

# Discovering Alabama

**200**  
**ALABAMA**  
**BICENTENNIAL**

**Teacher's Guide**

**Whooping Cranes**

## Suggested Curriculum Areas

History  
Science  
Social Studies  
Environmental Studies

## Suggested Grade Levels

4–12

## Key Concepts

Natural Heritage  
Migratory Flyway  
Wildlife Refuge

## Key Skills

Environmental Appreciation  
Composition  
Research

## Synopsis

Cranes are among the oldest living species on Earth, and whooping cranes (*Grus americana*) are the rarest of the world's 15 crane species. Historically whooping cranes ranged widely across North America relying on an abundance of native wetland habitats. However, as the nation settled and developed, the whooping crane population declined dramatically due to habitat loss, uncontrolled hunting, and other factors. By 1950 only about 20 of the birds remained. Today collaborative efforts are making progress in recovering the whooping crane population, and Alabama's Wheeler Wildlife Refuge has become a contributing resource for this recovery, providing vital wetland habitat for the cranes' annual migration south. This video presents the story of the whooping crane's recovery, highlighting Alabama's important role, and featuring a variety of crane and birding experts. Host Dr. Doug Phillips reflects upon the eloquent writings of the early American conservationist, Aldo Leopold, to punctuate the majesty and significance of cranes.



*Discovering Alabama* is a production of the **Alabama Museum of Natural History** in cooperation with **Alabama Public Television** and **The University of Alabama College of Continuing Studies**. For a complete list of titles in the *Discovering Alabama* series, as well as information about ordering videos and accompanying Teacher's Guides, contact us at either: *Discovering Alabama*, Box 870340, Tuscaloosa AL 35487-0340; phone: 205-348-2039; fax: 205-348-4219; or email: [orders@discoveringalabama.org](mailto:orders@discoveringalabama.org). Also visit our website: [www.discoveringalabama.org](http://www.discoveringalabama.org).

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Alabama Tourism  
Department

*The Solon and Martha  
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THE UNIVERSITY OF ALABAMA\*



## Before Viewing

1 Ask students to each take a few minutes and quietly list the names of as many different kinds of birds they have seen in the outdoors (i.e., not in zoos or cages). Next place students in small groups and have the members of each group discuss and combine their individual lists into one list for their respective group.

2 Have the groups report their lists to the class. Compare the number of common kinds of birds students have seen to the number of any rare species they might have listed. Note any listed species that are migratory and discuss the phenomenon of how some species migrate long distances annually in cycle with the seasons. Introduce the video by explaining that it features a migratory species among the largest and rarest bird species in the world, a species that has begun to prefer Alabama as a migratory destination.

## While Viewing

Have students note the following:

- The time of year this rare species visits Alabama.
- The featured location of their annual visit to Alabama.
- Reasons this location is a suitable place for the birds.

### Video Mystery Question:

The video includes discussion of a project called “operation migration” that was eventually discontinued. What was the reason experts decided to discontinue the project? (Answer: Whooping cranes involved in the project were not adequately acquiring their wild natural traits because they were experiencing “too much human intervention.”)

## After Viewing

1 Return students to their small groups to discuss and develop a list of what they learned from the video.

2 Have the groups share their lists with the class and discuss their concerns for the future of whooping cranes.

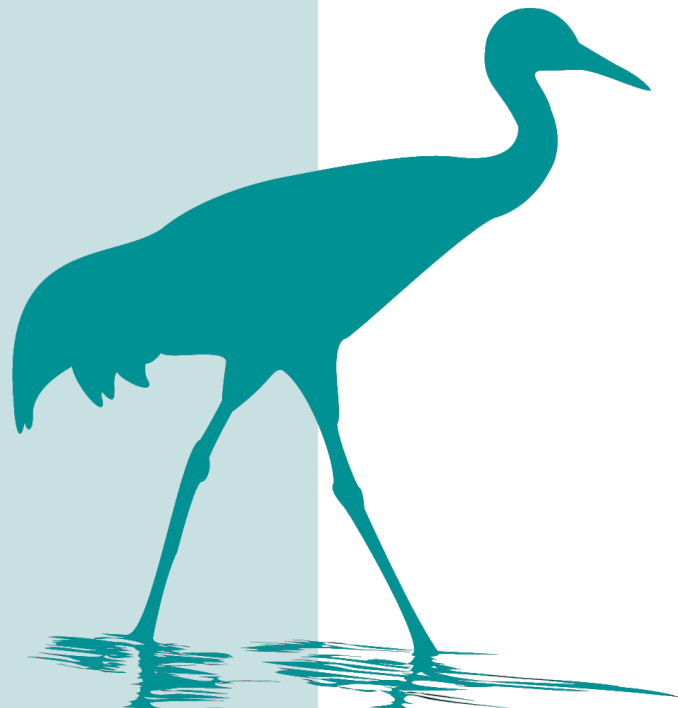
## Extensions

1 View other *Discovering Alabama* programs featuring rare species of wildlife (for example, “Wildlife History,” “Red-cockaded Woodpecker,” and “Indigo Snake”) to learn about how Alabama has been important to the recovery of various endangered wildlife species.

2 Assign students to read Aldo Leopold’s essay “Marshland Elegy” and write a 200–300 word essay discussing their interpretations, thoughts, and reactions.

## Philosophical Reflections

Aldo Leopold, renowned forester, naturalist, and wildlife expert, was also a gifted writer whose observations rendered potent advocacy for the conservation of America’s natural heritage. This is certainly true for his collection of essays in the popular book, *A Sand County Almanac* (Oxford University Press, 1949). *Discovering Alabama* has included references to Leopold’s writings in a number of our videos, giving special emphasis to Leopold’s philosophy of the “land ethic.” This philosophy is described at length in *A Sand County Almanac*, but the essence of the philosophy is encapsulated in Leopold’s simple assertion, “That land is a community is the basic concept of ecology, but that land should be loved and respected is an extension of ethics....” Do you agree with this philosophical perspective? Do you think this view is widely held in society today?



## Nature in Art

Show the class several artistic images of birds by John James Audubon and discuss Audubon's influence in contributing to public appreciation of birds. Have each student select a bird species they feel is especially appealing and develop a research report presenting such information as the bird's size, coloration, range, habitat, etc.

## Community Connections

Every community has at least one resident or two known to be a "birding enthusiast." Invite such an individual to speak to your class and help you arrange a birding outing in your area.

## Additional References & Resources

- International Crane Foundation: <https://www.savingcranes.org>
- UA Fish and Wildlife Service: <http://www.fws.gov>
- Alabama Birding Trails: <http://www.alabamabirdingtrails.com/>
- Alabama Department of Conservation: <http://www.outdooralabama.com>
- Alabama Tourism Department: <http://www.tourism.alabama.gov/>
- UA Center for Economic Development: <http://www.uaced.ua.edu/>
- National Audubon Society: [www.audubon.org/](http://www.audubon.org/)
- *A Sand County Almanac* by Aldo Leopold. Oxford University Press, 1949.

## Parting Thoughts

*Aldo Leopold's essay "Marshland Elegy" is one of his most popular essays. The back panel of this Guide presents a greatly shortened version of the essay, connecting its beginning words directly to its closing words, to offer a succinct expression of Leopold's core concern – the plight of the magnificent wild cranes in a changing world of tenuous wild habitat. However, I encourage all to read the entire essay for Leopold's illustrative discussion of relevant history.*

*Many of Leopold's other essays also are appreciated for their appealing combination of literary eloquence and ecological reflection. But I feel that the last section of A Sand County Almanac, entitled "The Upshot," is especially important for our world today. This section is where we find a host of Leopold's culminating observations regarding some troubling trends of modern society. One of my*

*favorites is Leopold's observation, "The problem, then, is how to bring about a striving for harmony with the land among a people many of whom have forgotten there is any such thing as land, among whom education and culture have become synonymous with landlessness.... Perhaps the most serious obstacle impeding the evolution of a land ethic is the fact that our educational and economic system is headed away from, rather than toward an intense consciousness of land."*

*Oh yeah, I almost forgot. Several Discovering Alabama programs present the importance of protecting and retaining Alabama's abundance of rural lands. An especially emphatic program is "Alabama Countryside." In my opinion, this video should be required viewing for every Alabama official and political leader.*

Happy outings,

*Dr. Doug*





## Discovering Alabama

### Activity/Information Sheet

### Whooping Cranes

#### “Marshland Elegy” (in short form)

A DAWN WIND STIRS on the great marsh. With almost imperceptible slowness it rolls a bank of fog across the wide morass. Like the white ghost of a glacier the mists advance, riding over phalanxes of tamarack, sliding across bogmeadows heavy with dew. A single silence hangs from horizon to horizon. Out of some far recess of the sky a tinkling of little bells falls soft upon the listening land. Then again silence. Now comes a baying of some sweet-throated hound, soon the clamor of a responding pack. Then a far clear blast of hunting horns, out of the sky into the fog. High horns, low horns, silence, and finally a pandemonium of trumpets, rattles, croaks, and cries that almost shakes the bog with its nearness, but without yet disclosing whence it comes. At last a glint of sun reveals the approach of a great echelon of birds. On motionless wing they emerge from the lifting mists, sweep a final arc of sky, and settle in clangorous descending spirals to their feeding grounds. A new day has begun on the crane marsh.

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The ultimate value in these marshes is wildness, and the crane is wildness incarnate. But all conservation of wildness is self-defeating, for to cherish we must see and fondle, and when enough have seen and fondled, there is no wilderness left to cherish. SOME DAY, perhaps in the very process of our benefactions, perhaps in the fullness of geologic time, the last crane will trumpet his farewell and spiral skyward from the great marsh. High out of the clouds will fall the sound of hunting horns, the baying of the phantom pack, the tinkle of little bells, and then a silence never to be broken, unless perchance in some far pasture of the Milky Way.

#### Whooping Cranes North America’s Endangered Species

Whooping cranes are tall, secretive birds. They are often confused with other species, such as herons, egrets, and the abundant sandhill crane (*Grus canadensis*), also native to North America. You can distinguish whooping cranes from other birds by knowing a few key characteristics, including their size, coloration and behavior.

Whooping cranes are the tallest birds in North America. They stand five feet tall and have a seven to eight foot wingspan. Because whooping cranes are adapted for flying, they weigh on average only 15 pounds.

Adult whooping cranes are almost entirely white (unlike their grayish-brown cousin the sandhill crane). The only non-white markings on whooping cranes are their black wingtips and black facial markings, a bare patch of red skin on top of their heads, and black legs and feet. Chicks are cinnamon brown, which helps to camouflage them. By the time they are one year old, their body feathers transition from a mix of cinnamon brown and white to adult plumage.

Whooping cranes may mate for life and can live 25 years or more in the wild. Unlike herons and egrets that nest and perch in trees, whooping cranes do neither; they roost and nest in shallow water. On summer nesting grounds, a pair establishes a territory that they defend from other cranes. The pair performs elaborate courtship dances and calls, including their loud unison call. Whooping cranes build “floating nests” that sit in shallow water, usually six to ten inches deep. The nests are made of reeds, grasses, and other wetland vegetation. If mating is successful, the female usually lays two eggs. Both the female and male take turns incubating the eggs for approximately 30 days.

Chicks grow very fast, up to an inch per day during their first summer, in order to be large and strong enough to migrate only a few months after hatching. This fast growth, along with early “flying lessons,” prepares whooping crane chicks for their first migration. Young cranes learn the migration route by following their parents south in the fall.

#### Birders LOVE Alabama

With over 430 bird species documented in Alabama, there’s more to see here than you can imagine.

The Alabama Birding Trails website ([www.alabamabirding-trails.com](http://www.alabamabirding-trails.com)) highlights the best public locations for watching birds year-round. Find sites by location or by season. Discover “secret” locations from experienced birders. Learn what birds are being reported in real-time.

Alabama’s Birding Trails include 270 sites that cover our great state from the mountains to the gulf.

**Get out and explore!**