

West Virginia Master Naturalist Class Description (6-05)



Bird Class

Monongalia Master Naturalists
217 Morgan Hill Road, Morgantown, 26508

Presenter: [LeJay Graffious](mailto:lejay@oldhemlock.org)
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Title: West Virginia Master Naturalist Class: BIRDS

Objectives: Become familiar with strategies and techniques of field identification of WV birds. Be introduced to some aspects of bird behavior and adaptations, and to methods of bird study.

Class Type: Core curriculum

Time: 4 hours

Optimal season: Spring

Materials: Binoculars, field guides.

(Instructor Note: Download the App for Cornell – Merlin)

Expected outcomes:

The student will gain a basic understanding of

1. How to identify birds in the field by sight and sound.
2. How to select and use binoculars.
3. Bird behavior and adaptations.
4. Some methods of studying wild birds.

Upcoming Bird Activities:

- Mountaineer Audubon (mountaineeraudubon.org)

Promotions:

- Purchase a Federal Duck Stamp
"As a conservation donation, it [the Stamp] is unparalleled... It's simply the most efficient application of your money to conservation." (Birder's World, August 2006)
David Sibley Artist and Author
- [Buy Bird Friendly Coffee/Shade Grown](#): One source is the ACCA.

"According to the Smithsonian Migratory Bird Center and Birds & Beans Coffee, consuming a pound per month of certified bird-friendly coffee supports 1,750 sq ft of shade coffee habitat."

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Time: 4 hours (classroom and field trip)

1. Overview

a) [Birds defined](#)

(Activity) Bird Quiz

(LeJay's Pet Peeve)- Bird Watching Ethics

[ABA- Principles of Birding Ethics](#)

[eBird Birding Ethics](#)

[Sibley Guides: The Proper Use of Playback in Birding](#)

The science is still out...I haven't seen a study that says attracting birds with their own sounds has negative effects. Common sense does tell me not to play the sound over and over, not to play in heavily birded areas, and not to play it around nesting birds, or other birders not in my group. LJG

b) Analysis of the 234 regularly occurring WV species: summer, winter, and year-around spp., nesting spp., passage migrants

[List of WV Birds The West Virginia Birds Records Committee is charged with maintaining the official list of West Virginia Birds.](#)

[Checklist of WV Birds, plus ferns and butterflies](#)

c) Rare WV species and conservation concerns

2. Field identification

a) Binoculars and spotting scopes

- [All About Birds: Choosing and Using Binoculars](#)
- [Vortex Optics](#)
- Bird Watcher Digest: [Birding Optics](#)
- [Time and Optics](#)
- [Cornell Lab Review: Affordable Full-Size 8x42 Binoculars](#)

b) [Field guides](#)

Books

- [National Geographic](#)
- [Sibley Guides](#)
- [Peterson Field Guides](#)
- [Crossley Guides](#)
- [Golden Guide: Birds by Chan Robbins](#)
- [Kaufman Field Guides](#)

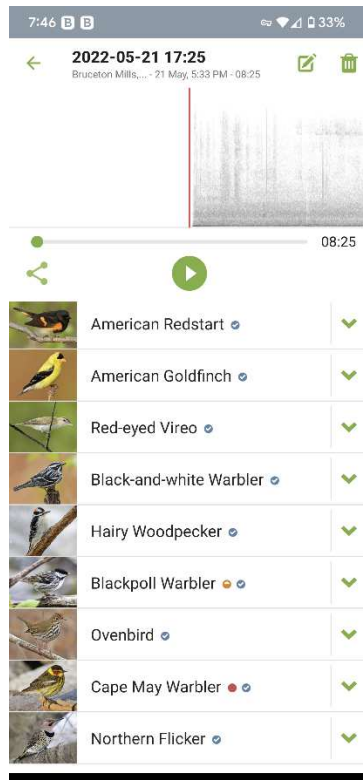
Electronic birding:

- Handhelds and Pads
 - [Sibley eGuide to the Birds of North America](#)
 - [iBird](#)
 - [Merlin:](#)
 - More everyday...

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c) Strategy for IDing an unknown bird

- Observe thoroughly before turning to field guide – size, colors, markings, vocalizations, behavior
- All About Birds: [Building Skills](#)
- **Identification-** size/shape; color pattern; behavior; habitat; field marks; song
 - [Size & Shape](#)-Tiny bird with large head, plump body, narrow tail, and short bill
 - [Beaks](#)
 - [Feet](#)
 - [Color Pattern](#)-Striking shiny black cap and throat against white cheeks. Buffy sides; wings and back soft gray
 - [Behavior](#)-Busy, acrobatic, and often in feeding flocks of several species
 - Consider habitat and range
 - [Habitat](#)-Forests, woodlots, backyards, and shrubby areas; in the West, associated with deciduous trees or evergreens, early or late succession.
 - Range- Make it a habit to check the range maps before you make an identification.
 - [Field Marks](#): Field marks are the distinctive stripes, spots, patterns, colors, and highlights that birds have in such abundance and variety.
- **Birding by sound**
 - [Songs and Calls](#)
 - -Resources:
 - [LeJay's Birding by Ear Mnemonic Notes](#)
 - [Macaulay Library](#)
 - Merlin: [Demonstration video](#)
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- (Activity) Review Common West Virginia birds with Thayer's
- (Activity) Bird Walk Around ACCA Outdoor Classroom
- (Activity) Bird Banding Demonstration

3. Behavior and adaptations

- a) Mating and nesting, territoriality
- b) Habitats,
 - Habitat Codes
 - Things you can do
 - Feeding: Helps individual birds, brings problems
 - Window Kills: Recommendations for the American Bird Conservancy
 - <https://www.collidescape.org/>
 - Sample from Old Hemlock
 - Keep Cats Indoors: Better for cats. Better for birds. Better for people.
- c) Migration
 - All About Birds: Migration
 - Follow Hummingbird Migration
 - Bird Cast
 - Living on the Wind: Across the Hemisphere with Migratory Birds: Scott Weidensaul (Author)
A World on the Wing: The Global Odyssey of Migratory Birds Scott Weidensaul

4. Bird watching and study

- a) Birding organizations and publications
 - Brooks Bird Club
 - Mountaineer Audubon
 - National Audubon
 - American Birding Association
 - American Ornithological Union
 - Ralph Bell Bird Club, Waynesburg, PA
 - Carnegie Museum of Natural History's Powdermill Avian Research Center
 - Birding on Net (What birds are being seen)
 - National Bluebird Society
 - Purple Martin Conservation Association
 - West Virginia Young Birders Club
- b) "Citizen Science" projects – reporting what you observe
 - Cornell Lab of Ornithology Citizen Projects
 - **Celebrate Urban Birds**: Get involved with birds and community activities in urban and suburban areas.
 - eBird**: Track and share your sightings anywhere, any time. [Video about eBird](#)
 - NestWatch**: Find and monitor bird nests.
 - Project FeederWatch**: Watch and record birds at your feeders in winter.

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Great Backyard Bird Count: In February, celebrate birds by counting them at home or in your community.

- [What Birds are being seen by State: WV_Bird](#)
- [eBird](#): Global tools for birders, critical data for science
 - Record the birds you see
 - Keep track of your bird lists
 - Explore dynamic maps and graphs
 - Share your sightings and join the eBird community
 - Contribute to science and conservation
- [Mountaineer Audubon Christmas Bird Count](#)
- [Bird Day](#): Contribute to International Bird Day . Celebrated at Cooper's Rocks.
- Volunteer at Local Raptor Rehabilitation Center:
 - [Avian Conservation Center of Appalachia, Inc.](#)

What to do with a dead bird

- [-Banded](#)
- [-Not Banded](#)

c) ["Orphaned" nestlings](#)

5) Interpretation - Related to Birds

- "Tilden's principles" of interpretation
 - In his 1957 book, "Interpreting Our Heritage", [Freeman Tilden](#), defined six principles of interpretation.
 - Any interpretation that does not somehow relate what is being displayed or described to something within the personality or experience of the visitor will be sterile.
 - Information, as such, is not Interpretation. Interpretation is revelation based upon information. But they are entirely different things. However all interpretation includes information.
 - Interpretation is an art, which combines many arts, whether the materials presented are scientific, historical or architectural. Any art is in some degree teachable.
 - The chief aim of Interpretation is not instruction, but provocation.
 - Interpretation should aim to present a whole rather than a part, and must address itself to the whole man rather than any phase.
 - Interpretation addressed to children (say up to the age of twelve) should not be a dilution of the presentation to adults, but should follow a fundamentally different approach. To be at its best it will require a separate program.
 - For the past 50 years, Tilden's principles have remained highly relevant to interpreters across the world. In 2002 Larry Beck and Ted Cable published "Interpretation for the 21st Century - Fifteen Guiding Principles for Interpreting Nature and Culture", which elaborated upon Tilden's original principles.
- West Virginia Master Naturalist Class Description: NATURE INTERPRETATION AND TEACHING
 - <http://www.wvdnr.gov/wvmn/NatureInterpretation&Teaching.shtm>
- Multiple Intelligences: When working with a group, remember to include multiple domains. http://en.wikipedia.org/wiki/Theory_of_multiple_intelligences

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- The theory's eight currently accepted intelligences are: (Ref: Educational Psychology, Robert Slavin. 2009, 117)
 - Spatial
 - Linguistic
 - Logical-mathematical
 - [Bodily-kinesthetic](#)
 - Musical
 - Interpersonal
 - Intrapersonal
 - Naturalistic
- (Activity) Participants design an interpretation Lesson Plan/Approach on a WV Bird Species to include at least two of Gardner's Multiple Intelligences;

6) Birds and Climate Change-

- [Survival by Degrees: 389 Bird Species on the Brink](#)
- [How climate change effects birds](#)

7) [Things you can do](#)

1. [Landscape with Native Plants](#)
2. Drink shade Grown Coffee
3. Reduce Plastic Use
4. Do Citizen Science
5. Make Windows Safer
6. Keep cats indoors <https://abcbirds.org/program/cats-indoors/cats-and-birds/>
7. Avoid Pesticides
 - Feeding: [Helps individual birds, brings problems](#)
 - Window Kills: [Why Birds Hit Windows: David A. Sibley Explains - BirdWatching Magazine \(birdwatchingdaily.com\)](#)

Bird Boxes and Feeders

- [All About Nest Boxes and Right Bird, Right House](#)
- [Project Feeder Watch](#)
- [Nest box placement and sizes](#)
- [WOODWORKING FOR WILDLIFE](#)

8) Bird Population Decline:

- [30% Decline since 1970](#)
- [Causes of Bird Mortality](#)

9) Evaluation: I appreciate feedback from you to adjust to future classes.

Please email comments to lejay@oldhemlock.org. Comment on:

- What worked for you?
- What did not work for you?

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- What would you want more or less of?
- Suggestions of content to include?

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West Virginia's **basic habitat types** fall into a handful of major categories shaped by its Appalachian topography, deep forests, rich waterways, and remnant wetlands. These are the foundational habitat types recognized across the state:

1. Forests — the dominant habitat

Forests cover **78% of West Virginia** and are overwhelmingly **hardwood-dominated**. They include several distinct forest communities:

- **Oak–Hickory Forests** (the dominant type, ~71%) — widespread on mid-slopes and ridges. [Exploring Nature Science Education Resource](#)
- **Northern Hardwood Forests** (~20%) — sugar maple, beech, birch at higher, cooler elevations. [Exploring Nature Science Education Resource](#)
- **Mixed Mesophytic Forests** — rich coves and lower slopes with tulip poplar, basswood, and hemlock.
- **High-Elevation Spruce Forests** — red spruce with rhododendron and mountain holly in the Allegheny highlands. [Exploring Nature Science Education Resource](#)

These forests support the bulk of the state's biodiversity, including black bear, wood warblers, and salamanders. [West Virginia Division of Natural Resources](#)

2. Grasslands and Early-Successional Habitats

These include:

- **Pastures and hayfields**
- **Old fields**
- **Shrublands and regenerating clearcuts**

They provide habitat for species such as **Eastern Meadowlark**, **Bobolink**, **Monarch butterflies**, and **Eastern Cottontail**. [Natural Resources Conservation Service](#)

3. Aquatic Habitats

West Virginia's rivers, streams, and headwaters form a major habitat network:

- **Coldwater streams** (Brook Trout, Hellbender)
- **Warmwater rivers**
- **Riparian corridors** with silver maple, sycamore, and ash on floodplains [Exploring Nature Science Education Resource](#)

These waterways serve as migration corridors and support fish, mussels, amphibians, and waterfowl. [Natural Resources Conservation Service](#)

4. Wetlands — rare but critical

Before settlement, wetlands covered ~**25%** of WV; today only ~**1%** remains. [Exploring Nature Science Education Resource](#)

Types include:

- **Conifer swamps** (balsam fir, hemlock, spruce)
- **Shrub swamps**
- **Wet meadows**
- **Seeps, bogs, and fens**

These habitats filter water, reduce flooding, and support unique plants and amphibians.

5. Caves and Karst Habitats

West Virginia contains **350+ miles of surveyed cave passages**, supporting bats, cave salamanders, and specialized invertebrates. [Exploring Nature Science Education Resource](#)

6. Rocky Cliffs, Talus Slopes, and High-Elevation Barrens

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These rugged habitats occur mainly in the Allegheny Front and Potomac Highlands. They support:

- Peregrine Falcons
- Specialized plants like rock spikemoss
- Cold-adapted species in high-elevation heath barrens

(These are less explicitly listed in the sources but are well-recognized Appalachian habitat types.)

Summary Table

| Habitat Type | Key Features | Representative Species |
|--|---|--|
| Forests | Hardwood-dominated; spruce at high elevations | Cerulean Warbler, Ruffed Grouse, Black Bear |
| Grasslands / Early Successional | Fields, pastures, shrublands | Meadowlark, Bobolink, Monarch |
| Aquatic | Streams, rivers, riparian zones | Brook Trout, Hellbender, Louisiana Waterthrush |
| Wetlands | Bogs, fens, swamps | Wood Duck, amphibians, wetland plants |
| Caves / Karst | Limestone caves, sinkholes | Bats, cave salamanders |
| Cliffs & Barrens | Rocky outcrops, high-elevation heath | Peregrine Falcon, specialized flora |

QR Code to the MN Bird Class PowerPoint Slides

