

## What is the job outlook for the future?

The job outlook in biology is promising for the next few years—job growth is expected in a number of areas, particularly in biotechnology and molecular biology. Research jobs may have a strong future impact as well:

- Ecologists may find ways to lessen the impact of the changing global climate and to manage diminishing forest reserves.
- Marine biologists may discover ways to get more food from the ocean and help endangered fish species recover at the same time.
- Researchers who study human biology may slow the aging process, cure genetic diseases, and help paralyzed people by making nerve cells grow again.

Many non-research careers await biologists as well, in fields ranging from medicine to education to environmental protection. There will always be a need for bright, energetic, and educated individuals with a strong understanding of biology, but opportunities may vary depending on the status of local and national economies.



Courtesy of USDA ARS.



Courtesy of NIH.

### I'm interested in a career in biology! Where do I start looking?

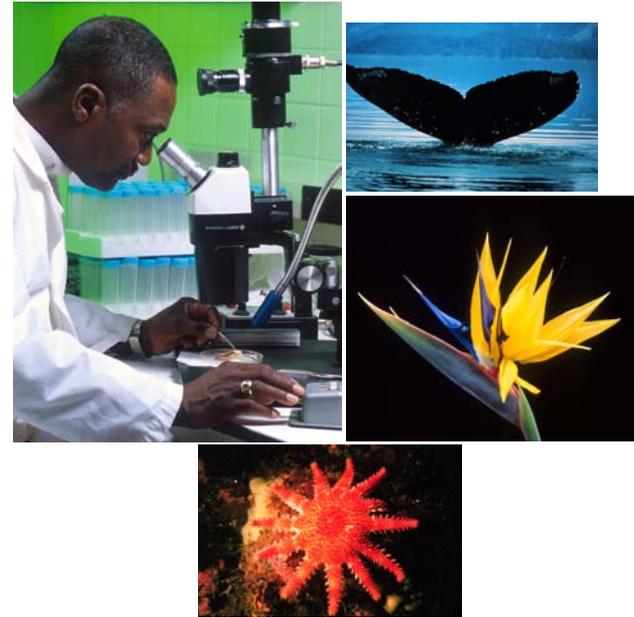
AIBS member societies and organizations are an excellent place to search for jobs and other career-related resources. For more information, in addition to a list indicating which organizations post career information, jobs and internships, and graduate fellowships, visit our *Careers in Biology* web site:

[www.aibs.org/careers](http://www.aibs.org/careers)



Courtesy of USDA ARS.

# Careers in Biology



Cover: Lab technician, courtesy of USDA ARS; sea star, flower of bird of paradise, and humpback tail courtesy of NOAA.

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Courtesy of NOAA.

Biologists want to know how living things work, how they interact with one another, and how they evolve. An interest in biology may lead you to insights into how the natural world works and to careers where you can:

- Develop new treatments for people who are suffering from disease.
- Design strategies to protect endangered plant and animal species.
- Find better ways to grow plants used as food around the world.
- Educate the next generation of biologists.

Biology has come a long way already: deadly diseases have been eradicated, much of the environment has been protected, and our quality of life has been improved. And yet there is still much to be learned and achieved. New species are being discovered each day, and the tree of life keeps evolving. New uses for what we already know are constantly being found.

Today's students will be essential in identifying and solving current and future biological problems. You can't predict what discoveries you will make when you become a professional scientist, but it is a safe bet that you will learn something new.



Courtesy of NOAA.

**Research:** Research biologists answer questions about the natural world and how living systems work. Many carry out research in exotic locations around the world.

- An ecologist may study the plant and animal community of a lake affected by pollution. Her findings may lead to stronger enforcement of pollution control laws.
- A microbiologist studies bacterial resistance to antibiotics. This can lead to stronger and better medicines to fight infectious diseases.



Courtesy of USDA ARS.

**Health care:** Doctors, dentists, nurses, and other health care professionals all have strong backgrounds in biology. In addition, a career in health care may lead you to:

- Develop public health campaigns to defeat illnesses such as tuberculosis, AIDS, cancer, and heart disease.
- Prevent the spread of rare, deadly diseases, such as the Ebola virus.
- Tend to sick and injured animals.



Courtesy of USDA ARS.

Two scientists preparing instruments for the nighttime surveillance of moth migration.

**Environmental management and conservation:** Biologists in management and conservation careers work toward solving environmental problems and preserving the natural world for future generations.

- Park rangers protect state and national parks, help preserve their natural resources, and educate the general public.
- Zoo biologists carry out endangered species recovery programs.

**Education:** Science educators enjoy working with people and encouraging them to learn new things. They may teach biology classes or direct research and educational programs in settings such as:

- Colleges and universities
- Primary and secondary schools
- Science museums, zoos, and aquariums
- Parks and nature centers

### New directions in biological careers

There are many fields where biologists can combine their scientific training with other interests, for example:

- Biotechnology
- Forensic science
- Politics and policy
- Business and industry
- Economics
- Mathematics
- Science writing and communication
- Art



Photo by Joel Cracraft

# What do biologists do?



Courtesy of NOAA.



Courtesy of USDA ARS.

Concord grape plant.

## What can I do to prepare for a career in biology?

- **Take courses in math and science.** Biologists need a solid understanding of math, chemistry, physics, and of course biology. These courses provide both an excellent background and an opportunity to explore what scientists do.
- **Talk to biologists.** If you are interested in a health care career, visit doctors or veterinarians and ask for a moment to talk about their careers. If you are interested in outdoor work, talk to park rangers, land managers, and other professionals in your area.
- **Consider how long you want to be in school.** For some biology jobs, a two-year college degree is sufficient. But most life science careers require at least a bachelor's degree and often an advanced degree, such as a master's degree. Research jobs typically require a doctorate, which may take five or six years of intense and demanding training.
- **Find relevant jobs and internships.** Internships are a good way to learn about a career, make contacts, and earn some experience in biology.