

Activity 9: Watching for Whoopers in Wetlands



Summary

Students make maps of their communities to explore Whooping Crane habitats close to their neighborhoods.

Objectives

Students will be able to:

- Use a variety of geographic representation, such as map and/or aerial photography, to gather information about Whooping Crane habitat in their community
- Draw maps of their community
- Identify wetlands close to where they live that Whooping Cranes could use as habitat

Standards

Science C.8.2 and C.8.6

Art and Design E.8.4 and H.8.5

Social Studies B.8.4

Materials Needed:

- Sheets of paper for creating maps
- Illustrations materials such as markers or colored pencils
- Atlas or Gazette

Background:

Whooping Cranes depend on wetlands for feeding, safe roosting, building nests, and raising their chicks. Whooping cranes can use many types of wetlands, even small isolated ones, for meeting different needs, as long as there is minimal human disturbance.

Whooping Cranes use small wetlands to feed, but an average nesting territory is 4.1 square kilometers (1.58 square miles). They have been observed in public areas, such as wildlife refuges, state parks, and county lands. Just as importantly, Whooping Cranes have been observed on private property.

Learning about wetlands in your own community is important for several reasons. The presence of wetlands in your community means that you may have an opportunity for Whooping Cranes to visit! Having wetlands determines whether certain species that depend on them, such as birds, amphibians, reptiles, and aquatic invertebrates, live in the community. Wetlands also play important ecological and environmental roles such as reducing the likelihood of floods in the area and cleaning the water supply by filtering contaminants. Wetlands can increase the property value of houses in a neighborhood, and serve as an excellent source of outdoor recreation.

Recently, many people and organizations have been working to conserve and restore wetlands. Federal programs such as the U.S. Department of Agriculture's Wetland Reserve Program (WRP) and the U.S. Fish and Wildlife Service's North American Wetlands Conservation Act (NAWCA) offer landowners a financial incentive to preserve or restore wetlands on private property. For example, farmers can be paid to cease agriculture on their land and restore parts of their farm to a wetland.

In both the breeding season and in winter Whooping Cranes live in wetlands. During these times they are relatively stationary because they have to defend their territory from other cranes. Whooping Cranes, just like other migratory birds, rely on the resources around them to raise their young in the spring and store up reserves for migration in the winter.

Whooping Cranes in the Aransas-Wood Buffalo Population and Eastern Migratory Population pass through many states during migration. They depend on wetlands in each place they pass through. Land use change in the United States and Canada has made migration more challenging than it would have been historically. Citizens and politicians have recognized that decreasing wetlands have led to a need to protect them and the animals that depend on them. According to the U.S. Department of Agriculture, 54% of wetlands have been lost in the United States.

Today it is illegal to develop a wetland without creating an additional, or mitigated, wetland. Unfortunately, often the mitigated wetlands are not as productive as a natural, undisturbed wetland. Mitigated wetlands are created with



the purpose of retaining water from surface runoff as a result of the development, rather than reaching for any biodiversity goals. This leads to less biodiversity in those areas than what would have naturally occurred. Whooping Cranes are very sensitive to changes in their environment and require large blocks of undisturbed habitat. By protecting wetlands from development in their breeding, migration route and wintering grounds, Whooping Cranes will have a better chance for survival.



Whooping Cranes use many wetland types if there is a minimal disturbance by humans. This small wetland on private property in the Baraboo Hills in Wisconsin has been used by Whooping Cranes. *Photo: U.S. Fish and Wildlife Service*

An excellent way to explore where there is wetland habitat suitable for Whooping Crane use is to examine aerial photographs or maps of an area. One benefit of using aerial photography is that it includes specific features such as telephone lines and houses that are not included on most maps. These factors can be important in deciding whether or not a wetland would serve as good Whooping Crane habitat. One benefit of using maps is that they are usually labeled, and topographic maps offer precise information about changes in elevation. Both are helpful tools for locating potentially useful wetlands for Whooping Cranes.



An aerial photograph of wetlands on private property used by Whooping Cranes. This photograph captures both small and larger wetlands. Whooping Cranes use smaller wetlands to feed but require larger wetlands to nest. *Photo: U.S. Fish and Wildlife Service*

Let's make some maps and see how much wetland habitat the students have in their community.

Procedure:

- 1) Have students do some research to locate wetlands in their community. They should gather information using their own knowledge of the community, the internet, by collecting maps and photographs of the area, and by talking to people in their community such as friends, parents, and neighbors. Remind students to include wetlands on public lands, such as city, county, and state parks, and on private lands, such as country clubs, sanctuaries, and people's backyards in rural areas.
- 2) Students should draw their own maps of their community. They should label major landmarks such as where they live, their school, major roads and highways, and any prominent features that would help orient someone. Students should draw and label any wetlands in their community, large and small.

The U.S. Fish and Wildlife Service offers an interactive wetland mapper for the United States:
<https://www.fws.gov/wetlands/Data/Mapper.html>

- 3) Once the students have completed their maps, have them identify the wetlands in their area that would serve as suitable Whooping Crane habitat. Which wetland areas could Whooping Cranes use and why? Which areas would not be good Whooping Crane habitat and why? Which areas would serve as short-term habitat for feeding? Which could serve as long-term breeding grounds?



When considering potential habitat for cranes, keep the following questions in mind:

- Is the wetland close to a busy highway or road?
 - Are there utility lines nearby?
 - Do motorboats use areas close to the wetland?
 - Is there enough food for the Whooping Cranes to eat?
 - Who owns the wetlands? Are they publicly or privately owned?
 - Will the area still be wetlands ten years from now? Twenty years from now?
 - Does this area have a lot of human disturbance or disturbances from wildlife that could be disruptive to Whooping Cranes?
- 4) After the students have identified the Whooping Crane habitat in their communities, have them list the features and guidelines that they think are important to consider in determining whether an area is suitable for Whooping Crane use.
- 5) Students can then discuss their lists in small groups, and each group can list eight to ten things that they think are essential to consider in locating Whooping Crane habitat. Do any of the wetlands in their community meet the criteria that they listed?

Extensions:

- 1) Take a field trip to a local wetland, and have the students explore the habitat. Be sure to listen for cranes calling! Have Whooping Cranes visited the area before? If so, what makes it good Whooping Crane habitat? If not, are there any characteristics that make it potentially good or poor Whooping Crane habitat?
- 2) Have students research an ecosystem restoration project in their area. What was the land like historically? What activities resulted in a change to or degradation of the land? Who is restoring the land and why? What steps are being taken to restore the land? Students should prepare materials to educate their classmates about the restoration project.
- 3) Take a field trip to view Whooping Cranes using wetlands. If there is a wildlife refuge near you with Whooping Cranes call ahead to the office to determine when is a good time of year to see the cranes there. See Appendix 1 for more information. Be sure to listen for the sounds of Sandhill or Whooping Cranes calling! Even if these birds can't be seen, their calls often can be heard from great distances.

