Careers in Science

Biogeographer

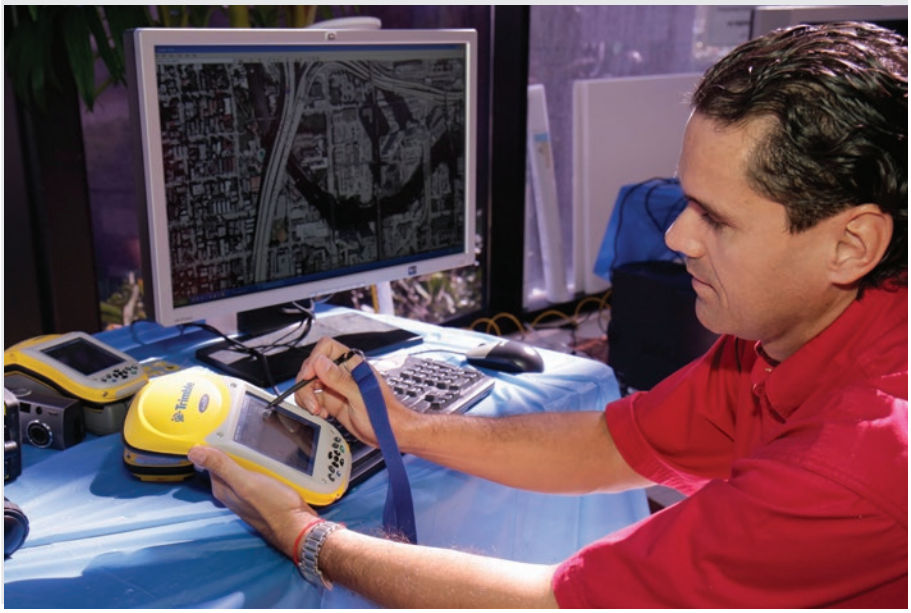
Biogeographers are often involved with the protection, conservation, and management of natural resources. Where plant and animal species live, how they got there, and how future conditions might affect their populations are just a few of the topics that biogeographers study.

Technology is an important part of a biogeographer's toolset. They use a digital tool called geographic information systems, or GIS, to make data-rich maps. GIS can use any data that is related to location such as population size, land type, and the location of human infrastructure such as roadways, power lines, and building locations. Biogeographers use GIS along with statistical models to map and study populations, habitats, ecosystems, and ecological processes.

A variety of job titles and work settings are connected with this career. Someone with a degree in biogeography might work as a city or county planner, as a mapping technician, or as a GIS specialist. Biogeographers work for city, state, or federal government agencies, for nonprofit and private organizations, or they might work in an academic setting as university professors or researchers.

Biogeography uses knowledge from a wide range of subjects. Along with general geography and cartography, or map making courses, students may also take classes in economics, computer science, history, mathematics, ecology, and evolutionary biology.

FIGURE 13: Biogeographers use digital tools such as geographic information systems (GIS) to study the distribution of plant and animal species.



Biogeographers often discuss the results of their research in written technical reports or in presentations given within their agency or to the public. Therefore, a career in biogeography also requires excellent writing and communication skills, so a strong background in language arts is particularly useful.

As our knowledge of climate change continues to grow, biogeographers will play an important role in determining how environmental changes will impact the global geographical distribution of populations of different species. The information gathered by biogeographers could be used to come up with solutions to help solve these problems and to prevent species from going extinct.

Language Arts Connection

A state wildlife management agency is considering reintroducing bobcats back into a forested area where they once flourished. Imagine you are the agency's biogeographer. Using your knowledge of population dynamics and carrying capacity, what questions would you ask and investigate to determine whether or not the area they have selected is appropriate for this reintroduction? What kind of data would you need to collect? Develop and record a plan for investigation and determine what questions you would need answered before the reintroduction could proceed.

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