JOB FUTURES FOR GIRLS IN BIOLOGY

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Job Futures for Girls in BIOLOGY

Opportunities in BIOLOGY, like those in most of the other sciences, are expanding. For many years, women scientists and technicians have played an important role in this field of work.

So it's up to YOU to consider a career in the biological sciences—one that spurs your intellect, provides an opportunity for continuous learning, and permits you to add to basic knowledge, to help the sick, and in other ways to serve mankind.

WHY BE A BIOLOGIST?

Biologists are historians!

Those especially interested in the origin of life, study species which existed eons ago—to help unlock the secrets that still exist.

Biologists are modern detectives!

They search for clues and solutions to such puzzles as—

- Can new kinds of plant or animal food substances be developed to sustain the expanding population?
- Is there a key which will help us to understand better the process of heredity?
- What organisms can be utilized best to shed light on the health problems of man?

Biologists are futurists!

- Some are probing outer space to help prepare earth beings for conditions on other planets.
- Some are conducting research to learn about such things as the effects of radiation on various physiological functions, and how the use of radiation can be expanded in the diagnosis and treatment of diseases.
- Others are working on various aspects of the life of tomorrow, such as geriatrics—the science of aging, and eugenics—the improvement of the human race.

Some Outstanding Women Bioligists

Many have a Ph. D. degree, a husband and family, and are active in community affairs.

A two-woman team—a MYCOLOGIST and a BIOCHEMIST—in a State health department produced an antibiotic now manufactured by a national pharmaceutical company. It is used for treatment of certain fungus diseases.

Discoverer of the origin of cellulose, one woman BOTANIST retired from a high research post in a leading corporation to establish her own laboratories. She is continuing her work on the chemistry of plant cells and engages in university teaching.

A BIOLOGIST with a Ph. D. applied her science background to research on nutritional problems. For a quarter of a century, she was Dean of the College of Home Economics at an outstanding midwestern university.

A famous author of a nonfiction best seller on sea life has also utilized her writing and scientific talents for the Federal Government, working as a MARINE BIOLOGIST and science editor for a fish and wildlife agency.

BIOLOGISTS are . . .

scientists who study the structure and life cycle of all living things—as diverse a field as life itself!

ZOOLOGISTS

No species of the animal kingdom escapes their scrutiny—from the simple sponge to complex man.

Some zoologists work with invertebrates—animals without a backbone. *Entomologists* study insects; *Helminthologists,* worms; *Arachnidologists,* spiders.

Others work with vertebrates, the higher forms of animals. *Herpetologists* study reptiles and amphibians; *Ichthyologists,* fish; *Ornithologists,* birds; *Mammalogists,* mammals—including man.

BOTANISTS

All plant life commands the interest of botanists, from the simple algae to the time-bridging redwood. Greater knowledge of the differences and similarities of species can yield significant lessons for us.

Specialists focus on individual aspects or groupings of plants—*Bryologists* study mosses; *Mycologists,* fungi; *Pteridologists,* ferns; *Physiologists,* plant processes; *Pathologists,* diseases; *Anatomists,* plant form; and *Ecologists,* environment.

MICROBIOLOGISTS

These biologists concentrate on the invisible world, which includes bacteria and those plants and animals which can be seen only through a microscope.

Among the microbiologists are *Bacteriologists,* who investigate bacteria; *Protozoologists,* protozoa; and *Virologists,* viruses. Microbes are the object of attack or use by *Immunologists,* who develop vaccines, toxoids, and other biological products; by *Epidemiologists,* who help to control contagious diseases by testing milk, water, and food; and by *Dairy Bacteriologists* who are concerned with the production of cheese, butter, and yogurt.

Some biologists have other specialties . . .

Geneticists investigate the transmission of hereditary characteristics.

Morphologists study the structure of organisms.

Cytologists examine cells.

Histologists examine tissues.

Paleontologists concentrate on fossils.

Pharmacologists study the action of drugs.

Taxonomists engage in the identification and classification of organisms.

Some combine biology with another science, to qualify for jobs such as . . .

Bioastronauts
Biochemists
Biophysicists
Biomathematicians
Biometricians
Biostatisticians

What Do Women Biologists Do?

They engage in:

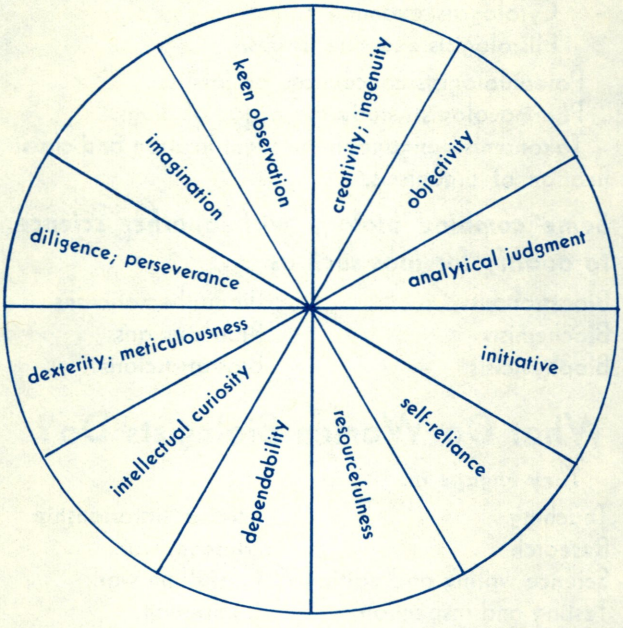
Teaching
Research
Science writing and editing
Testing and inspection
Science librarianship
Museum work
Consulting work
Computing

Where Do They Work?

If you prefer—	*You may seek a job with a—*
An academic life . .	High school, college, or university.
Public service	Federal Government agency or nonprofit organization devoted to basic research; or a regulatory branch of a Federal, State, or local government agency engaged in promoting the public health and welfare.
The field of medicine .	Hospital or medical laboratory.
Private industry . . .	Pharmaceutical firm, seed house, insecticide company, or food processing plant.
Museums	Botanical garden, aquarium, zoo, or general museum.
Communications . .	Publisher of scientific books, magazines, or illustrations; educational television; companies producing audiovisual aids.

How do YOU rate?

If you have all or most of these personal characteristics . . .



your chance of success in a career in the biological sciences is great . . .

PROVIDED that you strive for peak competence in your field by acquiring as much education and training as possible.

If learning about plants, animals, or medical developments excites your imagination

and

If it kindles your desire to experiment, to add to the basic knowledge of the world, or to contribute to the betterment of life, a challenging career in the Biological Sciences may be in store for YOU.

Plan your EDUCATION wisely—*and*

- Associate early with others interested or already working in this field.
- Join science clubs; visit museums, laboratories, and similar places where you may gain additional knowledge.
- Pursue science hobbies and experimentation on your own.
- Take courses in biology, chemistry, physics, and mathematics—in both high school and college.
- Seek a bachelor's degree in general biology or one of its branches.
- Plan ahead toward a graduate degree in some biology specialty.
- Continue reading current scientific journals for latest developments; attend professional society meetings and lectures.

For further information, consult Women's Bureau Bulletin 278, Careers for Women in the Biological Sciences. Copies of the bulletin may be obtained for 40 cents each, from the Superintendent of Documents, U.S. Government Printing Office, Washington 25, D.C. Check or money order, payable to the Superintendent of Documents, should accompany orders.

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