



Our Mission:

*To cultivate awareness, understanding, and Stewardship of the Wenatchee River region by Developing an active corps of well-informed Community volunteers.*

After completing the course, you will be able to...

**Goal I: Foundational Knowledge**

- ... describe the role geology plays in the Wenatchee River watershed.
- ... locate rivers, mountain ranges, and lakes within the Wenatchee River watershed.
- ... identify the basic organization and components of a plant and be able to describe characteristics of 8 or more plant families.
- ... identify the parts of an insect and the basic structure of several insect orders.
- ... understand basic anatomy, physiology, and topography of birds.
- ... describe the characteristics of native mammals, reptiles and amphibians.
- ... describe the components of shrub-steppe, montane, and riparian ecosystems.
- ... identify 100 common plant and animal species by name, including trees, shrubs, wildflowers, mammals, birds, reptiles, amphibians, and insects.

**Goal II: Field ID Skills**

- ... be comfortable using field guides and dichotomous keys to make identifications.
- ... identify conifers of the Eastside Cascade Mountains.
- ... identify common shrubs based on physical features.
- ... classify common wildflowers to the family level.
- ... identify common Washington birds by sight.
- ... identify common Washington mammals, reptiles, and amphibians by their physical features.
- ... identify common Washington insect orders.

**Goal III: Field Journaling Skills**

- ... maintain a record of observations in a field journal.
- ... use field sketching and note-taking to sharpen observation skills.

**Goal III: Sense of Place Practices**

- ... spend time in the close investigation of local field sites.
- ... volunteer with a local organization doing conservation work.
- ... connect the knowledge, skill, and experience gained to the local landscape.

## Class meets in Batjer Hall, Room 8030

### Suggested orientation to prepare for the 12-week course

**Heads up: you'll be using a class website:** <http://www.wenatcheenaturalist.com/>

For each week of class, the focus topic can be found under TOPICS/RESOURCES. Each week's topic contains resources to supplement the in-class presentations and activities. Prior to each class, you will receive an email containing the syllabus' suggested pre-work options, with clickable internet links.

**Prior to our first class, review a few background resources included on the *Wenatchee Naturalist* website, TOPICS/RESOURCES Tab, specifically:**

Eastside Ecosystems Overview at <http://www.wenatcheenaturalist.com/east-side-ecosystems/>

Field Observation Skills at <http://www.wenatcheenaturalist.com/east-side-ecosystems/field-observation-skills/>

**Suggested note-taking method: You will be provided with a field journal at our first class**

- I suggest taking all class and field notes directly into your journal (provided at class), creating a portable reference you'll have with you when you do your field observations.
- An option is to bring your laptop or tablet to class and follow along electronically.

**Select a field site to visit weekly for 30+ minutes. Try to visit this site before week 2.**

Prepare to briefly "introduce" your site to others at our third class meeting. A detailed field site selection instructions is [here](#) and will be introduced during our second class.

**Supplies to bring weekly to use in class and in the field:**

- Writing pen and pencil
- Drawing Pen: waterproof, fade proof, acid free, black, micro point (NOTE: pens will be "for sale" at class)
- Loaned hand lens
- Optional: colored pencils, watercolor pencils, watercolor paints. You will see examples at Class #1
- Digital camera, tablet, or smart phone

### Logistics:

**1. How to find our classroom.** We are in the single-story Batjer Hall, directly north of the campus fountain. The entrance facing the fountain doesn't connect to our classroom, so plan to enter the building on the east side (next to the library). Find the very long center hallway and walk all the way to the north end. Alternatively, enter from the north end of the building- within sight of the campus raised bed gardens. This door has a native plant garden on either side of the door. Our classroom is immediately inside the north entrance. Click [here](#) for a campus map.

**2. Food and drinks:** We will have a refreshments table in the hall with hot drinks and light snacks. Feel free to bring a sack dinner.

**3. Parking.** WVC parking lots are patrolled at night and tickets are issued if you don't have a parking pass. Free parallel street parking is available on 9th Street. Consider purchasing a fall evening parking pass (\$15), available on the main floor of Wenatchi Hall at the Registrar. Detailed information [here](#).

## Sept. 18, 2019 Week 1: Field Observation Skills Development

**Guest Wildlife Biologist and Artist: Heather A. Wallis Murphy**

- 5:30-6:00 Students gather and check out Loaner Boxes, fill out paperwork
- 6:00-6:15 Welcome, orientation, and Course Overview
- 6:15-7:15 Nature Journaling Drawing workshop
- 7:15-7:25 Break – complete Loaner Box Check out
- 7:25-8:20 Field Trip organization and Field Journaling Drawing workshop, continued
- 8:20-8:30 Introduce Learn 10! Species 1-10\* The website's [LEARN 10 TAB](#)

\***Learn 10** - Each week, 10 images of native plants and animals will be shown in rapid progression as class members first write and then call out the species name. The website's [LEARN 10 TAB](#) contains all 100 focus species for the class. Additional ways to practice at home include using an on-line flashcard games at [Quizlet](#).

**Your Field Site journaling focus for the coming week:** Observe, draw, and describe what you noticed during our first field trip, trying out several drawing techniques presented in the workshop. Find several shrubs and sketch life-sized leaves, under Heather Murphy's guidance.

### Sat. Sept. 21, 2019 Field Trip 1: White River riparian exploration

**Logistics letter provided in class, via email, and on website**

**Guest scientist/artist field trip leader: Heather A. Wallis Murphy**

**Featured organizations:** Tall Timber's Conservation Easement with CDLT

**Community Science Projects:** Upper Basin Birders & eBird

**Suggested Reading prior to class** if you only have time to look at one item, do ✓

Review Wenatchee Naturalist website **TOPICS/RESOURCES** : [Deciduous Shrubs and Trees TAB](#) Including:

- ✓ **Articles by Susan Ballinger about [shrub identification](#) & the importance of our shrubby canyons as habitat**
- ✓ ***Gestures of Stone and Water: A Natural History of the Wenatchee Watershed*, by Tim McNulty. Pg. 31-36, [Images of the Watershed](#) (2002). (LOANED BOOK)**
- *Cascade-Olympic Natural History: A Trailside Reference* (2<sup>nd</sup> edition, 1999), by Daniel Mathews. Read Chapter 1, Chapter 16, and Appendix "Five-Kingdom Taxonomy." (LOANED BOOK)
- [Washington Wildlife](#) by Woodland Park Zoo (61 pages). Use this as general background reading throughout the course. Find this document both in hardcopy (LOANED BOOKLET) and linked on Wenatchee Naturalist website. (CLASS WEBSITE)
- Field Guide: *Plants of Southern Interior British Columbia and the Inland Northwest*, edited by Roberta Parish, Ray Coupe, and Dennis Lloyd (1996). Skim introduction, focus on habitat descriptions. (LOANED BOOK)

## Sept. 25, 2019 Week 2: Wenatchee River Watershed overview

- 5:30-6:00 Students gather, review resource table, apply water-proofing tape to your journal.
- 6:00-6:20: Welcome and Introduction to the course format and logistics
- 6:20-6:35 In small groups, describe pre-selected field site; introduce one-another. All-group introductions
- 6:35-7:00 Geography of the Wenatchee watershed – rotation lab activity
- 7:00-7:10 Break
- 7:10-7:30 Introduction to Wenatchee Watershed Ecosystems
- 7:30-8:15 Lab using fresh samples: “Learn 10” Common Shrubs and Deciduous Trees, including 2-minute journal skills practice
- 8:15-8:30 Learn 10! Species 1-10 Practice using the website’s [LEARN 10 TAB](#)

**Field site journaling focus for the coming week:** Hand-draw a map of your site placing North at the top of your page. Record the elevation of lowest and highest point (use Google maps). Label each habitat type and all water bodies. Draw your walking route and label any points where you plan to stop to make observations. Record the distance traveled. Include structures and roads.

**Suggested Reading prior to class:** If you only have time to look at one item, do ✓

Review Wenatchee Naturalist website **TOPICS/RESOURCES** : [Conifers](#)

- ✓ Article by Susan Ballinger about Washington's two native larch trees, [Golden October](#).
- ✓ Article by Susan Ballinger about White-bark pine, [Take Action to Preserve Whitebark Pine](#).
- ✓ Narrative by Susan Ballinger, [Native Conifers of WA State- A summary of field identification traits](#)
- ✓ [Washington Wildlife](#) by Woodland Park Zoo, Montane Habitats (pg. 15-19) and Temperate Forest Habitats (pg. 27-28). Use this as general background reading, providing a big picture overview for the course. (LOANED BOOKLET and on CLASS WEBSITE-TEXTBOOK FOLDER)
- Cascade-Olympic Natural History: A Trailside Reference by Daniel Mathews. Skim Chapter 3 to see what a native conifer identification field guide is like. (LOANED BOOK)
- View locally-produced DVD “The Dry Forest: Okanogan-Wenatchee National Forest” (LOANED DVD)
- View locally-produced DVD “Fire Lookouts-A National Treasure” (LOANED DVD)
- *How A Tree Grows*, USFS FS-32 an illustrated guide to tree structures & functions. (LOANED BOOKLET)
- [The Fireworks Notebook](#) - 2-page Life History narratives species adaptations to fire-dependent habitats for 40 common plants and animals native to Western U.S. forests
- 2-page Life History narrative describing species adaptations to fire-dependent habitats for 2 additional species common in the Wenatchee Watershed: [Antelope Bitterbrush Life History](#) and [Grand Fir Life History](#)

## Oct. 2, 2019 Week 3: Dry Forest Ecology & Conifers

- 5:30-6:00 Students gather and review resource table; journal-sharing with one-another and Susan
- 6:00-6:10 Featured conservation organization: TBA
- 6:10-6:15 Quick review of last week and overview of today’s class

- 6:15-7:00 Eastside Cascade Conifers – Presentation Susan Ballinger.  
7:00-8:20 Learn 10 conifers: a lab using cones, needles, bark, photos, field guides and a key, including 2-minute journal skills practice.  
8:20-8:30 Learn 10! Species 1-20 Practice using the website's [LEARN 10 TAB](#)

**Your Field Site journaling focus for the coming week:** Observe, draw, and describe 2-3 conifer trees. Include details of each tree's habitat, oversize & shape and bark. Describe any evidence of disease or evidence of feeding by an animal, or of injury from wildfire.

**Suggested Reading prior to class:** If you only have time to look at one item, do ✓

Review Wenatchee Naturalist website **TOPICS/RESOURCES** : [Riparian, Wetland, and Aquatic Ecosystems](#)

- ✓ An article about riparian habitats by Susan Ballinger, [Neotropical Migrants Raising Their Young in Our Canyons](#)
- ✓ An article about the fun of exploring local river riparian habitats by Susan Ballinger, [Head to the River for Fun in the Mud!](#)

**Loaner box suggested reading:**

- ✓ *At Home with Wetlands: A Landowners Guide* by WA Department of Ecology. An approachable and well-written overview of wetland types, values, and human issues. (LOANED BOOK)
- [Washington Wildlife](#) by Woodland Park Zoo, Wetland Habitats (pg. 41-51). (LOANED BOOKLET & Website)
- Cascade-Olympic Natural History: A Trailside Reference by Daniel Mathews. Skim Chapter 3 to see what a native fish identification field guide is like. (LOANED BOOK)

## Oct. 9, 2019 Week 4: Riparian & Aquatic Ecosystems

**Guest Aquatic Ecologist: Dr. Mark Oswood**

- 5:30-6:00 Students gather and review resource table; journal-sharing with one-another and Susan  
6:00-6:10 Featured conservation organization: TBA  
6:10-6:15 Quick review of last week and overview of today's class  
6:15-7:00 Introduction to Aquatic Ecology and Macroinvertebrates, Dr. Mark Oswood  
7:00-7:10 break and field trip carpool sign up  
7:10-8:00 Fire Ecology of Eastside Cascades presentation  
8:00-8:15 (If time allows) Slideshow tour of Stormy Preserve, our field trip destination.  
8:15-8:30 Learn 10! Species 1-30 Practice using the web site's [LEARN 10 TAB](#)

**Your Field Site journaling focus for the coming week:** Observe, draw, and describe 2-3 deciduous trees or shrubs. Include details of each shrub's habitat, oversize & shape and bark. Describe any evidence of disease or evidence of feeding by an animal.

## Sat. Oct. 12, 2019 Field Trip 2: Entiat River Riparian Exploration

Logistics letter provided in class, via email, and on website

Guest scientist leaders: Aquatic Ecologist, Dr. Mark Oswood.

Featured organizations: Columbia Breaks Fire Interpretive Center

**Suggested Reading prior to class:** If you only have time to look at one item, do ✓

Review Wenatchee Naturalist website **TOPICS/RESOURCES** : [INSECTS](#): Terrestrial and Aquatic , including:

- ✓ [Arthropods: Insects and their relatives](#) An introduction to insect life histories for the adult learner.
- ✓ [Xerces Society](#) Website. Explore Features, Programs, and Publications <http://www.xerces.org/>
- ✓ View pollinator brochure The Simple Truth: [We Can't Live Without Them!](#) (CLASS WEBSITE)
- ✓ *Cascade-Olympic Natural History: A Trailside Reference* by Daniel Mathews. Skim Chapter 13 to see an example of what insect field identification guides are like. (LOANED BOOK)

## Oct. 16, 2019 Week 5: Terrestrial Insects

Guest Entomologist: James Epler, WSU PhD student

- 5:30-6:00 Students gather and review resource table; journal-sharing with one-another and Susan
- 6:00-6:05 Quick review of last week and overview of today's class
- 6:05-6:35 Jennifer Herdmann, Cascade Columbia Fisheries Enhancement Group, introduces her organization and lead a fish biology activity.
- 6:35-7:15 Introduction to Shrub-steppe Insect Biodiversity PowerPoint by James Hepler
- 7:25-8:20 Insect lab journaling activity- ok to bring your camera. Will include 2-minute journal skills practice. Discussion about current insect conservation issues with James Hepler.
- 8:20-8:30 Learn 10! Species 1-40 Practice using the website's [LEARN 10 TAB](#)

**Your Field Site journaling focus for the coming week:** For 1-3 insects, observe, draw, and record observed behavior, habitat, and population levels. Attempt to classify into an insect Order, using class notes. It is ok to take a collecting container to your site and to temporarily capture an insect in order to better observe it in the field, and then release it on site.

**Suggested Reading prior to class:** If you only have time to look at one item, do ✓

Review Wenatchee Naturalist website **TOPICS/RESOURCES** : [Mammals](#)

- ✓ Article by Susan Ballinger, [Unlocking the Needs and Habits of Our Mule Deer.](#)
- ✓ Article by Susan Ballinger, [Central Washington's Rebounding Pygmy Rabbits.](#)
- ✓ Article by Kim Romain-Bondi about ground-dwelling rodents, reprinted with permission from *The Methow Naturalist: Digging Up the Dirt on Fossorial Mammals* .

- ✓ [Washington Wildlife](#) by Woodland Park Zoo, Mammals (p. 11-12, 20-24, 35-38, & 50). Use this as general background reading, providing a big picture overview. (CLASS WEBSITE)

*Cascade-Olympic Natural History: A Trailside Reference* by Daniel Mathews. Skim Chapter 8 to see what a native mammal identification field guide is like. (LOANED BOOK)

*Cascade-Olympic Natural History: A Trailside Reference* by Daniel Mathews. Skim Chpt. 2. (LOANED BOOK)

Woodland Park Zoo Teacher Resources PowerPoint [Mammal Diversity Overview of mammal characteristics](#).

## Oct. 23, 2019 Week 6: Mammals

### Guest WDFW Wildlife Biologist

- 5:30-6:00 Students gather and review resource table; journal-sharing with one-another and Susan  
NOTE: no food or drink allowed in the study skin lab.
- 6:00-6:05 Quick review of last week and overview of today's class
- 6:05-6:45 Introduction of Chelan County mammals
- 6:45-6:50 Small groups of 3-4, share your recent journal entries with one-another
- 6:50-7:00 Break
- 7:00-7:20 Overview of Mammals of Wenatchee Watershed and Mammal family characteristics
- 7:25-8:20 Explore 20 of the "Learn 10" mammals and create your own field guide notes by exploring the skulls, study skins, and illustrated lab guides. Guided questions provided.
- 8:20-8:30 Learn 10! Species 1-50 Practice using the website's [LEARN 10 TAB](#)

**Your field site journaling focus for the coming week:** Seek out and describe signs of mammal presence. Can include evidence of herbivory or predation, tracks, scat, habitat for cover, or presence of food resources.

**Suggested Reading prior to class:** If you only have time to look at one item, do ✓

Review Wenatchee Naturalist website **TOPICS/RESOURCES** : [Reptiles & Amphibians](#), including:

- ✓ **Article by Susan Ballinger, August Field Notes: A Month of Reptile Sightings.**
- ✓ [California Herps](#): A Guide to the Amphibians & Reptiles of CA: includes photo galleries, range maps, species account, & sound recordings <http://www.californiaherps.com/>
- ✓ [Washington Herp Atlas](#): includes photos, life history, habitat, status, threats, management concerns and distribution of all WA species. <http://www1.dnr.wa.gov/nhp/refdesk/herp/>

### Loaner Box suggested readings:

- ✓ [Washington Wildlife](#) by Woodland Park Zoo, Amphibians & Reptiles (pg. 9, 19-20, 48-49). Use this as general background reading, providing a big picture overview. (LOANED BOOKLET & link on WEBSITE)
- *Cascade-Olympic Natural History: A Trailside Reference* by Daniel Mathews. Skim Chapters 10-11 to see what a native reptiles and amphibian identification field guide is like. (LOANED BOOK)

## Oct. 30, 2019 Week 7: Reptiles & Amphibians

### Guest Wildlife Biologist: Neal Hedges, CDLT Stewardship Director

- 5:30-6:00 Students gather and review resource table; journal-sharing with one-another and Susan
- 6:00-6:10 Featured conservation organization: *TBA*
- 6:10-6:15 Quick review of last week and overview of today's class
- 6:15-7:05 Reptile and Amphibians of the Eastside Cascade Mountains: biodiversity and conservation concerns- guest speaker wildlife biologist, Neal Hedges.
- 7:05-7:10 break
- 7:10-7:30 Lab activity: Field Journaling Drawing Techniques applied practice
- 7:30-8:10 Using a key and field guides to identify reptiles & amphibians. Rotation stations set up with specimens, photos, field guides, a species list, and guiding questions. Will include 2-minute skills practice activity.
- 8:10-8:20 Small group sharing: personal field site visit reports
- 8:20-8:30 Learn 10! Species 1-70 Practice using the website's [LEARN 10 TAB](#)

**Your field site journaling focus for the coming week:** Seek out and describe a potential habitat and possible food item for either a reptile or an amphibian.

#### **Suggested Reading prior to class:** If you only have time to look at one item, do ✓ \_\_\_\_\_

Review Wenatchee Naturalist website **TOPICS/RESOURCES:** [Geology](#) and [Shrub-steppe Ecosystems](#)

- ✓ [2-minute geology](http://hugefloods.com/2-Minute-Geology.html). <http://hugefloods.com/2-Minute-Geology.html> CWU geology professor, Nick Zinter, has created a 12-part series of in-the-field 2-minute geology videos. Start with the "Wenatchee Valley" and view them all!
- ✓ Article by Susan Ballinger, [Shrub-steppe Plant Adaptations](#),
- ✓ Article by Susan Ballinger, [Wildfires Affect on Local Landscape](#).
- ✓ Article by Susan Ballinger, [In Appreciation of Sagebrush](#)
- ✓ Article by Susan Ballinger: *The Amazing Tale of* [Sagebrush galls](#).

#### **Loaner Box suggested reading:**

- ✓ *Washington Watchable Wildflowers: A Columbia Basin Guide* by B.L.M. (pg. 5-14). (LOANED BOOK, also PDF on CLASS WEBSITE)
- *Cascade-Olympic Natural History: A Trailside Reference* by Daniel Mathews. Skim Chapter 15 to see what a geology field guide is like. (LOANED BOOK)
- [Washington Wildlife](#) by Woodland Park Zoo, Steppe Habitats (pg. 3-8). Use this as general background reading, providing a big picture overview. (LOANDED BOOKLET and WEBSITE)
- *NOXIOUS WEEDS* booklet & *WEED INVASION!* USFS Newspaper (LOANED ) Colorful introductions to our local noxious weeds



## Nov. 6, 2019 Week 8: Geology and Shrub-steppe

Guest Geologist: Brent Cunderla

- 5:30-6:00 Students gather and review resource table; journal-sharing with one-another and Susan
- 6:00-6:10 Featured conservation organization: *Ice Age Floods Institute, Erratics Chapter*
- 6:10-7:00 Overview of Geology of the Wenatchee Watershed presentation
- 7:00-7:10 Break
- 7:10-8:00 Introduction to shrub-steppe ecosystems presentation
- 8:00-8:20 Hands-on activity: Meet our common shrub-steppe shrubs using Herbarium sheets
- 8:20-8:30 Learn 10! Species 1-60 Practice using the website's [LEARN 10 TAB](#)

**Your Field Site journaling focus for the coming week:** Draw a geologic feature visible at your site. Describe the soil texture, color, and depth. Describe three dominant plants at your site, and sketch their growth forms.

### Sat. Nov. 9, 2019 Field Trip 3: Wenatchee River Valley exploration

Logistics letter provided in class, via email, and on website

Guest geologist field trip leader: Brent Cunderla

Featured Organizations: Wenatchee River Institute

Community Science Projects: CDLT ebird routes

**Suggested Reading prior to class:** If you only have time to look at one item, do ✓

Review Wenatchee Naturalist website **TOPICS/RESOURCES** : [Wildflowers & Grasses](#)

- ✓ Articles by Susan Ballinger presenting wildflower identification tools, books and local learning resources, [Wildflower Identification](#) and [Wildflower Resources](#).
- ✓ A great easy-to-use approach to learning the key characteristics for 8 common wildflower plant families: mustard, mint, parsley, pea, lily, mallow, and aster. We'll use these playing cards in class [Learning to Identify Plants by Family](#) text and illustrations, or a 45-minute [video tutorial to the Patterns Method](#) with the *Botany in a Day* author Thomas Elpel (INTERNET)
- Cascade-Olympic Natural History: A Trailside Reference by Daniel Mathews. Skim Chapter 4 to see what a native wildflower identification field guide is like. (LOANED BOOK)
- A Botanical Primer: A Systematic Introduction to Vascular Plant Identification by Joseph Arnett. Read pages 2-12 and 21-23. (LOANED BOOK)
- Field Guide: *Plants of Southern Interior British Columbia and the Inland Northwest*, edited by Roberta Parish, Ray Coupe, and Dennis Lloyd (1996). (LOANED BOOK)
- A [Key to the Common Flowering Plant Families of the Methow](#) by Dana Visalli. (CLASS WEBSITE)
- Woodland Park Zoo Teacher Resources PowerPoint [Plant Basics](#). <http://www.zoo.org/page.aspx?pid=1798>. Prepared for adult learners. Overview of plant structures and functions. (INTERNET)

## Nov. 13, 2019 Week 9: Wildflowers

Guest botanist, Chelan County Noxious Weed Control Board Coordinator

- 5:30-6:00 Students gather and review resource table; journal-sharing with one-another and Susan
- 6:00-6:05 Quick review of last week and overview of today's class
- 6:05-6:25 Why care about weeds? Presentation
- 6:25-7:00 Introduction Lecture & Lab: Characteristics of a flower with dissections, common plant families and methods of species identification.
- 7:00-7:10 10-minute break
- 7:10-8:20 Lecture & Lab Exploring plant parts and features of 8 plant families, including 2-minute journal skills practice activity. We'll be using playing cards!
- 8:20-8:30 Learn 10! Species 1- 100 practice for final game next week using the website's [LEARN 10 TAB](#)

**Your field site journaling focus for the coming week:** Become a forensic botanist, looking for dead parts of wildflowers and grasses, and try and determine what plant it might be. Seek out evidence of long-lived perennials, currently dormant above ground, at your site.

**Sunday, Nov. 17, 2018 – Annual all-Wenatchee Naturalist volunteer recognition social,**  
**Details provided in class. OPTIONAL**

**Suggested Reading prior to class:** If you only have time to look at one item, do ✓

- Review Wenatchee Naturalist website **TOPICS/RESOURCES** : [Birds](#)
- Read an article by Susan Ballinger, [Wenatchee Valley's Wintering Anna's Hummingbirds](#).
- Read an article about backyard bird feeding by Susan Ballinger, [Show Some Love for Birds](#).
- *Pocket Guide to Sagebrush Birds (LOANED BOOKLET)* Read pages 2-6 for an overview of habitats
- *Birds of Yakima River Canyon*, Wenatchee Resource Area, BLM as an introduction to the diversity of birds found in the Wenatchee Watershed. (LOANED BOOK)
- View any of the Cornell Lab of Ornithology [Building Skills](#) tutorials at <http://www.birds.cornell.edu/Page.aspx?pid=1053> (INTERNET)
- Want to identify an unknown feather? Go to <http://www.fws.gov/lab/featheratlas/index.php>
- ✓ **Watch an *Inside Birding* video at <https://www.allaboutbirds.org/inside-birding/> (INTERNET)**
- View *THE VANISHING SHRUB-STEPPE* (20 min.) (LOANED DVD)

## Nov. 20, 2018 Week 10: Birds Part 1

- 5:30-6:00 Students gather and review resource table; journal-sharing with one-another and Susan
- 6:00-6:10 Featured conservation organization: *Wenatchee Valley Chapter, WA Native Plant Society*
- 6:10-6:15 Quick review of last week and overview of today's class

- 6:15-7:00 Combined lecture and activities- Introduction to Bird Identification
- 7:00-7:10 break
- 7:10-8:20 Rotation lab: Practice apply skills using field guides and life-sized model birds
- 8:20-8:30 Learn 10! Species 1-80 Practice using the website's [LEARN 10 TAB](#)

**Your field site journaling focus for the coming week:** Observe and describe 1-3 birds using your field site. Describe the behavior, location, and physical features of each bird. Use a drawing technique to sketch one bird.

**Suggested Reading prior to class:** If you only have time to look at one item, do ✓

Review Wenatchee Naturalist website **TOPICS/RESOURCES** : [Birds](#)

- ✓ **Read the Introduction in *Sibley's Field Guide to Western Birds* or the Introduction in *Birds of the Inland Northwest* (LOANED BOOK)**
- ✓ **Download free from Apple and Android app store- [Merlin Bird ID app](http://merlin.allaboutbirds.org/) <http://merlin.allaboutbirds.org/>**
- [Washington Wildlife](#) by Woodland Park Zoo, Birds (pg. 10-11; 20, 34-35, 49-50). Use this as general background reading, providing a big picture overview. (Website and Loaner Box)
- Watch an [Inside Birding](http://www.birds.cornell.edu/Page.aspx?pid=1270) video at <http://www.birds.cornell.edu/Page.aspx?pid=1270> (INTERNET)
- Woodland Park Zoo Teacher Resources PowerPoint [Bird Basics](http://www.zoo.org/page.aspx?pid=1798). <http://www.zoo.org/page.aspx?pid=1798> Overview of bird characteristics.
- Ethics article: [The Proper Use of Playback in Birding](http://www.sibleyguides.com/2011/04/the-proper-use-of-playback-in-birding/) <http://www.sibleyguides.com/2011/04/the-proper-use-of-playback-in-birding/> (INTERNET WEBSITE)
- 11x17" poster: Sibley's Backyard Birds (LOANED POSTER)

***No Class during Thanksgiving Week!***

## **Dec. 4, 2019 Week 11: Birds Part 2**

- 5:30-6:00 Students gather and review resource table; journal-sharing with one-another and Susan
- 6:00-6:10 Featured conservation organization: *North Central Washington Audubon Society*
- 6:10-6:15 Quick review of last week and overview of today's class
- 6:15-6:30 Introduction to bird biology Presentation
- 6:30-7:00 Bird study skin rotation lab, focusing on our 20 "Learn 10" species, using specimens, notes, and handouts. Guiding questions at each lab station invite students to make measurements and take notes. At each station, pairs of study skins and an accompanying key ID tip sheet will guide student inquiry.
- 7:00-7:15 5-minute small group field site journal share, then break.
- 7:15-8:20 Continued: Field Journaling Drawing Techniques applied practice Study skin rotation lab with guided field notes.
- 8:20-8:30 Learn 10! Species 1-90 Practice using the website's [LEARN 10 TAB](#)

**Your Field Site journaling focus for the coming week:** Quickly draw 1-3 birds, using the blind contour drawing technique. Take descriptive notes on body shape, color pattern, beak and head shape, behavior, and use of habitat elements.

**Sat. Dec. 7. 2019 Half-day Field Trip 4: Winter birding along the Columbia River** Guest  
field trip leader, Jenny Graevell, NCWAS Board member  
**Featured Organizations: NCWAS**  
**Community Science Projects: NCWAS Friends of Horan Natural Area**

**Your Field Site journaling focus for the coming week:** Prepare your presentation!

**Dec. 11, 2019 Week 12: Next steps: Being a Wenatchee Naturalist**

- 5:30-6:00 Return checked-out materials and complete course evaluations.
- 6:00-6:10 Set-up potluck and field journal display.
- 6:10-6:40 Potluck Dinner and journal viewing.
- 6:40-7:00 Grand finale Learn 10- All 100 species game with prizes and dessert.
- 7:00-8:30 Student presentations. Learn about future opportunities for Wenatchee Naturalists