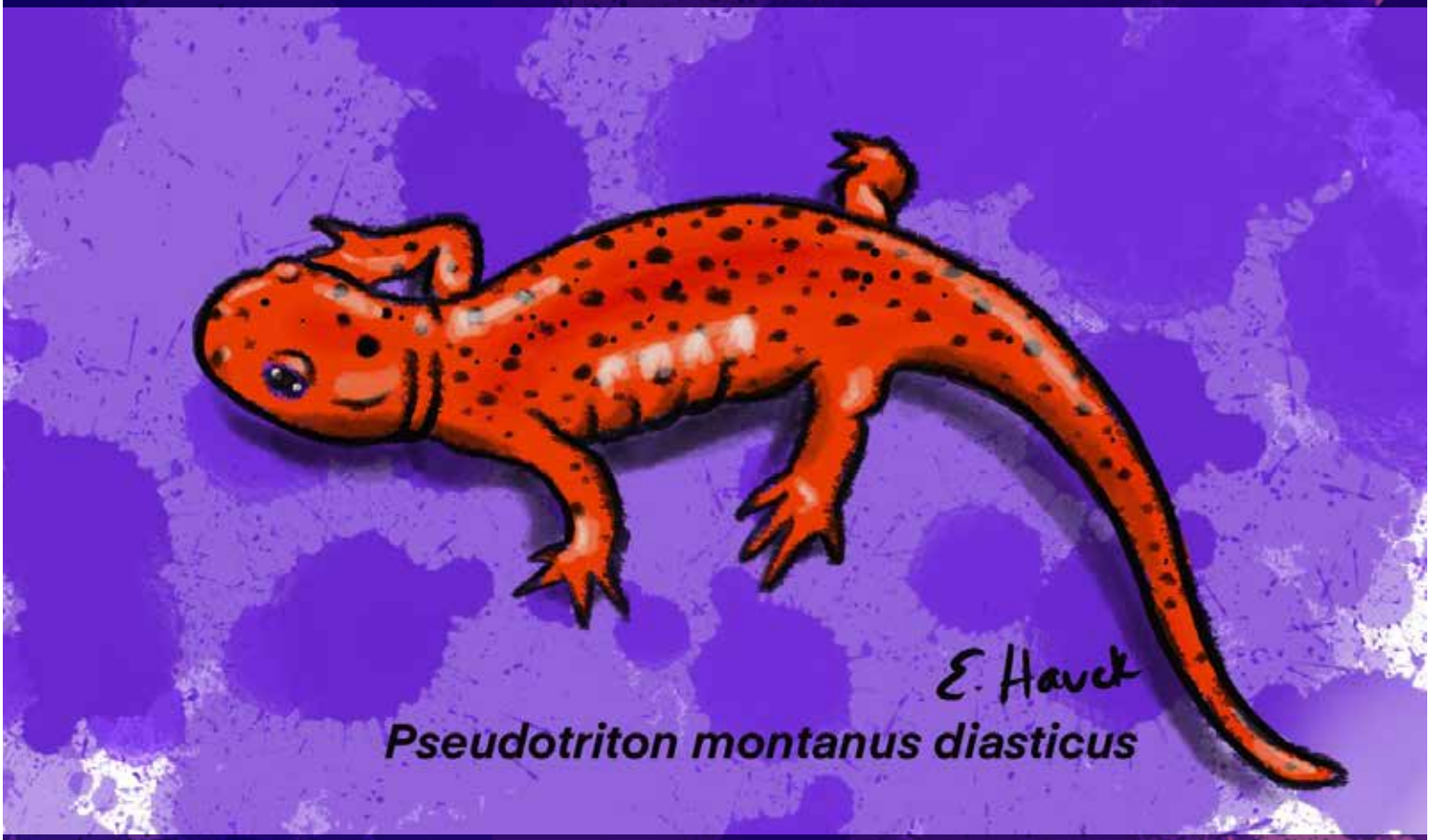
National Military Fish & Wildlife Association



MARCH 30 – APRIL 2, 2026
COLUMBUS, OHIO

ANNUAL MEETING & TRAINING WORKSHOP

NMFWA would like to extend our gratitude to our sponsors

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The **National Military Fish and Wildlife Association** (NMFWA) can trace its roots back to 1977, though it was officially chartered in 1983. We are a non-profit organization consisting of professional resource managers working to protect and manage wildlife and other natural resources on DoD lands. Through the publication of a quarterly Newsletter (Fish and Wildlife News [FAWN]), and the successful creation of an Annual Meeting and Training Workshop, members and supporters remain actively involved and engaged in issues of national and local importance.

Through the hard work and dedication of our membership, we have become a leader in the conservation community. Our members have been involved in initiatives ranging from research on White-Nose Syndrome to the reauthorization of the Sikes Act. The work we do today is more relevant than ever before, as we are faced with significant challenges in policy, stewardship, and research; NMFWA is prepared to meet those challenges. We are able to leverage the combined expertise of our membership though our Working Group System, and continue to strive to do whatever we can to protect and conserve DoD lands.

Visit **www.nmfwa.org** learn more about our organization.

Download the Conference App!

The conference schedule and final program content are available in mobile format through the free **Whova** — Event & Conference App.

- Download "Whova" from the iOS App Store or Google Play Store
- Search within the app for "91st North American Wildlife and Natural Resources Conference"
- Click on "91st North American Wildlife and Natural Resources Conference"
- Click "Join"

Highlights of the app include the ability to build your personal agenda, view the partner/exhibitor directory, interactive floor plans, opportunities to interact with fellow app users attending the Workshop and more!

The Workshop is a complicated event! Please refer to the app for the most to-date schedule and room assignments.

Table of Contents

General Event Information

Location

The workshop sessions, meetings, training courses, and Show & Tell event are being held at the Hilton Columbus Downtown.

All meetings will take place in Towers 401 and 402 of The Hilton Columbus Downtown unless otherwise indicated.

The NMFWA field trip traditionally held on Friday is not being held this year.

This year, the Show and Tell, Poster Session, Awards Banquet, and Silent Auction will all happen on Wednesday evening starting at 1730 in the **Robinson Ballroom**. All will be called to their seats at 1830 for the Awards Banquet with the Show and Tell starting again at 1930 until about 2100.

NMFWA Registration Hours (Eastern Standard Time)

The NMFWA registration desk is separate from the North American Conference registration desk. Both registration desks are located in close proximity to one another. The NMFWA Registration Desk will be located on the 3rd Floor of Tower 402.

- Sunday, March 29: 1500–1800hrs (3pm–6pm)
- Monday, March 30: 0700–1700 (7am–5pm)
- Tuesday, March 31: 0700–0800 (7am–8am); 1200–1700 (12pm–5pm)
- Wednesday, April 1: 0700–1700 (7am–5pm)
- Thursday, April 2: 0700–1700 (7am–5pm)

Registration Required

All conference attendees, including those attending or speaking at workshops, Special Sessions or related meetings must be registered. Anyone not wearing an appropriate conference name badge will not be admitted.

Beverage Stations/Breaks (a.k.a. Coffee Breaks)

Limited beverages will be provided (Check Whova):

- Monday – Thursday from 0700–0800hrs (7–8am), 0930–1030hrs (9:30–10:30am), and 1430–1530hrs (2:30–3:30pm)

Business Center

The Hilton Columbus Downtown has a small Business Center with computers and some printers, but for larger needs, the following are nearby:

• The UPS Store (0.3 miles to the north)
The UPS Store offers printing, shipping, packaging, package management, freight services, shredding, notary services, office supplies, mailbox services, and more.

605 N High Street, Columbus, Ohio 43215
Phone: 614-458-1126
Email: Store5914@theupsstore.com

Hours of Operation
Sunday: 10:00am – 3:00pm
Mon – Fri: 8:00am – 6:30pm
Saturday: 9:00am – 2:30pm

• FedEx Office & Print Center (0.4 miles to the south)
Offering printing, shipping, packaging, package management, freight services, shredding, notary services, office supplies, mailbox services, and more.

180 N High Street, Columbus, Ohio 43215
Phone: 614-621-1100
Email: USA0153@fedex.com

Hours of Operation
Sunday: 12:00pm – 6:00pm
Mon – Fri: 8:00am – 7:00pm
Saturday: 9:00am – 6:00pm

Internet Service

Wi-Fi high-speed internet access is available in the hotel guest rooms, lobby, and throughout the Workshop meeting spaces.

Food Amenities

There are several restaurants, shops, and The Market (Coffee Shop) available at the Hilton Columbus Downtown and in walking distance around the hotel and Conference Center area.

In the sixth year of NMFWA's art contest, this year's **program cover Illustration** and **T-Shirt art** was created by Emily Hauck, and represents the Midland Mud Salamander. Congratulations Emily! Throughout this program, you'll see some of the other excellent submissions.

NMFWA Photo Contest

NMFWA PHOTO CONTEST OPENS MARCH 2

This year, the NMFWA Photo Contest is ONLINE and open to all NMFWA members. You do not need to attend the annual Workshop to enter your photos.

Categories:

- Wildlife (any species is acceptable)
- Installation field activities (photo must have been taken at a DoW installation or project site)
- Landscapes/scenic (any location is acceptable)
- Humor/fun (includes wildlife or people in humorous poses, people taking part in fun activities such as NMFWA meeting, studio shots, etc.)
- Botany (any plant species is acceptable; this includes fungi and alga)
- Trail camera

Contest rules:

1. Any NMFWA member is eligible to participate.
2. Photos must be taken by the participant.
3. Each participant may enter up to two photos in each category.
4. NMFWA members will vote for the best photo in each category. One vote per member per category. Voting opens Thurs., March 26 and closes Thurs., April 2.
5. One prize will be awarded in each category.

How to enter:

A. Go to www.nmfwa.org/photo-contest
B. Complete submission form for each photo entered
C. Upload your photo(s)
D. Photos will be accepted from Monday March 2 to Wednesday March 18.

The contact for the contest is Bill Berry
BerryWH59@gmail.com

Welcome!

On behalf of the National Military Fish and Wildlife Association (NMFWA) Board of Directors, it is my distinct honor to welcome you to the 43rd Annual Meeting and Training Workshop in Columbus, Ohio. We are so glad (and more than a little relieved) to be here together once again.

I know I don't have to tell you — the last year has been particularly trying for our profession. Yet, what I am shown time and time again is the incredible resiliency that can only manifest from a true and enduring passion for our work. Your dedication — to employ expert and dynamic management of our nation's natural resources in order to sustain and enhance critical training opportunities for the warfighter — is the bedrock of this community's strength. This workshop stands as our commitment to providing you with the necessary professional training to continue that legacy of expert stewardship.

As I enter my final year as your president, I find myself reflecting on this shared resilience. When I began this role, I thought I was tasked with steering a great ship; it soon became clear I would be steering it through a storm. But what I have been shown so acutely in my tenure is that there is no one person at the helm — we are steering this ship together. Being president simply offers the best view from which to witness the collective power of the people in this organization, and for that, I am both awed and deeply grateful. I am humbled by your trust and by the privilege of bearing witness to your dedication.

Putting on an event of this scale is a monumental undertaking, especially under the unpredictable circumstances we've all faced. A huge and heartfelt thank you goes to Mr. Russ Lawrence, our Vice President and Workshop Coordinator, and the entire Workshop Committee for putting together another fantastic program in light of those circumstances.

I also ask you to remember that every Board member, Working Group Chair, and Committee Chair you see this week is a volunteer. They are making this all happen while navigating the very same pressures we are all facing in our day-to-day jobs. If you see a Board member in the halls, please take a moment to give your thanks.

Your workshop registration grants you access not only to NMFWA's specialized events but also to the open sessions of the North American Wildlife and Natural Resources Conference, fostering the vital partnerships that define our success. Please review the program to plan your week and be sure to attend the Annual Members Meeting to help shape our future and the Wednesday evening Banquet to honor our past.

Thank you for being here. Here's to a great Workshop, and to the enduring spirit of this incredible association.!

Zoe Duran
President, National Military Fish and Wildlife Association

DAILY SCHEDULE

Sunday, March 29

AT-A-GLANCE	
1500-1800	NMFWA Registration Desk Open (Tower 402, 3rd Floor Registration Desk)

Monday, March 30

Please don't forget to silence your cellphone and try to enter and leave rooms between speakers.

AT-A-GLANCE		
0700-1700	NMFWA Registration Desk Open (Tower 402, 3rd Floor Registration Desk)	
0700-0800	LIMITED BEVERAGE SERVICE *(Check Whova)*	
0800-1700	**Training Courses, Pre-registration Required**	
	0800-1700	DoW Participation in the Avian Knowledge Network: The Who, What, Where, When, Why, and How (Tower 401, Lobby Level, Pierce A)
	0800-1700	Introduction to Manual Bat Acoustic Identification (Tower 401, Lower Level, Burkhart B)
	0800-1700	A Trapping Awareness Workshop for Understanding, Communicating, and Applying Trapping in Wildlife Management (Tower 401, Lower Level, Burkhart A)
	0800-1200	Expanding Impact: Integrated Monarch Monitoring Program (IMMP) Training as a Framework for Monitoring At-Risk Species (Tower 401, Lobby Level, Pierce B)
	0800-1200	Living Shoreline & Coastal Resiliency Training (Tower 401, Lobby Level, King)
1200-1300	LUNCH	
1300-1700	**Training Courses, Pre-registration Required**	
	1300-1700	Novel Approaches to Ground-based Forest Measurements — Seeing the Forest by Measuring the Trees (Tower 410, Lobby Level, Hayden)
	1300-1700	Expanding Impact: Integrated Monarch Monitoring Program (IMMP) Training as a Framework for Monitoring At-Risk Species (Tower 401, Lobby Level, Pierce B)
1445-1545	LIMITED BEVERAGE SERVICE *(Check Whova)*	
1730-1900	**2025-2026 NMFWA Board of Directors Meeting** (Clements, 2nd Floor)	

0700-1700 NMFWA Registration Desk Open
(Tower 402, 3rd Floor Registration Desk)

0700-0800 Limited Beverage Service *(Check Whova)*

1200-1300 Lunch

1445-1545 Limited Beverage Service *(Check Whova)*

NMFWA TRAINING COURSES/WORKSHOPS

All Courses Require Pre-Registration. Check registration desk for availability.

0800-1700 DoW Participation in the Avian Knowledge Network: The Who, What, Where, When, Why, and How
(Tower 401, Lobby Level, Pierce A)

Moderators & Instructors: engineers and biologists from *Point Blue Conservation Science*, *Klamath Bird Observatory*, and *U.S. Army Engineer Research and Development Center – Environmental Laboratory*:
Sam Veloz, Dianne Miller, Caitlyn Gillespie, Nora Honkomp, John Alexander, Zoe Duran and Elizabeth Neipert

Training Summary: Department of War (DoW), through the Legacy Program, funds participation in the Avian Knowledge Network (AKN). On 24 June 2022, the Office of the Secretary of War (OSW) issued a memo that endorses and requires the use of AKN by the DoW Components. AKN integrates avian monitoring data from similar standardized protocols and data structures for use in analysis, summarization, and visualization. Users have access to sharing roles that include data entry, data management, and data analysis, providing the only national enterprise system of its type for scientific observation protocols, analyzable results, long-term storage, and widespread input. Attendees will learn about how the system is organized, how to create project metadata and input data, how data sharing levels work, and how to visualize, analyze, and aggregate data for conservation purposes. They will also learn about the capabilities of pooling Military Service-specific data, regional data, and habitat-specific data including data from our federal and state partners. Participants will learn the who, what, where, when, why, and how of the AKN and DoW's commitment to the use of the AKN. They will leave with the capability to upload, archive, access, and use extensive avian data tools to assist in NEPA analysis and assessing impacts of readiness and non-readiness activities.

NOTE: Pre-work is required to participate in this course. Any interested participants need to commit to completing the pre-work prior to the in-person training in Columbus, OH. All participants will need to bring laptops to the training that can access the internet. It is encouraged for participants to bring an appropriate and ready avian dataset. Registrants will be contacted by course instructors via email with more information closer to the Workshop.

0800-1700 Introduction to Manual Bat Acoustic Identification (Tower 401, Lower Level, Burkhart B)

Moderators & Instructors: **Donald Solick**, *Owner, Vesper Bat Echolocation Specialists*; **Nick Solick**, *Assistant, Vesper Bat Echolocation Specialists*; **Jillian Josimovich**, *Biologist, U.S. Fish and Wildlife Service*; **Rada Petric**, *Director for the institute for the Environment at Highlands Field Site and Research Assistant Professor, University of North Carolina – Chapel Hill*

Training Summary: The initiation and continued monitoring of bat populations across military installations is growing in importance as more bat species become federally listed. Acoustic monitoring is a tool for inventorying and monitoring bat species at military installations to support INRMP goals, complete required USFWS presence/absence surveys for projects, and assist larger efforts to assess bat species population statuses and trends, such as the North American Bat Monitoring Program (NABat). Acoustic experts from Vesper Bat Echolocation Specialists (Vesper) will provide course participants with the opportunity to learn about the basics of bat acoustic identification and how bat calls can be manually vetted for some common, at-risk, and federally listed species (e.g., Indiana bat, Northern long-eared bat, gray bat, tricolored bat, little brown bat). This training is equivalent to the Echolocation 101/ Best Practices, Acoustic ID of Common and Endangered High-frequency Bats, and SonoBat Data Processing for NABat courses offered by Vesper. The training will include an overview of how to deploy detectors, how to choose which calls to identify, the basics of SonoBat (a popular bat acoustic software program), the basics of AnalookW (another program useful for identifying endangered Indiana bats), and manual vetting for high-frequency bat species in SonoBat. All skill levels are welcome to this training, including wildlife professionals and students. Vesper also offers affordable online trainings that students could pursue independently after the meeting according to their skill levels and regional species needs.

Monday, March 30 *(continued)*

0800-1700 A Trapping Awareness Workshop for Understanding, Communicating, and Applying Trapping in Wildlife Management (Tower 401, Lower Level, Burkhart A)

Instructor: **Bryant White**, Association of Fish and Wildlife Agencies, Washington DC

Training Summary: Trapping is one of the most important yet often least understood tools in modern wildlife management. Despite its critical role in endangered species protection, species restoration, human/wildlife conflict resolution, and wildlife research, many wildlife professionals and members of the public lack familiarity with trapping practices. This workshop is designed to address that knowledge gap. This trapping awareness workshop will provide participants with a strong foundation in the science, practice, and communication of regulated trapping. By combining effective messaging strategies with hands-on demonstrations of trapping equipment and methods, this session will prepare wildlife professionals to understand, explain, and apply trapping in their work.

Participants will leave the workshop with:

- A clear understanding of the role of trapping in wildlife management, research, and conservation.
- Firsthand experience with the most common traps, equipment, and sets, including demonstrations of their selectivity, practicality, and humane use.
- Effective communication strategies and key messages for discussing trapping with diverse audiences (peers, policymakers, the media, and the public).
- Knowledge of Best Management Practices (BMPs) for regulated trapping, including research supporting humane and science-based approaches.

This full-day interactive workshop combines classroom sessions with field demonstrations and discussion. Major components include:

1. Communication Skills
   - Understanding public perceptions of trapping.
   - Lessons from human dimensions research and focus groups.
   - How to craft and deliver effective messages to different audiences.
2. Traps and Trapping Techniques
   - Hands-on demonstrations of foothold traps, cable restraints, cage traps, body-grip traps, and more.
   - Examination of selectivity, practicality, efficiency, and release capabilities.
   - Small-group rotations through equipment stations.
3. Best Management Practices for Trapping
   - Research behind humane trapping standards.
   - How BMPs are developed, tested, and applied.
   - Practical application of BMPs in wildlife management programs.
4. Trapping in Policy and Practice
   - Overview of trapping demographics, motivations, and statistics.
   - Current role of trapping in wildlife policy and management at the state and national level.

This workshop is designed for:

- Wildlife biologists and managers.
- Natural resource agency staff.
- Researchers using live capture methods.
- Students and early-career professionals seeking applied experience.

NOTE: Outdoor demonstrations will be held at a nearby park that will require a 15 minute walk, therefore participants should dress appropriately.

0800-1200 Expanding Impact: Integrated Monarch Monitoring Program (IMMP) Training as a Framework for Monitoring At-Risk Species (Tower 401, Lobby Level, Pierce B)

Instructors: **Mercy Manzanares**, *Program Coordinator, Monarch Joint Venture*

Training Summary: The Integrated Monarch Monitoring Program (IMMP) was developed to assess monarch butterfly populations, habitat quality, and conservation outcomes across North America. However, the program's standardized methods and modular design also provide a scalable framework for broader biodiversity monitoring. This training equips participants with field-based skills in plant and pollinator identification, habitat assessment, and data collection — skills directly transferable to monitoring other at-risk and early successional species such as bumble bees, grassland birds, and other pollinators of concern.

By integrating IMMP protocols into existing monitoring efforts, participants can generate multi-species data that inform adaptive management and contribute to regional conservation priorities. The training emphasizes practical field applications, data submission workflows, and opportunities for collaboration across agencies and landscapes, including Department of Defense installations and conservation partner sites. Through this additive approach, IMMP training strengthens capacity for unified, ecosystem-based monitoring that supports both monarch recovery and the conservation of broader pollinator and grassland communities.

0800-1200 Living Shoreline & Coastal Resiliency Training (Tower 401, Lobby Level, King)

Instructors: C. Scott Hardaway, Jr., *Senior Research Scientist, Shoreline Studies Program, Virginia Institute of Marine Science, William & Mary*; Donna Milligan, *Associate Research Scientist, Shoreline Studies Program, Virginia Institute of Marine Science, William & Mary.*

Training Summary: Introductory training for marine and natural resources professionals interested in beginning to understand the process and components of shoreline management focusing on living shoreline strategies. Topics will include, but not be limited to, an overview of shoreline management planning and methods; research on performance and resiliency; concept to construction project design for hybrid living shorelines with engineered structures; and site-specific design case studies. The training will allow resource managers to assess nature-based project designs for successful shore protection, ecosystem restoration, and long-term coastal resiliency. The course program will feature shoreline management and living shoreline resiliency projects implemented within the Chesapeake Bay watershed that would also be applicable to other microtidal (less than 2 m; 6 ft) coastal estuarine areas particularly along the Eastern and Southern Coasts of the US. The presenters have extensive experience in research-based analyses of estuarine coastal geomorphology and physical forces for shoreline management as well as living shoreline research, design, and performance monitoring.

www.vims.edu/research/units/programs/ssp/

1300-1700 Novel Approaches to Ground-based Forest Measurements — Seeing the Forest by Measuring the Trees (Tower 410, Lobby Level, Hayden)

Instructors: Nathan Beane, Ph.D., *Research Forester, US ARMY, Engineer Research and Development Center (ERDC)*

Training Summary: The course will be geared to showcase common foundational forest sampling methods and to demonstrate the use of traditional and new innovative tools used to assess forest and vegetation community structure and condition. With fast-paced advances in remote sensing technologies, opportunities to acquire high-resolution imagery and LiDAR data of forested areas abound. How does one decipher what they are seeing in the imagery without performing ground-based validation? Collecting accurate forest and vegetation community structure and condition is not only essential for mapping/modeling needs, but also critical information used to guide forest and wildlife management decision-making. This training is aimed at reviewing foundational approaches to measuring vegetation while showcasing advancements in forestry tools that can increase efficiencies and improve the quality of data collected. This learning and hands-on opportunity will discuss method selection while also demonstrating novel tools used to perform forest stand evaluations. This training is applicable to any natural resources manager in any geographic region. This training will provide 1.5 hours of lecture materials, and 2.5 hours of hands-on learning. Attendees are not required to have any prior or specific knowledge of the subject area, but if you hug trees (to measure them as part of your day job), this training will be beneficial to you.

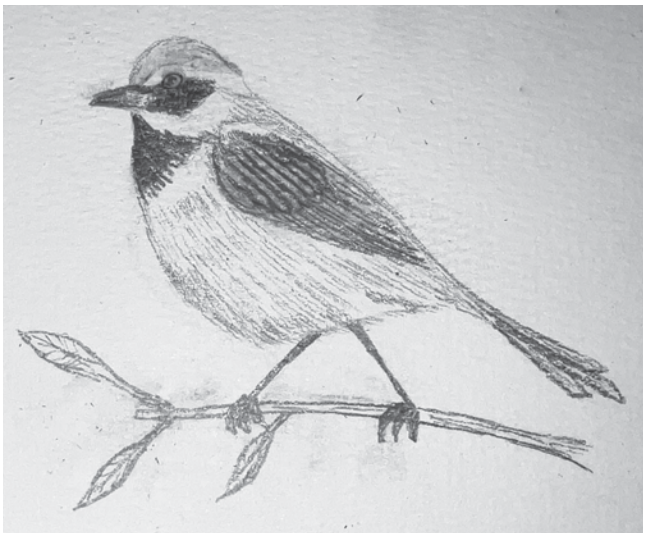
NOTE: Course is open to DoW employed participants only. Seats still available on the day of training will be open to all on a first-come first-serve basis until filled. Hands-on learning will be conducted outdoors at a nearby park requiring a short 15 min walk, so participants should dress appropriately.

Monday, March 30 *(continued)*

1300-1700 Expanding Impact: Integrated Monarch Monitoring Program (IMMP) Training as a Framework for Monitoring At-Risk Species (Tower 401, Lobby Level, Pierce B)

Instructors: Mercy Manzanares, *Program Coordinator, Monarch Joint Venture*

Training Summary: The Integrated Monarch Monitoring Program (IMMP) was developed to assess monarch butterfly populations, habitat quality, and conservation outcomes across North America. However, the program's standardized methods and modular design also provide a scalable framework for broader biodiversity monitoring. This training equips participants with field-based skills in plant and pollinator identification, habitat assessment, and data collection—skills directly transferable to monitoring other at-risk and early successional species such as bumble bees, grassland birds, and other pollinators of concern. By integrating IMMP protocols into existing monitoring efforts, participants can generate multi-species data that inform adaptive management and contribute to regional conservation priorities. The training emphasizes practical field applications, data submission workflows, and opportunities for collaboration across agencies and landscapes, including Department of Defense installations and conservation partner sites. Through this additive approach, IMMP training strengthens capacity for unified, ecosystem-based monitoring that supports both monarch recovery and the conservation of broader pollinator and grassland communities.



Golden-Winged Warbler, by Candace Grimes

1730-1900 2025-2026 NMFWA Board of Directors Meeting — All Members Welcome (Tower 402, 5th Floor, Dax)

Moderator: Zoe Duran, *NMFWA President, Research Biologist and Data Support Analyst, nmfwapresident@gmail.com, zoe.k.duran@erdc.dren.mil*

Session Summary: This is the closeout meeting of your outgoing 2025/2026 NMFWA Board of Directors (BoD). Please feel free to join us and see the NMFWA organization in action. The 2025/2026 BoD is required to attend and all NMFWA members, especially the 2026/2027 BoD nominees, are welcome and encouraged to attend.

Calling All NMFWA Newbies!

NMFWA Newcomers Meet & Greet • Tuesday, March 31 • 1630–1730
Tower 402, 5 Floor, Robinson Ballroom B

If you are new to NMFWA, we invite you to join us at the Newcomers Meet & Greet event. All 1st and 2nd-time attendees will have the opportunity to chat with Board members, meet other newcomers, and learn about all the ways you can get involved. There will also be a Q&A.

Registration required — be sure to bring your ticket! If you do not have your ticket and you are a 1st or 2nd-time NMFWA attendee, check in with the NMFWA registration desk.

Tuesday, March 31

Please don't forget to silence your cellphone and try to enter and leave rooms between speakers.

AT-A-GLANCE		
0700-0800	NMFWA Registration Desk Open (Tower 402, 3rd Floor Registration Desk) *(Desk is closed from 0800-1200hrs so all NMFWA members can attend the NMFWA Welcome and DoW Policy Updates and the NMFWA Annual Members Meeting)*	
0700-0800	LIMITED BEVERAGE SERVICE *(Check Whova)*	
0800-1000	**NMFWA Welcome and DoW Policy Updates** (Tower 402, 5th Floor, Robinson Ballroom C)	
	0800-0815	NMFWA Welcome
	0815-1000	DoW Policy Session
0930-1030	LIMITED BEVERAGE SERVICE *(Check Whova)*	
1000-1015	BREAK	
1015-1200	**NMFWA Annual Members Meeting** (Tower 402, 5th Floor, Robinson Ballroom C)	
1200-1700	NMFWA Registration Desk Open (Tower 402, 3rd Floor Registration Desk)	
1200-1300	LUNCH	
1300-1600	**DoW Service Breakout Sessions (Army and National Guard)**	
	1300-1430	Joint Army and Army National Guard Breakout Session (Tower 402, Robinson Ballroom C)
	1430-1600	Department of Army Breakout Session (Tower 402, Robinson Ballroom B)
	1430-1600	Army National Guard Breakout Session (Tower 402, Robinson Ballroom C)
1300-1400	Informal Navy/Marine Corps Breakout Session (Tower 402, 5th Floor, Dax)	
1300-1400	Informal Air Force/Space Force Breakout Session (Tower 402, 5th Floor, Barnes)	
1430-1530	LIMITED BEVERAGE SERVICE *(Check Whova)*	
1600-1630	DoW Small Mammal Initiative (Tower 402, 5th, Robinson Ballroom B)	
1600-1700	US Fish & Wildlife Service Retirees Association Memberships (Tower 401, Lower Level, Burkhart A)	
1630-1730	**NMFWA New Members Meet and Greet** (Tower 402, 5th Floor, Dax)	
1730-1800	BREAK	
1800-2000	**WMI Welcome Reception** (Tower 402, 4th Floor, Kamau Ballroom A, B)	

0700-0800 NMFWA Registration Desk Open
(Tower 402, 3rd Floor Registration Desk)

0700-0800 Limited Beverage Service *(Check Whova)*

0800-1000 NMFWA Welcome & DoW Policy Updates (Tower 402, 5th Floor, Robinson Ballroom C)

NMFWA Welcome

Moderator/Presenter: Zoe Duran*, NMFWA President: nmfwapresident@gmail.com*

DoW Policy Updates

Moderators/Presenters: Jennifer Oelke Farley, *Natural Resources Program Director, Office of the Deputy Assistant Secretary of War (Environmental Management and Restoration) (ODASW(EMR))*, Stephanie Hertz, *Recovery and Sustainment Partnership Coordinator, ODASW(EMR))*, Forrest Cobb, *Natural Infrastructure Coordinator, ODASW(EMR)*, Mike Langston, *Program Manager Legacy Resource Management Program, ODASW(EMR)*, Lucas Cooksey, *Texas A&M University Natural Resources Institute Associate Director*, and Megan Scanlin, *DoW Natural Resources Program Contractor, ODASW(EMR)*

Tuesday, March 31 *(continued)*

Session Summary: The Department of War (DoW) Natural Resources (NR) Program policy presentation will provide an overview of the DoW NR Program's current priorities and initiatives. It will be a policy-focused update that highlights new and updated DoW policies and initiatives and provides information on how these policies and initiatives support the DoW mission, streamline the management of DoW NR programs, and enable NR managers. There will be a planned time for questions.

0930-1030 Limited Beverage Service *(Check Whova)*

1000-1015 Break

1015-1200 NMFWA Annual Members Meeting
(Tower 402, 5th Floor, Robinson Ballroom C)

Moderators/Presenters: Zoe Duran, *NMFWA President, Owner and Lead Biologist, Duran Environmental Consulting, LLC, nmfwapresident@gmail.com, zoeduran.dec@gmail.com*; Russ Lawrence, *NMFWA Vice President, Natural Resources Project Leader, Hill AFB and the Utah Test and Training Range, nmfwaworkshop@gmail.com*; NMFWA Board of Directors, NMFWA Officers

Session Summary: This year's Members Meeting will bring members together to review accomplishments over the past year and lay a path forward for continued success. Highlights will include an introduction of the current and future Board of Directors and Past Presidents in attendance, a review of the current budget and Board activities, the announcements of our 2025/2026 NMFWA Award recipients, and discussions of motions put forth to alter the constitution and bylaws of the organization. Members will be asked to provide their input on the direction that NMFWA is taking and to identify issues that they feel should be addressed. This is your Association, so come and tell us what you think.

1200-1300 Lunch

1200-1700 NMFWA Registration Desk Open (Tower 402, 3rd Floor Registration Desk)

1300-1600 DoW Service Breakout Sessions

Session Summary: The DoW Breakout Sessions are your chance to hear from and speak to your Service Headquarters representatives, meet and greet your sibling installations, and get information on the upcoming fiscal years from the Washington perspective.

1300-1430 Joint Department of Army and Army National Guard Breakout Session
(Tower 402, Robinson Ballroom C)

Session Summary: For the first 1 hour of the DoW Breakout Sessions, the Army and Army National Guard will meet jointly to discuss parallel topics. The remaining 1 hours they will meet separately (see below).

1430-1600 Department of Army Breakout Session
(Tower 402, Robinson Ballroom B)

Moderator/Presenter: Taura Huxley, *Conservation Branch (AMIM-AEC-EC), US Army Environmental Command, taura.a.huxley.civ@army.mil*

Session Summary: Come hear the latest news about the Army Conservation Program, featuring updates from HQDA and conservation success stories from your colleagues. This breakout session will cover Army's innovative approaches to incorporating climate change into INRMPs, challenges and success of REPI, growing partnerships, and more. Supplemental time will be provided for open discussion.

1430-1600 Army National Guard Breakout Session
(Tower 402, Robinson Ballroom C)

Moderator/Presenter: Mr. Shannon Bowling, *Natural Resources/ Sikes Act Program Manager, ARNG-G9, IEE-N, Arlington, VA*

Session Summary: The Army National Guard (ARNG) breakout session will include a mixture of program updates, presentations, and open discussion. Topics will include ARNG Integrated Natural Resources Management Plan (INRMP) template layout and organization, processes for INRMP updates and reviews and operational INRMPs, current status of resiliency initiatives, a refresher on Conservation Reimbursable and Fee Collection program

requirements, a Wildland Fire program update, highlights from the ARNG Status Tool for the Environmental Program (STEP) training, and a Pest Management program Q&A.

1300-1400 Informal Department of the Navy/ Marine Corps Breakout Session
(Tower 402, 5th Floor, Dax)

Session Summary: Come join others from the Navy and Marine Corps and have an informal discussion on management and other questions that could be answered by others in the room.

1300-1400 Informal Department of the Air Force/ Space Force Breakout Session
(Tower 402, 5th Floor, Barnes)

Session Summary: Come join others from the Air Force/Space Force and have an informal discussion on management and other questions that could be answered by others in the room.

1430-1530 Limited Beverage Service *(Check Whova)*

1600-1630 DoW Small Mammal Initiative Update
(Tower 402, 5 Floor, Robinson Ballroom B)

Moderator: David McNaughton, *NAVFAC SW and Eric Britzke, ERDC*

Session Description: The 3-species determination key is set to be published into the active IPaC website by the time of this conference. Installations and users will be able to navigate to a Not Likely to Adversely Affect decision using this new tool. Supporting documents, features, and the path ahead for adding take to the key will be discussed. The Bat Monitoring and Inventory Guidebook was published in 2025 and details best practices in setting out a monitoring program or upgrading its complexity with DoW concerns in mind. The Bat Conservation Strategy will be the next publication for the Initiative, likely in FY27. The Strategy will be applicable and provide conservation actions for all bats in the US but also broadly applicable to OCONUS. Finally, we will discuss the evolution of the Initiative to fulfill its intent of assisting in all nongame mammal issues and to provide subject matter expertise to our installations and projects. Please let us know how we can help.

Green Salamander, by Peter Brakeman

1600-1700 US Fish & Wildlife Retirees Association Memberships (Tower 401, Lower Level, Burkhart A)

Moderator: Lewis Gorman III, *US Fish and Wildlife Service Retirees Association*

Session Description: Now, any retiree can join the USFWS Retirees Association. This is a recent change that significantly opens the group to all who are interested in joining and supporting the mission of the organization. This session will highlight the activities, advantages, and potential benefits of joining the Association. It's likely that many NMFWA members have worked with FWS personnel and wish to continue that association.

1630-1730 NMFWA New Members Meet & Greet
(Tower 402, 5 Floor, Robinson Ballroom B)

Summary: Calling All NMFWA Newbies! If you are new to NMFWA, we invite you to join us at the Newcomers Meet & Greet event. All 1st and 2nd-time attendees will have the opportunity to chat with Board members, meet other newcomers, and learn about all the ways you can get involved. There will also be a Q&A.

Registration Required — be sure to bring your ticket! If you do not have your ticket and you are a 1st or 2nd-time NMFWA attendee, check in with the NMFWA registration desk.

1730-1600 Break

1800-2000 WMI Welcome Reception
(Tower 402, 4th Floor, Kamau Ballroom)

Wednesday, April 1

Please don't forget to silence your cellphone and try to enter and leave rooms between speakers.

AT-A-GLANCE		
0700-1700	NMFWA Registration Desk Open (Tower 402, 3rd Floor Registration Desk)	
0700-0800	LIMITED BEVERAGE SERVICE *(Check Whova)*	
0800-0930	**WMI 91st Annual North American Wildlife & Natural Resources Conference — Plenary Session** (Tower 402, 5th Floor, Robinson Ballroom)	
0930-1030	LIMITED BEVERAGE SERVICE *(Check Whova)*	
0930-1000	BREAK	
1000-1200	**WMI Special Sessions** (Tower 402, 5th Floor, Robinson Ballroom A, & Tower 402, 5th Floor, Spencer)	
1200-1300	LUNCH	
1300-1700	DoW Avian Knowledge Network (AKN) Office Hours (Tower 402, 5th Floor, Merrill)	
1300-1700	**Session Room #1** (Tower 402, 5th Floor, Spencer)	
	1300-1445	DoW Partners in Amphibian and Reptile Conservation (PARC) Network and Herps WG Technical Session
	1445-1500	BREAK
	1500-1700	Plant Management Supporting T&E Conservation: Outcomes Across DoW Lands
1300-1700	**Session Room #2** (Tower 402, 5th Floor, Robinson Ballroom A)	
	1300-1445	BASH WG Technical Session
	1445-1500	BREAK
	1530-1700	TRAWG Grab Bag — Current Technologies being used across DoW Technical Session
1430-1530	LIMITED BEVERAGE SERVICE *(Check Whova)*	
1700-1730	BREAK	
1730-1830	**NMFWA Show and Tell, Poster Session, Silent Auction Part 1** (Tower 402, 5th Floor, Robinson Ballroom A)	
1830-1930	**NMFWA Awards Banquet** (Tower 402, 5th Floor, Robinson Ballroom A)	
1930-2100	**NMFWA Show and Tell, Poster Session, Silent Auction Part 2** (Tower 402, 5th Floor, Robinson Ballroom A)	

0700-1700 NMFWA Registration Desk Open
(Tower 402, 3rd Floor Registration Desk)

0700-0800 Limited Beverage Service *(Check Whova)*

0800-1000 WMI 91st Annual North American Wildlife & Natural Resources Conference — Plenary Session (Tower 402, 5th Floor, Robinson Ballroom)

0930-1030 Limited Beverage Service *(Check Whova)*

0930-1000 BREAK

1000-1200 WMI Special Sessions

- WMI Special Session # 1: Conservation Models Beyond North America: Global Lessons for Shared Challenges (Tower 402, 5th Floor, Robinson Ballroom A)
- WMI Special Session # 2: Advancements in Hunting and Fishing Technology: A Fair Chase and R3 Conundrum (Tower 402, 5th Floor, Spencer)

1200-1300 LUNCH

1300-1700 DoW Avian Knowledge Network (AKN) Office Hours
(Tower 402, 5th Floor, Merrill)

Session Moderator/Presenter: DoW AKN Program Team*, www.dodakn.org, dodakn@erdc.dren.mil*

Session Abstract: DoW AKN Office Hours provide an open forum for military natural resource professionals and partners to ask questions, receive guidance, and discuss topics related to avian data management and monitoring. These informal sessions offer direct access to the DoW AKN Program Team, allowing participants to explore subjects such as data entry and visualization, project setup, Mission-Sensitive Species resources, protocol selection, study design, and integration of avian data into conservation planning. Whether users need technical support, help navigating the AKN platform, or insights on best practices for avian monitoring, Office Hours provide a space for discussion and problem-solving tailored to installations' individual needs. Stop by anytime during this open house-style session to sit down with the team.

Session Room #1 (Tower 402, 5th Floor, Spencer)

1300-1445 Department of War Partners in Amphibian and Reptile Conservation (PARC) Network and Herpetofauna Working Group Technical Session

Abstract: Our technical session will cover a variety of topics related to the conservation and management of reptiles and amphibians on military lands. We will discuss current, new, and future DoW PARC products such as our annual report, mission-sensitive species report, and best management practices documents for herpetofauna. Furthermore, we will present new and emerging techniques and research opportunities for monitoring herpetofauna and highlight specific DoW PARC and Herp Working Group projects currently being conducted on military lands. Projects that will be highlighted include preliminary results of our mission-sensitive species genomics project, California conservation genomics project, western pond turtle surveys, and the DoW Natural Resources Photo Share Site. We will also be presenting on national PARC initiatives in addition to recent Endangered Species Act listing decisions made by the U.S. Fish and Wildlife Service. Lastly, there will be presentation on a rattlesnake den monitoring project on the Nevada Test and Training Range.

1445-1500 BREAK

1500-1700 Plant Management Supporting T&E Conservation: Outcomes Across DoW Lands

Moderator: Dominic Goshert, *Center for Environmental Management of Military Lands, Pōhakuloa Training Area, Hawaíi*

Session Description: This technical session brings together on-the-ground conservation work from multiple DoD installations to show how threatened and endangered (T & E) plant management is evolving into a more integrated, outcomes-focused practice. Collectively, the presentations emphasize the connection between rigorous monitoring and practical decision-making, demonstrating how field data can be used not only to document rare species occurrence, but to evaluate status, detect change, and guide where management effort will have the greatest benefit.

A shared theme across the session is the need to understand and address the processes that most strongly shape population persistence. The talks highlight how managers are identifying and responding to interacting pressures such as invasive species, herbivory, and shifting fire dynamics, alongside demographic and ecological bottlenecks that can limit recruitment and recovery. Rather than treating monitoring and management as separate tracks, the session underscores an adaptive approach in which surveillance and threat assessment directly inform interventions, and interventions are designed with safeguards that reduce unintended impacts to the rare species and habitats they aim to protect. Overall, the session provides a practical cross-regional view of how installations are combining long-term stewardship, targeted threat reduction, and operational planning to improve conservation outcomes while supporting the military mission.

Wednesday, April 1 *(continued)*

Detecting threats to rare plants at Pohakuloa Training Area

Presenters: Clare Aslan[1], Sara Souther[1], Manette Sandor[2], Christina Liang[3], Karen Haubensak[4]

1: School of Earth and Sustainability, Northern Arizona University, Flagstaff, AZ 86011; 2: Cary Institute of Ecosystem Studies, Millbrook, NY 12545; 3: US Forest Service, Nevada City, CA 95959; 4: Department of Biological Sciences, Northern Arizona University, Flagstaff, AZ 86011

Abstract: Military lands contain exceptionally high occurrence of threatened and endangered (T&E) plants. Pohakuloa Training Area on Hawaii Island stewards a suite of endemic plants, protecting them from browse by introduced ungulates and safeguarding high-elevation habitat within fenced conservation units. Regular and long-term monitoring programs track rare plant populations in this system, which face ongoing challenges posed by drought, fire regime change, and invasive plants and predators. We study pollination, recruitment, growth, and survival for eight T&E species in this system, aiming to identify the key threats that may limit their population growth rates. We have found that most pollination in the system is currently performed by non-native pollinators. One of our focal species exhibits significant pollination limitation. Two focal species display high rates of seed predation, potentially impeding their recruitment. To assess the impact of direct competition from other plants, we are currently modeling interactions between population trajectories of T&E species and non-native plants, including fire-promoting fountaingrass (Cenchrus setaceus). Our research aims to identify identify target, species-specific variables that can be measured via efficient, rapid demographic monitoring to track T&E plant population trajectories and inform conservation interventions.

Maintaining a zero count, 29 years to eradicate non-native ungulates in conservation fences at Pohakuloa Training Area, Hawaii

Presenters: Rogelio E. Doratt, Daniel G. Jensen, Lena D. Schnell; *Center for Environmental Management of Military Lands, Pohakuloa Training Area*

Abstract: Hawaiian dryland ecosystems evolved in the absence of grazing mammals. Non-native ungulates (i.e., goats, sheep, and pigs) negatively impact these ecosystems by altering ecological processes and consuming rare native plants. At Pohakuloa Training Area (PTA) on Hawaii Island, dryland habitats support 26 threatened and endangered species, some of which are exceedingly rare and most of which are negatively affected by non-native ungulates. To offset training-related impacts at PTA, the US Army Garrison-Pohakuloa (USAG-PTA) constructed 15 conservation fence units totaling 87 miles to protect over 37,300 acres of native dryland habitat. From 1997–2017, USAG-PTA utilized contractors, Federal agencies, and the public to remove ungulates from the conservation fences. During that period, we removed an estimated 6,773 ungulates from the conservation areas. All 15 fence units were declared ungulate-free in 2017. Since the removal of ungulates, many native, threatened, and endangered plants have started to recover inside PTA's fenced habitats. These areas also provide essential habitat for the endangered Hawaiian hoary bat and several rare native birds. We have incorporated 5 monitoring methods to search for ungulates inside the fences: 1) annual aerial surveys, 2) camera surveillance at high-use fence entrances, 3) periodic inspection of all 15 fence units for damage or breaches, 4) reporting and tracking incidental ungulate sightings in an ArcGIS online geodatabase, and if needed, 5) deployment of radio-collared animals (i.e., Judas animals) inside fence units to locate other ungulates. Although each activity has deficiencies when used alone, when combined, they create a successful, comprehensive approach to detecting ungulate activity within the fence units. If any of these 5 monitoring methods provide evidence of an ungulate ingress, removal operations are implemented. Since 2017, we have detected and removed 91 ungulates from the fence units. Keeping these fenced habitats at PTA ungulate-free demonstrates effective ecosystem management that confers benefits to a wide range of native species while supporting the military mission.

Plant-Animal Interactions: *Hesperomannia oahuensis*

Presenters: Jinelle Sperry[1,2], Jonah Dominguez[2], Timothy Chambers[3], Austen Elizabeth Conlon[3], Walter Thomas Russell III[3], Kapua Kawelo[3], and Autumn Bush[2]

1: US Army Engineer Research and Development Center, Champaign, IL; 2: University of Illinois, Department of Natural Resources and Environmental Sciences, Champaign, IL; 3: Army Natural Resources Program – Oahu, Schofield Barracks, HI

Abstract: Hesperomannia oahuensis (Asteraceae) is an endangered, bird pollinated tree/shrub endemic to the Waianae Mountains. Drought, changing forest composition, ungulate damage, loss of pollinators, fruit predation and low fitness are contributing factors to the steep decline of wild *H. oahuensis* populations. The wild population has declined from 96 plants to two since 1977. Over the past thirteen years, the Army Natural Resources Program (ANRPO) has established four reintroductions and outplanted 274 plants. Fruit collections from open-pollinated flowers have returned few filled achenes from the outplants, despite threat control targeting ungulates, rats, and weeds, suggesting pollinator limitations. To obtain viable seeds for genetic storage and propagation, hand pollination has been the dominant strategy. To confirm more recent field observations of endemic forest birds interacting with *H. oahuensis* flowers, here we investigate the plant-animal interactions of reintroduced *H. oahuensis* and test the potential of birdsong playback to attract probable pollinators. For three flowering seasons, we used game cameras around one *H. oahuensis* reintroduction site to record videos of flower visitors. We set up a speaker system to project 'apapane and 'amakihi birdsong three times a week for the duration of the flowering season. Since 2021, 60,095, 15 second videos, totaling 251.6 hours were recorded. We find that 'amakihi are important pollinators of *H. oahuensis* but that competitive interactions between 'apapane and 'amakihi may influence species presence at the flowers. These results are promising for critical mutualistic interactions for a critically endangered species but also highlights the complex ecological relationships that can impact conservation and management of endangered species.

An Overview of Rare Plant Monitoring at Avon Park Air Force Range

Presenter: Soe Min Thu, *Center for Environmental Management of Military Lands (CEMML), Avon Park Air Force Range*

Abstract: This presentation examines current rare plant monitoring methods and ongoing projects at Avon Park Air Force Range, a 106,000-acre military training installation in central Florida. The purpose of the presentation is to share the rare plant monitoring protocols currently implemented at the range while fostering collaboration and networking among professionals engaged in plant research and conservation. The presentation provides an overview of the range's background, outlines existing rare plant monitoring methods, challenges, and discusses proposed projects supported by collected data. General findings to date are presented, along with anticipated future research directions and monitoring efforts.

Creating refugia for rare butterflies within prescribed burns on Joint Base Lewis-McChord

Presenter: Gina Smith, *Center for Environmental Management of Military Lands, Joint Base Lewis-McChord, WA*

Abstract: The rare glacial outwash prairies on Joint Base Lewis-McChord (JBLM) in western Washington support several species of non-migratory, specialist butterflies that are tied to a very narrow range of host and nectar plants. While these butterflies are native to an ecosystem that historically experienced frequent fire, their populations are currently highly fragmented and declining. This makes managing habitat with fire very challenging and potentially detrimental. In this talk, I will discuss how JBLM Fish and Wildlife, in collaboration with other agencies, preserves refugia of critical plant species that support these butterflies while implementing complex prescribed burn operations.

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Wednesday, April 1 *(continued)*

Session Room #2 (Tower 402, 5th Floor, Robinson Ballroom A)

1300-1445 BASH Working Group Technical Session

Moderator: **Brian E. Washburn, PhD**, *Research Wildlife Biologist, USDA Wildlife Services*

Assessing Mitigation Translocation as a Tool to Reduce Human/Great Horned Owl Conflicts

Presenter: **Brian E. Washburn**, *Research Wildlife Biologist, USDA Wildlife Services*

Abstract: The great horned owl (*Bubo virginianus*) is a generalist predator that inhabits wide-ranging territories that are relatively stable throughout the year. These owls are also involved in a variety of human/owl conflicts, including killing of domestic poultry, predating colonially nesting seabirds and shorebirds, and pose a hazard to safe aircraft operations. Managing these conflict situations presents unique challenges as great horned owls are nocturnally active and occupy a wide range of habitats. We evaluated information about great horned owl collisions with civilian aircraft and found this is a contemporary and growing aviation safety issue. We conducted a study to determine whether a biological (e.g., age of the bird) and logistical factors (e.g., month and translocation distance) influenced the return rate of great horned owls following a mitigation translocation from 13 civil airports and three military airfields during 2013–2023. Great horned owls (n = 1,020) were live-captured, banded, and translocated various distances from the airfields which were then monitored for returning owls. We developed a set of candidate binomial-distributed generalized linear models [involving all possible subsets of three factors (age, month, and distance translocated) as well as interactions]. The return rate of translocated great horned owls was very low (i.e., 2.6%) and we found no evidence that these biological and logistical factors influenced great horned owl homing behavior Management programs that use release sites 40 km from the conflict location and translocate individual owls only once would increase program efficacy by minimizing homing behavior and decreasing implementation costs.

Evaluating translocation as a technique to manage immature bald eagles at airfields

Presenters: **Tricia A. Miller**, *Conservation Science Global, Inc.;* **Jeff L. Cooper**, *Virginia Department of Wildlife Resources;* **Adam E. Duerr**, *Conservation Science Global, Inc;* **Alicia M. Anderson**, *U.S. Air Force, Joint Base Langely-Eustis;* **Patrick Will Boss**, *U.S. Air Force, Safety Center*; **Todd E. Katzner**, *U.S. Geological Survey, Forest and Rangeland Ecosystem Science Center*

Abstract: Bird-aircraft strikes result in avian deaths, millions of dollars of damage to aircraft, reduction in military preparedness and commercial aircraft activity, and loss of human life. Because of their large size, high population sizes, attraction to airfields, and legal protection under enhanced regulations, bald eagles are of increasing concern to airfield managers. Translocation is often viewed as a viable option for reducing numbers of birds on airfields, but no studies exist on the effectiveness of this tool as a management action to reduce bald eagle presence on airfields. We trapped 8 immature bald eagles near the Chesapeake Bay, VA, USA in the Atlantic Coastal Plain Province and translocated them 177.5 ± 18.0 (SD) km to the Piedmont Province near Charlottesville, VA, USA. We tracked each bird with GPS telemetry for at least 16 months. Five of the translocated individuals (62.5%) returned to their capture site. Time to first return was generally lengthy (266.8 ± 145.8 SD days, n = 5, range: 24–408 days). There was a seasonal pattern for returns, with the greatest number of returns occurring in the winter months and the fewest occurring in summer. We also found that behavior, as measured by daily movement distance, differed between translocated and non-translocated eagles, where translocated eagles (n = 8) moved 24.5 ± 9.2 SE km (p = 0.009) more per day than did non-translocated eagles (n = 9) during the first 60 days post-release. Importantly, all eagles that we tracked survived >16 months post-translocation. Our study suggests that translocation of immature eagles affects their behavior but not their survival and may be a management alternative resulting in short-term reductions of eagle presence on airfields.

From Strike Records to Space Use: Redefining Bird Strike Risk Assessment

Presenters: Caryn Ross, Bradley F. Blackwell, Michel T. Kohl, Gino D'Angelo, James A. Martin, Travis L. DeVault; *University of Georgia*

Abstract: Bird strike risk can be described as a combination of frequency reflecting the collision likelihood and the consequences, or severity, of an incident. The species-specific bird strike risk model currently used by USDA Wildlife Services to evaluate hazards at airports was developed by DeVault et al. in 2018 and recently updated by Ross et al. in 2025. This model estimates collision frequency using airport-level strike reports from the FAA National Wildlife Strike Database and represents severity through species-specific relative hazard scores. Evaluation with independent datasets demonstrated strong overall performance, and the model has since been widely implemented to support wildlife management decision-making at airports. Despite its demonstrated utility, the model has several limitations. Species that are known to pose local risk but are absent or poorly represented in strike records are not reflected as a major component of risk. Additionally, the model does not quantify a true species-specific strike likelihood. Avian survey methods commonly employed at airports, such as point counts and transect surveys, offer a potential means of supplementing strike data by estimating relative abundance. However, these approaches are typically designed to assess airport-wide populations and often fail to capture critical factors influencing strike risk, including bird use of runway protection zones and other high-risk areas. Thus, accurately estimating bird strike likelihood requires finer-scale information on avian space use across land covers and seasonal variation in bird abundance. This presentation briefly reviews the existing risk assessment and discusses current research efforts developing a novel bird strike risk assessment model that integrates spatially explicit data on bird movements collected with GPS data, including flight altitude behavior, and bias-corrected surveys focused on critical airport areas conducted at two southeastern airports.

1445-1500 BREAK

1500-1700 Remote Sensing for Species Monitoring and Management
Technology Resource Applications Working Group

Moderator: Susan Cohan, *UNC Chapel Hill (TRAWG co-chair)*

Session Description: In-depth talks (20 minutes, 10 minutes Q&A)

1505-1535 Leveraging automated radio telemetry to understand avian presence on a military airfield

Presenters: Mackenzie R. Prichard, Levin C. Brandt, Susan N. Ellis-Felege; *University of North Dakota, USFS, University of North Dakota*

Abstract: Bird-aircraft collisions, or bird strikes, are a costly incident for the aviation industry. Bird strikes occur most often at low altitudes, which means that the airfield itself is an area of high risk for strikes to occur. Flocking and perching passerines like red-winged blackbirds (*Agelaius phoeniceus*) and western meadowlarks (*Sturnella neglecta*) are territorial during the breeding season, and this behavior is considered hazardous for bird strikes when their territories are near to an airfield. Here, we characterize the relationship between bird territory behavior and time spent on a high traffic airfield at the Grand Forks Air Force Base (GFAFB). We tagged western meadowlarks and red-winged blackbirds with radio tags during the summer of 2022 and monitored their movements in and around the airfield. To facilitate tracking, we established a Motus-compatible automated radio telemetry network comprised of four receiving towers equipped with directional Yagi antennas and 57 nodes. The towers were distributed throughout the area surrounding GFAFB while the nodes were arranged on the airfield. We found that the distance between the territory of each bird and the airfield was negatively correlated with the amount of time they spent on their airfield (i.e., detected by the node network), and that birds that held territories > 2 km from the airfield spent significantly less time on the airfield than those that held territories < 2 km from the airfield. These findings are useful for developing wildlife management plans that are strategically designed for the unique challenges at the

Wednesday, April 1 *(continued)*

GFAFB. Broadly, this study represents a valuable example of how Motus-compatible automated radio telemetry technology can be leveraged in an airport context to mitigate bird strikes.

1535-1605 Assessing eastern diamondback rattlesnake dispersal and disease dynamics in coastal habitats to improve translocation protocols for reducing human-rattlesnake conflicts in military training areas

Presenters: Jayme L. Waldron, S.M. Welch, E.R. Gray, and J. Holloway; *Marshall University, MCRF Parris Island*

Abstract: The Eastern Diamondback Rattlesnake (*Crotalus adamanteus*; EDB), a candidate species for federal protection under the Endangered Species Act, is associated with savannas, woodlands, sea islands, and barrier islands associated with the imperiled Longleaf Pine (*Pinus palustris*) ecosystem in the southeastern Atlantic and Gulf Coastal Plain. Managing EDB populations on DoD installations has become a priority in light of the species candidacy for federal protection. The Marine Corps Recruit Depot Parris Island (MCRDPI) uses an adaptive long-term, individual-level EDB monitoring program to reduce human-rattlesnake conflicts, ensuring uninterrupted access to military training areas. We will use long-range digital telemetry, spatially and temporally replicated visual surveys, genetic analyses, and disease surveillance protocol to quantify, dispersal, island occupancy, and fungal disease (i.e., *ophidiomycosis*) dynamics to support the MCRDPI mission and aid EDB conservation in coastal areas by improving knowledge of coastal habitat and enhancing the use of EDB translocations to restore populations and mitigate negative human-rattlesnake interactions in military training areas

1605-1620 Approaches for Monitoring Bats in Their Natural Environment

Presenters: Amanda Adams and Rada Petric; *Texas A&M University and University of North Carolina at Chapel Hill*

Abstract: Studying bats in their natural environment is challenging due to their nocturnal, fast, high-flying behavior, but emerging technologies provide new ways to detect and understand them. Ultrasonic acoustic recorders detect and identify many bat species based on their calls and document foraging or social activity in flight. Video monitoring provides visual information that allows researchers to observe activity and behavior that cannot be captured acoustically. For finer-scale ecological insights, telemetry and lightweight GPS tags can track individual movements and identify roost sites. Environmental DNA (eDNA) is a new method for confirming species presence with air, water, or substrate samples. Together, these complementary tools help researchers investigate bat presence, activity, movement, and behavior.

1620-1635 New and developing technologies/ models around fire behavior, modeling, and in-the-field tools.

Presenter: James H. Furman; *US Forest Service*

Abstract: This presentation showcases emerging, next-generation fire behavior and smoke dispersion models developed through the DoD (DoW) Wildland Fire Science Initiative. The presenter serves on the SERDP/ESTCP Technical Committee as a Wildland Fire SME and serves as Principal Investigator for ESTCP Project RC20-7189 "Integrated Research Management Team Supporting the DoD Wildland Fire Science Initiative". This team supports integration of multiple research projects into pre-planned prescribed fire campaigns designed to gather validation data for these next-generation fire management tools.

1635-1650 Using unoccupied aerial vehicles with thermal sensors as a rapid assessment tool for rivers and streams.

Presenter: Sam Whitin; *EA Engineering, Science, and Technology, Inc., PBC*

Abstract: This presentation will explore the use of unoccupied aerial vehicles (UAV) equipped with thermal imaging cameras to collect information critical to water quality and fisheries practitioners, including groundwater upwellings, pollution point sources, cold-water refugia, and fluvial thermal anomalies. Information and images presented will demonstrate UAV functionality as a tool for fisheries and water quality professionals to collect quantifiable and spatially referenceable data.

WEDNESDAY, APRIL 1 | 1730–2100HRS

Tower 402, Fifth Floor, Robinson Ballroom A

Join your fellow members for a delicious meal and celebrate their achievements.

The evening includes a Silent Auction, Poster Session, and Agency and Vendor Booths! Start with appetizers before the banquet, and enjoy a cash bar throughout the evening. Come on up to the ballroom and help us celebrate NMFWA and its amazing Members!!!

Those registered for the Banquet will receive a Banquet ticket with registration. Don't have a banquet ticket? Visit the NMFWA registration desk to check for availability. ***Got a ticket and decided not to attend? Please return your ticket to Registration to make it available to others.***

Wednesday, April 1 *(continued)*

1650-1700 Brand new projects — Quail detection and drones! Motus on DoW installations!

Presenter: Susan Cohen; *University of North Carolina at Chapel Hill*

Two exciting new technology centered projects with relevance to DoW are just starting! The first, using Northern Bobwhite as a focal species, refines thermal UAS survey methods for covey detection and individual counts, linking bird occupancy to high-resolution UAS-derived habitat features, and comparing enterprise and open-source mapping software to generate practical mapping workflows. Outcomes will include Northern Bobwhite thermal detection methods, guidance on UAS and software selection, and manager friendly workflows for habitat and species monitoring. The Motus project will install Motus infrastructure at nine DoW installations and demonstrate the broad relevance of Motus for DoW mission-related projects — leveraging the Motus network and strategic radio transmitter deployments to collect data on species life history information such as migration ecology, stopover sites, overwintering sites, breeding sites, and recording species presence/distribution in support of INRMP and BASH. The project also develops technology transfer steps, guidance and best practice materials ("playbooks") that organize and present the informational needs of DoW installations to assess and approve Motus, accelerating the adoption of this powerful tool and promoting cooperative efforts.

1430-1530 Limited Beverage Service *(Check Whova)*

1730-1830 NMFWA Show & Tell, Poster Session, Silent Auction Part 1

1830-1930 NMFWA AWARDS BANQUET

1930-2100 NMFWA Show & Tell, Poster Session, Silent Auction Part 2

(Tower 402, 5th Floor, Robinson Ballroom A)

Note: Those registered for the Banquet will receive a Banquet ticket with registration. Your ticket gains you access to all events beginning at 1730.

Don't have a banquet ticket? Visit the NMFWA registration desk to check for availability. Extra banquet tickets will be released on a first-come-first-served basis midday Wednesday (stay tuned for instructions announced during the Annual Members Meeting and via the Whova app).

Got a ticket, but decided not to attend? Please return your ticket to Registration to make it available to others.

Summary: Join your fellow members, enjoy a delicious meal, and celebrate your fellow members on their achievements. Our Show and Tell will include a Silent Auction, Poster Session, and Agency and Vendor Booths. Photo winners and auction item winners will be announced at 2000 hrs. Item & Award Pick-up will also occur at this time. All proceeds of our Silent Auction will go towards the NMFWA Scholarship Program. Join us for appetizers and a cash bar. Come on down and help us celebrate NMFWA and its amazing Members!!!

Eastern Massasauga Rattlesnake, by Emily Hauck

Thursday, April 2

Please don't forget to silence your cellphone and try to enter and leave rooms between speakers.

AT-A-GLANCE		
0700-1700	NMFWA Registration Desk Open (Tower 402, 3rd Floor Registration Desk)	
0700-0800	LIMITED BEVERAGE SERVICE *(Check Whova)*	
0800-1200	**Session Room #1** (Tower 401, Lower Level, Burkhart A)	
	0800-0945	Resiliency Parcel Scoring for Camp Ripley Sentinel Landscape
	0945-1000	BREAK
	1000-1115	Data Driven Natural Resources Management Lifecycle Approach
	1115-1200	Welcome to the Pollinator and Insect Session
0800-1200	**Session Room #2** (Tower 401, Lower Level, Burkhart B)	
	0800-0945	DoW Joint Bird Session, From Boots to Big Data: A Collaborative Bird Conservation Framework for the DoW
	0945-1000	BREAK
	1000-1200	DoW Joint Bird Session *(continuing)*
0930-1030	LIMITED BEVERAGE SERVICE *(Check Whova)*	
1200-1300	LUNCH BREAK	
1300-1700	**Session Room #1** (Tower 401, Lower Level, Burkhart A)	
	1300-1430	Monarchs and More: Collaboration on Military Lands for Pollinators/Insects
	1430-1500	Monarch Habitat Assessment
	1500-1515	BREAK
	1515-1615	From Constraints to Capabilities: Species Management at JBLM
1300-1700	**Session Room #2** (Tower 401, Lower Level, Burkhart B)	
	1300-1500	Wildland Fire Partnerships Technical Session: Wildfire and Invasives in the Western Ranges
	1500-1515	BREAK
	1515-1700	Wildland Fire Management Partnerships and Collaboration
1430-1530	LIMITED BEVERAGE SERVICE *(Check Whova)*	
1615-1700	US Fish & Wildlife Service Retirees Association Memberships (Tower 401, Lower Level, Burkhart A)	
1700-1715	BREAK	
1715-1815	**2026–2027 NMFWA Board of Directors Meeting** (Tower 402, 3rd Floor, Massey B)	

0700-1700 NMFWA Registration Desk Open
(Tower 402, 3rd Floor Registration Desk)

0700-0800 Limited Beverage Service (*Check Whova*)

Session Room #1 (Tower 401, Lower Level, Burkhart A)

0900-0945 Resiliency Parcel Scoring for Camp Ripley Sentinel Landscape

Moderator/Presenter: **Raenah Bailey,** *Legacy Works Group*

Session Summary: As extreme weather hazards such as drought, flooding, extreme temperatures, and wildfire increasingly impact landscapes, conservation planning must integrate data-driven strategies to build resilience. This session will explore how GIS-based resilience modeling is applied within the Camp Ripley Sentinel Landscape,

Thursday, April 2 *(continued)*

where parcels in the Army Compatible Use Buffer (ACUB) program are evaluated based on extreme weather exposure and restoration potential. Participants will learn how to apply spatial datasets — including wetlands, soil infiltration, vegetation, and topography — to identify high-priority parcels for conservation easements, habitat connectivity, and land management. Through real-world examples and interactive discussion, this session will demonstrate how resilience scoring can guide climate adaptation, restoration planning, and funding prioritization. Designed for conservation practitioners, GIS professionals, and policy advocates, this workshop provides practical tools for integrating resilience metrics into land stewardship strategies

0945-1000 BREAK

1000-1115 Data Driven Natural Resources Management Lifecycle Approach

Moderators/Presenters: Gwynn Ellis, *Colorado State University, Center for Environmental Management of Military Lands;* Emily Howe, *Colorado State University, Center for Environmental Management of Military Lands;* Damian Cornejo, *Colorado State University, Center for Environmental Management of Military Lands*

Session Summary: Colorado State University's Center for Environmental Management of Military Lands (CSU/CEMML) has extensive experience implementing a comprehensive lifecycle data driven approach to Natural Resources Management providing support and knowhow to the United States Air Force mission. Working in conjunction with the Air Force Civil Engineering Center (AFCEC), CSU/CEMML has been tasked under multiple cooperative agreements to perform natural resources GIS data development and standardization, complete missionscape analysis, generate comprehensive flood modeling products, create tools and resources such as web applications to leverage and apply the resulting data to develop Integrated Natural Resources Management Plans, optimize planning and decision making, compatible with the military mission.

Comprehensive datasets, standardization, and well-designed tools allow easy visualization of large datasets and facilitate analysis for streamlined decision making and communication across the enterprise. We will highlight data development for specialized GIS datasets such as vegetation mapping, wetland delineation, and floodplain modeling that are leveraged by other CEMML teams to conduct analysis and extract information necessary for their projects to determine additional surveys that may be required, conduct analysis, and assist with developing goals, objectives, and projects. We will detail how standardized data, processes, analysis, and reports can save time, resources, and allow for more comprehensive and consistent products streamlining planning, reducing overall costs and enhancing decision making at both the enterprise and installation level.

1115-1200 Welcome to the Pollinator and Insect Session

Welcome and Session Framing: Mercy Manzanares, *Monarch Joint Venture*

Partnership Approaches for Monarch Butterfly Conservation on Installation Rights-of-Way

Presenter: Allison Little, *University of Illinois Chicago, Energy Resources Center*

Abstract: Through habitat-oriented vegetation management, rights-of-way (ROW) can provide refuge for at-risk pollinators and connect fragmented natural areas. Because ROW intersect diverse landscapes, including Department of Defense (DOD) installations, they also present a unique avenue for cross-sector conservation partnerships. Building on this approach, the voluntary conservation agreement the Monarch Candidate Conservation Agreement with Assurances (CCAA) incentivizes creating and conserving ROW habitat by providing regulatory assurances to participating energy and transportation organizations. To date, over 80 organizations have committed over 1.2 million acres of habitat across the country through their enrollment in the CCAA.

University of Illinois Chicago (UIC), the administrator of the CCAA, is working to expand collaborative opportunities for its industry partners on federal

landscapes. Through funding from the Office of the Secretary of Defense and the U.S. Forest Service, UIC has connected DOD installations and ROW organizations to improve habitat with overlapping easements. This partnership approach aligns common organizational goals, monarch butterfly conservation recommendations, and regulatory parameters, including DOD mission and sustainment parameters and recommendations provided by the U.S. Fish and Wildlife Service. UIC is currently exploring additional avenues to further encourage cross-sector conservation initiatives and support regulatory streamlining for its federal and industry partners, including ESA consultations for installations.

Through this presentation, UIC will provide a summary of the Monarch CCAA and its DOD partnership initiative, including case studies showcasing outcomes experienced by installation and industry participants to date. The presentation will also showcase available and in-development resources for ROW habitat initiatives on federal landscapes. Audience members will gain insight into the role of multi-sector collaboration for conservation on DOD installations, including how these partnerships can leverage anticipated regulatory consultations associated with species listings for all involved parties.

1200-1300 Lunch

1300-1430 Monarchs and More: Collaboration on Military Lands for Pollinators/Insects

Moderator: Mercy Manzanares, *Monarch Joint Venture*

Sound Decisions for Managed Lands: Using Passive Acoustic Monitoring to Track Insect Biodiversity

Presenter: Christine Elliott, *Purdue University*

Abstract: Department of Defense lands support some of the highest concentrations of threatened and endangered species in the United States, while simultaneously facing pressure from invasive species and land-use constraints. Passive acoustic monitoring (PAM) has become an increasingly important tool for land management, especially for monitoring birds and bats in a non-invasive, scalable manner. However, insects, despite their central roles in ecosystem function and as indicators of environmental change, are rarely incorporated into acoustic monitoring frameworks, in part due to uncertainty surrounding appropriate analytical metrics.

Here, we evaluate whether acoustic data, already commonly collected for vertebrate monitoring, can also be used to assess relative insect biodiversity. Using synthetic acoustic communities composed of insect recordings with known species richness, we tested the performance of 25 commonly used acoustic metrics, including both canonical acoustic indices and agnostic spectral descriptors. This controlled framework allowed us to directly evaluate how reliably each metric tracked changes in calling insect species richness.

We identified a subset of metrics that consistently scaled with insect richness, particularly those sensitive to spectral energy patterning and complexity. These metrics showed moderate to strong correlations (Spearman's rho and Kendall's tau >0.4), and reliably distinguished between successive richness levels, indicating practical sensitivity for tracking relative biodiversity.

Our findings indicate PAM can be applied beyond birds and bats to provide rapid, non-invasive assessments of insect biodiversity, offering DoD land managers a powerful opportunity to rapidly extract multi-taxa ecological insights from non-invasive acoustic datasets. This approach supports more holistic biodiversity monitoring and has clear applications for pinpointing zones of conservation value, tracking responses to management actions, and detecting ecological change.

Real Deal or Dead End? An Evaluation of eDNA Methods for Surveillance of Imperiled Bumble Bees

Presenter: Rodney Richardson, *The Ohio State University*

Abstract: Within the United States Military, there is a need for sensitive and cost-effective bumble bee survey methods to minimize the impacts of regulatory compliance efforts on military readiness. Terrestrial eDNA methods could facilitate high-sensitivity bumble bee community surveillance, aiding measurement of take, mitigation value and habitat management success. To date, pollinator-specific eDNA applications have largely

Thursday, April 2 *(continued)*

been impractical given low levels of observed detection sensitivity. Here, we evaluate a high sensitivity eDNA approach for characterization of whole bumble bee communities, including rare and endangered species. We compare estimates of detectability, occupancy and species density inferred from both eDNA and traditional net surveys, with high comparability between the two methods. Results suggest that eDNA will be a powerful tool to aid researchers and conservation practitioners into the future.

Bees on the Range: Bee diversity and composition on active military installations in the Mid-Atlantic

Presenter: Verl R. Emrick III, Ph.D., *Research Scientist-Ecologist, Virginia Tech Conservation Management Institute, Department of Fish and Wildlife Conservation*

Abstract: Understanding how military land use and management influence native bee communities is critical to balancing mission readiness with biodiversity conservation. Across the Mid-Atlantic region, Department of Defense (DoD) installations encompass extensive tracts of relatively undisturbed land that can serve as important refugia for pollinators. This project investigates bee community composition, abundance, and diversity in relation to varying military land uses — such as training intensity, prescribed fire, mowing, and forest management — across representative installations. Using standardized sampling and habitat assessments, we evaluate how these management practices influence pollinator resources, nesting substrates, and overall habitat quality. Preliminary findings indicate that many training landscapes, particularly those with periodic disturbance and early-successional vegetation, support robust and diverse bee assemblages comparable to nearby conservation lands. Results highlight opportunities for integrating pollinator conservation objectives into land management strategies without compromising operational goals, reinforcing that mission-compatible conservation can yield substantial ecological benefits for native bees and broader pollinator communities across the Mid-Atlantic region.

Monarch Monitoring and Research Across Military Lands: Bridging Conservation and Community

Presenter: Dejeanne May, *Environment For The Americas*

Abstract: Monarch butterflies (Danaus plexippus) migrate across North America each year, crossing a variety of landscapes that include many U.S. military installations. Despite their iconic status, important knowledge gaps remain, especially in the western United States and during the fall migration. In 2025, Environment for the Americas (EFTA) continued its partnership with the Department of Defense (DoD) and the U.S. Forest Service International Programs to study monarch butterflies and their habitats across military lands. By focusing on select installations in Texas, New Mexico, Colorado, and California, our team was able to gather detailed phenological data and build stronger relationships with on-base natural resource managers and U.S. Fish and Wildlife Service biologists across 13 installations.

Fieldwork spanned the spring and fall migrations. During the spring, we documented milkweed availability, flowering resources, and breeding activity. During the fall, we concentrated efforts on tagging, testing for Ophryocystis elektroscirrha (OE), and recording nectaring plant species. In California, our surveys extended from spring through fall before transitioning to the Western Monarch Count at Vandenberg Space Force Base and Camp Pendleton. Through the collaborative Project Monarch initiative, we also deployed Cellular Tracking Technologies' BluMorpho tags in Texas, New Mexico, and Colorado, contributing to a broader effort to better understand how monarchs move through different regions and habitats.

What makes this work truly special is the people behind it. Our teams of local interns included three veterans, three military spouses, and four dependents, with each one bringing a personal connection to the installation they served. Their work went beyond data collection: they created pollinator and milkweed gardens, developed educational resources, facilitated classroom programs, wrote research proposals, and produced outreach materials that helped connect their communities to monarch conservation.

Together, these efforts are deepening our understanding of monarch migration while demonstrating the powerful

intersection of science, service, and stewardship across military landscapes.

Discussion/Close

Moderators: **Mercy Manzanares**, *Monarch Joint Venture*; **Robert Delph**, *CEMML, Dugway Proving Ground*; **Jessup Wichelt**, *Fort McCoy*

1430-1500 Monarch Habitat Assessments on Military Lands

Presenter: **Alexa Koch**, *Monarch Joint Venture*

Session Summary: Through the support of the interagency agreement between US Forest Service and the Department of Defense on monarch butterfly conservation, Monarch Joint Venture has partnered with Environment for the Americas (EFTA) to conduct monarch habitat and monitoring surveys across Department of Defense lands. This joint initiative seeks to assist DoD natural resource managers in maximizing the use of their lands for military training, while addressing the needs of this widespread at-risk species, by assessing existing or potential habitat and monarch presence on installations. MJV and EFTA have coordinated and completed visits to 60 installations encompassing five military branches throughout the course of the project to date. In 2025, site visits built upon last year's efforts by returning to previously surveyed installations and expanding to new locations. These efforts included conducting Integrated Monarch Monitoring Program (IMMP) surveys, remote sensing drone assessments, and other pollinator monitoring activities across a wide range of terrains and ecosystem types. This technical session will give an outline of our data collection processes, presenting an update on our observations and findings in order to take a closer look at monarch habitat across different military branches and regions of the country. Through the data that has been collected, we intend to further support installations in their pollinator conservation efforts through guidance on habitat restoration and management. We will provide an overview of our ongoing efforts and partnerships, highlight the conservation work being done by DoD natural resource teams across the country for both monarchs and other at-risk pollinators, and give insight into the future of the project as it continues into 2026.

1500-1515: Break

1515-1700 From Constraints to Capabilities: Species Management at JBLM

Moderators/Presenters: **Derek Dapp**, *Joint Base Lewis-McChord*; **Todd Zuchowski**, *Joint Base Lewis-McChord*

Session Summary: DoW installations serve an essential function as military training grounds, providing operational environments necessary for national defense preparedness. These installations also frequently encompass habitats that

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support federally listed Threatened and Endangered (T&E) species. Regulatory frameworks governing T&E species management typically include prescriptive conservation guidelines, which can be at odds with military training and preparedness. At Joint Base Lewis-McChord, we are piloting an innovative species management approach that couples a USFWS programmatic biological opinion and a developed modeling framework as an alternative approach to the traditional ESA framework. We present how the programmatic biological opinion benefits species conservation while increasing training flexibility and reducing regulatory timelines. Examples of successes, such as at an on-base airfield, via this approach will be explored.

Additionally, we present a habitat-based species modeling tool developed at JBLM to support the programmatic biological opinion. This analytical tool includes the capabilities to simulate the effects of military activities such as habitat conversion, off-base habitat acquisition, construction of temporary or permanent structures, digging trenches, building roads, artillery training, and off-road driving. To illustrate the model framework's adaptability and decision-support capabilities, we present a real-world scenario of using the model to maximize training flexibility at an off-base conservation acquisition and a fictitious scenario to optimize species conservation given a military training need. Although the model framework is initially applied to a focal species, *Thomomys mazama*, the Mazama pocket gopher, it is explicitly designed for scalability, allowing adaptation to additional species, military training activities, and DoW installations. The species programmatic biological opinion and modeling framework presented could be adapted to other installations to address endangered species regulatory challenges.

Session Room #2 (Tower 401, Lower Level, Burkhart B)

0800-1200 DoW Joint Bird Session, From Boots to Big Data: A Collaborative Bird Conservation Framework for the Department of War

Session Summary: Effectively managing avian resources across the Department of War (DoW) requires navigating a complex landscape of working groups, initiatives, and programs. This joint session will demystify this ecosystem by showcasing how three critical entities — the NMFWA Bird Conservation Working Group (BCWG), the DoW Partners in Flight (DoW PIF) initiative, and the DoW Avian Knowledge Network (AKN) Program — work in a complementary framework to support installation natural resource managers. This presentation will define the individual and collaborative roles of each entity in assisting installation staff in managing priority species, such as Mission-Sensitive Species (MSS). Each entity will describe its unique role in DoW bird conservation, demonstrate how they coordinate efforts, and provide a clear roadmap for how installation staff can leverage their services and get involved.

1. NMFWA BCWG — The session will begin with the BCWG, the essential "voice from the field," illustrating how it empowers "boots on the ground" personnel by channeling critical needs and pressing issues — from monitoring priority species to contracting challenges — directly from installation staff to a wider audience. To address one such critical need, the session will then feature presentations from the U.S. Fish and Wildlife Service (USFWS) to clarify federal regulatory and permitting requirements for migratory birds. The USFWS will review the Migratory Bird Treaty Act and the Bald and Golden Eagle Protection Act, then discuss regulatory and permitting updates as they apply to DoW natural resource management.

2. DoW PIF — Next, DoW PIF will outline how it provides expertise on the management and conservation of birds and their habitats to sustain and enhance the military mission. This section will cover the structure of DoW PIF, its integration with leadership, and its role in assisting installations with solving complex conservation challenges. DoW PIF will highlight how its working groups, including the MSS group, engage with leadership and the DoW AKN Program to determine priorities and develop strategic guidance.

3. DoW AKN Program — This portion of the session will demonstrate how the modern data management system of the AKN, when combined with the DoW AKN Program's methodological guidance and strategic implementation, drives efficient and cost-effective conservation outcomes across DoW. Using a MSS-focused example, the presenters will walk through the Avian Data Life Cycle. This will showcase the powerful, tangible tools the AKN provides for every stage — from initial survey planning and data collection to robust analysis and collaborative decision support.

Finally, the session will conclude by summarizing how these three entities fit together to create a cohesive support system. Attendees will leave with a clear understanding of how the BCWG identifies needs, DoW PIF frames expert-driven solutions, and the DoW AKN provides the data-driven tools for implementation. Most importantly, we will end with a direct call to action, outlining concrete steps to get involved, such as joining the BCWG, participating in DoW PIF working groups, and attending DoW AKN Office Hours.

0945-1000: BREAK

1200-1300 Lunch

1300-1500 Wildland Fire Partnerships Technical Session: Wildfire and Invasives in the Western Ranges

Presenter: Matt Germino, *USGS, Forest & Rangeland Ecosystem Science Center*

Session Description: The combined and interactive impacts of exotic annual invaders and increased wildfire is one of the greatest threats to the ecological integrity and continuity of training and testing operations in the vast western military operations, involving over a dozen DOD installations and nearly 4 million acres in the inland NW quadrant of the USA. This session will review the historic patterns of fire and invasion, summarize the tools available, and highlight strategic and technical advances. Technical presentations will be combined with opportunities to promote discussion among the managers of the affected lands on the issues. The final session will be a discussion aiming to identify priority information needs and collaborative opportunities on fire and invasives.

1500-1515 Break

1515-1700 Wildland Fire Management Partnerships and Collaboration

Presenter: Tim Bradley, *USAF, Wildland Fire Specialist/ NMFWA Wildland Fire Working Group Co-chair*

*Session Description:*Successful wildland fire management relies on a variety of partnerships and collaboration to gain efficiencies and leverage opportunities. This session provides a look into several partnership topic areas, including fire safe councils, research partnerships, fire planning, fire MOU, and partnerships at local, regional and national scales. The format for the session will include a brief presentation on federal policy that guides wildland fire partnership and collaboration, followed by a panel discussion with audience questions and input that provokes an expanded discussion on partnership experiences, challenges, opportunities and more.

Panelists: Josh Pennington, *Conservation Program Supervisor, Camp Ripley Training Center, Minnesota Department of Military Affairs;* James Furman, *Fire Management Specialist, USDA, Forest Service;* Andrew M. Beavers, *Wildland Fire Program Manager, Center for Environmental Management of Military Lands*

1615-1700 US Fish & Wildlife Retirees Association Memberships (Tower 401, Lower Level, Burkhart A)

Moderator: Lewis Gorman III, *US Fish and Wildlife Service Retirees Association*

Session Description: Now, any retiree can join the USFWS Retirees Association. This is a recent change that significantly opens the group to all who are interested in joining and supporting the mission of the organization. This session will highlight the activities, advantages, and potential benefits of joining the Association. It's likely that many NMFWA members have worked with FWS personnel and wish to continue that association.

1700-1715 Break

1715-1815 2026-2027 NMFWA Board of Directors Meeting – All Members Welcome
(Tower 402, 3rd Floor, Massey B)

Session Summary: This is the inaugural meeting of the incoming 2026-2027 NMFWA Board of Directors (BoD). Please feel free to join us and see what the new BoD has in store for NMFWA. All NMFWA members are welcome to attend.

See you next year in Omaha!

Thank You!

No meeting can be a success without the efforts of special people who give of their time and talents in putting the meeting together. The NMFWA Board of Directors and its members would like to thank:

Workshop Coordination and Assistance

Workshop Coordinator
Russ Lawrence

Photographers
Bryan Hall

Program and Reviewers
Zoe Duran, Michèle Richards, Janet Johnson

AV Lead
April Andujar

AV Support
CEMML Interns

Show & Tell and Poster Session (set up, food)
Taura Huxley

Photo Contest
Bill Berry

Silent Auction
Dave Hanson

Show & Tell MC
Bill Berry

Newcomers Meet & Greet
The NMFWA Team

T-Shirts & Art Contest
Liz Neipert

Workshop Pins
Michèle Richards

Training Committee
Janet Johnson (Chair), Coralie Cobb, Nicole Olmsted, Dana Lujan, Dan Savercool, Rebecca Ijames, Kylene Lang

Working Group Coordination
Jackie Smith

Awards/Hall of Fame
April Andujar, Tammy Conkle

Sponsor Coordination
Zoe Duran

Instructors

Jillian Josimovich
C. Scott Hardaway, Jr
Donald Solick
Nick Solick
Rada Petric
Bryan White
Mercy Manzanares
Nathan Beane
Caitlyn Gillespie
Elizabeth Neipert
Zoe Duran
Donna Milligan
John Alexander
Dianna Miller
Sam Veloz
Nora Honkomp

Session Organizers and Moderators

Jennifer Oelke Farley
Stephanie Hertz,
Mike Langston
Lucas Cooksey
Megan Scanlin
Zoe Duran
Taura Huxley
Shannon Bowling
Robbie Knight
David McNaughton
Lewis Gorman III
Chis Peterson
Dominic Goshert
Brian E. Washburn
Susan Cohan
Raenah Bailey
Gwynn Ellis
Emily Howe
Damian Cornejo
Mercy Manzanares
Allison Little
Alexa Koch
Derek Dapp
Todd Zuchowski
Liz Neipert
Matt Germino
Tim Bradley
Josh Pennington
James Furman
Andrew M. Beavers

Working Group Co-Chairs
(Note: New WG Co-Chairs being elected before the meeting)

BASH: Joel Helm (Outgoing), Brian Washburn
Bat: Dr. Rada Petric, Jeremy Locciúin
Bird Conservation: Todd Wills, Keeli Marvel
Mission Resilience and Environmental Stressors MRES: Christy Wolf, Isha Alexander
CLEO: Jesse Travis, Tom Tripolone
Fish and Wildlife Recreation: Kevin Zebro
Herpetology: Zia Walton, Alison Haigh
Invasive Species: Cory Campora (Outgoing), Joshua Murauskas
Pollinators: Jessup Weichelt, Austin Lester
Technical Resources Application: Susan Cohen, Mike Jungen
Wildland Fire: Tim Bradley, Amy Buckendah

THANK YOU Working Group Co-Chairs!!!

Board & Committees

2025-2026 NMFWA Board of Directors

President: **Zoe Duran**, *Duran Environmental Consulting, ID*
Immediate Past President: **Michael Wright**, *Naval Air Station Oceana, VA*
Vice President: **Russ Lawrence**, *Hill Air Force Base, UT*
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Director-At-Large: **April Andujar**, *Retired*
Eastern Director: **Alan Schultz**, *US Army Fort Bragg, NC*
Eastern Director: **Shannon Kam**, *Naval Station Newport, RI*
Central Director: **Taura Huxley**, *US Army Environmental Command, TX*
Central Director: **Rebecca James**, *Wendall H. Ford Regional Training Center, KYARNG*
Western Director: **Bill Berry**, *Marine Corps Installations West, Camp Pendleton, CA*
Western Director: **Rich Riddle**, *US Army, Fort Carson, CO*
FAWN Editor: **Laura Busch**, *US Fleet Forces Command, VA*

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Archives: **Ian Trefry**
Awards: **April Andujar**
Certifications: **Dan Savercool**
FAWN: **Laura Busch**
Financial Review: **Rick Lance**
Government Affairs: **Neil Bass**
Hall of Fame: **Tammy Conkle**
Membership: **Todd Wills** and **Bill Berry**
Nominations: **Michael Wright**
Outreach/Website/Social Media: **Chelsea Fletcher**
Resolutions: **Dave McNaughton**
Scholarship: **Coralie Cobb** and **Tim Buchanan**
Training: **Janet Johnson**
WMI Coordination: **David McNaughton**
Working Group Coordination: **Jackie Smith**
Workshop: **Russ Lawrence**
Webmaster: **Bryan Hall** (Contracted)

NOTE: Titles and affiliations are for informational purposes only and do not present the individuals as spokespersons of the Department of War or agency/installation listed.

Frequently Asked Questions …

Q: Who can be a member of the National Military Fish and Wildlife Association (NMFWA)?

Anyone who works in the field of conservation on Department of Defense (DoD) lands, or is interested in a conservation career with DoD may become a member.

Q: Does it cost to be become a member?

There is no cost to becoming a member. It's free, so join today!

Q: How do I become a member?

It's easy! Visit our website, www.nmfwa.org, and complete a simple application form. The Membership Committee will review your application and upon approval you will be added to our member listserv.

Q: What benefits do I get for being member of NMFWA?

Membership keeps you connected to other natural resource professionals and informed about NMFWA news and events such as our Annual Workshop and other training opportunities.

Q: Who is the Wildlife Management Institute (WMI) and why do I register for the NMFWA Annual Workshop through the WMI Website?

WMI is a professional conservation organization that works to improve the professional foundation of wildlife management. We have partnered with WMI to hold our Annual Meeting and Training Workshop in conjunction with their North American Wildlife and Natural Resources Conference. This allows us to bring our membership a better meeting experience by providing more opportunities to network and learn from our counterparts from other federal, state, and local agencies, in addition to NGOs and leading academics. NMFWA members are also able to attend WMI Conference sessions as well.

Q: Can I attend the NMFWA Annual Meeting and Training Workshop if I'm not a member?

Yes. The Annual Meeting and Training Workshop is open to all, members and non-members, as long as you select the National Military Fish and Wildlife Association from the drop down choice for Registration Type.

Q: Can I show up to any of the trainings?

Our trainings have a limited number of seats available so pre-registration is required. Tickets will be issued to attend the trainings when you check in at the registration desk. There will be a waitlist in case there are cancellations. Please check with the registration desk to see if there are extra tickets.

Q: How do I get involved?

It's easy, contact any member of our Board of Directors by visiting our website for information on how you can become more involved. Or, if your are attending the Annual Meeting and Training Workshop in March, feel free to approach any member of the current or past Board of Directors to volunteer; we have opportunities to join one of our Committees and to help with AV and room set-up during our meetings.

Q: Who can be on the Board of Directors?

Our board is composed of some of the best conservation professionals in our industry. They range from herpetologists to evolutionary biologists. Together they comprise an amazing team and represent the different Services. We hold elections every year so if you are interested in running for an office, please contact a member of the Board of Directors.

Q: What is the NMFWA Certification Program? Why should I become a Certified Military Natural Resources Professional?

The goal of NMFWA's certification program is to assist the DoD in meeting its Sikes Act requirement by recognizing trained natural resource professionals. It aims to provide a means by which individuals engaged in Defense Department conservation activities may establish, validate, and obtain recognition of their professional credentials; to guide the DoD, other federal and state agencies, tribes, and the public in defining minimum standards of education and experience for natural resources professionals and to encourage these individuals to meet such standards; and to create and maintain confidence, by the DoD, other federal and state agencies, tribes, and the general public, in the advice and opinions of the Certified Military Natural Resources Professional as educated and experienced professionals who have pledged to act in the best interest of the DoD mission. Visit **nmfwa.org** for more information on how to apply.

Q: What are the benefits of becoming a Certified Military Natural Resources Professional?

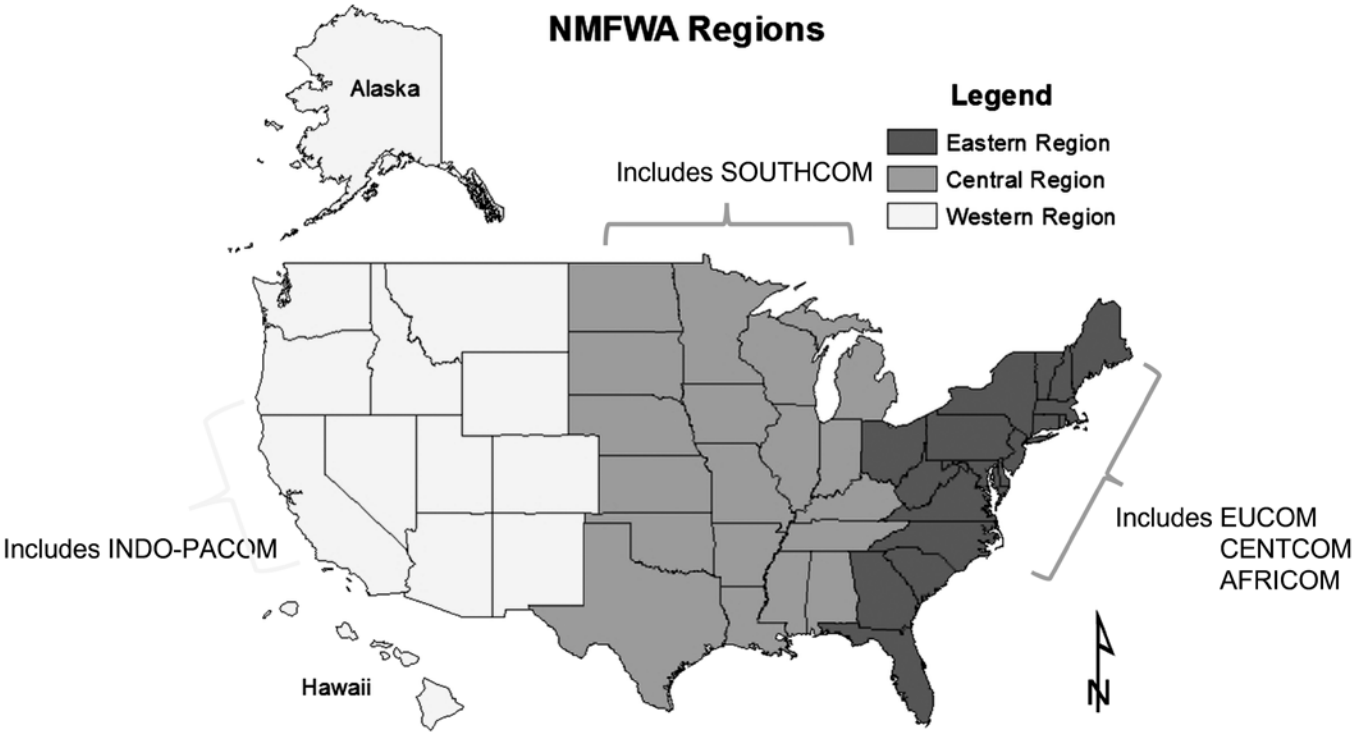
Certification provides a means by which individuals engaged in Defense Department natural resource profession may establish, validate, and obtain recognition for their professional credentials. Certification will also make the Association a more effective voice in natural resources stewardship in support of the military mission on military installations.

Q: What is the FAWN?

The Fish and Wildlife News (FAWN) is the official newsletter of NMFWA. You can find the current issue and all past issues of the FAWN on our website.

Q: How can I submit stories to the FAWN?

NMFWA would like to hear from you! If you have an article you'd like to submit, contact your NMFWA Regional Director by visiting the Board of Directors page on our website and clicking on the corresponding Director for your region at https://www.nmfwa.org/our-board.html. Visit **www.nmfwa.org** for more information.



NMFWA BINGO

Name: _____

RULES: Find a person who can sign their name in one box. EACH PERSON MAY SIGN ONLY ONE BOX. You cannot sign your own form (except at the top where it says "NAME")! Turn in the form for a prize at the Show and Tell!

Find a NMFWA meeting attendee who… THEN, start a conversation with them!

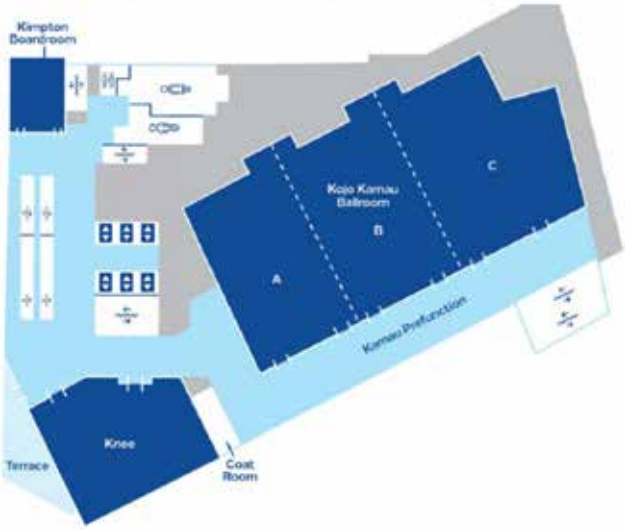
IS VISITING OHIO FOR THE FIRST TIME	IS PRESENTING A PAPER AT NMFWA IN 2026	HAS MORE THAN 300 BIRD SPECIES ON THEIR LIFE LIST	DOES NOT LIKE SUSHI	IS ON THE NMFWA BOARD OF DIRECTORS	IS CURRENTLY A MILITARY RESERVIST
GRADUATED FROM COLLEGE IN LAST THREE YEARS (APRIL 2023 or LATER)	HAS THREE OR MORE CATS AT HOME	HAS BAGGED A 3x3 (or larger) DEER	KNOWS WHAT "Pd" IS	IS A CERTIFIED WILDLIFE BIOLOGIST/ ECOLOGIST/ FORESTER/ RANGE MGR	HAS HANDLED/ RELOCATED A VENOMOUS SNAKE
HAS VISITED THE GALAPAGOS ISLANDS	IS A FIRST TIME NMFWA ATTENDEE	HAS WRITTEN AN INRMP OR ICRMP	ATTENDS REGULAR BASH MEETINGS	HAS CROSSED AN OCEAN ON A SHIP (Any type of ship)	SERVED IN THE U.S AIR FORCE
ALSO MANAGES CULTURAL RESOURCES ON AN INSTALLATION	HAS LIVED IN EIGHT OR MORE STATES	IS AN ONLY CHILD	HAS LIVED OVERSEAS	HAS SEEN FOUR OR MORE 2025/26 "BEST PICTURE" NOMINEES	CAN EXPLAIN THE DIFFERENCE BETWEEN ESA sections 4(a)(3) and 4(b)(2)
HAS FLOWN A PLANE OR HELICOPTER	HAS HAD A MEETING IN THE PENTAGON (Doesn't count if you work there)	HAS BEEN TO TEN OR MORE NMFWA MEETINGS	HAS SEEN EVERY STAR TREK MOVIE	CAN SAY "THANK YOU" IN FOUR OR MORE LANGUAGES	IS AN ACTIVE MEMBER OF ANY NMFWA WORKING GROUP

Meeting Room Maps

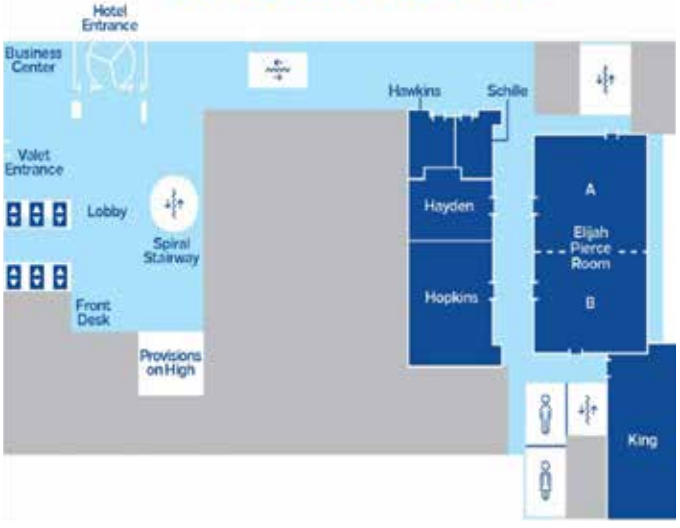
402 THIRD FLOOR

402 FIFTH FLOOR

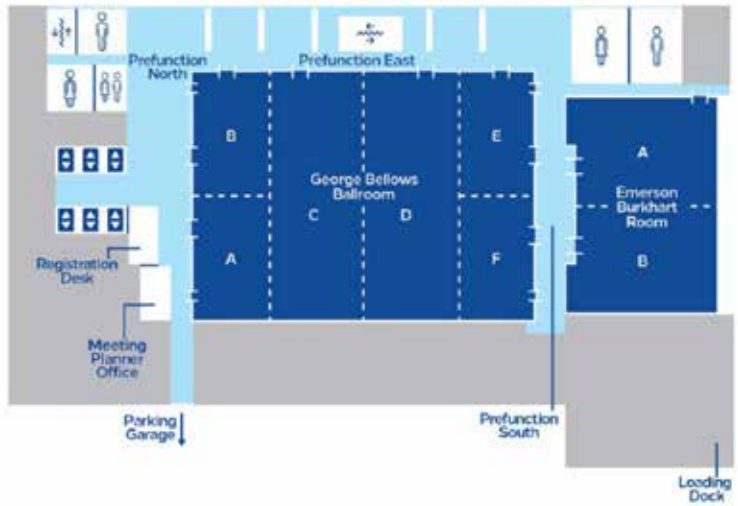
402 FOURTH FLOOR



401 LOBBY LEVEL



401 LOWER LEVEL



[DRAFT] National Military Fish & Wildlife Association 2024 Annual Meeting and Training Workshop Schedule, 29 March - April 3, 2026 (version March 13, 2026, subject to change)

Time (Eastern) - 24hr	Monday (30 Mar)					Tuesday (31 Mar)		Wednesday (01 April)			Thursday (02 April)		Time (Eastern) - 12hr
0800-0830	DoW AKN Training Course (Limited Seating, Advanced Registration Required)	Mannual Bat Acoustic Identification Training Course (Limited Seating, Advanced Registration Required)	A Trapping Awareness Workshop for Understanding, Communicating, and Applying Trapping in Wildlife Management Training Course (Limited Seating, Advanced Registration Required)	Expanding Impact: Integrated Monarch Monitoring Program (IMMP) Training as a Framework for Monitoring At-Risk Species. 1/2 Day Training Course (Limited Seating, Advanced Registration Required)	Living Shoreline & Coastal Resiliency Training Training Course (Limited Seating, Advanced Registration Required)	NMFWA Welcome & DoW Policy Updates		91th Annual North American Wildlife and Natural Resources Conference - Plenary Session				Bird Conservation WG, DOW PIF, and AKN Technical Session	8:00 - 8:30 AM
0830-0900													8:30 - 9:00 AM
0900-0930											Resiliency Parcel Scoring for Camp Ripley Sentinel Landscape		9:00 - 9:30 AM
0930-1000											Break		9:30 - 10:00 AM
1000-1030						Break		Break			Data Driven Natural Resources Management Lifecycle Approach	Bird Conservation WG, DOW PIF, and AKN Technical Session	10:00 - 10:30 AM
1030-1100						NMFWA Annual Members Meeting		Wildlife Management Institute (WMI) - Special Sessions					10:30 - 11:00 AM
1100-1130													11:00 - 11:30 AM
1130-1200											Partnership Approaches for Monarch Butterfly Conservation on Installation Rights-of-Way		11:30AM - 12:00PM
1200-1230	Lunch					Lunch		Lunch			Lunch		12:00 - 12:30 PM
1230-1300													12:30 - 1:00 PM
1300-1330	DoW AKN Training Course (Limited Seating, Advanced Registration Required)	Mannual Bat Acoustic Identification Training Course (Limited Seating, Advanced Registration Required)	A Trapping Awareness Workshop for Understanding, Communicating, and Applying Trapping in Wildlife Management Training Course (Limited Seating, Advanced Registration Required)	Expanding Impact: Integrated Monarch Monitoring Program (IMMP) Training as a Framework for Monitoring At-Risk Species. 1/2 Day Training Course (Limited Seating, Advanced Registration Required)	Novel Approaches to Ground-based Forest Measurements—Seeing the Forest by Measuring the Trees	DoW Service Breakout Sessions Army, National Guard	Informal Breakout Sessions - Navy, Air Force	Department of War Partners in Amphibian and Reptile Conservation (PARC) Network and Herps WG Technical Session	BASH WG Technical Session	DoW AKN Office Hours	Monarchs and More: Collaboration on Military Lands for Pollinators	Wildfire and Invasives in the Western Ranges	1:00 - 1:30 PM
1330-1400													1:30 - 2:00 PM
1400-1430											Monarch Habitat Assessment		2:00 - 2:30 PM
1430-1500					Break			Break					2:30 - 3:00 PM
1500-1530					1/2 Day Training Course (Limited Seating, Advanced Registration Required)			Managing Threaten and Endangered Plants to Sustain the Training Mission	TRAWG Grab Bag - Current Technologies being used across DoW Techical Session	DoW AKN Office Hours	Break		3:00 - 3:30 PM
1530-1600											From Constraints to Capabilities: Species Management at JBLM	Wildland Fire Partnerships Technical Session	3:30 - 4:00 PM
1600-1630						DoW Small Mammal Initiative	US Fish & Wildlife Service Retirees Association Memberships						4:00 - 4:30 PM
1630-1700						NMFWA Newcomers Social/Session							4:30 - 5:00 PM
1700-1730	Break						Break	Break			Break		5:00 - 5:30 PM
1730-1800	2025-2026 NMFWA BoD Meeting - All Members Welcome					Break		NMFWA Show and Tell and Awards Banquet			2024-2025 NMFWA BoD Meeting - All Members Welcome		5:30 - 6:00 PM
1800-1830											Break		6:00 - 6:30 PM
1830-1900						WMI Welcome Reception							6:30 - 7:00 PM
1900-1930													7:00 - 7:30 PM
1930-2000													7:30 - 8:00 PM
2000-2030													8:00 - 8:30 PM
2030-2100													8:30 - 9:00 PM