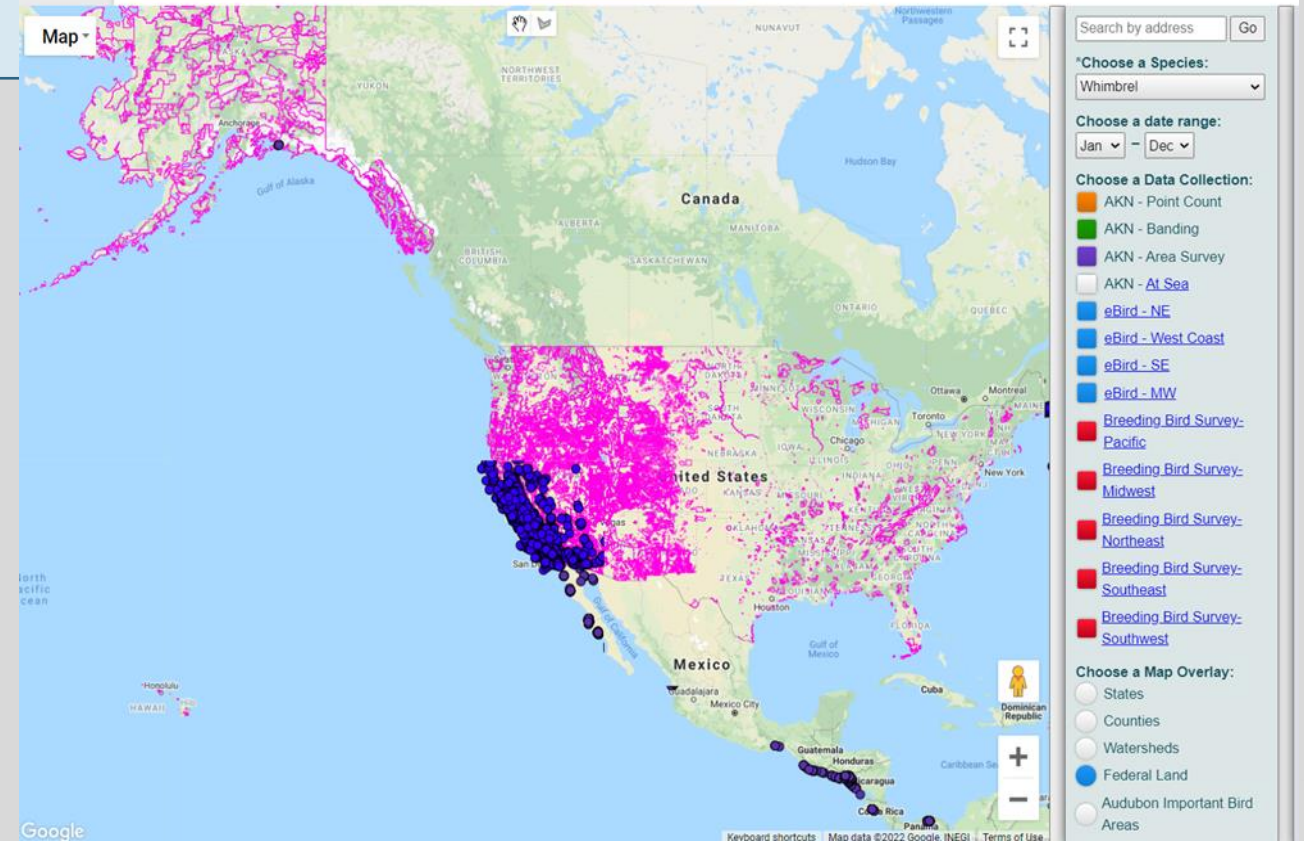
### RAIL (Rapid Avian Info Locator)

<https://avianknowledge.net/index.php/phenology-tool/>

<https://data.pointblue.org/apps/rail/#>

## Observations Map

[Click Here to Open Observations Map Instructions in New Tab](#)



# TOOLS AVAILABLE IF YOU DO NOT HAVE DATA IN AKN



## Observations Map

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## Phenology Tool

## RAIL (Rapid Avian Info Locator)

<https://avianknowledge.net/index.php/phenology-tool/>  
<https://data.pointblue.org/apps/rail/#>

### Filters

#### Protocols

Protocols describe the methods for observation collection. Either choose specific protocols to refine your results, or choose 'All Protocols' to retrieve from all point count protocols. Our [Protocol Research](#) tool provides full details on each protocol.

All Protocols

Specific Protocols

0\_to\_9m25\_50\_100M+Fly  
0\_to\_9m25\_50\_100M+\_KNUTSON  
10mUnltdDist  
1\_2\_3\_4\_5m25\_50\_100M+  
3m100M  
3m25\_50\_100M+Fly  
3m50M+  
3\_5m100M+Fly  
3\_5m100M+\_NWRS\_R5\_GRASS  
3\_5m25\_50M+  
3\_5m25\_50M+FlyByTm  
3\_5m50M+Fly

#### Date Range

Select a start and/or end date to filter results within a time period, or 'All Dates' to get all project data.

All Dates

Specific Dates

Beginning Date

Ending Date

#### Species

Choose species to refine your results, or select 'All Species' to retrieve all observed species from the selected project. Only those species that have been observed are shown in this list. Guilds are provided from existing projects as a convenient way to shorten the species list.

All Species

Specific Species

Guild

No guild

Species

All species

#### Regions

Regions are geographic boundaries that allow you to select observations within these well-known areas. Choose a Region Type to see the specific regions available.

All Regions

Specific Regions

Domain

Select region type...

Region

All regions


# TOOLS AVAILABLE IF YOU DO NOT HAVE DATA IN AKN

**Rapid Avian Information Locator (RAIL)**

Before using this tool, please read [About the RAIL tool](#)

Use all available species

**Species Results**  (Currently showing 121 of 121 results) BCR(s): 4-NORTHWESTERN\_INTERIOR\_FOREST State(s): AK

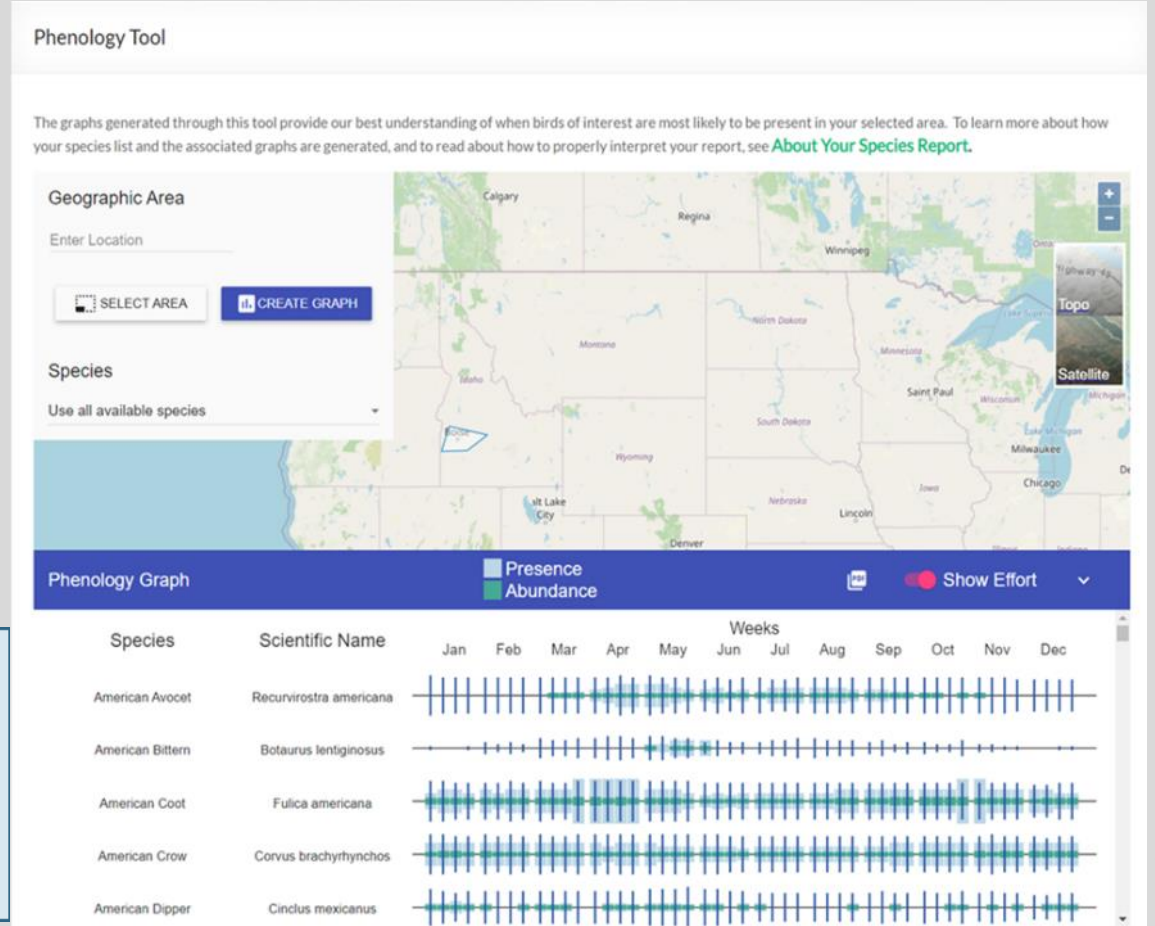
Bird Species	Population Estimates	Conservation Status	Detail
 <b>American Three-toed Woodpecker</b> <i>Picoides dorsalis</i>	Global: 1,600,000 Continental U.S.: 340,000	State Threatened: NH	
<b>Alpha Code</b> Alpha Code <sup>1</sup> : Not yet available	<b>Physical Details</b> Weight <sup>2</sup> : 44.8 - 67.9 g Length <sup>2</sup> : 21 - 23 cm	<b>Population Information</b> Global Population <sup>3</sup> : 1,600,000 % Population Estimate USA <sup>3</sup> : 21.25% Lower 95% Bound USA <sup>3</sup> : 160,000 Upper 95% Bound USA <sup>3</sup> : 620,000 Continental Population Trend <sup>4</sup> : Significant large increase Regional Population Trend <sup>4</sup> : Not yet available % BCR Population <sup>3</sup> : BCR 4 - 35.00% Lower 95% Bound BCR <sup>3</sup> : BCR 4 - 290,000 Upper 95% Bound BCR <sup>3</sup> : BCR 4 - 970,000	<b>Habitat</b> Habitat Category <sup>2</sup> : Forests Primary Breeding Habitat <sup>4</sup> : Forests, Boreal



## Phenology Tool

## RAIL (Rapid Avian Info Locator)

<https://avianknowledge.net/index.php/phenology-tool/>  
<https://data.pointblue.org/apps/rail/#>






Home About AKN AKN Nodes Resources AKN User Examples Data and Analyses AKN Help

# AVIAN KNOWLEDGE NETWORK


Leveraging Data, Information, and Partnerships to Revolutionize Avian Conservation



## How Do I Share My Data?


Find out the ways you can share your data with the AKN

LEARN MORE




**ABOUT AKN**

Learn more about the system and what it can do for you!




**USE TOOLS TO EXPLORE AKN DATA**

Explore pattern and trends for your area and species of interest



**UPLOAD, ENTER AND MANAGE DATA**

Learn how to get your data in and manage it in AKN



**DISCOVER AND DOWNLOAD DATA**

Find data and data details and download data


Help


<https://avianknowledge.net/>

ACCESSES


Federal Avian Data Center  
Avian Knowledge Network

Home About Uses of This Data Center Resources Help











Decision Support Tools



Beneficial Practices



Environmental Review Guidance

Help

Like 0 Share Tweet

<https://data.pointblue.org/partners/fedadc/>



# DoD AKN Program





OFFICE OF THE ASSISTANT SECRETARY OF DEFENSE  
3400 DEFENSE PENTAGON  
WASHINGTON, DC 20301-3400

ENERGY, INSTALLATIONS,  
AND ENVIRONMENT

MEMORANDUM FOR DEPUTY ASSISTANT SECRETARY OF THE ARMY  
(ENVIRONMENT, SAFETY AND OCCUPATIONAL HEALTH)  
DEPUTY ASSISTANT SECRETARY OF THE NAVY  
(ENVIRONMENT AND MISSION READINESS)  
DEPUTY ASSISTANT SECRETARY OF THE AIR FORCE  
(ENVIRONMENT, SAFETY AND INFRASTRUCTURE)

SUBJECT: Department of Defense Avian Knowledge Network Program

The Department of Defense (DoD), like other federal agencies, has significant regulatory, management, and stewardship responsibilities related to migratory birds. These requirements are driven primarily by the Migratory Bird Treaty Act (MBTA), the "Military Readiness Rule" (50 CFR § 21.15, Authorization of take incidental to military readiness activities) and Executive Order (EO) 13186 "Responsibilities of Federal Agencies to Protect Migratory Birds." In accordance with EO 13186, DoD has also established a Memorandum of Understanding with the U.S. Fish and Wildlife Service outlining the management and stewardship activities DoD will implement for migratory bird conservation. All DoD natural resources conservation programs support DoD access to its land, air, and water resources for realistic military training and testing and to sustain the long-term ecological integrity of the resource base and the ecosystem services it provides, in accordance with the Sikes Act. Collecting data and information from ongoing surveys, inventories, and monitoring are essential to make informed management decisions, efficiently and effectively meet regulatory requirements (e.g., the MBTA, the Sikes Act), conduct environmental analyses, and support planning to adaptively manage migratory bird populations in the context of mission activities. As such, the DoD spends millions of dollars annually to collect these data.

However, even with the collection of large amounts of data, DoD faces significant challenges to fully utilize and optimize our avian data. These challenges include: (1) inefficient access to data for regulatory requirements, environmental analyses, and planning; (2) a lack of visibility on avian species population trends and management across the Military Services and broader landscapes; and (3) a lack of a centralized, secure data repository resulting in data loss during personnel turnover.

To address these challenges, DoD began partnering with other federal agencies (i.e., U.S. Fish and Wildlife Service, Bureau of Land Management, U.S. Forest Service) in the development of the Avian Knowledge Network (AKN) in 2016. The AKN is a national clearinghouse for avian data and decision support tool for assessing bird population health, status and trends, specific stressors, and conservation measures. The AKN connects partner datasets, includes metadata and data assumptions, contains powerful data analysis tools, and is a permanent archive of all data records.

# DoD Mandate Memo



This office fully endorses the use of AKN and requests that each DoD Component utilize AKN to the maximum extent practicable and provide staff the support needed to make AKN the best tool for DoD. A coordinated and comprehensive approach to implement DoD's participation in the AKN will directly support the military mission and improve the quality and effectiveness of bird conservation on DoD installations. For DoD to fully employ the power of AKN, user training and significant initial data management is required. This office, through the DoD Legacy Resource Management Program, is committed to providing baseline support and resources to help implement AKN. This support will provide training and education for personnel, and technical assistance related to system use and data management. The DoD AKN Director is Ms. Elizabeth Neipert, at [elizabeth.s.neipert@erdcdren.mil](mailto:elizabeth.s.neipert@erdcdren.mil) or 907-201-6244.

Additionally, a national Cooperative Agreement has been established to support AKN implementation. It provides a streamlined process for DoD Components and installations to contribute additional resources to meet their unique needs.

The point of contact for this office is Ms. Liz Galli-Noble, DoD Senior Natural Resources Program Manager and Legacy Resource Management Program Manager, [elizabeth.j.galli-noble.civ@mail.mil](mailto:elizabeth.j.galli-noble.civ@mail.mil) or 406-581-8148

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081 16266081  
Date: 2022.08.24 11:39:54 -0500

Richard G. Kidd IV  
Deputy Assistant Secretary of Defense  
(Environment and Energy Resilience)



# *DoD Program Structure*

Air Force  
Subprogram

Installation  
Project databases

Army  
Subprogram

Installation  
Project databases

Navy  
Subprogram

Installation  
Project databases

Marine  
Subprogram

Installation  
Project databases

National Guard  
Subprogram

State  
Project databases

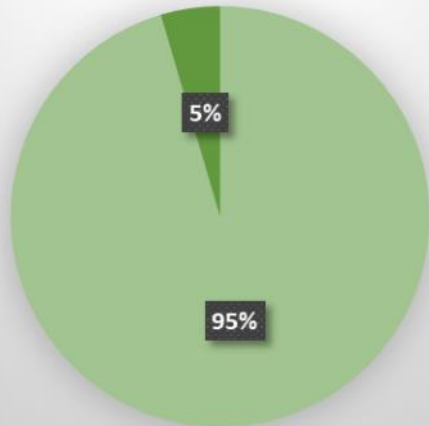




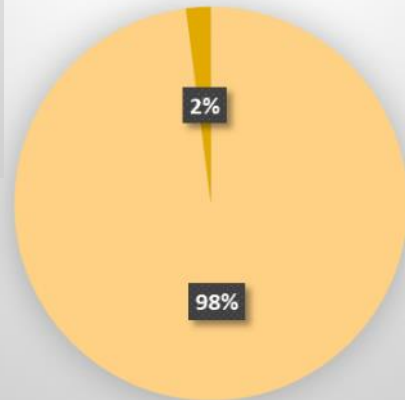
# Military Service Progress

**341 installations that require Integrated Natural Resources Management Plans**

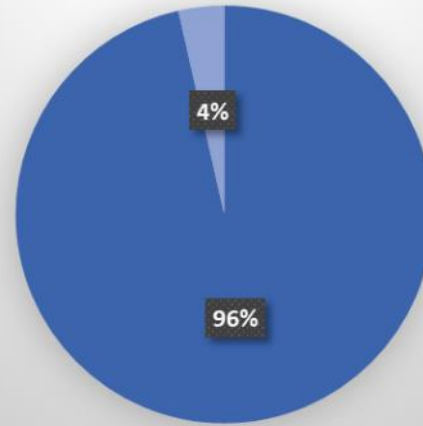
**Army**



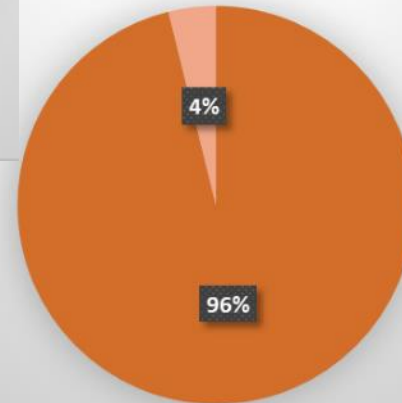
**Air Force**



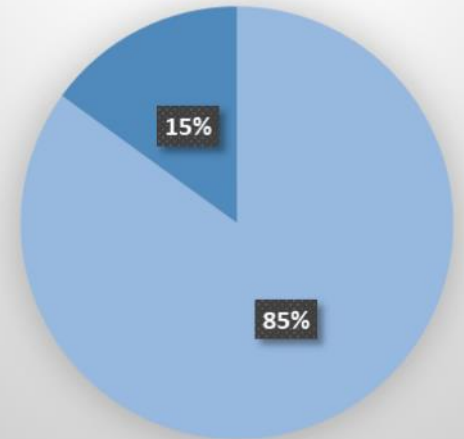
**Navy**



**National Guard**



**Marine Corps**



**146 Army, 82 Navy, 96 Air Force, 17 Marine Corps installations plus 54 National Guard states/territories**





# DoD AKN Program Team

Ms. Elizabeth Neipert, Program Director and Technical Lead

Ms. Liz Galli-Noble, Program Director, Legacy Resource Management Program; providing oversight for program cooperative agreement and MIPRs

## Partners

**Point Blue Conservation Science (Point Blue):** Lead-Sam Veloz

Project Delivery Team- Michael Fitzgibbon, Diane Miller and Martine Magana

**Klamath Bird Observatory (KBO):** Lead-Dr. John Alexander

Project Delivery Team-Caitlyn Gillespie and Ellie Armstrong



# Partners and Roles



- Create and present training material
- Build or improve features and analytic tools within AKN
- Partner cost-share tools
- Assist with historical and contemporary data federation
- On-going technical support
- Assist in training and instruction
- Bulk uploading support
- Mission-sensitive Species data initiatives
- Assist with data standards and streamlining monitoring protocols
- On-going data support



# OSD and Military Services Support

**Office of Secretary of Defense**-Ryan Orndorff & Liz Galli-Noble  
**Air Force**-Karla Meyer, Kirsten Christopherson & Rebecca Meyer  
**Army**-Brian Moyer and Steve Sekscienski  
**Marine Corps**-Jacque Rice  
**Navy**-Jeff Gardner, Tom Mayes & Tammy Conkle  
**National Guard**-Jay Rubinoff & Janet Johnson





# DoD AKN Program Management Plan

- Outlines plan and strategy for DoD and AKN
- Provides background and work-to-date
- Outlines goals and objectives for Program and data solutions
- Describes 5-year needs for new tools and tasks; includes rough budgets and potential cost-share
- Approach and work plan for each task
- Agencies and organizations involved and responsibilities
- Utilized for funding AKN Cooperative Agreement via WHS (established in Jun 21)

# DoD AKN Program Management Plan *(Continued)*

## 5-Year Needs/Initiatives

### **Training**

- Instructor-led training courses
- Create video trainings for common actions (continuing)
- Monthly “Office Hours”

### **DoD-Specific Tools**

- DoD AKN Portal page
- DoD user guide
- DoD data standards
- Scope of work language for contracts

### **Data Initiatives**

- Mission-Sensitive Species data
- MAPS and banding data (cost-share)
- BASH data

### **AKN Tools (partner initiatives)**

- Program query tool
- New user roles “Contractor” & “Analyst”

### **On-going Support**

- Program management
- Historical data updates
- Technical support
- Annual maintenance





# OSD Funded Actions

- Base support for Point Blue and KBO partners
  - ▶ Project coordination
  - ▶ Back-end technical support
  - ▶ Installation consulting and data support, *Office Hours*
  - ▶ Four regional trainings
  - ▶ Annual support for Science Cloud
- MSS protocol-Pinyon Jay
- DoD AKN Portal development and maintenance
- Enterprise support for Programs (partial)
- New system user roles (partial)
- DoD data standards and monitoring protocols (partial)



# Military Service Actions

## **Air Force**

- Two virtual trainings (Nov 30-Dec 1 & TBD)
- Initial training videos; available on AKN YouTube Channel - *COMPLETE*
- Data discovery survey and data prioritization, upload data sets – survey *COMPLETE*
- Four MSS Initiatives, BUOW first
- DoD AKN User Guide

## **Navy**

- Data discovery survey and data prioritization; *will be released soon*
- SOW language for contracts - *DRAFT*

## **Army**

- Initial steps for data discovery survey for informed decisions

## **Marine Corps**

- Commitment to fund improved tools and training
- Developing solid 5-year investment plan for trainings, data support, and tool development

## **National Guard**

- Need to work with states
- ARNG Environmental Advisory Council's Conservation Committee approved Guard-specific training for FY23 hosted by ORARNG - *dates TBD*



# DoD-wide AKN Cooperative Agreement

***Need:*** mechanism to move project funds from various sources (Military Services and installations) to project partners

- Washington Headquarters Services
- Five-year Master Cooperative Agreement in place starting June 2021
- Quarterly or monthly modifications



## ***Benefits to DoD***

- Allows coordination of all AKN actions
- Cost-share; enables Military Services and installations to empower smaller amounts of \$\$
- Allows MIPR for funding DoD AKN Program partners (Point Blue and KBO)



# Task, Tool & Training Updates FY 23





# *DoD-Specific Tools*

## Data Discovery Survey & Training Questionnaire

## DoD AKN Navy Survey

### Welcome to the DoD Avian Knowledge Network (AKN) Navy Survey

The Department of the Navy seeks to continue facilitating a coordinated and comprehensive approach to implementation of the DoD's participation in the Avian Knowledge Network (AKN) that directly supports the DoD Bird Conservation Strategic Plan. Specifically, the Navy desires to improve the quality and effectiveness of bird conservation on their installations by using the data and tools within the AKN.

The Navy requests your participation in a short online survey to 1) gauge interest in virtual AKN training sessions and 2) determine what avian survey datasets exist that should be prioritized for upload into the AKN database.

Survey should take 5-10 mins to complete

1. Please give us the following information about yourself

Your name

Your Installation name

Your current position

Your work email address

2. Where have you heard about the Avian Knowledge Network (AKN) efforts across DoD and the Navy?

- ☐ DoD Partners In Flight (PIF)
- ☐ Legacy Program Fact Sheets
- ☐ NMFWA seminar or presentation
- ☐ Internal email
- ☐ From other DoD staff
- ☐ I haven't heard anything about AKN at DoD or Navy

6. We are planning to offer training classes to Navy staff on using the AKN web tools. Are you interested in any of the following training:

- ☐ How to load historical data into the system
- ☐ How to enter data interactively for future surveys
- ☐ How to see what data is available across the AKN
- ☐ How to use the AKN for data management, curation, and sharing
- ☐ How to use the AKN for rapid NEPA-type assessments at your installation using existing AKN data
- ☐ How to analyze trends of avian populations on your installation with your data

7. If you are interested in the virtual training in the next 12 months, select which times of year you would prefer to have a training.

- ☐ August/ September/ October 2022
- ☐ November / December 2022 / January 2023
- ☐ February/ March / April 2023
- ☐ May/ June / July 2023
- ☐ I'm not interested in or cannot attend a training in the next 12 months.

8. What region of the country would you prefer for an in-person training?

- ☐ Northeast
- ☐ Southeast
- ☐ Midwest
- ☐ Southwest
- ☐ West

10. In the future, select which avian surveys you plan to conduct at your installation.

- ☐ Point Count
- ☐ Area Search
- ☐ Transects
- ☐ Aerial Surveys
- ☐ Banding / [Monitoring Avian Productivity and Survivorship \(MAPS\)](#)
- ☐ Nest Surveys
- ☐ Colony Counts
- ☐ [Breeding Bird Survey \(BBS\)](#)
- ☐ [Christmas Bird Count \(CBC\)](#)
- ☐ Airfield / Bird Air Strike Hazard (BASH)
- ☐ Other (please specify)
- ☐ My installation has no plans to conduct avian surveys in the foreseeable future.

11. Do you use a field methodology where data are collected about a single individual multiple times within a count? (e.g. record an individual detected in minute 1 and minute 3.)

- ☐ Yes
- ☐ No

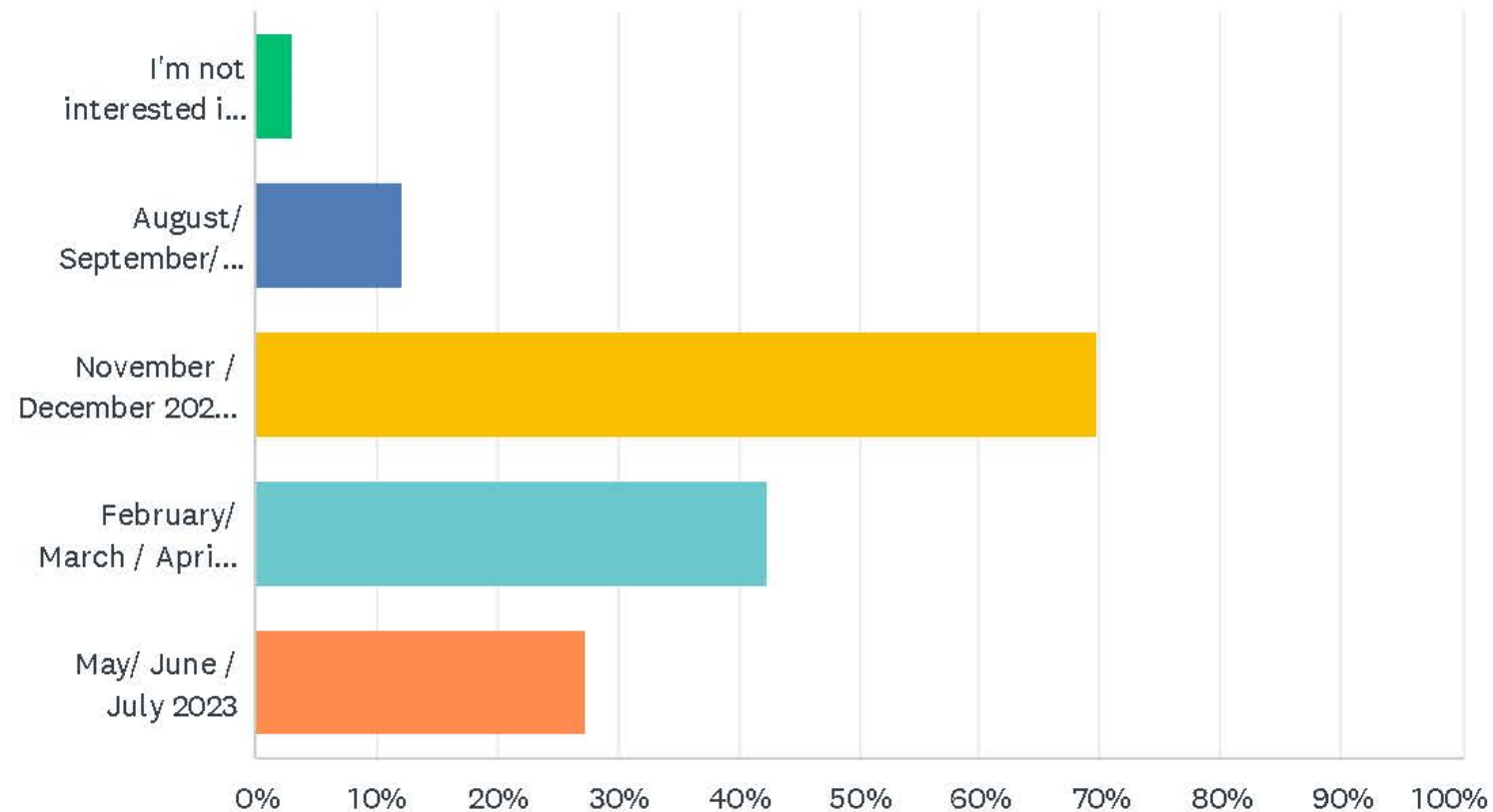
12. Do you use a field methodology that documents only a limited set of species, as opposed to all species present?

- ☐ Yes
- ☐ No



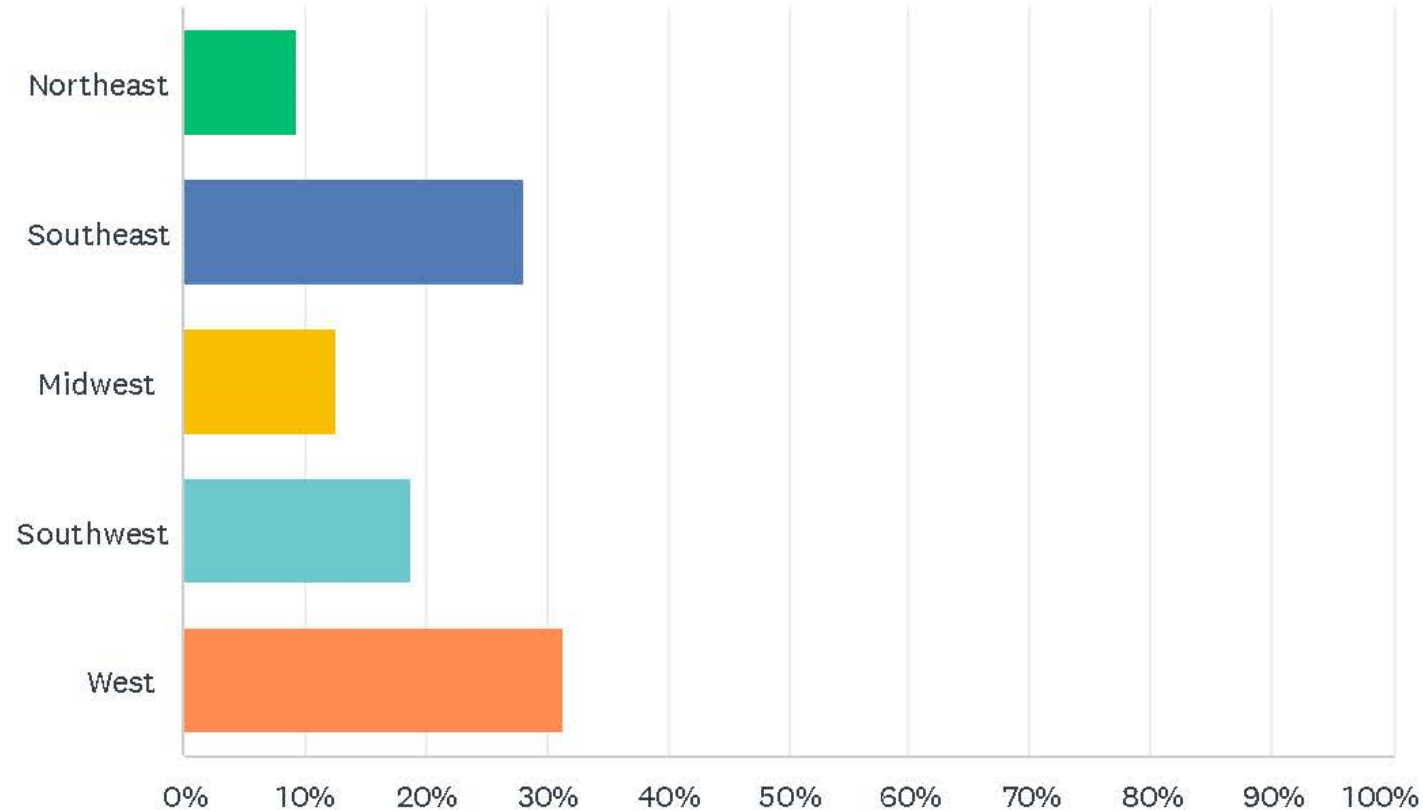
Q8 If you are interested in the virtual training in the next 12 months, select which times of year you would prefer to have a training.

Answered: 33 Skipped: 0



## Q10 What region of the country would you prefer for an in-person training?

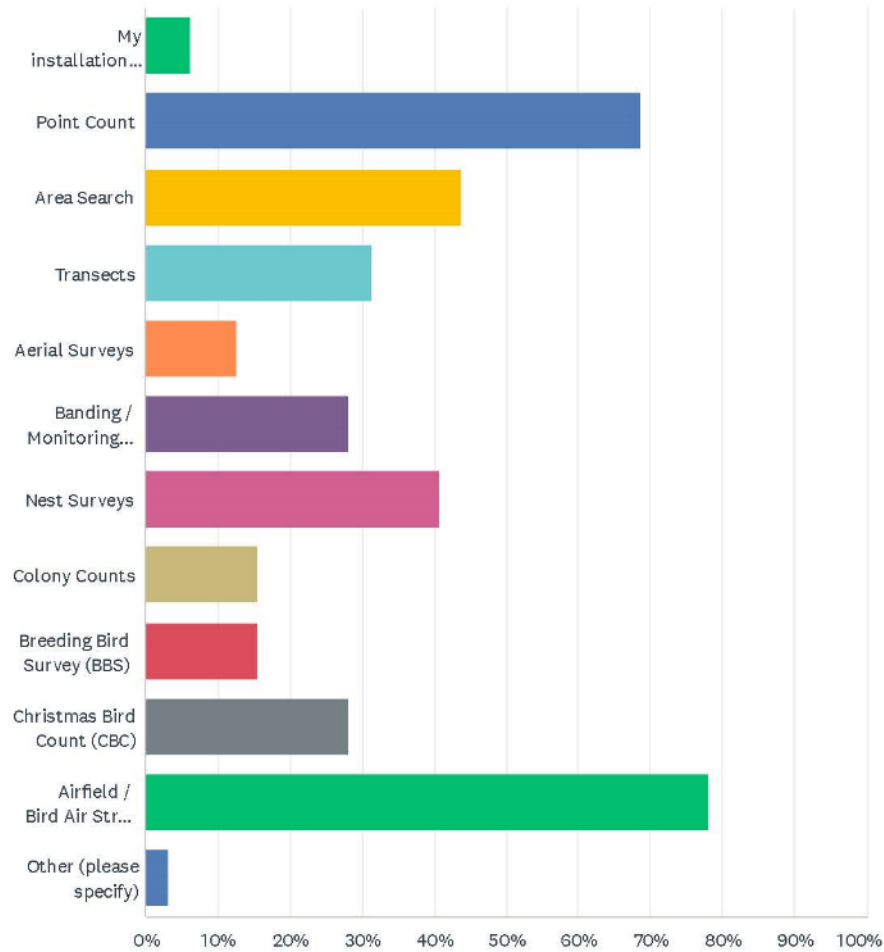
Answered: 32 Skipped: 1



# Air Force Data Discovery Survey & Training Questionnaire

Q11 Please select the avian survey type(s) your installation has conducted and has either current or historical data available.

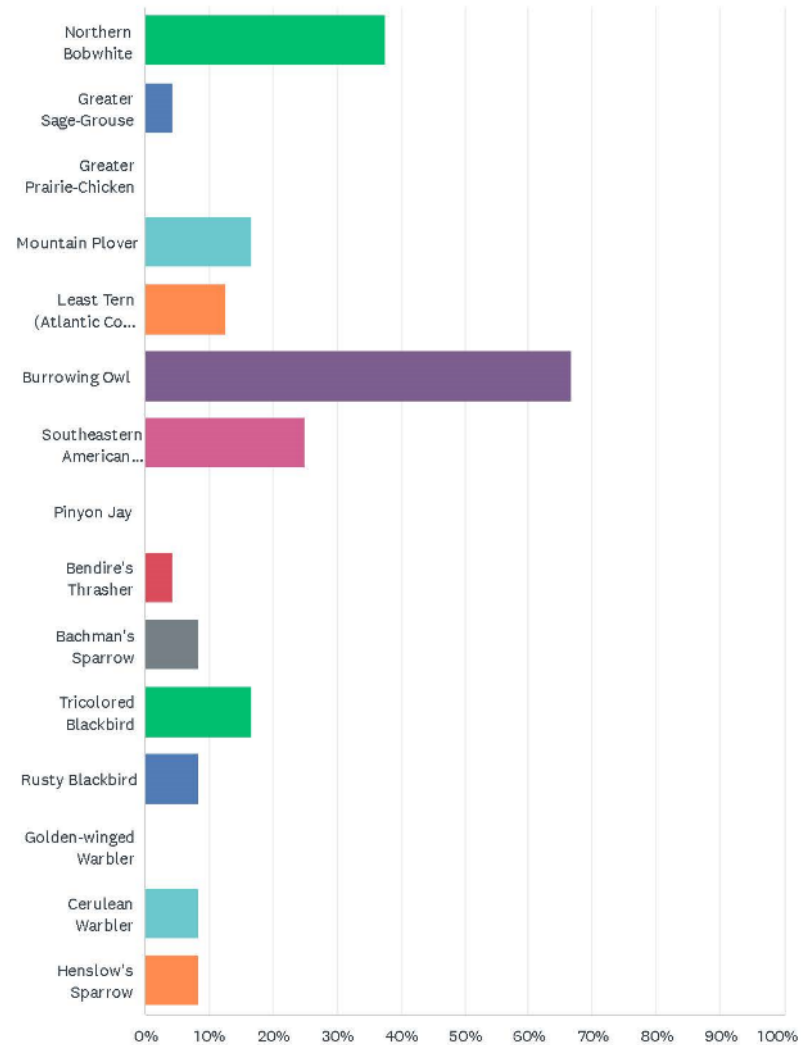
Answered: 32 Skipped: 1



# Air Force Data Discovery Survey & Training Questionnaire

Q17 Which DoD Mission Sensitive Species occur on your installation?

Answered: 24 Skipped: 9





# Military Service Survey Progress

**Air Force**-Survey and questionnaire disseminated and results received, need to prioritize datasets

**Navy**-Survey and questionnaire complete, to be released soon

**Army**-Survey and questionnaire drafted, awaiting dissemination plan

**National Guard**-Initial survey drafted, awaiting specific questions

**Marine Corps**-To be drafted soon



# *DoD-Specific Tools*

## DoD AKN Portal





# *DoD-Specific Tools*

## **DoD Portal into the Federal Avian Data Center of AKN**

- Current AKN and Federal Avian Data Center (FADC) websites do not meet DoD user requirements
- Create landing page for DoD users with pertinent information:
  - ✓ Clear identification that users are in the correct space
  - ✓ All AKN tools readily available
  - ✓ Contacts
  - ✓ Sign up for *Office Hours*
  - ✓ Training announcements & host sign ups
    - DoD instructions, data standards, and guidance
    - Compliance dashboard
- Live last week

# Welcome to the DoD AKN Portal

Provides a modern avian data management system approach to foster efficient, cost-effective and resilient conservation outcomes in support of the military mission.

[Manage data now](#)

**AVIAN**  
KNOWLEDGE NETWORK

[DoDAKN.org](https://DoDAKN.org)

# DoD AKN Portal

[DoDAKN.org](https://DoDAKN.org)



## Get Data In



### Biologists Application

Enter and your observation data and review entries. Requires account and data.



### Project Leader Application

Manage your avian observation data, survey locations, survey protocols and project researchers. Requires an account and project leader role.



### Bulk Uploader Application

Upload more than one survey into your project. Requires an account.



### Species Lookup tool

Find the scientific name, common name and/or a species four letter species code. No account required.



### Protocol Search tool

Find definitions for avian observation protocols that exist in the AKN. No account required.



## Explore Data



### Phenology Tool

View abundance and relative probability of presence summaries throughout the year for birds in a particular region of the United States. No account required.



### Observation Map

Map for viewing and querying avian observation data at surveyed locations. No account required.



### Analyst Application

Retrieve and analyze data that you have permission to access. Account required.



### Secretive Marshbird Analyst

Analyze secretive marshbird survey data from across the United States. Account required.



## Discover Data



### Data Catalog

Tool to discover data and projects in the AKN. No account required.



### Data Download Application

Application to download data for a specific project. Requires access to projects with an account.



## Make Decisions



### R.A.I.L. tool (Rapid Avian Information Locator)

Identify the set of birds that occur within specific geographic regions and their conservation status and population trends. No account required.

All tools available  
on one page

# *DoD AKN Portal*

## How to get started

1

### Find your project name

In this first step, you'll submit a request to a support person who will find your specific project based on your military service branch and installation name.

2

### Create a new account

After you've completed step 1, a **project code** will be emailed to you. This is the **required** code to create a new user account.

Use the button below to complete and submit the new user registration form, remembering to provide your **project code** when prompted.

Create new user account



# *DoD-Specific Tools*

## Contract/SOW Language



# ***DoD-Specific Tools***

## **Scope of Work Language**

- Possession of data collected by contractors is an issue identified by NMFWA Bird Conservation Working Group since its inception in 2014
- AKN offers a mechanism and structure
- Develop guidelines and language for DoD personnel to integrate into contracts
  - Option to upload directly into system (current limitations)
  - Option to deliver data in format acceptable for immediate upload into system





# Data procurement and ownership issues

## Partner / Contractors

- DoD collects data for a partnership
- Hiring independent contractors for survey work

## DoD

- Wants to ask questions across DoD
- Needs to own and manage all data on installations

We want data collected on DoD installations in DoD Projects in AKN



# ***DoD-Specific Tools***

## **Guidance on how Contractors and Cooperators will use the AKN in DoD Service Contracts, Grants, and Cooperative Agreement**

Checklist of options with detailed attachments

- Contractor/cooperator will put avian observation data in a DoD-owned AKN Project Database or ready format
- Data provided must be raw observation data as collected (not summarized)
- Data must be fully described per DoD AKN Data Standards
- DoD will have permanent access to all data collected:

DoD owns and will have permanent access to all data collected for the agreement. Data provided must be raw observation data as collected (not summarized). Data may be shared with the Contractor/Cooperator following AKN Data Sharing Guidelines with specifics outlined in an AKN Data Sharing Agreement.

DRAFT



# DoD-Specific Tools

## Guidance on how Contractors and Cooperators will use the AKN in DoD Service Contracts, Grants, and Cooperative Agreement (*continued*)

- **Data Collection: Specify whether DoD or the Contractor/Cooperator will choose the sampling methods (CHECK ONE)**
  - ☐ DoD will specify the sampling methods to be used [FIELD METHOD WITH CITATION]
  - ☐ Contractor/cooperator will specify sampling methods to be used with associated field forms and a link to the associated Sampling Protocol Definition following the process outlined in [DoD AKN Standards: Describing Field Methods](#).
- **Sampling Locations: Specify whether DoD or the Contractor/Cooperator will choose the sampling locations (CHECK ONE)**
  - ☐ DoD will specify sampling units to be visited and will provide a digital copy of the sampling locations for upload into a Global Positioning System (GPS) device.
  - ☐ Contractor/cooperator will specify sampling units to be visited following [DoD AKN Standards: Describing Sampling Design](#) and will upload Sampling Units outlined in [DoD AKN Standards: Format for AKN Compatible Sampling Units](#).
- **Data Entry/Upload: Specify whether the Contractor/Cooperator will enter data directly into the AKN or whether they will supply data files ready for bulk uploading by DoD Designee (CHECK ONE)**
  - ☐ Contractor/Cooperator will enter data directly into the AKN following procedures provided in [DoD AKN User Guide: AKN Data Access and Entry](#).
  - ☐ Contractor/Cooperator will provide digital data files using the process outlined in [DoD AKN Standards: Preparing Data for Submission](#).

DRAFT



# ***DoD-Specific Tools***

**Guidance on how Contractors and Cooperators will use the AKN in DoD Service Contracts, Grants, and Cooperative Agreement (*continued*)**

## **Attachments include:**

- Definition of AKN terms used
- DoD AKN Standards
  - Sampling Protocol Definitions
  - Sampling Unit Format
  - Data Submission



# DoD Data Initiatives



# DoD Mission-Sensitive Species (MSS)



Northern Bobwhite



Greater Sage-grouse



Mountain Plover



Greater Prairie Chicken



Burrowing Owl



Least Tern (Atlantic Coast)



Cerulean Warbler



Golden-winged Warbler



Pinyon Jay



Southeastern American Kestrel



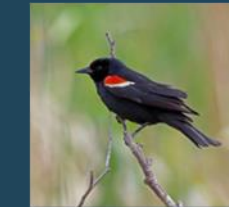
Henslow's Sparrow



Rusty Blackbird



Bendire's Thrasher



Tricolored Blackbird



Bachman's Sparrow







# Mission-sensitive Species Initiative within AKN

## DATA

- Locate historical and contemporary data – data discovery survey
- Identify and prioritize datasets and projects for AKN integration; Service-specific

## FIELD METHODS

- Identify SMEs for each species and categorize acceptable and appropriate survey methodologies
- Work with our project partners at Point Blue and KBO along with DoD PIF Research & Monitoring and MSS Working Groups

## DATA ENTRY PROTOCOL

- Upload data protocols into AKN, ready for use by any user

## MSS QUERY TOOL IN AKN

- Add MSS as a guild in tools, such as Analyst, Data Downloader, and RAIL



# Installations and MSS Present

Species	# of Installations
Greater Sage-Grouse	6
Greater Prairie-Chicken	3
Northern Bobwhite	70
Southeastern American Kestrel	14
<del>Black Rail**</del>	<del>5</del>
Mountain Plover	16
Burrowing Owl	50
Least Tern (Atlantic Coast Pop)	18
Pinyon Jay	7
Bendire's Thrasher	4
Golden-winged Warbler	24
Cerulean Warbler	30
Bachman's Sparrow	24
Henslow's Sparrow	25
Tricolored Blackbird	15
Rusty Blackbird	30

OSD funded the one species, PIJA



Air Force funded work four more species, BUOW and three-TBD





# MSS Initiative within DoD AKN: *Burrowing Owl*

## Data Survey

- Survey installations with BUOW
- Historical and contemporary data discovery and prioritization

## DoD Focus Group of SMEs

- Identify SMEs for BUOW
- Clarify objectives
- Field method review
- Standard monitoring methods (acceptable and appropriate)

## AKN Data Protocols

- Bulk upload
- Data entry user interface

## Science Delivery

- Custom queries and analyses
- Decision support tools





# MSS Initiative within DoD AKN: *Burrowing Owl*

## Field Methods Review

- Standardized Monitoring Strategies for Burrowing Owls on DoD Installations (Garcia et al 2008)
- Burrowing Owl Survey Protocol and Mitigation Guidelines (California Burrowing Owl Consortium 1993)
- Guidelines and Recommendations for Burrowing Owl Surveys and Mitigation (New Mexico Department of Game and Fish (2007)
- New Mexico Burrowing Owl Working Group
- Species Conservation Measures and Permitting Guidelines: Florida Burrowing Owl
- Species Detection Survey Protocols (Fish and Wildlife Branch Technical Report No. 2014-05)(Saskatchewan Ministry of Environment. 2014)



# MSS Initiative within DoD AKN: *Pinyon Jay*

## Data Survey

- Survey installations with PIJA
- Historical and contemporary data discovery and prioritization

## DoD Focus Group of SMEs

- Identify SMEs for PIJA
- Clarify objectives
- Field method review
- Standard monitoring methods (acceptable and appropriate)

## AKN Data Protocols

- Bulk upload
- Data entry user interface

## Science Delivery

- Custom queries and analyses
- Decision support tools





# MSS Initiative within DoD AKN: *Pinyon Jay*

## Field Methods Review

Data Standards and Survey Protocol for Pinyon Jays Version 1.0 (Pinyon Jay Working Group 2021)

Guidance for Locating Pinyon Jay Nests and Confirming Breeding (Pinyon Jay Working Group 2021)

Pinyon Jay Survey Methods webinar, Kristine Johnson et al. UNM, May 2020

Pinyon Jay Community Science Data Collection Manual (Great Basin Bird Observatory)

Pinyon Jay Monitoring Program for New Mexico (Petersen et al 2014)



# DoD Data Initiatives Programmed

- BASH Data, specifically data collected by USDA-WS
- Banding data including MAPS
- Nest data
- Sensor and machine-collected data
- Survey 1,2,3 cross-walk directly into AKN





# AKN System-wide Tools



# *AKN Tools*

## Enterprise Support for Programs

**Need:** Data curation, management, and analysis at multiple scales (installation, Military Service, and DoD-wide)

**Solution:** AKN-wide structure allowing multiple Project grouping via Programs. Program Enterprise for selection of a Program anywhere the system currently allows selection of a Project

**Plan:** Add ability to create/manage Programs appropriately based on rights, especially for query and download of project data, user access management, protocol assignment, data sharing level. Requires design and tech research phases to determine the appropriate solution.

**Status:** Completed the program enterprise warehouse feature preliminary research phase and are moving on to the prototype phase, where we will attempt our first successful build of a program warehouse. Also developing a data download feature that will allow users to download protocol specific data from any project within their program. We have completed preliminary research phase of this data download tool and will start prototyping the first week of October.



# *AKN Tools*

## Updated User Roles

**Need:** Roles within the system that meet partner requirements for data entry and/or analysis for portions of AKN projects

**Solution:** Creation of two new user roles that meet identified needs

**Plan:** Creation of Contractor Role - Create a new role to support an external contractor who gets access (data entry, data download, data analysis) for the portion of a Project for which they are providing services.

Creation of Analyst Role - Create a new role to allow full access to a Project or Program for data download and analysis, but not ability to manage metadata or user access.

**Status:** Needs and roles identified and prioritized. Awaiting completion of the Enterprise Support for Programs.



# Upcoming System-wide Updates and Tools

- **Expanding availability of regional tools**
  - Climate smart planning tools
  - High-resolution species centered habitat modeling
  - Training modules and case studies
- **Expanded data types** (including banding data extension)
- **Improved navigation & updated websites**
  - AKN and FADC Sites
  - Agency-specific landing pages



The **Cornell** Lab of Ornithology



# DoD AKN Training



# DoD Personnel Trained To-Date

## DoD Participation in the Avian Knowledge Network: the Who, What, Where, When, Why, and How

- Initial training at NMFWA on 09 March 2020 : 23 personnel trained
- Virtual training at NMFWA on 12 March 2021: 27 personnel trained
- Third iteration at NMFWA on 14 March 2022: 30 personnel trained



# DoD Training Plans FY23

## DoD-wide Quarterly Regional Trainings

- Three, long format trainings: 3-day training, 2 days of classroom instruction & project support and 1 day of field practicum & data upload
  - ▶ January 24-26, 2023 – White Sands Missile Range, NM; limited 25 people, registration will open soon on DoD AKN Portal
  - ▶ Spring 2023 – Camp Lejeune, NC; dates and class size TBD
  - ▶ Third iteration, date and location TBD
- One, short format: 1-day training with Office Hours on subsequent day at NMFWA in St. Louis, 20 March 2023





# DoD Training Plans FY23

## Service-specific

- Air Force funded two virtual trainings (consists of two, 4-hour days per training)
  1. Nov 30 and Dec 01, registration open on DoD AKN Portal
  2. Dates TBD, check for email updates
- National Guard approved, 3-day training hosted by ORARNG – Spring 2023
- Other Service-specific trainings in the works and will be announced



# AVIAN

KNOWLEDGE NETWORK



Department of the Air Force is hosting  
DoD Avian Knowledge Network

<https://forms.office.com/pages/responsepage.aspx?id=HtsxAS9Y6U-Wn9H8Q-SPX8uJdQgobDtPi6xswVyjcfxUOVVaSzQ4S0ZPOUhHOUMwTzRaUFVLMFUXSi4u>

Two half-days  
Nov 30 & Dec 01  
1200-1600 EST  
0900-1300 PST



For any questions, please email DoD AKN Program Director, Elizabeth Neipert at [elizabeth.s.neipert@erdc.dren.mil](mailto:elizabeth.s.neipert@erdc.dren.mil)



# ON-GOING SUPPORT

Monthly "Office Hours" third  
Tuesday of the month and  
following Thursday, 0900-1300  
PST

Announcements sent to  
trained personnel

Calendar and sign-up now available  
on DoD AKN Portal



# AVIAN

KNOWLEDGE NETWORK



COME AND JOIN US DURING OUR MONTHLY

## DoD Avian Knowledge Network (AKN)

### "Virtual Office Hours"

The DoD AKN Team will be holding "Virtual Office Hours" monthly to assist personnel who have taken a DoD AKN Training with their individual data questions and needs.



**18 & 20 OCT**  
**0900-1300 PDT**

To sign up for a time slot, please email  
DoD AKN Program Director at

**ELIZABETH.S.NEIPERT@ERDC.DREN.MIL**





# On-going Support – Monthly Office Hours

Monthly “Office Hours”, third Tuesday of the month and following Thursday, 0900-1300 PST, open to trained personnel

## AKN Training – Office Hours

The DoD AKN Team holds monthly Office Hours to assist trained DoD NR staff with their surveys and data within the AKN. Find out when the next Office Hours are scheduled and sign up.

[View Office Hours and Sign-up](#)

[DoDAKN.org](https://DoDAKN.org)

**AVIAN**  
KNOWLEDGE NETWORK

## DoD AKN Office Hours

DoD AKN Office Hours sign-ups  
(1-hr slots)

Need help with using the AKN to submit ... [Read more](#)  
1 hour

Booking for DoD AKN Office Hours sign-ups (1-hr slots)

October 18

DATE

TIME

< > October 2022

9:00 AM

10:00 AM

11:00 AM

Su	Mo	Tu	We	Th	Fr	Sa
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

12:00 PM

⌚ All times are in (UTC-08:00) Pacific Time (US & Canada)

ADD YOUR DETAILS

Name

Name

Email

Email

PROVIDE ADDITIONAL INFORMATION

Topic for Assistance

Add your answer here

Book



# TRAINING MATERIALS

The screenshot shows the YouTube channel for the Avian Knowledge Network. The channel has 2 subscribers and a red 'SUBSCRIBE' button. The video player shows a large image of a bird in water. Below the player, there are four video thumbnails:

- AKN Point Blue Science Cloud - Researchers**: 3 views • 3 weeks ago, 5:48 duration. The thumbnail shows a diagram of project access.
- AKN - How to Register for a Login**: 4 views • 3 weeks ago, 2:59 duration. The thumbnail shows a login form.
- AKN Point Blue Science Cloud - Sampling Units**: 4 views • 4 weeks ago, 7:23 duration. The thumbnail shows a hierarchical diagram of study areas.
- AKN Point Blue Science Cloud - Overview**: 13 views • 4 weeks ago, 11:10 duration. The thumbnail shows a diagram of researchers and data storage.

[https://www.youtube.com/channel/UCi9in\\_tC9uTZa9Bo3HgnY1Q/featured](https://www.youtube.com/channel/UCi9in_tC9uTZa9Bo3HgnY1Q/featured)



# Examples of DoD Use and Case Studies





# Barry M. Goldwater Range (BMGR), AZ

- Participating in Desert Thrasher Working Group
- Existing protocol in the AKN system
- Critical to add data to DoD-owned project
- Conducted surveys and entered data into BMGR project using desert thrasher data entry protocol available in AKN
- Shared data with thrasher initiative
- Data will show when querying DoD data for this species



*Photo by Chrissy Kondrat-Smith*

<https://borderlandsbirds.org/projects/desert-thrasher/>





# Fort Hood, TX

- Modified existing protocol to meet data entry needs for three survey types
- Structured sampling units across installation
- Bulk uploaded over 3,000 rows of data; now direct entering survey data

## Project Protocols

open new project

FORT\_HOOD - [DOD\_ARMY] Fort Hood

add one

copy table to: [CSV](#) [HT](#)

Protocol Id	Protocol Name	Protocol Type
FTHOOD_WEATHER_COWS	Weather with temp, wind, sky, and precipitation, and total number of cows	SiteConditions
FTHOOD_WEATHER_FALL_COWS	Weather with temp, wind, sky, and precipitation, and total number of cows for fall point counts	SiteConditions
VCP100Sx	Variable Circular Plot, exact distances to 100m, then >100 with AnimalSex, and bins over 100m for NOBO	PointCount
VCP_60m_4db	Variable distance point count 60 minutes with 4 distance bins <100, 100-250, 250, 500, >500	PointCount

4 rows

## 1. Select sampling units from the tree below.

select all

clear all

- ☐ ☒ ☐ FORT\_HOOD - [DOD\_ARMY] Fort Hood
  - ☐ ☐ ☐ Grassland Point Counts 2016-2018 (GRASSLAND)
  - ☐ ☐ ☐ Monitoring of Owls and Nightjars (MOON)
  - ☐ ☐ ☐ Northern Bobwhite Point Counts (NOBO\_PC)



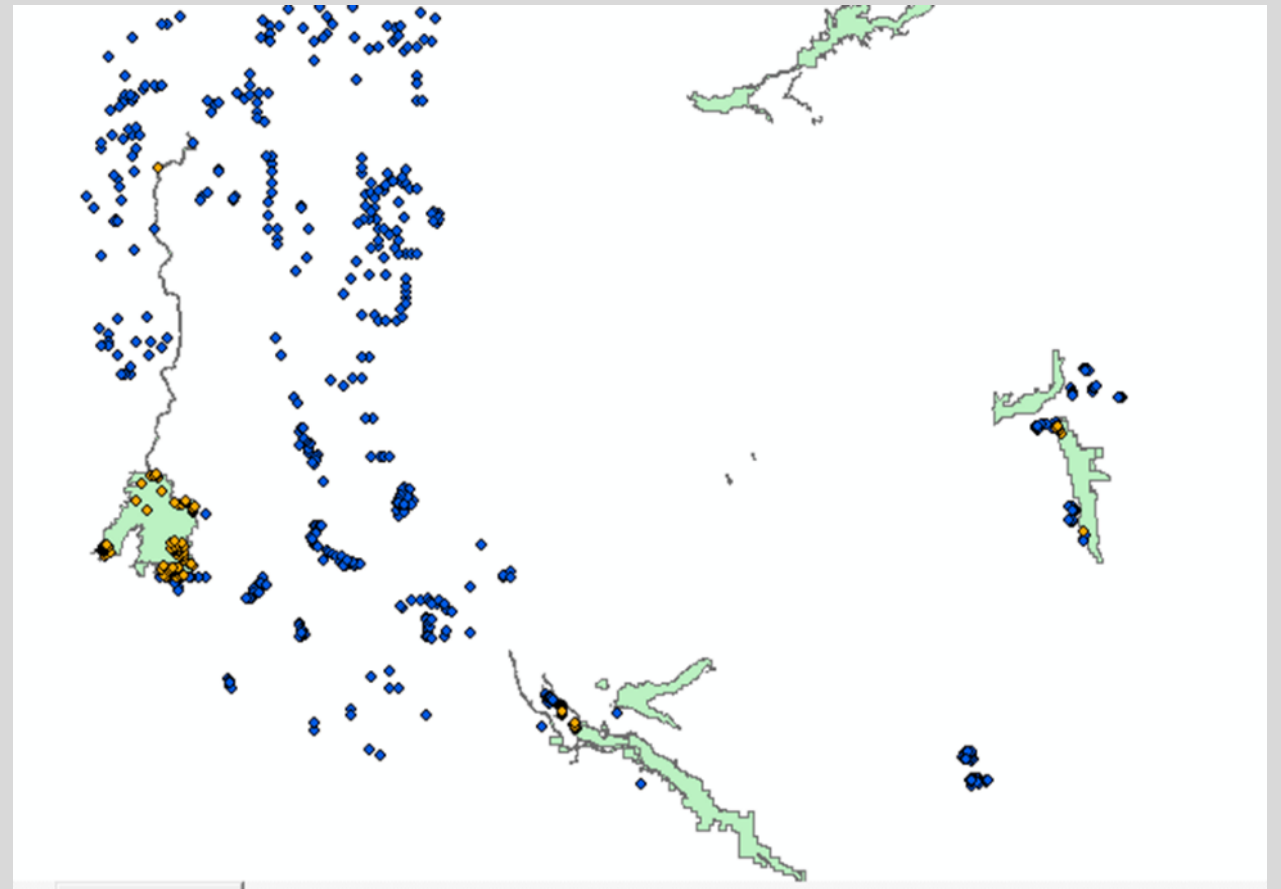
# Massachusetts Army National Guard

- Biologist leaving position one week after training
- Had 20+ years of data
- Working through data, realized inconsistencies in data entry
- Standardized protocol in system, showing required fields to be utilized in all future surveys
- Successfully uploaded 35,000 records prior to leaving DoD
- Data ready and available to successor



# USACE-Willamette Valley Project, OR

- New project biologist took DoD AKN training at NMFWA
- Worked with DoD AKN Team to ID data within boundary
- Data was both USACE and partner data
- Created USACE WVP within USACE enterprise
- Gained access to USACE-owned data
- Reaching out to partners about sharing data within boundary





# Vance AFB, OK

- Biologist was new to AF and did not have any bird data
- Wanted a list of birds on Vance for NEPA and INRMP updates
- RAIL tool available at no cost and without an account  
Integrates data from AKN, Partners in Flight, US Fish and Wildlife, Breeding Bird Survey, eBird, All About Birds, and the Macaulay image library at Cornell.

<https://data.pointblue.org/apps/rail/>

 Make Decisions

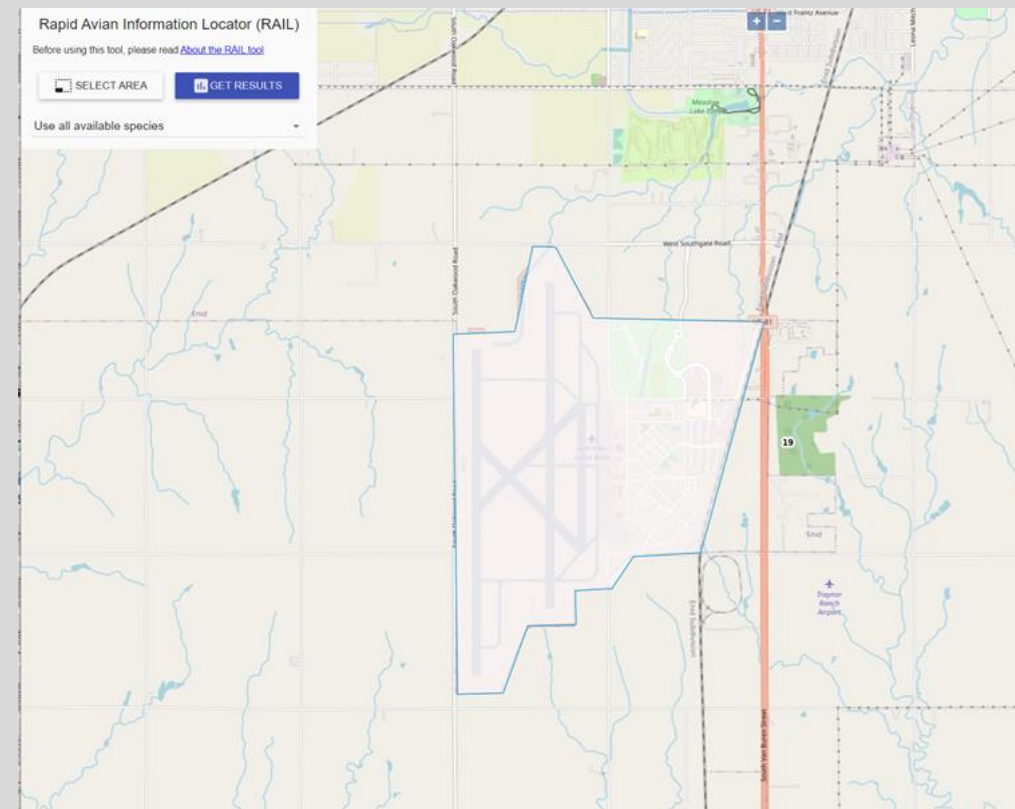
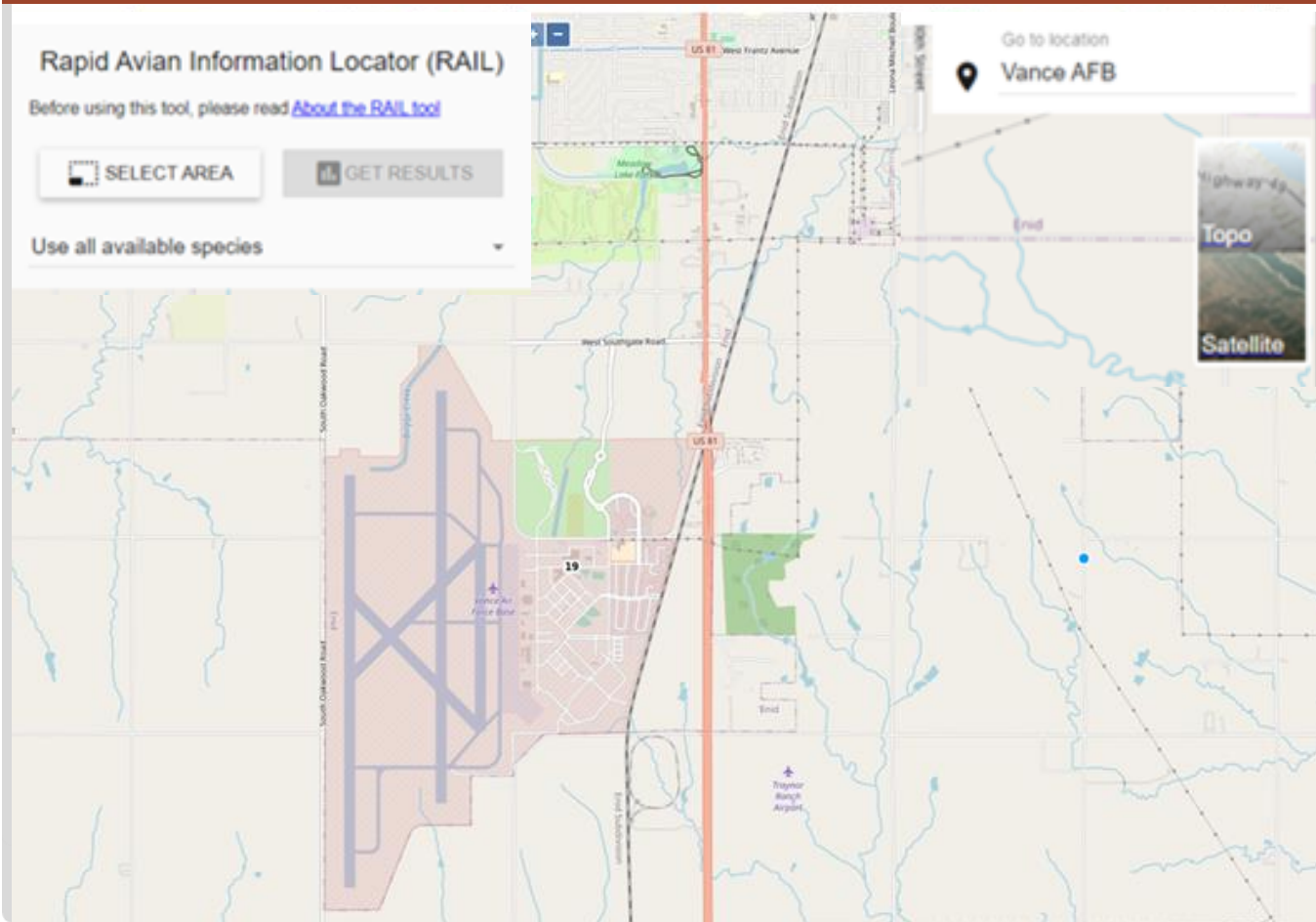


**R.A.I.L. tool**  
(Rapid Avian Information Locator)

Identify the set of birds that occur within specific geographic regions and their conservation status and population trends.  
No account required.



# Vance AFB – R.A.I.L



<https://data.pointblue.org/apps/rail/>





# Vance AFB – R.A.I.L

Rapid Avian Information Locator (RAIL)





Before using this tool, please read [About the RAIL tool](#)














Use all available species

Map showing Vance AFB location and surrounding areas. Legend includes Drummond, Vance AFB, and various airports.

Species Results  (Currently showing 172 of 172 results)

BCR(s): 19-CENTRAL\_MIXED\_GRASS\_PRAIRIE  
State(s): OK

Bird Species	Population Estimates	Conservation Status	Detail
 American Avocet <i>Recurvirostra americana</i>	Global: Not yet available Continental U.S.: Not yet available	BCRBCC Breeding: 9, 33	
 American Bittern <i>Botaurus lentiginosus</i>	Global: Not yet available Continental U.S.: Not yet available	State Threatened: MD State Endangered: MA, CT, NJ, PA, OH, IN	
 American Coot <i>Fulica americana</i>	Global: Not yet available Continental U.S.: Not yet available	Common	
 American Crow <i>Corvus brachyrhynchos</i>	Global: 28,000,000 Continental U.S.: 18,000,000	Common	

	American Redstart <i>Setophaga ruticilla</i>	Global: 42,000,000 Continental U.S.: 3,500,000	Common	
	American Robin <i>Turdus migratorius</i>	Global: 576,000,000 Continental U.S.: 200,000,000	Common	
	American Tree Sparrow <i>Spizella arborea</i>	Global: 26,000,000 Continental U.S.: 2,600,000	Common	
	American White Pelican <i>Pelecanus erythrorhynchos</i>	Global: Not yet available Continental U.S.: Not yet available	BCRBCC Breeding: 6	
	American Wigeon <i>Marca americana</i>	Global: Not yet available Continental U.S.: Not yet available	Common	
	Bald Eagle <i>Haliaeetus leucocephalus</i>	Global: 200,000 Continental U.S.: Not yet available	State Threatened: MA, CT, NH, NY, TX State Endangered: NJ, VT, PA	
	Baltimore Oriole <i>Icterus galbula</i>	Global: 12,000,000 Continental U.S.: 9,500,000	Common	
	Bank Swallow <i>Riparia riparia</i>	Global: 25,000,000 Continental U.S.: 5,500,000	State Threatened: CA	
	Barn Owl <i>Tyto alba</i>	Global: 5,600,000 Continental U.S.: 130,000	State Threatened: 10- State Endangered: 17 RI, IA, V	
	Barn Swallow <i>Hirundo rustica</i>	Global: 180,000,000 Continental U.S.: 40,000,000	Common	
	Bell's Vireo <i>Vireo bellii</i>	Global: 5,000,000 Continental U.S.: 4,600,000	Common	
	Belted Kingfisher <i>Megascops asio</i>	Global: 1,600,000 Continental U.S.: 400,000	BCRBCC Breeding: 13	
	Black-bellied Whistling Duck <i>Dendrocygne autumnalis</i>	Global: Not yet available Continental U.S.: Not yet available	Common	

<https://data.pointblue.org/apps/rail/>



# Vance AFB – R.A.I.L

## Filter Species Results

Weight Min (g)	Weight Max (g)	Habitat Category
Length Min (cm)	Length Max (cm)	Primary Breeding Habitat
<b>Biology</b>		
Egg Length Min (cm)	Egg Length Max (cm)	Incubation Period Min (day)
Egg Width Min (cm)	Egg Width Max (cm)	Clutch Size Min (integer)
Number of Broods Min (integer)	Number of Broods Max (integer)	Food Category
Behavior Category	Nesting Category	
<b>Conservation Status</b>		
Continental Importance	Half Life	<input type="checkbox"/> Federally Threatened or Endangered
State Threatened or Endangered	Bird of Conservation Concern	<input type="checkbox"/> Migratory Bird Treaty Act (MBTA) - Listed

CLEAR ALL FILTERS CANCEL APPLY

## Rapid Avian Information Locator (RAIL)

Before using this tool, please read [About the RAIL tool](#)

SELECT AREA

GET RESULTS

Type a species...

Selected species

HASP - Harris's Sparrow

OSFL - Olive-sided Flycatcher

BAEA - Bald Eagle



Bald Eagle  
*Haliaeetus leucocephalus*

Global: 200,000  
Continental U.S.: Not yet available

State Threatened: MA, CT, NH, NY, TX

State Endangered: NJ, VT, CA

### Alpha Code

Alpha Code<sup>1</sup>: Not yet available

### Habitat

Habitat Category<sup>2</sup>: Forests

Primary Breeding Habitat<sup>4</sup>: Wetlands, Generalist

### Physical Details

Weight<sup>2</sup>: 3000 - 6300 g

Length<sup>2</sup>: 71 - 96 cm

### Population Information

Global Population<sup>3</sup>: 200,000

% Population Estimate USA<sup>3</sup>: Not yet available

Lower 95% Bound USA<sup>3</sup>: Not yet available

Upper 95% Bound USA<sup>3</sup>: Not yet available

Continental Population Trend<sup>4</sup>: Significant large increase

Regional Population Trend<sup>4</sup>: BCR19 - Significant large increase

% BCR Population<sup>3</sup>: BCR 19 - 0.00%

Lower 95% Bound BCR<sup>3</sup>: BCR 19 - null

Upper 95% Bound BCR<sup>3</sup>: BCR 19 - null

% State Population<sup>3</sup>: OK - 0.00%

Lower 95% Bound State<sup>3</sup>: OK - null

Upper 95% Bound State<sup>3</sup>: OK - null

### Conservation Status

Continental Importance<sup>4</sup>: Not yet available

Half Life<sup>4</sup>: Not yet available

Federally Threatened<sup>6</sup>: No

Federally Endangered<sup>6</sup>: No

State Threatened<sup>7</sup>: MA, CT, NH, NY, TX

State Endangered<sup>7</sup>: NJ, VT, CA

Migratory Bird Treaty Act<sup>8</sup>: Listed

Bird of Conservation Concern<sup>9</sup>: No

Bird of Conservation Concern Entire Range<sup>9</sup>: Not yet available

BCRs where BCC Breeding<sup>9</sup>: Not yet available

BCRs where BCC Non-breeding<sup>9</sup>: Not yet available

[More information on BCR's](#)

### Biology

Food Category<sup>2</sup>: Fish

Behavior Category<sup>2</sup>: Soaring (raptor)

Nesting Category<sup>2</sup>: Tree

Incubation Period<sup>2</sup>: 34 - 36 days

Clutch Size<sup>2</sup>: 1 - 3 eggs

Number of Broods<sup>2</sup>: 1

Egg description<sup>2</sup>: Dull white, usually without markings.

Egg length<sup>2</sup>: 5.8 - 8.4 cm

Egg width<sup>2</sup>: 4.7 - 6.3 cm

Breeding time-frame - Start<sup>5</sup>: Not yet available

Breeding time-frame - Stop<sup>5</sup>: Not yet available

## Phenology Graph



<https://data.pointblue.org/apps/rail/>





# DoD Mission Benefits

- Secure database to input/upload, curate, and manage DoD field data
- Empowers historical data
- Assess status of birds on/near installations
- Monitor trends at multiple scales
- Data sharing and integration with partners
- Advanced data analysis and visualization tools
- Access to data that contributes to more technically and scientifically sound INRMPs and NEPA environmental reviews
- Contributes directly to proactive conservation, monitoring and management of priority bird species



**Enabling the Mission, Defending the Resources**



# Sign up for DoD AKN updates

Programs Performance Stakeholders References

**DoD Legacy Resource Management Program**

<https://www.denix.osd.mil/legacy/home/index.html>

**Contact the POC for DoD Legacy Resource Management Program**

Privacy Advisory: The use of information provided is subject to the DENIX Privacy Policy. You may opt out of providing contact information in this form. If you do so, we will not be able to provide a response.

**\*Required**

\*Your Name:

\*Email Address:

Phone Number:

\*Subject:

\*Message:

☐ I'm not a robot

**Legacy Listserv**

[Click here to sign up for the Legacy Listserv](#)

**News**

Natural Selections Newsletter Winter 2021-2022 [1.37 MB]

2021 DoD Climate Action plan [12.11 MB]

Fantastic Flights: Technology Tells the Tale of Avian Travels (Legacy #16-764)

**Online Tools**

Conserving Biodiversity on Military Lands: A Guide for Natural Resource Managers 3rd Edition

Biodiversity Outreach Tools

Climate Adaptation for DoD Natural Resource Managers, 2019 (Legacy Project #16-790)

1. Enter name
2. Enter email address
3. Enter "add to listserv"
4. Say please in message
5. Confirm you're not a robot

Programs Performance Stakeholders References

**DoD Partners in Flight (DoD PIF)**

<https://www.denix.osd.mil/dodpif/about/contact-dod-pif/index.html#>

**Contact the POC for DoD Partners in Flight (DoD PIF)**

Privacy Advisory: The use of information provided is subject to the DENIX Privacy Policy. You may opt out of providing contact information in this form. If you do so, we will not be able to provide a response.

**\*Required**

\*Your Name:

\*Email Address:

Phone Number:

\*Subject:

\*Message:

☐ I'm not a robot

**Find Your DoD PIF Contact**

**Contact POC**



# NEXT STEPS

- ✓ Sign up for DoD AKN updates
- ✓ Bookmark DoD AKN Portal
- ✓ Look for Service-specific email with Data Discovery and Training Survey
- ✓ Participate in comprehensive training program
  - Sign up for DoD-wide or Service-specific training
  - Attend *Office Hours* for data and survey support
- ✓ Military Services and installations think about their needs and interests
- ✓ Start discussions with DoD AKN Program about tasks/needs and possible funding



# Thank you!!!

- Attendees for taking the time to learn more about DoD and AKN
- OSD and the Legacy Program
- Military Service leads
- DoD PIF Steering Committee
- NMFWA
- Project partners Point Blue Conservation Science and Klamath Bird Observatory



**Point Blue**  
Conservation science  
for a healthy planet.



# Questions?

## Department of Defense's Participation in the Avian Knowledge Network

*Hosted by*  
**DoD Environmental Planning and Conservation  
Webinar Series**

**Elizabeth Neipert**

Technical Coordinator, DoD PIF

Program Director, DoD AKN Program  
Chair, National AKN Steering Committee

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**AVIAN**  
KNOWLEDGE NETWORK

*Leveraging Partnerships, Data and Information to Revolutionize Avian Conservation and Management*