



ANSWER KEY

Fishing for information and hunting down the truth

1

Get to know the Refuges

Resources:

- [Shiawassee - U.S. Fish and Wildlife Service \(fws.gov\)](https://www.fws.gov)
- [About the Refuge - Kirtlands Warbler - U.S. Fish and Wildlife Service \(fws.gov\)](https://www.fws.gov)
- [Detroit River - U.S. Fish and Wildlife Service \(fws.gov\)](https://www.fws.gov)

Question or Prompt

Response according to resource

Describe the location of the Shiawassee National Wildlife Refuge.

The Shiawassee National Wildlife Refuge is located in Saginaw County, Michigan. The refuge's headquarters is located about 5 miles south of Saginaw off of highway M-13 on the corners of Curtis and Mower Road.

What is the mission and designation of the refuge?

The refuge's mission is to preserve and manage an undeveloped expanse of floodplain forest, marshes, rivers, and associated habitat within an agricultural and urban landscape through habitat management, encourage public stewardship, educational programs, and private land activities. It is designated as a US Important Bird Area for waterfowl conservation.

Describe the purpose of the Kirklands Warbler Management Area.

It was established for the conservation of an endangered species, the Kirkland's Warbler. Even though the warbler is no longer endangered the management areas work to maintain that status.

What species of life, in addition to the Kirklands warbler, are conserved and managed in the Kirkland Warbler Management Areas?

Indigo bunting, American badger, Jack Pine forests from very young to very old.

What species are being managed in the Detroit River International Wildlife Refuge (IWR)?

Eastern Fox snake, Canvasback ducks, Lake sturgeon, Marsh wren, American and Least bittern, Forster's tern, Common gallinule, Black tern, Cattail, Arrowhead, Bulrushes, pickerelweed

Describe the location of the Detroit River IWR and what makes it unique?

Because of the collaboration between the U.S. cities and the Canadian side of the river, it is the first refuge in the US to have an "International" status.



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Learn more about a day in the life of a park ranger

Resources:

- [Careers to Consider | U.S. Fish and Wildlife Service \(fws.gov\)](https://www.fws.gov)
- [Park Ranger | U.S. Department of the Interior \(doi.gov\)](https://www.doi.gov)

Question or Prompt

Response according to resource

What does Jessica Jia, park ranger in Texas, like and find most rewarding about her job?

Jessica loves that she is encouraged to learn and grow and has an opportunity to be creative. She finds it rewarding to have a variety of things to do and helping people feel cared for in the park.

What skills does Jessica consider most helpful to her job success?

"You need adaptability, kindness and a persevering optimism."

Describe the work environment of a park ranger.

Rangers can work in an amazing range and variety of environments from urban historical sites to remote mountain posts. Many locations involve significant time outdoors in remote, rugged areas, while others manage quiet farms or scenic parkways.

There are different levels of park rangers. List some of the responsibilities of an entry level park ranger.

- Answering visitor questions and providing information
- Conducting interpretive talks and/or tours
- Presenting educational and interpretive programming
- Performing patrols to check conditions at various areas
- Gathering visitor use data

There are different levels of park rangers. List some of the responsibilities of a journey level park ranger.

- Planning, directing and evaluating complex interpretive, educational, preservation, interpretation or safety programs
- Supervising lower level rangers



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Learn about the career wages, benefits, and educational requirements of a park ranger

Resources:

- USAJobs.gov type “Park ranger” into the Keyword search box and hit enter
- [Federal General Schedule \(GS\) Education Requirements](#)
- [Park Ranger | U.S. Department of the Interior \(doi.gov\)](#)

Teacher will supply a career ladder

Question or Prompt

Response according to resource

Look for a job posting that is GS-5. What is the wage offered for this position? What is the educational requirement for this position? (use first two listed sources)

*Varies but range is most likely from \$35,000 - \$45,000
 2 years of college beyond high school with 1 year of experience*

Look for a job posting that is GS-9. What is the wage offered for this position? What is the educational requirement for this position? (use first two listed sources)

*Varies but range is most likely from \$52,000 - \$63,000 yearly
 BS degree plus 2 years toward a master's degree plus 1 year experience at GS-7*

What strengths are considered important at all levels from entry to senior for park rangers?

Accountability, attention to detail, customer service, interpersonal skills, oral communication, teamwork, technical competence, writing

What kinds of courses should a person be taking in high school and college for a career as a park ranger?

After studying the career ladder, finish the following statement using the words “increase” or “decrease”

For a person beginning a career as a Park Ranger, as education and experience increase, responsibilities increase and wages increase.



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Learn about conservation and the importance of the work of a park ranger to conservation on our planet

Resources:

- [Conservation | National Geographic Society](#)
- [World Population Clock: 7.9 Billion People \(2021\)-Worldometer \(worldometers.info\)](#)
- [Green Tips to Save Our National Parks \(glaciernationalparklodges.com\)](#)

Question or Prompt

Response according to resource

Define conservation

Conservation is the care and protection of air, minerals, plants, soil, water and wildlife so that they can persist for future generations.

Find and record the paragraph that claims results of “continued human population growth . . .”

Continued human population growth has led to unsustainable rates of consumption of our natural resources, resulting in a loss of Earth’s biodiversity. The main factors driving biodiversity loss include habitat destruction, climate change, invasive species, overexploitation, and pollution.

*From the world population clock source - **What is the current world population? Watch the clock for 1 minute. How many new people are added in that minute? Look at the top 20 countries. Where is the U.S. ranked by population?***

*The current world population is varies but will be close to 7.9 billion people
Varies but seems to hold close to 80,000 people were added *in one minute on date of class activity (date)
 The U.S. is the third most populated country in the world.
 People added is population growth = number of births – number of deaths

Make a list of 5 actions you can take right here in mid Michigan to help conserve resources to protect our national parks and refuges.

Any five of the following: Calculate your carbon footprint, reduce/reuse/recycle, walk/ride bike/carpool/use public transportation, eat locally, shorten your shower, adjust your thermostat, reduce your incandescents, visit National Parks, donate to causes that support conservation or work on climate change

- *If students have more interest in calculating their carbon footprint and eating locally see **Extension activity- Calculating your Foodometer.***