

KLAMATH BIRD OBSERVATORY MANUAL FOR BIRD WALK LEADERS





Objectives

The purpose of this Manual for Bird Walk Leaders is to provide KBO Bird Walk Leaders with some guidance on the following:

- What KBO Bird Walks entail
- The position description for a Bird Walk Leader
- How to plan and prepare bird walks
- Meeting locations and frequently visited sites
- How to lead a bird walk
- Helpful hints for guiding bird walks
- The resources and materials available to Bird Walk Leaders





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Introduction

Klamath Bird Observatory partners with bird merchandise retailers and coordinating organizations to provide birds walks to the community. Bird walks are opportunities for KBO to promote education and outreach with an emphasis on teaching people about bird watching techniques, where to bird locally, and introducing people to KBO's mission and purpose. Currently, KBO offers two walks regularly each month-one from Northwest Nature Shop (Ashland) and one from Wild Birds Unlimited (Medford). Volunteer Bird Walk Leaders are an important asset for Klamath Bird Observatory because they help fulfill the overall purpose, program goals, and objectives of the Adult Education Program. Below are the objectives and program goals for KBO's adult groups:

Overall Purpose:

To educate about birds, their environments, and the link between science and conservation
(KBO Strategic Focus Area 4)

And when appropriate for particular audiences the additional purpose may be added...
Increase awareness of KBO's mission, organization, and programs through marketing techniques and outreach efforts (KBO Strategic Focus Area 9)

All Audiences:

- KBO interns and volunteers
- K-College Students
- Adults –general public; bird, nature, and conservation enthusiasts; land managers; and scientists

Audience:

Bird, Nature, and Conservation Enthusiasts in the Klamath-Siskiyou Bioregion

Note:

This audience is also a key audience for membership development goals. They are more likely to be a source of members than any of the other target audiences. Thus, education efforts for this group have a dual purpose of education as well as membership and donor development.

Program goals:

- To increase knowledge of birds and their environments.
- To increase awareness related conservation issues.
- To increase interest in birds and birding in the Bioregion
- To increase awareness of KBO, mission, and programs
- To increase KBO membership and support



Bird Walk Leader Description

Position Title: Bird Walk Leader

Division/Department: Education

Description of Project/Purpose of Position:

Share bird watching and bird identification skills with mixed groups of children and adults on Saturdays. Volunteers lead community bird walks in Ashland, Medford, and Klamath Falls.

Outcomes/Goals:

- Encourage interest in birding and bird conservation
- Inform groups about a variety of bird watching and bird identification skills, and related topics
- Educate and familiarize participants with KBO's mission, current programs and events, and goals
- Increase community support for KBO
- Increase KBO membership and donations

Training and Support Plan: Orientation and training for position by Education Staff through workshops, training, KBO's Bird Walk Training Manual, field trips, and "shadowing" other Bird Walk Guides on trips. Volunteer Bird Walk Guides are encouraged to further their education by participating in classes offered through KBO and other organizations.

Number of Volunteers Needed: 5

Time Commitment: Participate at least 3 times a year in one four-hour shift on a Saturday (24+ options throughout the year). Optional weekday trip options and support for K-12 class field trips.

Qualifications Needed:

- Enthusiasm for birds and bird watching
- Ability to identify local bird species
- Ability to maintain a positive and friendly attitude at all times
- Good listening skills
- Leadership skills
- Comfortable working with a diverse group of participants
- Willingness to teach others
- Outgoing and comfortable chatting with strangers
- After training, comfortable working independently

Benefits:

- Flexible schedule, weekend schedule
- Enjoy knowing that you are educating people about birds
- Meet interesting people, make new friends
- Have fun
- Volunteer workshops, training, and field trips



Bird Walk Preparation

Below are helpful hints and information that will be useful when preparing for a bird walk.

- 1. Choose a location for the bird walk.** Make sure you consider the season and weather when choosing a location. During the winter months, some sites are closed or require four-wheel drive. Locations can be themed such as nests and nesting behavior, bird feeding, or waterbirds. Themes may be related to the season (e.g. mating in the spring) or may be location-dependent. KBO tries not to go to the same location twice in a season. Confirm your desired location with the Education and Outreach Director in advance so she/he can insert the location in the newsletter and current events calendar. When you confirm your location, inform the Education and Outreach Director if you would like a co-leader or to request a size limit for the walk.
- 2. Scout out the location.** Be sure to scout the location a few days before the bird walk to make sure there are birds present and you know which birds to expect to see, no vandalism or garbage, road conditions are safe, and any other circumstances that may cause you to choose a new location.
- 3. Collect materials.** You will need to take newsletters, a sign-in sheet, eBird Bird Walk Species Checklist sheet (You need a new one for every location you go to), current events calendar, evaluations, extra binoculars, spotting scope if necessary, field guides, and walkie-talkies to the bird walk. You can pick up these materials at the KBO office the week before the bird walk.
- 4. Check in with KBO Outreach and Education Director.** Check in with the KBO Education and Outreach Director the day before the walk so you will know how many people to expect at the walk and any other important information.





Bird Walk Meeting Locations

Below are directions to the bird shops as well as 2005-2006 locations.

A.) **Ashland:** Northwest Nature Shop is located at 154 Oak St. in Ashland; phone number: 877-482-3241; email: birds@northwestnatureshop.com

Directions: From KBO, take a Right onto East Main. Go all the way down and turn Right onto Lithia Way. Continue and turn Right onto Oak St. The store is right on the corner of Lithia and Oak.

B.) **Medford:** Wild Birds Unlimited is located at 712 Crater Lake Ave in Medford; phone number: 770-1104

Directions: From Ashland, go North on I-5 towards Medford. Take Exit 27 and turn Right onto East Barnett Rd. Then turn Left onto Highland Drive and Left onto East Main St. Then turn Right onto Crater Lake Ave. and the store will be on your Right about half a mile up (right before Bad Ass Coffee).

*Refer to the “Birding Hotspots in Southern Oregon” binder located in the KBO office for other potential locations.

Sites	Locations
Agate Lake	Southeast of White City, Jackson County
Bear Creek Greenway Sites: Lynn-Newbry Park, Blue Heron Park, and Mingus Pond	Talent, Phoenix, and Central Point, Jackson County
Cascade-Siskiyou National Monument	Jackson County
Denman Wildlife Area	Near White City, Jackson County
Emigrant Lake	South of Ashland toward Klamath Falls, Jackson County
Howard and Hyatt Prairie Lakes	East of Ashland, Jackson County
Jacksonville Trails	Jacksonville, Jackson County
Jefferson Nature Center Site	Along the Bear Creek Greenway in Medford, Jackson County
Klamath Basin Birding Trail	Klamath County
Klamath Marsh National Wildlife Refuge	55 miles north of Klamath Falls, Klamath County
Kirtland Road Sewage Ponds	Near Central Point, Jackson County
Lithia Park	Downtown Ashland, Jackson County
Lower Klamath Basin	Klamath County Oregon/Siskiyou County California
Lower Table Rock Trail	Near Central Point, Jackson County
Mount Ashland	South of Ashland, Jackson County
North Mountain Park	Ashland, Jackson County
Tou Velle State Park	Near White City in Jackson County
Wildlife Images	Merlin, Jackson County
Willow Wind Ecological Monitoring Site	Ashland, Jackson County
Willow Witt Ranch	Near Grizzly Peak, Jackson County



Leading a Bird Walk

Below are the steps to follow when leading a bird walk.

Introductions at the Nature Shop:

1. Make sure to arrive ten minutes early.
2. Make sure you are punctual, dressed appropriately, friendly, and well-mannered.
3. Introduce yourself to the store owner or employee working that day.
4. Once participants have arrived, introduce yourself, your relationship with KBO, and give the elevator talk (page 10).
5. Encourage all participants to sign in and give their information if they are not on our mailing list. Inform participants the only mail they will receive is our quarterly newsletter and our mailing list is not shared.
6. Pass out newsletters and current events calendars to those who are interested.
7. Explain where the group is going, what to expect to see, and give directions (pass out half sheet with directions and your cell phone number if necessary).
8. Ask participants their birding level: beginner, intermediate, or advanced. This is for your information so you are comfortable with the group setting and know what to expect from each participant.
9. Encourage participants to carpool and facilitate it.
10. Pass out walkie-talkies if appropriate.
11. Make sure to hand out binoculars to attendees that have not brought a pair of their own.
12. If there are beginners in the group who do not know how to adjust binoculars, give a brief lesson.
13. Encourage participants to use the restroom at the nature shop before heading out.
14. Make sure you are in the lead car and drive slowly and carefully keeping the following cars in mind.

Bird Walk:

1. Once at the site, look and listen for birds.



2. Encourage participants to point out birds they see even if they cannot identify them. It is a learning process and leaders should make all participants feel welcome no matter their level of birding.
3. Concentrate on one bird at a time and keep group together. If you are not careful, your group will tend to get dispersed, and you may have to tackle the challenge of eight people looking at eight different birds (all of which they will expect you to identify). When you identify the bird, point out all the main identification marks and have the group check each one out as long as the bird remains in view. Look up the bird in the field guide immediately afterward to show field marks and allow those to see a picture of the bird if they did not see it in the wild.
4. Use the “clock” method when describing the location of a bird. Pick a point of reference to act as twelve o’clock. Participants, especially beginners, can become very frustrated if they cannot find a bird you are describing if you say it is “in the big tree over there”. Practice looking at different landscapes and ask participants to describe easily notable points of reference.
5. You should keep a checklist of species seen using the eBird Bird Walk Species Checklist sheet for Klamath-Siskiyou eBird submission. Assign this task to an interested participant if you do not want to do it yourself. Encourage participants to carry a field notebook so that they can write down the names of the birds. Explain that it is important to submit checklists to eBird because it is an international database of bird information that is used by scientists and conservationists worldwide to monitor the state of bird populations as well as the environment and every submission counts! By submitting to Klamath-Siskiyou eBird they can help support science and conservation in the Klamath-Siskiyou Bioregion. Let them know that it is also useful for them to keep track of their birding experiences in the Klamath-Siskiyou Bioregion and answer personal questions about their observations.
6. Try to give fun facts about birds seen or their habitats.
7. Give conservation information about birds seen or locations of the walk. Examples include significant habitat, plants birds use for food, uncommon species, etc.
8. If using a scope, make sure all participants get a chance to use it before the bird flies away if possible.
9. Grab those “magic” moments when something special but unexpected happens to focus the group (i.e. a predator’s attack) and incorporate it into your program. Be flexible.
10. Work with weather factors (wind and sun) for participants’ comfort. When you speak to the group make sure the sun is not in their eyes.
11. Never show disdain for a bird, no matter how common. Beauty is in the eye of the beholder. Someone might really like the bird you are discrediting.



12. Allow ten minutes at the end of the bird walk to hand out evaluations. Encourage all participants to fill it out. Explain it helps KBO provide a quality education program.
13. Try to have the group back to the nature shop promptly at noon and make sure to thank all participants at the end of the bird walk. Remind the group of any upcoming events or bird walks.
14. Before leaving the area, encourage them to return to the birding location any day and to contact KBO for information on other birding visits and learning opportunities.
15. Finally, be sure to bring the sign-in sheet, eBird Bird Walk Species Checklist sheet, binoculars, spotting scope, evaluations, field guides, and walkie-talkies back to the KBO office.

Bird Walk Policies

Dog Policy:

KBO prefers that dogs are not present on bird walks. This is to ensure that all participants are happy and comfortable. If someone brings their dog on the walk, politely ask them to keep the dog in the car. This will allow all participants to feel comfortable and make sure the dog does not scare away birds.

Audio Calling Policy:

KBO does not advise the use of audio calling devices for attracting birds during bird walks, other public events, or recreational activities given that audio calling may cause unnecessary stress to birds and disrupt daily activities particularly during the breeding season. KBO supports the use of audio calling devices for research purposes only when used in a responsible way.

Bird walk leaders may play bird sounds quietly for education purposes only (i.e., teaching people what song to listen for). The sounds should be played at a low volume so that participants can hear, but not loud enough to call in birds. In these circumstances, the bird walk leader should explain KBO's policy and rationale.



APPENDICES: ADDITIONAL RESOURCES



The Klamath Bird Observatory Elevator Talk

First, introduce yourself and your relation to KBO.

The non-profit Klamath Bird Observatory promotes bird and habitat conservation in a variety of habitats in southern Oregon and northern California. In this beautiful, ecologically diverse part of the world, there are people who are charged with maintaining that beauty and diversity (government agencies) and we provide them with decision-making tools to help them carry out their responsibilities; i.e., to help them keep this special place special. KBO works with many partners such as the BLM, Forest Service, and private landowners to study birds to answer questions about how landscape changes affect ecosystems. KBO studies the effects of fire, fuels treatments, and restoration, for example. Our findings provide guidance to land managers as they create and implement management actions. KBO education and outreach programs introduce our science to a variety of audiences. We conduct programs for school children, deliver community presentations, offer bird walks and family events, and present our findings at scientific meetings and in professional publications. Government contracts, grants, and contributions from members and individuals like you, support KBO's programs and research. This copy of our most recent newsletter has a membership form on the back. Your membership contribution directly supports our research and conservation efforts. As a member you receive four newsletters full of interesting information related to KBO's efforts to advance bird conservation. Further, members are given the unique opportunity to attend special member events and visit some of our more remote bird banding sites.



American Birding Association Code of Birding Ethics

1. Promote the welfare of birds and their environment.

- Support the protection of important bird habitat.
- To avoid stressing birds or exposing them to danger, exercise restraint and caution during observation, photography, sound recording, or filming.
- Limit the use of recordings and other methods of attracting birds, and never use such methods in heavily birded areas, or for attracting any species that is Threatened, Endangered, or of Special Concern, or is rare in your local area;
- Keep well back from nests and nesting colonies, roosts, display areas, and important feeding sites. In such sensitive areas, if there is a need for extended observation, photography, filming, or recording, try to use a blind or hide, and take advantage of natural cover.
- Use artificial light sparingly for filming or photography, especially for close-ups.
- Before advertising the presence of a rare bird, evaluate the potential for disturbance to the bird, its surroundings, and other people in the area, and proceed only if access can be controlled, disturbance minimized, and permission has been obtained from private land-owners. The sites of rare nesting birds should be divulged only to the proper conservation authorities.
- Stay on roads, trails, and paths where they exist; otherwise keep habitat disturbance to a minimum.

2. Respect the law, and the rights of others.

- Do not enter private property without the owner's explicit permission.
- Follow all laws, rules, and regulations governing use of roads and public areas, both at home and abroad.
- Practice common courtesy in contacts with other people. Your exemplary behavior will generate goodwill with birders and non-birders alike.

3. Ensure that feeders, nest structures, and other artificial bird environments are safe.

- Keep dispensers, water, and food clean, and free of decay or disease. It is important to feed birds continually during harsh weather.
- Maintain and clean nest structures regularly.
- If you are attracting birds to an area, ensure the birds are not exposed to predation from cats and other domestic animals, or dangers posed by artificial hazards.

4. Group birding, whether organized or impromptu, requires special care.

- Each individual in the group, in addition to the obligations spelled out in Items #1 and #2, has responsibilities as a Group Member.
- Respect the interests, rights, and skills of fellow birders, as well as people participating in other legitimate outdoor activities. Freely share your knowledge and experience, except where code 1(c) applies. Be especially helpful to beginning birders.
- If you witness unethical birding behavior, assess the situation, and intervene if you think it prudent. When interceding, inform the person(s) of the inappropriate action, and attempt, within reason, to have it stopped. If the behavior continues, document it, and notify appropriate individuals or organizations.



Group Leader Responsibilities [amateur and professional trips and tours].

- Be an exemplary ethical role model for the group. Teach through word and example.
- Keep groups to a size that limits impact on the environment, and does not interfere with others using the same area.
- Ensure everyone in the group knows of and practices this code.
- Learn and inform the group of any special circumstances applicable to the areas being visited (e.g. no tape recorders allowed).
- Acknowledge that professional tour companies bear a special responsibility to place the welfare of birds and the benefits of public knowledge ahead of the company's commercial interests. Ideally, leaders should keep track of tour sightings, document unusual occurrences, and submit records to appropriate organizations.

<http://americanbirding.org>



Guidelines for Banding Interpretation Adult Groups

Several times a year, KBO offers bird walks to a few of our ecological monitoring stations. Stations include Willow Wind Learning Center in Ashland, North Mountain Park in Ashland, and Wildlife Images near Grants Pass. Below are some quick guidelines for interpreting to adult groups. Refer to the complete manual entitled “Guidelines for Banding Interpretation” for more detailed information found on the KBO server or you can obtain a hard copy from the Education and Outreach Director.

Quick Notes:

Materials Needed: band cards, bird field guide, skull ossification card, fat card, CP/BP cards, map of banding stations

Time: 1 hour and 15 minutes

1. **Introduce yourself** and KBO with Elevator Talk.
2. Explain where KBO gets its **name**.
3. Explain KBO’s **mission**.
4. Talk about **banding and how it helps bird and habitat conservation**.
5. Talk about funding and how **memberships help support the organization**.
6. Explain **how long** the group will be **at the station** and the plans for the day.
7. Give a **site introduction**-how long banding at site, partners, total number of KBO banding sites, how often we run the site (Refer to Appendix 2). **Show map**.
8. **Introduction to banding process:** set up the nets at sunrise, run for 5 hours by interns, bird safety first priority so we check the nets every 20-30 minutes and do not operate in inclement weather.
9. Banders are highly trained and follow the **North American Banding Council Code of Ethics**.
10. Please **help us ensure bird safety** by staying on the trails, stay with the group, do not touch the nets, ropes, or poles, and allow banders to do their work. If you have questions please ask me. If I cannot answer the question, I will address the banders if they have time.
11. When you approach the first net, check to see if there are birds in it. **Ask the group if they can see the net** before they walk all the way to it. Ask why the net is placed in that specific location. (Birds are active in the area.)



12. If there is a **netted bird**, leave it undisturbed for banders to remove. Do not approach closer than 2-3 meters.
13. Once at the banding station, have the **group stand in a semi-circle** near the banding table. Request adults do not sit on the table or close to the banders. Do not begin the presentation until the group is situated and quiet.
14. Allow the **banders to introduce themselves**.
15. Explain that **banding allows ornithologists to answer questions about birds**. Some examples: How long do birds live? Where do birds go? Are there more or fewer birds each year? Answering these questions can be used to protect birds and their habitats.
16. Explain **banding process**. Explain the following topics as the banders process birds: Species Name, Skulling, Fat, Molt limit, Wing Length, Weight, and CP/BP if applicable.
17. **Hold birds up to the group**—point out identifying characteristics such as plumage or field marks, band on leg, etc.
18. **Explain the Tab Pyle** and its importance in aiding banders to age and sex birds.
19. If possible, allow the group to **go on a net run**. Split the group in half.
20. Allow 10 minutes to walk back and **do a wrap up** at the top of the hill.
21. **Thank the group for coming and remind them up of upcoming events**.

If no birds caught:

1. Explain banding process and show banding tools until banders return.
2. Look and listen for birds or go on a bird walk.

Problem at station and group needs to leave:

1. Take the group on a bird walk. Look and listen for birds.
2. Discuss bird habitats and go on a nature walk around the property.

*The lead interpreter and the lead bander need to communicate easily and quickly about what is needed (i.e., a bird kept in a bag or put in warm-box, or if more intensive treatment like splinting a leg – which would need to be done right away without onlookers).

Miscellaneous Notes

- Remind participants before the visit to wear old shoes or boots.
- If it is going to be a cool day, remind participants to wear warm clothing.
- If the weather is calling for rain, make sure to inform participants the visit could be cancelled.



Bird Walk Resources and Materials

Resource	Name	Amount	NOTES
Activity	Scavenger Hunt	N/A	Checklist for banding tools
Book	“Birds of Oregon” by Lone Pine	23	Field Guide
Book	“Birds of Oregon” by Stan Tekiela	1	Field Guide
Book	“Birds of the Basins”	1	
Book	“Birdwatching for All Ages”	1	
Book	“Sibley Guide to Birds”	2	Field guide
Book	“Stokes Field Guide to Birds: Western Region”	10	Field Guide
Book	“Stokes Nature Guides to Bird Behavior”	1	Volumes I, II, III
Resource Binder	Birding Hotspots in Oregon	1	
Supplies	Bird Banding Interpretive Materials	N/A	Bird bands with attached laminated photos; BP, CP, fat deposit, skull ossification photos or drawings
Technology	Binoculars	23	Borrowed from RVAS
Technology	Digital camera	1	
Technology	Spotting Scope and tripod	2	Expensive equipment. Please treat with care.

*All materials can be checked out from KBO. Check with the Education and Outreach Director and sign out on form. Bird walk leaders are responsible for all materials they borrow. Please treat all materials with care and return in previous condition.



OREGON PHENOLOGY

Information compiled by Frank Lospalluto using *Birds of Oregon*.

Use this as a guide to when you might expect the first migrant of each species. Many species show up on the coast a week earlier; in the mountains later. Also keep in mind that individuals of some of these species (Turkey Vulture, Sandhill Crane, Band-tailed Pigeon, Cinnamon Teal, Virginia Rail, Orange-crowned Warbler, Savannah Sparrow, American Bittern, Spotted Sandpiper and others) may winter occasionally. In other species a good portion of the population leaves, but not all. There still is a noticeable migration. Such birds, including Western Meadowlark, Mourning Dove and American Robin, are not included on this list. Some species listed under migrants in eastern Oregon occur in the Rogue Valley. These dates are approximate. Climate change and habitat disturbance may be altering arrival times for some species.

Migrants in western Oregon

February 1-15

Tree Swallow

February 16-28

Turkey Vulture, Sandhill Crane

March 1-15

Band-tailed Pigeon, Rufous Hummingbird, Violet-green Swallow

March 16-31

Cinnamon Teal, Osprey, Virginia Rail, Cliff Swallow, Barn Swallow, Orange-crowned Warbler, Lark Sparrow, Savannah Sparrow

April 1-15

American Bittern, Green Heron, Sora, Northern Rough-winged Swallow, Purple Martin, House Wren, Blue-gray Gnatcatcher, Hermit Thrush, Nashville Warbler, Black-throated Gray Warbler, Common Yellowthroat, Chipping Sparrow, Vesper Sparrow

April 16-30

Solitary Sandpiper, Spotted Sandpiper, Wilson's Phalarope, Vaux's Swift, Hammond's Flycatcher, Pacific-slope Flycatcher, Ash-throated Flycatcher, Western Kingbird, Cassin's Vireo, Warbling Vireo, Yellow Warbler, Hermit Warbler, MacGillivray's Warbler, Wilson's Warbler, Yellow-breasted Chat, Western Tanager, Black-headed Grosbeak, Lazuli Bunting, Bullock's Oriole

May 1-15

Olive-sided Flycatcher, Western Wood-Pewee, Willow Flycatcher, Purple Martin, Swainson's Thrush

May 16-31



Red-eyed Vireo

June 1-15

Common Nighthawk

Migrants in eastern Oregon

February 16-28

Turkey Vulture, Tree Swallow

March 1-15

Ferruginous Hawk, Sandhill Crane, Say's Phoebe, Violet-green Swallow, Sage Sparrow

March 16-31

American White Pelican, Cinnamon Teal, Swainson's Hawk, Virginia Rail, Long-billed Curlew, Rufous Hummingbird, Cliff Swallow, Barn Swallow, Orange-crowned Warbler, Savannah Sparrow

April 1-15

Black-crowned Night Heron, Osprey, Sora, Willet, Caspian Tern, White-throated Swift, Williamson's Sapsucker, Red-naped Sapsucker, Sage Thrasher, Common Yellowthroat, Chipping Sparrow, Vesper Sparrow, Yellow-headed Blackbird

April 16-30

American Bittern, White-faced Ibis, Blue-winged Teal, Solitary Sandpiper, Spotted Sandpiper, Wilson's Phalarope, Franklin's Gull, Bonaparte's Gull, Vaux's Swift, Calliope Hummingbird, Black-chinned Hummingbird, Hammond's Flycatcher, Dusky Flycatcher, Gray Flycatcher, Western Kingbird, Bank Swallow, House Wren, Cassin's Vireo, Warbling Vireo, Nashville Warbler, Yellow Warbler, MacGillivray's Warbler, Wilson's Warbler, Lazuli Bunting, Green-tailed Towhee, Lark Sparrow, Brewer's Sparrow

May 1-15

Forster's Tern, Black Tern, Common Poorwill, Olive-sided Flycatcher, Western Wood-Pee-wee, Cordilleran Flycatcher, Willow Flycatcher, Ash-throated Flycatcher, Veery, Townsend's Warbler, Yellow-breasted Chat, Western Tanager, Black-headed Grosbeak, Black-throated Sparrow, Bullock's Oriole

May 16-31

Flammulated Owl, Common Nighthawk, Eastern Kingbird, Bobolink, Red-eyed Vireo



Binoculars Bonanza!

Overview

Students will explore the bird world through binoculars and learn basic bird identification strategies.

California Content Standards

Grade 6: 7.b.-I&E
Grade 7: 7.a.d.-I&E

National Standards

Content Standard A:
Scientific Inquiry

Materials Included

* Student Journal
* 15 Binoculars
* Checklist
* *Common Birds of Modoc County* laminated guide

Activity Time

Preparation: 15 min.
Activity Time: 35 min.

Best Season

All

Vocabulary

* Objective Lenses
* Eye Lenses
* Prism
* Binoculars

Grade Level: All ages (C.S.S: 6th-7th)

Learner Objectives

Students will:

- Identify and label the features on binoculars
- Demonstrate the appropriate use by properly handling binoculars
- Use binoculars to observe and watch birds

Background Information

Binoculars bring students close to birds without disturbing them in their natural habitat, allowing for observation, identification, and marveling at birds. By properly handling and using binoculars, students can easily observe bird field marks, plumage (color of feathers), bill shape, and feet as well as flight patterns, feeding, and mating. This does not mean you cannot have fun without binoculars! Sometimes birding by ear is just as fun and students can learn a lot from bird sounds (see *Birding By Ear*). Nevertheless, binoculars are a great way for students to get up close and personal with birds.

The invention of binoculars can be credited to two extraordinary scientists: Galileo and Ernest Abbe. In 1609, Galileo developed the first simple telescope consisting of a positive objective lens and negative eyepiece lens, which is still used today. In 1893, Abbe developed the first prism binocular that caused the path of light to zigzag or fold upon itself. Unlike the simple Galileon telescope, prism binoculars allowed a higher range of magnification and a larger field of vision. The modern binoculars used today are essentially two telescopes mounted side by side. Both the external and internal components work together to magnify visual images that can be clearly seen through binoculars.

This activity presents information that will guide your teaching about binoculars. It includes a pre-lesson introducing the structure and components of binoculars to enhance students' understanding before working in the field. Remember binoculars are fragile, expensive instruments, and proper care is a must! Rattling, shaking, or bumping binoculars could permanently damage the binoculars. For this reason, review the "safe use of binoculars" section in the lesson before distributing binoculars to students.



Lesson Plan

Getting Ready!

1. Read the background information and teacher tips.
2. Review “Safe Uses of Binoculars.”
3. Make copies of *Student Journal: How to Use Binoculars* sheets.

Discuss!

1. Let students know that in this investigation, they will go outside and use binoculars. Before doing so, students will “warm up” their binoculars skills.
2. Ask students why one would use binoculars (observing birds, watching a play or sports game, etc).
3. Introduce binoculars and the 7 different components: eye piece lens (lens closest to the eyes), objectives lens (lens closest to the object), central focus (primary focusing component), adjustable eyepiece (secondary focusing component), lens barrel, and prisms (see following page).

Investigate!

1. Give each student a Student Journal.
2. Give students ample time to fill out student sheets.
3. Have students share their answers and then reveal actual answers.

Demonstrate!

1. Discuss “Safe Uses of Binoculars” and perform demonstration. Don’t forget to explain that binoculars are expensive! Dropping them could permanently damage them!
2. Pass out binoculars and have students demonstrate the “Safe Use of Binoculars.”
3. Ask students to correctly identify the 7 different components on the binoculars.
3. Explain how to correctly focus binoculars.
4. Give students *Common Birds of Modoc County* laminated guides.
5. Take students on a walk outside to practice using binoculars and observing birds.
6. Ask students to try to identify birds using laminated guides.

Follow-up!

1. Ask students 2-3 questions to re-cap lesson (see right panel)

Connections!

Use with Lesson Plans:

- * *Bird ID Experts*
- * *BRBT Habitats*
- * *Counting Birds*



Take A Hike!

Take students on a hike along the Basin and Range Birding Trail to practice using binoculars. Observe, identify, and marvel at birds!

Suggested Questions

What are prisms?

What are two focusing components on binoculars?

What is the first step when using binoculars?



Teacher Tips

What are Binoculars?

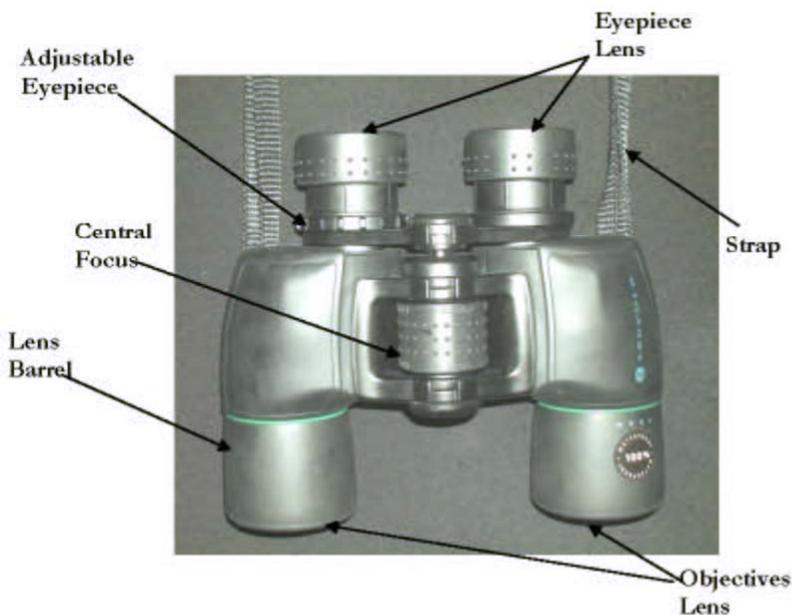


Structure

Binoculars are essentially two identical telescopes mounted side by side and aligned to point in the same direction. At the front of each telescope is an objective lens where light enters, is magnified, and formed into a visual image. The image produced is upside down and backwards. With the help of prisms (blocks of glass functioning as mirrors without reflecting back), the visual images are turned right side up and viewed properly left to right.

Magnification

Binoculars are described by a pair of numbers such as 7x35 or 8x40. The first number represents the magnification, or "power," of the binoculars. This means the 7 in a pair of 7x35 binoculars makes an object appear seven times closer than when viewed by the naked eye. The second number represents the aperture, or the diameter of each objective lens. Aperture is especially important because it determines the amount of light entering the binoculars. The larger the aperture, the brighter the image.



Safe Use of Binoculars



- *Keep the strap around the neck at all times.
- *Stand still when using binoculars.
- *Never look at the sun with binoculars.
- *Do not rattle, shake, or bump binoculars.
- *Never touch binoculars with fingers or dirty cloth.

Cleaning & Protecting Binoculars

1. Clean lenses with soft cloth. Make sure to blow off any dirt particles first so the lenses don't scratch.
2. Thoroughly wipe off metal parts.
3. Never try to open up binoculars (leave internal cleaning to professionals).
4. If there is a dirty film on the lenses, put a drop of lens cleaner on a tissue and wipe in a circular fashion.
5. Keep binoculars clean, dry, and off the ground.



Teacher Tips

How to Focus Binoculars

Have students stand about 30 feet away from an object or enlarged bird photo before beginning the lesson. Explain the following 10 steps of how to focus binoculars to students.

Step 1: Put binoculars strap around the neck.

Step 2: If you wear eye glasses, fold eyecups (extra rubber protecting eye from contacting eyepiece lens of binoculars) back.

Step 3: Locate the adjustable eyepiece (most are located on the right eyepiece lens and read “ - 0 + ” (see right panel). Set adjustable eyepiece to “0”, or in the middle of the scale.

Step 4: Locate stationary object (or enlarged bird photo) first with the naked eye.

Step 5: Hold binoculars with two hands and bring binoculars up to your eyes, which are still looking at the stationary object.

Step 6: Move the two halves of the binoculars (connected by a hinge) until one field of view is seen. If you see a dark patch or crescents in the center or on the sides, the binoculars are too close tighter. If you see through two circles or see two images, the binoculars are too far apart. Adjust binoculars to your eye width.

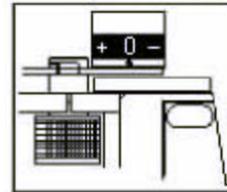
Step 7: Open both eyes and use a finger or two to locate the center focus wheel. Turn the wheel back and forth until the object becomes clearest. Close right eye (left eye open) and turn wheel again until image is clearest in the left eye.

Step 8: Continue looking at the object and close the left eye (keep right eye open). Use a finger on your right hand to locate the adjustable eyepiece. Adjust the eyepiece back and forth until the image becomes the clearest in the right eye. For some, the eyepiece will be closer to the “-”, for some it will be closer to the “+” or the “0”.

Step 9: Use the central focus for further adjustments during birding, but try not to touch the adjustable eyepiece once focused.

Step 10: Now you are ready for birding. Have fun!

Step 3: Adjustable Eyepiece



Student learning how to correctly focus binoculars.



Students using binoculars while watching birds.



**Klamath Bird Observatory
Bird Walk Evaluation**

Thank you for attending today’s bird walk. Please take a few minutes to fill out this evaluation. Your comments and suggestions are appreciated and vital so KBO can provide quality bird walks and field trips to the public.

How did you hear about today’s bird walk?

- a. Newspaper
- b. KBO newsletter
- c. KBO website
- d. Radio
- e. Community Calendar
- f. Advertisement through a Nature Shop
- g. Word of Mouth
- h. Other _____

Please use the scale to answer the following questions.

Strongly <u>Disagree</u>	Moderately <u>Disagree</u>	Slightly <u>Disagree</u>	<u>Neither</u>	Slightly <u>Agree</u>	Moderately <u>Agree</u>	Strongly <u>Agree</u>
1	2	3	4	5	6	7

The leader(s) was highly knowledgeable about birding and local birds.

1	2	3	4	5	6	7
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Overall, I was satisfied with my KBO bird walk experience

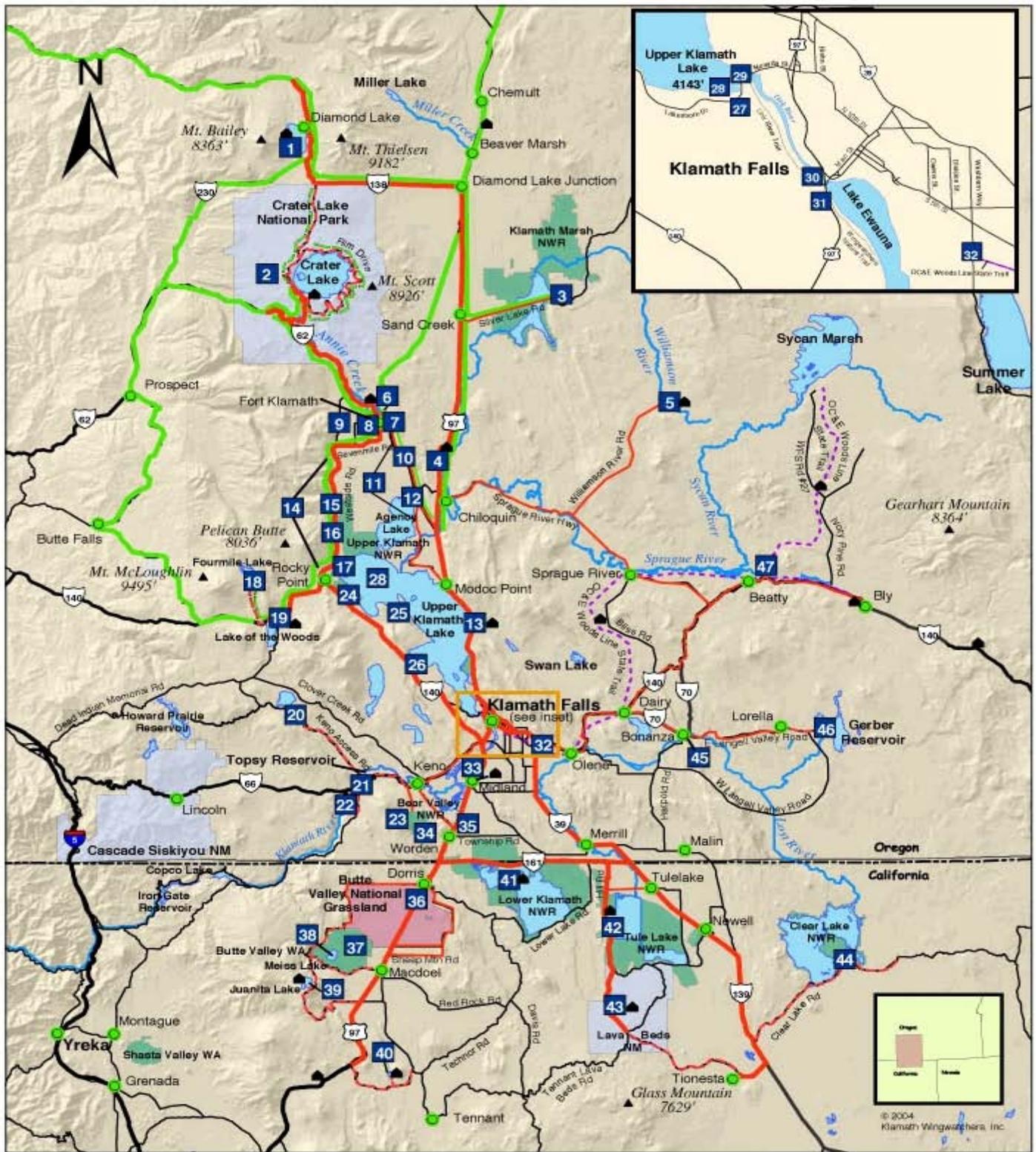
1	2	3	4	5	6	7
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What did you enjoy about the bird walk?

What would you change about the bird walk?

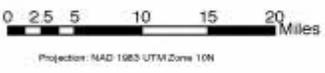
Will you attend another KBO bird walk? If so, is there a specific topic you’d like to request for a future KBO bird walk?

KLAMATH BASIN BIRDING TRAIL



Legend

- ▲ Mountain
 - ▲ Reststops
 - Sites
 - Communities
- Birding Trails**
- Main Trail
 - Seasonal Trail
 - Secondary Trail
 - Oregon Cascades Birding Trail
 - CC&E Trail
 - Roads
 - Lakes
- Rivers
 - National Grassland
 - National Wildlife Refuges and State Wildlife Areas
 - National Parks and Monuments



Created by William C. Morgan
Environmental Sciences Program
Oregon Institute of Technology

Helpful Information

Road Conditions:
Oregon: 511, Out of State: 1-800-977-6368,
www.tripcheck.com
California: 1-800-427-7823

More information about each site:
www.klamathbirdingtrails.com
Great Basin Visitor Association:
1-800-445-6728
or www.greatbasinvisitor.info
Rare Bird Alert: 541-850-3805



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