

# Rocky Mountain Bird Observatory

## Denver Metro Education Program Guide

FALL 2009 — SPRING 2010

### PROGRAM THEMES:

- Migration
- Adaptations
- Niches
- Habitats
- Nature appreciation
- Nature exploration
- Bird identification
- Bird distribution

### SUMMARY OF PROGRAMS

- Bird Banding Station** 2
- Barr Lake Bird Watch** 2
- Hawk Watch** 3
- Birds Beyond Borders** 3
- Young Biologists** 4
- Bird Studies** 4

## Who is RMBO?

Rocky Mountain Bird Observatory (RMBO) was founded in 1988 to address bird conservation and related public education needs in the western United States and Mexico. Our mission is to conserve birds and their habitats and we accomplish this through science, education, and stewardship.

RMBO is headquartered at Barr Lake State Park just east of Brighton, CO and approximately 15 miles northeast of Denver. Barr Lake State Park is a nationally important stopover point for birds migrating along North America's Central Flyway and a favorite spot for birders locally and throughout the region.



## Why Birds?

We use birds as a “hook” because birds are easy to see in most places in all seasons, they are attractive and birds connect us to other people and places.

A connection to nature is important for mental, emotional and physical development.

## RMBO Education Programs

During our programs students experience hands-on learning, the development of critical thinking and problem solving skills and opportunities to spend time outdoors.

We serve the Metro Denver schools through field trips and in-class programs. Our field trips give students opportunities to explore the natural world while discussing habitats, niches, and adaptations we observe. During in-class programs students take part in interac-

tive activities featuring bird adaptations and migration. In addition, all programs provide the students with an increased understanding of scientific monitoring, data collection, and conservation.

### Colorado Standards Addressed:

**Science** 1, 2, 3, and 5

**Mathematics** 1, 2, and 3

**Reading & Writing** 2, 3, and 4

**Geography** 1, 2, and 3

Check us out @ [rmbo.org](http://rmbo.org)!

Contact Cassy Bohnet at 303-659-4348 ext 15 or [cassy.bohnet@rmbo.org](mailto:cassy.bohnet@rmbo.org) to schedule your programs today!



# Field Trips!



Common Yellowthroat  
Warbler

*"This is one of those rare opportunities for my students to get close to the natural world we have been studying— this is priceless." Mark Gabriel, Discover High School Bird Banding Station Program*

During our field trips participants have the opportunity to interact and observe natural ecosystems surrounding the Denver Metro area. We strongly encourage teachers who come on a field trip to consider a follow-up in-class program to increase student's understanding of the concepts discussed on their field trip. We provide a discounted rate for these in-class follow-up programs, look at the "Young Biologists" program for more information.

## Bird Banding Stations

### Grade 1- Adult

**Program Fee:** varies by site

**Duration:** 1-2 hours

**Meets Colorado Science Standards 1, 2, 3, and 5**

For 20 years RMBO has been providing a unique opportunity for students to get close to migrating songbirds while researchers handle birds captured harmlessly in nets. An educator leads the students in a discussion of data collection, birds adaptations, the challenge of migration and the habitat necessary to keep these birds coming back.

Students who participate in education programs at bird banding stations will have an "up-close and personal" experience with nature as they have the opportunity to see how wildlife biologists study the migration patterns of birds through tools such as bird banding stations.

Weekend program opportunities are available at some stations. Be sure to ask your scheduler about available dates.

### Fall 2009

Barr Lake State Park  
Brighton

**Program Fee:** \$4.00 per student

August 31-October 16, 2009

Please contact Cassy Bohnet @ 303-659-4348 ext 15 or [cassy.bohnet@rmbo.org](mailto:cassy.bohnet@rmbo.org) to schedule a program.

### Spring 2010

Audubon Center at Chatfield

Late April-Late May, 2010

Please contact Karl Brummert at 303-973-9539 or [kbrumert@denveraudubon.org](mailto:kbrumert@denveraudubon.org) to schedule a program.



Bird banding at Barr  
Lake State Park.

## Bird Studies

### Grade 1-Adult

**Program Fee:** Adults \$5.00, Students \$4.00 per hour

**Duration:** 1-4 hours

**Standards:** Can tie to multiple grade level standards

Would you like us to design a program for you? If you are interested in a bird related topic that is not already offered, we can help you design a program for your students or group. Programs can be unique and tailored to fit your curriculum needs and can be taught in the classroom or as a field trip.

To discuss your program needs and ideas, contact Cassy Bohnet at 303-659-4348 ext 15, or [cassy.bohnet@rmbo.org](mailto:cassy.bohnet@rmbo.org).

# Barr Lake Bird Watch

(Previously Known as Bald Eagle Watch)

**Late March – May 31, 2010**

**Grade 1- Adult**

**Location: Barr Lake State Park, Brighton, CO**

**Program Fee: \$4.00 per student + \$6.00 fee for each vehicle**

**Duration: 1.5-2 hours**

**Meets Colorado Science Standards 1, 2, 3, and 5**



PAGE 3

Using  
scope to  
look at  
birds at  
Barr Lake

Barr Lake features many different types of birds including songbirds, falcons, hawks, colonial nesting birds, water fowl, and Bald Eagles. On this Bird Watch students will explore the dynamic wildlife oasis just outside Metro Denver where they learn how and why nearly 80 different species are able to coexist by using different parts of this ecosystem. Participants will learn how to use binoculars to view the birds, and educators will teach about bird adaptations, habitat needs, and the successful recovery of the once-endangered Bald Eagles. More importantly, participants will have the opportunity to enjoy the beauty that can be found right in their backyard!

Contact Cassy Bohnet at 303-659-4348 ext 15 or [cassy.bohnet@rmbo.org](mailto:cassy.bohnet@rmbo.org) to schedule a program.

## Hawk Watch

**Late March – April 30, 2010**

**Grade 1- Adult**

**Location: Dinosaur Ridge near Morrison, CO**

**Program Fee: \$4.00 per student**

**Duration: 1.5-2 hours**

**Meets Colorado Science Standards 1, 2, 3, and 5**

Thousands of hawks use the Dakota Hogback area near Golden as a migration route to their summer breeding grounds. For 18 years, biologists have gathered data on raptor migration at the Dakota Hogback. RMBO's Hawk Watch program takes participants to the ridge to see how the geologic features influence the hawks' flight and why such large numbers of birds are moving through that area in the spring. Educators will teach about the different types of hawks that may be seen, their adaptations to specific habitats, and differences between hawk species and other raptors.



**Immature Coopers Hawk.**

Contact Cassy Bohnet at 303-659-4348 ext 15 or [cassy.bohnet@rmbo.org](mailto:cassy.bohnet@rmbo.org) to schedule a program.

## Birds Beyond Borders

### Year Round

BBB connects students from Colorado with students in Mexico. Students from the two countries participate in a bilingual "pen pal" relationship. Through their letter writing, students learn the significance of managing habitat, migration routes, foreign language and bird populations. They gain a greater understanding of migratory connections and develop a sense of responsibility for environmental stewardship across local and international boundaries. Colorado students visit a bird banding station and then have a follow-up in-class program to learn about analyzing the data collected at these stations. We are planning to expand this program to include more components (examples include: teacher trainings, increased in-class and field trip programs and/or school yard habitat projects). If you are interested in participating please contact us so we can develop a program that will fit into your curriculum and budget.

Contact Kacie Ehrenberger at 303-659-4348 ext 16 or [kacie.ehrenberger@rmbo.org](mailto:kacie.ehrenberger@rmbo.org) to design a BBB program to meet your needs.

*"We conserve  
only what we love,  
we love only what  
we understand,  
we understand  
only what we are  
taught."*

*-Baba Dioum*

# Young Biologists

**Year Round In-Class Programs**

**Location: In-Class**

**Program Fee: \$4.00 per student for independent program  
\$2.00 per student for a follow-up program**

**Duration: 1 hour**

The Young Biologists is an in-class program designed to increase student's understanding of the interconnectedness of classroom subjects. These programs use the environment as a context for learning science, math, geography, and literature. These programs can be follow-up programs to field trips, independent programs, or any combination of in-class programs and field trips. We can adjust any of these programs to fit the needs of the teacher, so please tell us if you have specific curriculum goals you would like us to meet with your program!

Contact Cassy Bohnet at 303-659-4348 ext 15 or [cassy.bohnet@rmbo.org](mailto:cassy.bohnet@rmbo.org) to schedule any Young Biologist programs today!



**Bird adaptation program.**

## Migration Mapping

**Grade 3-8; Meets Colorado Geography Standards 1, 2, and 3**

This program will increase students' understanding of migratory patterns and geography. Students will learn about the factors that drive bird migration and use bird banding data collected at a Colorado Banding Station to map the migration of four bird species through Canada, the U.S. and Mexico. This program would be a suitable follow-up program to a "Bird Banding" field trip.

## Migratory Data

**Grade 3-12; Meets Colorado Mathematics Standards 1, 2, and 3**

This program will illustrate the importance of using math to study scientific data. Students will learn how wildlife biologists monitor migration patterns and analyze data collected at the Barr Lake banding station. Students will graph migratory data of four bird species and use this data to determine when each species migrates through Barr Lake State Park. This program is an applicable follow-up to a "Bird Banding" field trip.

## Avian Adaptations

**Grade 1-7; Meets Colorado Science Standards 1 and 3**

During this science program students will experience the frustration of trying to eat with a beak! Students will conduct an experiment where they will use different beaks to eat multiple kinds of food. The data the students collect during their experiment will help determine what kind of food each beak is used to eat. This adaptation lesson that is appropriate for every grade level! This program would be a fitting follow-up program to the "Barr Lake Bird Watch" field trip.

## Beautiful Birds

**Grade 1-4; Meets Colorado Reading & Writing Standards 2, 3, and 4**

Students will learn about the amazing adaptations birds have and how these adaptations increase their survival in specific ecosystems! Students will exercise their creativity when they design their own bird, and apply their scientific understanding of adaptations by writing about their bird. This program incorporates birds into a language arts lesson or writing into a science lesson! This program would be the perfect follow-up to the "Barr Lake Bird Watch" field trip.

## Scholarships

We are currently working on grants to provide scholarship opportunities for schools interested in our field trips or in-class programs. Please contact us if your school is interested in a program but is not financially able to pay for the program and we will do our best to help find funding for the program.

Contact Cassy Bohnet at 303-659-4348 ext 15 or [cassy.bohnet@rmbo.org](mailto:cassy.bohnet@rmbo.org) to discuss funding options.