



NFWF

Interim Programmatic Report Narrative

Instructions: Save this document on your computer and complete the narrative in the format provided. The final narrative should not exceed five (5) pages. Once complete, upload this document into the on-line interim programmatic report task in Easygrants as instructed.

1. Summary of Accomplishments

In four to five sentences, provide a brief summary of the project's key accomplishments and outcomes that have been observed or measured to date.

This project is a continuation of a previous NFWF grant (known hereafter as phase I), to collect occupancy and abundance data for three focal bird species: Cerulean Warblers (CERW), Golden-winged Warblers (GWWA), and Wood Thrush (WOTH) from institutional landowners in the Monongahela Forest focal geography in West Virginia. The project expanded locational sampling to a new institutional landowner, Lyme Timber Company, and continued monitoring on Weyerhaeuser forestlands. West Virginia University (WVU) collected bird occurrence and vegetation data within three defined forest research blocks comprised of different forest stand age/stage class sizes and preliminary results include detection of 23 Cerulean warbler and 44 Wood thrush on Lyme Timber Company property. Collaborative meetings with project partners, including Weyerhaeuser, Lyme Timber Company, Sustainable Forestry Initiative, American Bird Conservancy, US Fish and Wildlife Service, and West Virginia Division of Natural Resources, took place throughout the year, building off of Phase I results, to continue project advancement.

2. Project Activities & Outcomes

Activities

- Describe and quantify the primary activities conducted under this grant.

In year 1 (2024), WVU successfully collaborated with Weyerhaeuser and Lyme Timber Company to identify 3 defined forest research blocks:

1. **Operational:** A landscape entirely embedded within the operational forest context of Weyerhaeuser/Lyme Timber property. It will represent a heterogeneous forested landscape inclusive of forests of various age classes, certified to the SFI Forest Management Standard.
2. **Operational with NRCS/NCASI/NAFO:** We will work with NRCS, NCASI, and NAFO project partners to identify family-owned forest properties in proximity (or interspersed) to a block predominately owned/managed by institutional landowners. This landscape is the focus of assessment and planning to enroll private landowners as part of NRCS, CERW Appalachian Forestland Enhancement Project (AFEP) and GWWA Working Lands for Wildlife (WLFW) project. The goal is to build landowner capacity, and test approaches to maximize outcomes across multiple ownership boundaries and objectives. Long-term monitoring will be essential to understand species responses across both ownership types.
3. **Operational with Opportunity:** The third landscape will seek opportunity for intersection of Weyerhaeuser/Lyme Timber forest management and other private lands, and potentially the engagement of additional ownership types and management strategies (e.g., State lands or federal lands). The same monitoring methodology will be applied, but this block will explore opportunities for creative engagement and learnings, including additional engagement of family forest landowners, and potentially building understanding of contributory value of surrounding state or federal lands.

Within each research block, WVU used ArcGIS to target harvested areas of variable age/stage class sizes for GWWA, CERW, and WOTH. From May-July 2024, the field crews surveyed avian point counts twice, recording all species seen and heard during a 10-minute survey. During the 2024 field season on Weyerhaeuser property, WVU prioritized repeat surveys of points with Golden-winged Warbler and Blue-winged warbler detections as well as points that had harvests occur between survey years. Additionally, they initiated point count surveys on Lyme Timber Company property, with the primary objective of collecting baseline data on the bird community and identifying Cerulean Warbler populations, because no populations were identified on Weyerhaeuser lands from phase I (2021-2023). The study area for Lyme Timber Company is primarily within Wyoming and McDowell Counties (Figures 1-2).

Dr. Chris Lituma from WVU, recruited a Ph.D. student, Julian Grudens, to begin work on phase 2 of the project and will lead fieldwork beginning in 2025. He is currently working to refine research designs focusing on Cerulean Warblers on Lyme Timber Company property and Golden-winged Warblers on Weyerhaeuser Company property, in addition to Wood Thrush and other West Virginia State Wildlife Action Plan species. These designs will incorporate known populations and models from previous year's surveys and expand to identify new populations and sustainable strategies for forest management at landscape and regional scales.

Project partners met for 3 quarterly meetings throughout the year to check in about project progress. The Q3 meeting was held in-person at Chief Logan State Park in West Virginia (14 attendees) in conjunction with the West Virginia National Association of Forest Owners (NAFO) Commercial Landowner Workshops hosted by project partners NAFO, West Virginia DNR, and National Council of Stream and Air Improvement (NACSI). WVU Ph.D. student Robert Ryan presented on his finalized project report which detailed results from Phase 1 (2021-2023) research, including occupancy maps for Golden-winged Warbler, Blue-winged Warbler, and Wood Thrush. Preliminary results were also presented in October 2024 at The Wildlife Society annual conference in Baltimore, Maryland.

Outcomes

- Describe and quantify progress towards achieving the project outcomes.
- Provide any further information (such as unexpected outcomes) important for understanding project activities and outcome results.

During the first field season on Lyme Timber Company property, WVU conducted 55 avian point counts and had detected 23 Cerulean warblers and 44 Wood thrush. In addition to the focal species, they detected some species which have also experienced population declines in West Virginia, including Blue-winged Warblers (7). Included is a preliminary species summary from the new Lyme Timber Company property, where Cerulean Warbler populations and other West Virginia State Wildlife Action Plan priority 1 species were identified (Table 1). Final data entry and proofreading for 2024 data are currently being completed for Weyerhaeuser. WVU researchers plan for 3 more years of data collection (2025-2027) that incorporates occupancy models and forest management considerations from previous data collection.

American Bird Conservancy (ABC) and NRCS are collaborating on building an engagement plan to initiate outreach to new private landowners in the vicinity of the institutional landowners that will begin in Year 2.

Project Deviations:

The original proposal had identified three new institutional landholders to expand bird sampling, however two of the certified organizations had changed property ownership in the targeted region in West Virginia, resulting in only one new institutional landowner, Lyme Timber Company.

The first quarterly meeting was postponed to the second quarter once contractual obligations were finalized.

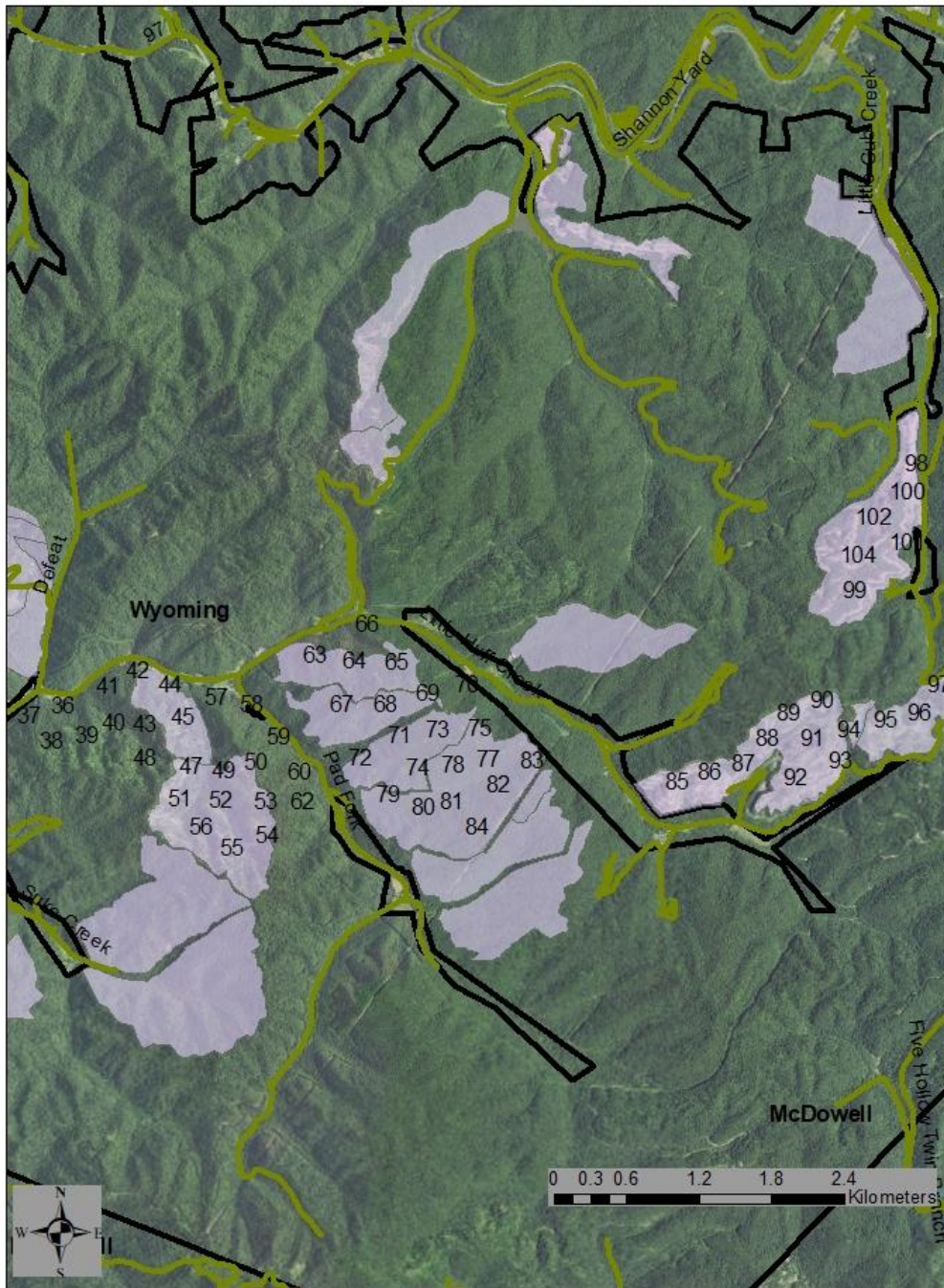


Figure 1. Map detailing part of the Lyme Timber Company property, with harvests shown in gray and survey points numbered.

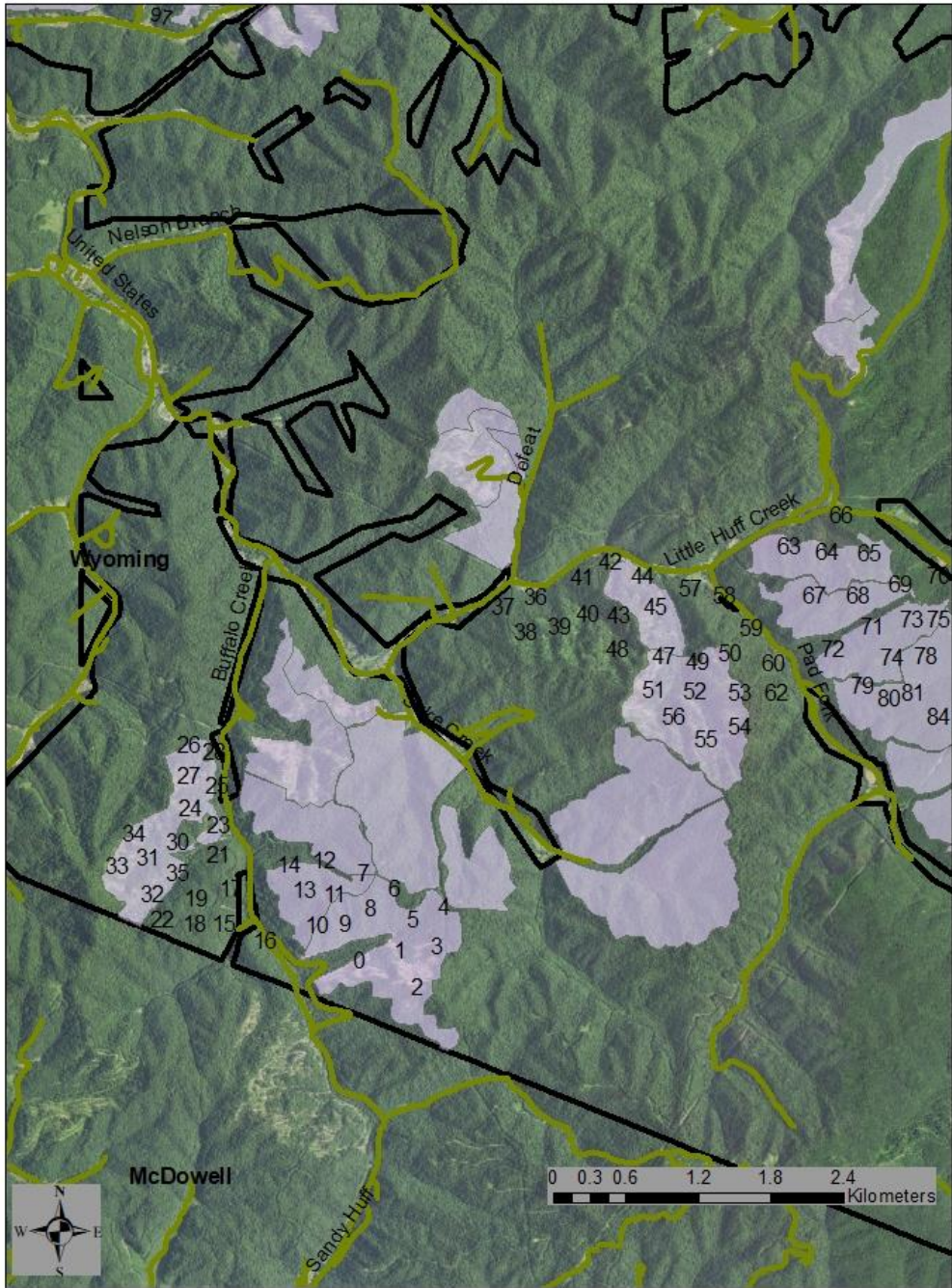


Figure 2. Map detailing part of the Lyme Timber Company property, with harvests shown in gray and survey points numbered.

Table 1. Summary of species detected at Lyme Timber Company property in 2024, with species code, common name, scientific name, and maximum count of individuals from $n = 55$ point count locations. West Virginia State Wildlife Action Plan (SWAP) priority 1 species are in bold.

Species Code	Common Name	Scientific Name	Count
REVI	Red-eyed Vireo	<i>Vireo olivaceus</i>	86
HOWA	Hooded Warbler	<i>Setophaga citrina</i>	75
TUTI	Tufted Titmouse	<i>Baeolophus bicolor</i>	74
EATO	Eastern Towhee	<i>Pipilo erythrophthalmus</i>	61
WBNU	White-breasted Nuthatch	<i>Sitta carolinensis</i>	52
NOCA	Northern Cardinal	<i>Cardinalis cardinalis</i>	51
WOTH	Wood Thrush	<i>Hylocichla mustelina</i>	44
CARW	Carolina Wren	<i>Thryothorus ludovicianus</i>	43
INBU	Indigo Bunting	<i>Passerina cyanea</i>	43
NOPA	Northern Parula	<i>Setophaga americana</i>	37
SCTA	Scarlet Tanager	<i>Piranga olivacea</i>	37
ACFL	Acadian Flycatcher	<i>Empidonax virescens</i>	36
CACH	Carolina Chickadee	<i>Poecile carolinensis</i>	35
BAWW	Black-and-white Warbler	<i>Mniotilta varia</i>	33
KEWA	Kentucky Warbler	<i>Geothlypis formosa</i>	33
MODO	Mourning Dove	<i>Zenaida macroura</i>	29
OVEN	Ovenbird	<i>Seiurus aurocapilla</i>	29
AMGO	American Goldfinch	<i>Spinus tristis</i>	28
YTWA	Yellow-throated Warbler	<i>Setophaga dominica</i>	27
AMCR	American Crow	<i>Corvus brachyrhynchos</i>	24
AMRE	American Redstart	<i>Setophaga ruticilla</i>	24
CERW	Cerulean Warbler	<i>Setophaga cerulea</i>	23
DOWO	Downy Woodpecker	<i>Dryobates pubescens</i>	22
EAWP	Eastern Wood-Pewee	<i>Contopus virens</i>	22
PIWO	Pileated Woodpecker	<i>Dryocopus pileatus</i>	20
RBWO	Red-bellied Woodpecker	<i>Melanerpes carolinus</i>	20
BLJA	Blue Jay	<i>Cyanocitta cristata</i>	19
BGGN	Blue-gray Gnatcatcher	<i>Poliophtila caerulea</i>	14
YBCH	Yellow-breasted Chat	<i>Icteria virens</i>	13
CEDW	Cedar Waxwing	<i>Bombycilla cedrorum</i>	12
WEWA	Worm-eating Warbler	<i>Helmitheros vermivorum</i>	12
AMRO	American Robin	<i>Turdus migratorius</i>	11
BTNW	Black-throated Green Warbler	<i>Setophaga virens</i>	8
SWWA	Swainson's Warbler	<i>Limnothlypis swainsonii</i>	8
BWWA	Blue-winged Warbler	<i>Vermivora cyanoptera</i>	7
NOFL	Northern Flicker	<i>Colaptes auratus</i>	7
BCCH	Black-capped Chickadee	<i>Poecile atricapillus</i>	6
BHVI	Blue-headed Vireo	<i>Vireo solitarius</i>	5
CORA	Common Raven	<i>Corvus corax</i>	5
GRCA	Gray Catbird	<i>Dumetella carolinensis</i>	5
WITU	Wild Turkey	<i>Meleagris gallopavo</i>	5
YBCU	Yellow-billed Cuckoo	<i>Coccyzus americanus</i>	5
CHSP	Chipping Sparrow	<i>Spizella passerina</i>	4
BHCO	Brown-headed Cowbird	<i>Molothrus ater</i>	3
EABL	Eastern Bluebird	<i>Sialia sialis</i>	3
HETH	Hermit Thrush	<i>Catharus guttatus</i>	3

SOSP	Song Sparrow	<i>Melospiza melodia</i>	3
BRCR	Brown Creeper	<i>Certhia americana</i>	2
BTBW	Black-throated Blue Warbler	<i>Setophaga caerulescens</i>	2
CSWA	Chestnut-sided Warbler	<i>Setophaga pennsylvanica</i>	2
EAPH	Eastern Phoebe	<i>Sayornis phoebe</i>	2
LEOW	Long-eared Owl	<i>Asio otus</i>	2
RSHA	Red-shouldered Hawk	<i>Buteo lineatus</i>	2
BBCU	Black-billed Cuckoo	<i>Coccyzus erythrophthalmus</i>	1
DEJU	Dark-eyed Junco	<i>Junco hyemalis</i>	1
EAKI	Eastern Kingbird	<i>Tyrannus tyrannus</i>	1
GCFL	Great Crested Flycatcher	<i>Myiarchus crinitus</i>	1
RBGR	Rose-breasted Grosbeak	<i>Pheucticus ludovicianus</i>	1
RBNU	Red-breasted Nuthatch	<i>Sitta canadensis</i>	1
RTHU	Ruby-throated Hummingbird	<i>Archilochus colubris</i>	1
VEER	Veery	<i>Catharus fuscescens</i>	1
YBFL	Yellow-bellied Flycatcher	<i>Empidonax flaviventris</i>	1
YEWA	Yellow Warbler	<i>Setophaga petechia</i>	1
Total	63 species		1,118

3. Metrics

Metric	Strategies	Required	Starting Value	Value To Date	Target value
Central Apps - Cerulean Warbler - Improved management practices - Acres under improved management	Habitat Management	Recommended	0 Acres under improved management	1,324 Acres under improved management	5,500 Acres under improved management
Central Apps - Cerulean Warbler - Population - # sites occupied by species	Species Outcome	Recommended	0 # sites occupied by species	9 sites occupied by species	30 # sites occupied by
Central Apps - Forest Management Planning - # of acres covered by dynamic forest plans	Planning, Research, Monitoring	Recommended	0 # of acres covered by dynamic forest plans	# of acres covered by dynamic forest plans	24,100 # of acres covered by dynamic forest plans
Central Apps - Golden-winged Warbler - Improved management practices - Acres under improved management	Habitat Management	Recommended	0 Acres under improved management	Acres under improved management	2,000 Acres under improved management
Central Apps - Golden-winged Warbler - Population - # sites occupied by species	Species Outcome	Recommended	0 # sites occupied by species	# sites occupied by species	32 # sites occupied by species
Central Apps - Outreach/ Education/ Technical Assistance - # people reached	Capacity, Outreach, Incentives	Recommended	0 # people reached	0 people reached	3,000 # people reached
Central Apps - Outreach/ Education/ Technical Assistance - # people with changed behavior	Capacity, Outreach, Incentives	Recommended	0 # people with changed behavior	0 people with changed behavior	30 # people with changed behavior
Central Apps - Wood Thrush - Improved management practices - Acres under improved management	Habitat Management	Recommended	0 Acres under improved management	1,740 Acres under improved management	12,000 Acres under improved management
Central Apps - Wood Thrush - Population - # sites occupied by species	Species Outcome	Recommended	0 # sites occupied by species	12 sites occupied by species	45 # sites occupied by species

