

Biology is the study of life and living things. It is actually a multi-science composed of many disciplines unified by the fact that all living things, plants, animals, and microorganisms, follow the same fundamental laws of heredity, reproduction, growth, development, self-maintenance and response. Most biological scientists are further classified by the type of organism they study or by the specific activity they perform.

**Aquatic Biologists** study plants and animals living in water. **Marine Biologists** study salt-water organisms, and **Limnologists** study fresh water organisms. **Biochemists** study the chemical composition of living things. **Botanists** study plants and their environment. **Microbiologists** investigate the growth and characteristics of microscopic organisms such as bacteria, algae, or fungi. **Medical Microbiologists** study the relationship between organisms and disease or the effect of antibiotics on microorganisms. **Physiologists** study life functions of plants and animals, both in the whole organism and at the cellular or molecular level, under normal and abnormal conditions. **Biophysicists** study the application of principles of physics, energy (electrical/mechanical) and related phenomena, to living cells and organisms.

**Zoologists** and **Wildlife Biologists** study animals and wildlife (their origin, behavior, diseases, and life processes). **Ecologists** study the relationships among organisms and between organisms and their environments and the effects of influences such as population size, pollutants, rainfall, temperature, and altitude. **Soil Scientists** study soil characteristics, map soil types, and investigate responses of soil to determine its capabilities and productivity.

### Salary Information:

- Biochemists and Biophysicists  
\$88,450 Median Salary (U.S. Bureau of Labor Statistics, 2008)
  - Biological Scientists/All Other  
\$68,030 Median Salary (U.S. Bureau of Labor Statistics, 2008)
- [\*Salary varies based on education/advanced degree, work-experience & setting/location]

### Transfer Information:

- A Bachelor's degree is entry-level into many of these professions and a Master's/PhD may be required for some. Many with a Bachelor's degree in biology enter medical, dental, veterinary, or other health profession schools. Those who want to teach Biology/Science at public elementary, middle or secondary schools must have a teaching certificate in addition to a Bachelor's degree.

### Additional Information:

American Institute of Biological Sciences:  
[www.aibs.org/careers/index.html](http://www.aibs.org/careers/index.html)

