

# 6. Birding Curriculum Guide



SELECTIONS FROM:  
INTERPRETING FOR CONSERVATION  
A MANUAL FOR TRAINING  
LOCAL NATURE GUIDES

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## **SECTION I: INTRODUCTION**

### **1. Why Should We Watch Birds?**

What is the fastest growing form of outdoor recreation in North America? The answer, hands down, is bird watching. There is a movement going on comprised of millions of people who are finding a great deal of satisfaction in simply looking at, counting, and studying the "little brown birds" out there. Most of these people say that the quality of their lives has improved as a result. Some have even found a source of income because of birding. What is it about birding that people find attractive? Are there economic opportunities involved? What kind of an impact is this movement having upon the environment?

#### ***Economic considerations***

There are many financial opportunities available to people well-positioned to serve this industry. Travel and tourism generates an estimated 11% of worldwide revenue from all commercial sources. It is big business, and bird watching is a major part of it. In the United States the number of people taking part in this form of recreation was estimated by the Sporting Goods Association to be 54 million in 1994. This represents a 157% increase from 1982-83. The number of scheduled and marketed birding festivals in North America grew from 5 to 120 between 1985 and 1998. Retail sales, wages, visitor fees, and taxes from birding generated an estimated \$30 billion in revenues in the United States in 1998. Tourism related to wildlife viewing has been growing at an annual rate of between 10-30%, whereas tourism overall has been growing at the much more modest rate of 4% per year according to the World Tourism Organization.

Tropical climates are particularly attractive to birders because the species found there are highly diverse, abundant, and exotic. Many birders belong to affluent and aging populations wanting to escape the cold winter climates in North America and Europe. Combining these two factors suggests that birding is a real growth industry, with great economic opportunity. In fact, people native to tropical locales who have secured reputations as knowledgeable birding guides are much in demand and can earn incomes far in excess of their contemporaries. At the same time, they are doing something they enjoy.

#### ***What interests birders?***

At its most elemental level, bird watching is simply paying close attention to the natural world. It is particularly appealing to people who love being outdoors. A typical reaction of a fledgling birder is frustration over all the good birding possibilities missed before they started paying attention.

Birding can be combined with other outdoor activities, such as camping and hiking, or it can be the primary pursuit. In either case it can be pursued almost anywhere. From New York's Central Park to the loneliest Pacific atoll, birds have adapted to all of earth's environments except the extreme polar caps. A birder is literally never bored because just outside there is something to see. With over 10,000 bird species in the world, a birder always has something new to learn or discover.

Birds have long had a particular appeal to members of the human race. Perhaps, this is related to our awe and envy over the ability of birds to soar above the treetops whenever they choose. Principles of flight, which made possible the first airplanes, were derived from the observation of birds. The extraordinary beauty of birds and the infinite varieties of their plumage are there to be enjoyed by all who care to look. What other animal, aside from humans, changes dress with the seasons - reserving its most spectacular finery for courtship? Even their eggs and nests have a beauty and a delicacy that stand out in nature. Birds are nature's musicians and their singing enriches all our lives. Some birders take delight in recognizing different species by their songs and calls in addition to their appearance.

Bird watching is more than identifying bird species. Bird adaptations and behavior are subjects of great interest and much research remains to be done. Some species are known to fly non-stop up to 12,000 miles to migrate. Others are genetically programmed to navigate to specific locations they have never seen - halfway around the world! Many of us are familiar with the courage displayed by birds who feign injury in themselves in order to lure supposed predators away from their young.

#### ***Birds are essential to humans and other living things***

Much of life on earth is dependent upon birds in one way or another. Some of the specific ways that birds benefit humans and/or other living things include:

- They play a major role in dispersal of seeds.
- They help control insect populations.
- They pollinate flowers.
- They are a source of food.
- Their feathers are used in pillows, clothing and mattresses.
- They provide guano for fertilizer.
- They were the models used in designing the first airplanes.
- They are indicators of contamination.

***Birders are a strong force for conservation***

Bird watching is at the heart of the ecotourism movement. Attracting bird watchers demands preservation of natural ecosystems. Money spent by birding tourists can provide an economic justification for not cutting down a forest or draining a wetlands. At the same time birders almost invariably are appreciative of natural environments and are supporters of protecting the same. It is as natural as book lovers appreciating libraries. Birders are potent political and economic allies in campaigns to preserve natural habitats. For these reasons promoting bird watching in a particular area and promoting conservation of that area are highly complimentary objectives.

**2. The Target Situation**

The following is an account of a recent birding experience with one of the graduates of the Nature Guide Training Program. It is intended to present a model of an “ideal” birding guide, and the expertise he or she can bring to improve a visitor’s birding experience.

## **A Day On the Trail With A Birding Guide**

"Oh-my-goodness!" I exclaimed under my breath. Not more than 4 meters away hopping around an old pile of rotting brush were two Yucatan Wrens, a very rare and elusive bird endemic to the coastal dunes of the northern Yucatan Peninsula of Mexico. Part of my thrill came from knowing that this heavily streaked, unmistakable bird did not exist anywhere else in the world except this fragment of land, often less than a mile in width, which borders the Gulf of Mexico. Just 45 minutes earlier I had seen another bird for the first time in my life, a Mexican Shear tail (with its dramatically curved beak and forked tail). This member of the hummingbird family is also endemic to, or found only in, the same narrow strip of coastal dunes. Our birding guide, Jorge, seemed to know the exact brush pile and tree to find these memorable birds.

We first met Jorge when we arrived at the docks of Ria Lagartos a small fishing town in the Ria Lagartos Biosphere Reserve. A friend living in Merida had told us Jorge was a graduate of the RARE Center Nature Guide Training Course and the best birding guide in Rio Lagartos. We were not disappointed. Before taking us to his boat, Jorge greeted us warmly. In more than adequate English he checked to see if we were ready to go and told us a little about his guiding experience. He gave us a preview of the tour he had in mind and some of the birds we were apt to see. Finally, he asked if we had any special requests and I mentioned that I'd been trying for years to see a Tiger Heron. All Jorge said in reply was: "That's difficult but I'll work on it."

Jorge proceeded to unveil for us the wonders of the Ria Lagartos estuary with its Flamingos, Spoon-billed Ibis, Wood Storks, and many other aquatic birds. At every turn in the channel, he slowed to point out a bird hidden in the mangroves or to share an insight or anecdote about avian behavior, ecology of the area, or a similar subject. It was obvious that he had a deep love for this special place and was concerned about its preservation.

Several times Jorge was able to attract a bird out of the deep mangrove thickets for our viewing by skillful mimicking of the bird's call. Even though his knowledge of the birds of the Ria was impressive, I was grateful for his restraint in not identifying every new species the moment it came into view. He allowed us the satisfaction of puzzling out the bird's identity on our own. He intervened only if we were on the wrong track, or asked for help, or he saw a bird that we would have otherwise missed. For example, we were grateful and duly impressed when he pointed out a Gull-billed Tern among a flock of Sandwich Terns flying by. This was an extremely unusual sighting that we would have otherwise missed.

On our trip back, Jorge pulled the boat into a "gap" in the mangroves that only he could have spotted. He explained that he didn't normally take guests into this place and needed our help in holding branches back and otherwise clearing a passageway for the boat. Finally, after about 50 meters of slow going we opened up into clearing that Jorge explained was a fresh-water spring feeding the estuary. With a smile on his face, he pointed to a large nest in a tree bordering the spring. There in plain, unobstructed view was my magnificent Tiger Heron. To our delight the nest also contained two little white fluff-balls, Tiger Heron chicks.

Back in the town of Rio Lagartos Jorge inquired about our plans for the afternoon. I told him we were going to do some birding on our own on the coastal dunes bordering the estuary. To our surprise and delight he asked if we minded if he came along, not as a paid guide, but simply as a fellow bird watcher because he enjoyed going birding.

Obviously, Jorge is more than your average Nature Guide. He is a nature guide who specializes in bird watching. He has extended his skills of bird watching to be qualified to take tourists who are themselves good bird watchers for a bird-focused tour. More and more tourists consider themselves bird watchers and are looking for qualified birding guides, so encourage your students to consider this additional "feather in their cap."

***Birding Skills for Nature Guides***

The goal of this curriculum is to assist the teacher to develop basic bird watching skills for all nature guides and to provide an opportunity for students who are willing and able to extend their basic skills to become guides who also specialize in bird-watching tours, such as our friend Jorge.

The following are specific characteristics needed for a nature guide who includes bird watching as part of a general tour:

1. Is to identify common local birds by their English names.
2. Knows usual places to find common birds tourists are frequently interested in viewing.
3. Is able to provide information about the habits and behavior of common local birds including their habitat preferences; whether they are migrants or residents.
4. Practices good birding ethics.
5. Is skillful in spotting birds and in directing others to the bird's location.
6. Never stops learning about birds.

## **SECTION II: CHARACTERISTICS OF A BIRDING GUIDE**

These additional characteristics are needed for a nature guide who specializes in bird watching:

### **CHARACTERISTICS OF A GOOD BIRDING GUIDE**

#### **A GOOD BIRDING GUIDE:**

1. Keeps the group to a maximum of 12 people
2. Knows the audience (skill level and interests) and prepares tour to meet the specific needs and interests of the group
  - a. asks questions to determine birding interests of group
  - b. asks what specific species the tourists want to see
3. Encourages the group to be quiet and to avoid bright color clothes
4. Minimizes disruption of nesting activity and flocks
  - a. stays away from nesting areas
  - b. does not cause birds to fly
5. Prepares many different tour stop presentations in advance, and is able to speak without preparation about any birds or circumstances that occur during the tour
  - a. can speak about common birds seen
  - b. can contribute interesting information on migration
  - c. knows endemic species
  - d. can explain relationship of birds and habitat
  - e. observes and points out bird behaviors
  - f. can describe bird adaptations
  - g. can describe reproduction patterns
  - h. knows bird plumages including male/female and summer/winter differences
6. Is able to identify birds by sight and by song
  - a. knows all birds by sight
  - b. knows many birds by song
7. Knows where to find local birds
8. Pays special attention to rare and endemic species, but does not ignore common species
9. Assists all tourists in locating and identifying birds
  - a. knows techniques to describe location of birds
  - b. allows the group to identify the bird
  - c. identifies the bird if the group can't
10. Is able to use bird books quickly and correctly
  - a. can quickly locate photos of birds in bird books
  - b. can locate information about range, migration, plumage in the bird books

### **SECTION III: THE BIRDING CURRICULUM**

Here begins the actual process of teaching bird watching skills. The curriculum is divided into three levels:

- 1) Basic bird watching skills
- 2) Appreciation of birds and their habitat
- 3) Skills needed for the birding guide

It is hoped that all students receive the lessons in the first two sections: 1) basic bird watching skills and 2) appreciation of birds and their habit. These skills will prepare the students to include bird watching as a part of their nature tours. The third section is designed for students (such as Jorge) who show an interest and ability to learn further skills which will prepare them to be guides with a specialty in bird watching.

The lessons are designed to be taught progressively - skills learned in earlier lessons are necessary for activities in later lessons. The progression is designed to parallel the increasing understanding of English that the students are receiving in their English classes. It is assumed that the students are also being taught natural history classes on the understanding of habitats and the importance of conservation. These two subjects are a necessary part of developing bird watching skills, but are not a part of this curriculum.

It is hoped that the format of this curriculum will be the most helpful and adaptable approach to teaching bird watching within the Nature Guide Training Course in many different settings and with different levels of students. The lessons can be used as is or as a framework for teachers to modify to fit the needs and interests of their students. Some lessons are best taught in the field. Other lessons may be naturally folded into an English, natural history, or conservation lesson. It is hoped that this flexibility will allow bird watching to be an integral part of the RARE Nature Guide training program, rather than set aside as a tangential project.

This curriculum guide includes the titles of the individual lessons to be taught, organized according to the order in which they should be taught. The actual lesson plans can be found in the Natural History Lessons document. Birding is just one aspect of the overall natural history curriculum for guide training. Because of its importance in guiding and conservation, extra time and preparation should be dedicated to it. Tools for preparing and evaluating bird watching tours and the "Characteristics of a Good Birding Guide" can be found in the "Teaching Interpretation and Tourism Services" chapter of this manual.

It must be emphasized that time in the field looking for and identifying birds is a necessary element of any bird watching program. Regular morning bird walks and a general enthusiasm for bird watching by the instructors are required to ensure the success of this program. A section near the end of this curriculum includes suggestions for activities to bring variety and interest to the morning bird walk and to help fold birding skills into the other parts of the RARE Center curriculum.

## **1. BASIC BIRD WATCHING SKILLS**

The one main objective of this entire curriculum is to help the students establish a personal connection to birds. This may take several forms - perhaps as one aspect of relating to nature, perhaps as an appreciation of the beauty and fascination of birds, or as a road to developing a reason for conserving habitat. Some students may need to transfer a former desire to hunt and kill birds to the challenge of identifying and listing birds, and the joy of observing living birds. All of the following lessons focus on this one overriding theme - establishing a relationship between the students and the wonderful world of birds - and it is hoped that the teachers keep the main theme in mind as they proceed through the lessons.

From the first days of the course students can begin looking carefully at birds to begin to make a personal connection to birds and to learn to identify the distinguishing characteristics of different bird species. Hopefully, each student will have a pair of binoculars for morning bird walks and for informal bird watching at other times during the day. Bird books and checklists are other necessary resources. Slides of common birds and tapes of bird songs are helpful teaching tools.

This level includes 14 separate lessons. Each lesson begins with at least one SWBAT (Students Will Be Able To) designed to give a basic understanding of bird watching skills. Refer to the Natural History Lessons section of this manual to review the actual lesson plans.

**BASIC BIRD WATCHING SKILLS – Lesson Plans**

**Lesson 1**  
**Objectives:** **Why bird watching? (In Spanish during day 1 or 2 of course.)**  
SWBAT understand the significance of bird watching within the tourist industry.  
SWBAT state three reasons that birders come to the region.

**Lesson 2**  
**Objectives:** **How to use binoculars, Part 1**  
SWBAT make use of and take care of binoculars and scopes effectively and responsibly.

**Lesson 3**  
**Objectives:** **How to use binoculars, Part 2**  
SWBAT use binoculars to find moving or hidden objects.

**Lesson 4**  
**Objective:** **Parts of the bird – Part 1**  
SWBAT name the parts of a bird to assist in identification of birds.

**Lesson 5**  
**Objective:** **Parts of the bird –Part 2:**  
SWBAT name the parts of a bird to assist in identification of birds. Introduce the students to additional parts of a bird: *rump, crest, eye line, throat, shoulder, wing bar, ear patch.*

**Begin morning bird walks in small groups**

Now that the students are familiar with how to use binoculars and the parts of the birds you can begin regular morning bird walks. These informal small groups should model how the guides will take tourists birding in the future. Talking should be kept to a minimum. Leaders should help all students locate the birds and begin teaching the correct English names of the birds.

Also, these bird walks should reinforce the previous lessons. When a bird is located ask the students to describe the bird.

**Lesson 6**  
**Objectives:** **Adaptations of bird beaks**  
SWBAT use descriptive words for beak shapes and understand how the adaptations relate to feeding habits.

**Lesson 7**  
**Objectives:** **Adaptations of bird's feet**  
SWBAT use descriptive words for feet shapes and understand the adaptations and how they relate to feeding habits.

**Lesson 8**  
**Objectives:** **Using a bird book**  
SWBAT use bird books to help identify birds and learn information about the birds in their area.

**Morning bird walks in small groups**

- Check to make sure all students are using the binoculars with ease.
- Reinforce the names for the body parts of the birds by describing the birds in detail. For example, The bird has orange wing bars.
- As a bird is sighted have the students describe the beak. For example the beak is thin. The beak is black. The beak is long.
- After Lesson 10 is taught, continue to add common bird families as they are discovered on morning bird walks.

**Lesson 9**

**Bird of the Day**

**Objectives:**

SWBAT participate in the daily bird of the day activity in small groups  
SWBAT use proper English questions and answers (complete sentences) to participate in this activity  
SWBAT use bird body parts, colors, and adjectives to ask and answer questions about birds  
SWBAT use bird books to help determine the bird of the day

**Lesson 10**

**Recognizing common families of birds**

**Objectives:**

SWBAT identify common families of birds seen at course site.

**Lesson 11**

**Using checklists and proper bird names**

**Objectives:**

SWBAT use bird checklists and understand the two-part (binomial) method of naming birds.

**Morning bird walks in small groups**

- Students should be encouraged to determine the family name for the birds they see and to find that family in their bird books.
- When lesson 12 is taught students should be quite motivated to learn the common birds for their bird quizzes.
- After lesson 13 is taught and the students know the vocabulary, students can describe the actions of the birds.

**Lesson 12**

**Common birds at course site**

**Objectives:**

SWBAT identify common birds at course site by English names.

**Lesson 13**

**Bird activities**

**Objectives:**

SWBAT describe activities of birds.

**Lesson 14**

**Bird classification**

**Objectives:**

SWBAT understand and use vocabulary commonly employed to classify birds.

## **2. APPRECIATION OF BIRDS AND HABITAT**

An understanding of birds can only be superficial until a student begins to relate birds to their habitats and understands why certain birds prefer different habitats. These nine lessons should follow or parallel the study of habitats in the natural history section of the course.

Some birds prefer a very specific habitat others are generalists and can be seen in a variety of habitats. Also, during migration, nesting, or for winter feeding birds may change habitat.

Other ways to appreciate birds are included in this section including learning about bird reproduction, songs, and plumages.

**APPRECIATION OF BIRDS AND HABITAT – Lesson Plans**

**Week Six**

With the initiation of the Great Birding Contest, interest in the morning bird walk should increase. It is important that the teachers take seriously the correct identification of birds so that the contest will be valid.

Continue to reinforce the vocabulary and skills taught during the lessons in the morning bird walks.

**Lesson 15                      The Great Birding Contest**

**Objectives:**                      The birding contest can be a powerful incentive for stimulating a personal interest in birding leading to self-teaching, and time in the field, necessary ingredients in becoming a top birding guide.

**Lesson 16                      Describing the location of birds**

**Objectives:**                      SWBAT describe/explain in English where a bird is while bird watching.

**Lesson 17                      Learning habitats of local birds**

**Objectives:**                      SWBAT identify and describe specific habitats of local birds as well as adaptations related to habitat survival.

**Week 7**

After the Great Birding Contest it may be time to end the morning bird walks.

**Lesson 18                      Mini habitats of birds**

**Objectives:**                      SWBAT to place birds in their mini-habitat and to recognize the relationship with feeding habits.

**Lesson 19                      Seasonal Differences**

**Objectives:**                      SWBAT recognize the seasonal differences of bird populations in their communities as a result of migration.

**Lesson 20                      How birds reproduce**

**Objectives:**                      -students will have a basic understanding of bird reproduction  
-SWBAT relate bird behaviors to reproduction  
-SWBAT relate bird plumage to reproduction  
-identify and describe the six common phases of the reproductive process in birds

**Week Eight**

At this point in the course you may begin to notice a few students who are really excited about birding. Suggest that they look to becoming birding guides and offer voluntary bird walks. Begin to let these students take on leadership roles during the bird walks.

**Lesson 21**

**Learning bird songs**

**Objectives:**

SWBAT recognize the songs of common birds in their communities

**Lesson 22**

**Why birds sing**

**Objectives:**

SWBAT explain the different uses of bird vocalization.

**Lesson 23**

**Bird feathers**

**Objectives:**

SWBAT discuss and understand structure and uses of bird feathers.

**Lesson 24**

**Changes in plumage**

**Objectives:**

SWBAT understand the reason for changes in plumage for male, female, and juvenile and during different seasons of the year.

### **3. BECOMING A BIRDING GUIDE**

Nature guides who want to become specialists as birding guides need to develop further skills to be qualified as professional birding guides. It is important that the students recognize the responsibility to not represent themselves as birding guides unless they truly are. It is better to slowly build a solid reputation. Becoming very attuned to the birds in one's "home" area, and becoming a local expert will help them to create this solid reputation.

The main characteristic required is a desire to continue learning about birds after the course and throughout their lives. Each RARE Center course will probably have one to three students who fit into this category. They will need to invest in binoculars, and one or two bird books covering all the resident and migrant species.

The final five lessons are designed to be taught to the entire class but also to encourage the students with potential to become birding guides. Another option is to teach these lessons to a few students who seem to have the potential for becoming bird guides. The five lessons can be taught anytime during weeks nine and ten of the course. If week ten promises to be busy, lumping them into week nine is better.

**Becoming a Birding Guide – Lesson Plans**

**Weeks Nine and Ten**

Continue bird walks, but on a volunteer basis. Only those students who want to participate need to attend. Encourage students to conduct the walks.

**Lesson 25**                      **Knowing the birds—cold.**

**Objectives:**                      SWBAT identify all common and uncommonly occurring species of birds. SWBAT understand the practice of life-long learning.

**Lesson 26**                      **Knowing all the endemic birds of an area**

**Objectives:**                      SWBAT list and identify the endemic birds in their communities

**Lesson 27**                      **Distinguishing the needs of different types of bird watchers**

**Objectives:**                      SWBAT distinguish casual birders from serious bird watchers and understand the needs of each.

**Lesson 28**                      **Structuring a great bird walk**

**Objectives:**                      SWBAT structure a bird walk including good birding areas, easy terrain, several tour stops.

**Lesson 29**                      **Following the bird watcher’s Code of Ethics**

**Objectives:**                      SWBAT understand and practice the bird watchers Code of Ethics as published by the American Birding Association and adopted by most birding organizations.

