



Isn't That Spatial? #2: The National Atlas

Note: This column originally appeared in the September-October 2003 issue of *Perspective* from the [National Council for Geographic Education](#).

Author:

Dr. Joseph J. Kerski

Geographer

USGS

Box 25046 - MS 507

Denver CO 80225-0046 USA

jjkerski@usgs.gov

Tel 303 202 4315

Introduction

My last column explained how to access and use aerial photographs and topographic maps from the Terraserver web site (terraserver-usa.com) in the geography curriculum. This column will focus on another rich site for geography--the National Atlas of the United States.

Resource Description

Imagine a site where you could create quick maps that support your intended geography lesson for the day. Imagine a site where students could investigate the relationship of climate to the types of crops that are grown, or the pattern of invasive species such as zebra mussels across the country. National Atlas can help you do all this and more. The original National Atlas of the United States was published in paper form in 1970, costing \$100. Work on a new National Atlas began in 1997 as a web-based resource, but selected printed maps from it are available from the USGS. Like its predecessor, the new National Atlas promotes greater geography awareness. It allows the user to create easy to use maps of America's natural and cultural landscapes. The atlas was created by a partnership between federal agencies such as the USGS, EPA, the US Forest Service, the US Census Bureau, the Library of Congress, and others. The National Atlas is powered by ESRI's MapObjects Internet Map Server software and is accessible over any standard web browser.

How To Access

To use the resource, go to <http://nationalatlas.gov> and select the right-hand oval labeled "Click Here to Make Maps." Select any of the numerous map themes along the right side of your browser window, followed by "Redraw" to make your first map. You can make maps at an infinite variety of scales of selected regions of the country, or of the country as a whole. Nearly 200 themes are available, on agriculture, biology, boundaries, climate, environment, geology, history, people, transportation, and other themes. In addition, since some phenomena are best viewed as changes over time, selected layers such as West Nile Virus and seasonal greenness changes can be examined as animated maps.

To discover what printed maps are available from the National Atlas, visit <http://nationalatlas.gov/atlasmap.html>.

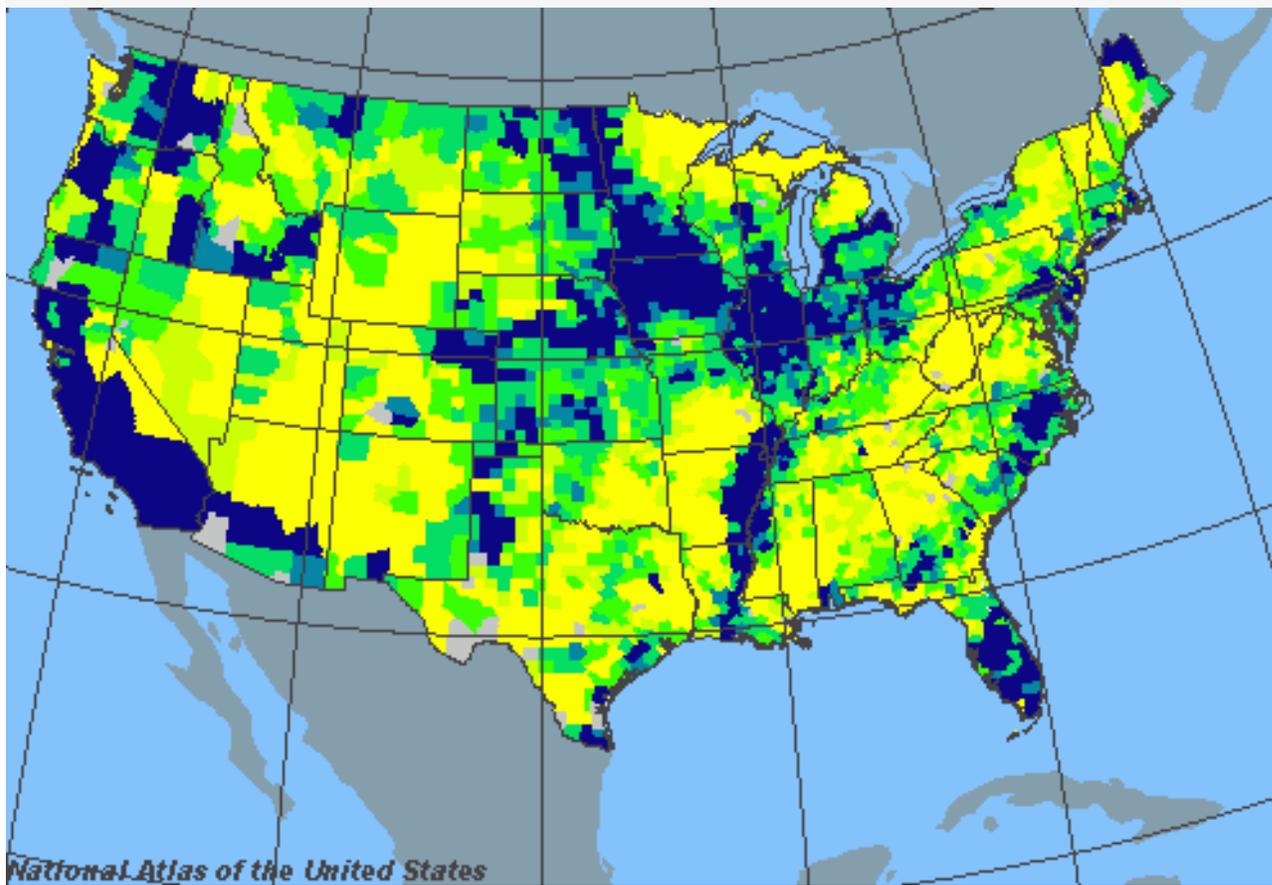
The entire 1970 National Atlas is available online as well through the Library of Congress, at <http://memory.loc.gov/ammem/gmdhtml/census3.html>

Use in the Curriculum

The new National Atlas includes printed products and web services designed to help data users visualize and understand complex relationships between environments, places, and people. Students can use the atlas with guiding questions from their instructor to understand the environmental, resource, demographic, economic, social, political, and historical dimensions of American life. The Atlas can serve as a quick reference, as a framework for information discovery, as an instrument of education, as an aid in research, and as an accurate and reliable source of government information. Geography educators and their students can use the maps and images to analyze human and physical processes.

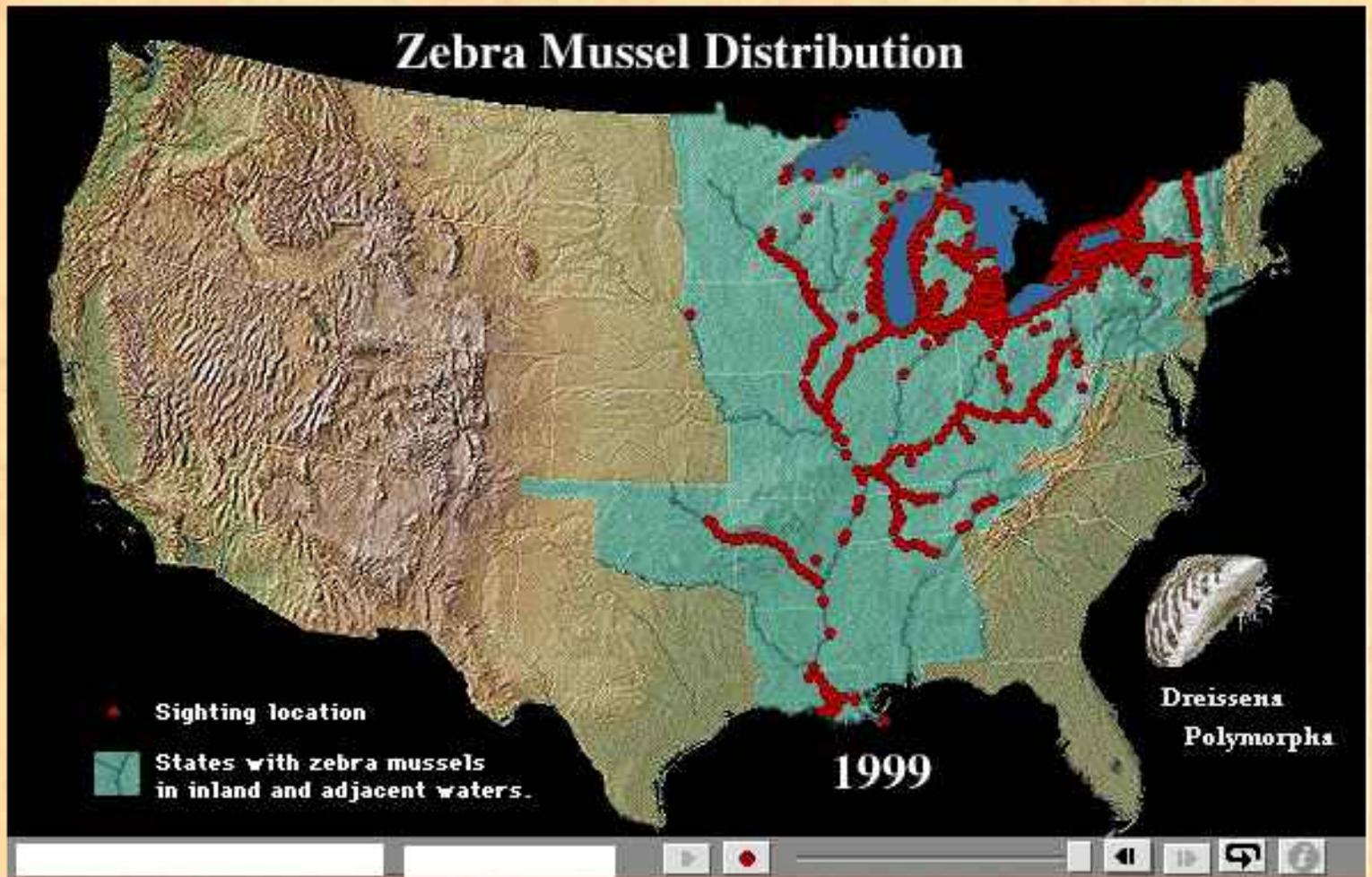
Example questions include the following:

Why does the "value of crops sold" map have the pattern that it does? Can you explain what accounts for the high values in the northern Great Plains, southern Florida, eastern North Carolina, California, Washington, and the lower Mississippi Valley? Why does the value of crops sold map differ from the map showing the number of farms?



What physical feature determines the spread of zebra mussels across the country? Where do you predict they will move in the future? What do you think can and should be done about them?

Zebra Mussel Distribution



How do landforms, geology, and climate affect the distribution of human population in the United States? What are the fastest growing regions of the United States in terms of population? Why? Is your area growing rapidly, slowly, or not at all? Why?

What is the relationship between certain types of crime in different regions to the total population that lives in the area? What is the relationship between certain types of crime in those regions to the age of the population there? Why?

Educators using a Geographic Information System (GIS) have even more options available. All of the layers on the National Atlas are available for download or purchase on a CD using the "Download" button. These layers can be brought into a GIS environment to further analyze patterns, linkages, and trends. Sample questions include: How many earthquakes have occurred within 50 kilometers of your hometown? How many counties in your state have decreased in population over the past decade? How many hurricanes have occurred within your state during the past century?

Use the National Atlas to enhance your teaching and learning about the physical and cultural geography of the United States.

[U.S. Department of the Interior](#)

[U.S. Geological Survey](#)

[Rocky Mountain Mapping Center](#)

Maintainer: webmaster@rockyweb.cr.usgs.gov

URL: http://rockyweb.cr.usgs.gov/public/outreach/isntthatspatial_nationalatlas.html

Last modified: 5 December 2003