



Program 6

ANSWERS TO aFIELD NOTES

- A. Answers will vary for career surveys and interview questions.
- B. $GPA = 3.17$. assign values of $A = 4$, $B = 3$ and $C = 2$, then average.
- C. Resumes should include at least five components from the following list: vital statistics, career objective, education with grade point average (GPA), experience, past employment, professional organizations, awards, interests, research, publications and references.
- D. Hope's score is 89%.
- E. Fisheries Biologist Merit Test - (merit tests are usually multiple choice questions)
 1. False. Bluegill are rough fish that are not assigned specific size or creel limits.
 2. True
 3. True
 4. True
 5. False. The most common fish for pond stocking are largemouth bass, catfish, and bluegill. These fish are more suited to small, shallow-water habitats.
 6. False. The Kentucky spotted bass is Kentucky's official state fish.
 7. False. Rotenone depletes oxygen in the water causing fish to die. It is used before restocking fish to rid the pond of undesirable fish populations.
 8. True
 9. False. Multiply 120 bass by seven acres for a product of 840 fish.
 10. True
- F. The Fisheries Biologist Register will include however many people make the top five scores.

Wildlife-Related Careers

An Average Salary of 25,000 Bucks

PURPOSE

To introduce students to careers in wildlife-related fields.

KERA ACADEMIC EXPECTATIONS

1.1, 1.2, 1.3, 1.4, 1.11, 1.12, 2.15, 2.18, 2.19, 2.21, 2.26, 2.36, 2.37, 2.38, 3.4, 3.6, 4.6, 5.4, 6.1

OBJECTIVES

Students should be able to:

1. describe five careers related to wildlife
2. recognize factors to consider in selecting an occupation
3. develop a career plan

VOCABULARY

Teachers may wish to discuss the following terms:

bachelor's degree, career, ecology, public relations, resume and zoology.

aFIELD NOTEBOOK

Ideas for Teachers

- A. Before completing the section "Is a wildlife-related career for you?" discuss realistic salary scales, types of work schedules, and other work considerations. Have students create a budget of rent, utilities, etc. to determine the minimum salary level needed to continue at their current quality of life.
- B. Interviewing and shadowing techniques improve your students' communication skills and also create ties with members of your community. Keep these willing professionals in mind for other school functions, such as developing an outdoor classroom.
- C. Encourage your students to role play the KDFWR professions. Students may debate possible solutions to these questions: If license sales decrease (KDFWR's main funding source) and government downsizing continues, which positions should be cut? Why?
- D. Start an environmental club at your school. Present awards to students with outstanding accomplishments or volunteer service. Students can include these awards on their resume.

DEMONSTRATORS

1. Create career “cards” of wildlife professionals in your community to trade with other students. For the front side of the card consider a photograph or a drawing of the careerist in action or a drawing. The back side of the card should contain facts about the career, such as educational requirements, salary range, pros and cons of the job, and other related occupations.
2. Videotape case studies on why one selected wildlife-related career may suit the student or why wildlife-related careers do not match the student’s interests and abilities.
3. Write an analytical report on why wildlife-related careers will or will not be needed in the future.

WILD THINGS FOR TEACHERS

Do you have a lesson plan that you would like to see published? State agencies are often looking for teachers to develop activity guides that are specific to local, regional or statewide topics. The Kentucky Environmental Education Council will be awarding twenty prizes of \$100 each to teachers submitting winning entries about Earth Day or Arbor Day by January 10, 1997. Call 1-800-882-5271 for details.

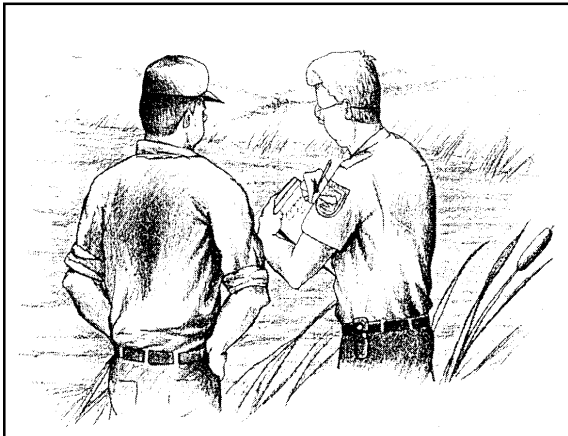
Or perhaps you would be interested in working on the next *Kentucky Afield for Kids* curriculum guide? Drop us a line at KDFWR, #1 Game Farm Road, Frankfort, KY 40601. ATTN.: N. Theiss.

RECOMMENDED RESOURCES

- * “*Careers with the Kentucky Department of Fish and Wildlife Resources*” brochure. KDFWR, Frankfort, KY.
- * Higginson, Mel, *Scientists Who Study Wild Animals*, The Rourke Corporation, Inc., Vero Beach, FL, 1994.
- * Shorto, Russell, *Careers for Animal Lovers*, The Millbrook Press, Brookfield, CT, 1992.
- * Szipiera, Paul P., *I can be a Biologist*, Children’s Press, Chicago, 1992.

ADDITIONAL ACTIVITIES

- * Project Learning Tree activities “400-Acre Wood,” “Make Your Own Paper” and “Who Works in This Forest?”
- * Project WILD activities “Checks and Balances,” “History of Wildlife Management” and “Wildwork”



ME AND MY SHADOW

List wildlife-related professionals that work in your county. Be sure to include 4-H leaders, farmers, meat processors, veterinarians, foresters, animal control agents, wildlife organization leaders, wildlife artists and wildlife rehabilitators. Contact individuals that may talk to your class or allow students to “shadow” them for part of a day. Students should interview the wildlife-related professionals and write papers describing the advantages and disadvantages of the occupations.



aFIELD NOTES

A. Answer the following questions based on your personal goals and desires.

1. Where would you like to work?
 indoors outdoors
2. Would you prefer to work with ...
 living organisms
 inanimate objects?
3. Which work schedule best fits you?
 routine, Monday - Friday,
8:00 a.m. - 4:30 p.m.
 flexible, days and nights, holidays
and weekends
4. Would you like the personal satisfaction
that your work will make a real difference
for generations to come?
 yes no

Rank these work considerations from 1 = most important to 6 = least important to you.

- salary
- work schedule
- location
- team vs. individual projects
- work duties
- opportunity for advancement

Wildlife-Related Careers

An Average Salary of 25,000 Bucks

IS A WILDLIFE-RELATED CAREER FOR YOU?

Choosing a **career** is an important decision. Really knowing yourself is the key. What are your likes and dislikes? What are your strengths and weaknesses? How would you prioritize **salary**, work schedule, location, interaction with other people, and work duties? For example, some people may not be as picky about what they do, as long as they make a lot of money. Aptitude tests and career surveys can help you select an occupation.

There are no right or wrong answers to survey questions. However, if you checked working outdoors, with living organisms, a varied schedule and making a real difference for future generations, than a “green” occupation may be for you. Environmental jobs are among the fastest growing field of occupations. Examples of environmental professions include wildlife biologist, forester, fish hatchery manager, conservation educator and law enforcement officer.

COLLECTING MORE INFORMATION

Collecting more information is essential not only to making a career choice, but also to obtain employment. Research may involve reading the newspaper’s classified ads, requesting brochures from business’ personnel departments, or visiting an employment agency. Interviewing people with wildlife-related jobs in your community is a good method of gathering data too. An interview may include these questions:

- What is a typical day like?
- What percentage of the time do you work with plants and animals, other people and technical equipment?
- What are the most rewarding aspects of your job?
- What do you dislike about your job?
- What is the average salary range to expect in this occupation?
- What education is needed for your position?
- Which courses would be helpful?
- Would you recommend a school that specializes in your field?
- What behaviors/skills are required for you to be evaluated as a safe, good worker?
- Are you a member of any professional organizations?
- What advice would you give young people about becoming a wildlife careerist?

WILD JOB DESCRIPTIONS

Many wildlife-related professionals work for government agencies. Job descriptions of wildlife professionals employed by the Kentucky Department of Fish and Wildlife Resources (KDFWR) follow. These positions require the minimum of a **bachelor's degree** in biology, **zoology**, resource conservation, forestry, **ecology**, recreation, law enforcement or a related field. Salary levels range from \$20,000-\$35,000 per year.

WILDLIFE BIOLOGISTS

Wildlife biologists devise methods of **surveying** animal populations, collect age and growth information on species like grouse at field check stations, and write detailed reports about their findings. Banding geese and encouraging hunters to return deer jaws are ways biologists collect information. They also assist landowners with improving habitat for desired wildlife and manage wildlife on public lands. Planting food sources, like persimmons, and using electric fences are ways farmers can help wildlife while preventing crop damage. Other duties of wildlife biologists include coordinating restoration projects to return animals of special concern back to the wild. Current projects include river otter, turkey and peregrine falcon releases.

FORESTERS

Typical duties of foresters are surveying land, measuring and grading trees, planting trees, supervising logging operations, laying out road and trail systems, identifying pest problems, and fighting wildfires. Foresters attempt to balance the need for wood products with other forest uses. With an increased demand for pine building materials, foresters may plant pine plantations which also provide seeds, homes and breeding grounds for endangered species like the red-cockaded woodpecker. Additionally, foresters manage wooded lands for coal and other useful minerals, maintaining water quality, recreational uses and wildlife habitat.

FISH HATCHERY MANAGERS

Like farmers, hatchery managers spend much time outside growing and harvesting their crop. Hatchery managers build ponds, fertilize waters to encourage growth of plankton as food for young fish, and feed older fish with pellets. They select **brood** stock, collect fish eggs and monitor fish growth. Fish of various sizes are loaded onto trucks to stock private and public waters around the state.

CONSERVATION EDUCATORS

Making learners of all ages aware and knowledgeable about Kentucky's natural resources is the responsibility of the Conservation Educator. Educators present programs to schoolchildren, sports enthusiasts, teachers, resource agency personnel, landowners and the general public. Informational brochures, agency newsletters and magazines, use of radio and television spots plus traditional speaking engagements are used as educational methods. Each year, conservation educators expose literally thousands of Kentuckians to concepts like **sustainable resource management**, **biodiversity** and ecosystems. Thus, citizens can make responsible decisions about wildlife and habitat.

LAW ENFORCEMENT OFFICERS

Conservation officers and water patrol officers go through extensive training to enforce state and federal laws. These law enforcement officers specialize in outdoor recreation and environmental-related activities. Fish and wildlife officers may investigate **poaching** and **trespassing** complaints, fish kills, illegal substances grown on public lands and unsafe boating operation. The conservation officer is the Department of Fish and Wildlife Resources to the people of his or her county. Officers' duties also involve maintaining good **public relations**, speaking to special interest groups, working closely with biologists, helping landowners remove **nuisance** wildlife and stocking fish in farm ponds.



Hope F. Ulangler

12 Log Perch Way
Laketown, Kentucky

Career Objective: To obtain a fisheries biologist position and research **ichthyology**.

Education:

Laketown H.S. Diploma, 2003. 3.2/4.0 GPA
Kentucky State Univ., B.S. in **aquaculture**,
2007. 3.0/4.0 GPA
Univ. of Kentucky, M.S. in forestry, 2009.

Experience:

2005 - present Volunteer Instructor
Salato Wildlife Education Center
2008 Fisheries Biologist Intern
U.S. Fish & Wildlife Service, Alaska
Summers 2005-06 Forestry Technician
Daniel Boone National Forest, KY
Summers 2003-2004 Frankfort Fish Hatchery
KY Dept. of Fish & Wildlife Resources
Summers 2000-2002 Worker
Love's Fish Farm

Professional Organizations/Membership:

American Fisheries Society
Student Conservation Association
✓ Trout Unlimited Junior Member
✓ Scouts of America
✓ Bass County 4-H

Awards:

2000 High School Conservationist of the Year
League of Kentucky Sportsmen

References: Dr. Sal Mon

THE NEXT STEP

Hope loves to be outdoors. Catching a twelve-pound trout, on a woolly bugger fly that she tied, has inspired Hope to become a fisheries biologist. Her favorite school subjects are math and science. She is genuinely concerned about the environment and wants to do her part to ensure **angling** opportunities for the future.

After speaking with the director of Trout Unlimited (a nonprofit organization dedicated to the conservation of trout, coldwater stream habitat and flyfishing), Hope learned that there are a limited number of fisheries biologists' jobs. She wants to start planning her career now. Perhaps, then, she will have an edge over her competition.


Hope has set high goals for herself. Someday, she wants her **resume** to look like the sample one. For now, she continues checking off her accomplishments.

C. How would you like your resume to read?

B. If Hope receives 2 A's, 3 B's and 1 C on her report card, what would be her grade point average? _____

D. When Hope took the Fisheries Biologist Test, she answered 58 out of 65 questions correctly. What was her percentage score?

How would she rank against your classmates?

F. Fisheries Biologist Register		
SCORE	NAME	

BECOMING A STATE EMPLOYEE

After completing their educational requirements, prospective state employees must take a certification test. Test scores of all applicants, willing to move to the county where a vacancy occurs, are ranked. The top five scores appear on a register. State agencies contact these top-rated applicants for job interviews. Ultimately, an individual is selected and offered a position. Take the certification test below. Compare your score to your classmates. Whose names would appear on the fisheries biologist register?

E. FISHERIES BIOLOGIST - CLASSIFICATION KAFK

True False

- ____ ____ 1. Bluegills are considered game fish.
- ____ ____ 2. Fishing regulations protect aquatic organisms from becoming overharvested.
- ____ ____ 3. A fish's age can be determined by counting the number of rings on its scale.
- ____ ____ 4. Limestone fertilizer promotes the growth of algae and plankton in a pond.
- ____ ____ 5. The most common fish for pond stocking are rainbow trout, crappie and dace.
- ____ ____ 6. The rainbow darter is Kentucky's official state fish.
- ____ ____ 7. Rotenone is used to encourage fish growth.
- ____ ____ 8. Nonnative fish usually disturb the balance of an ecosystem.
- ____ ____ 9. If 120 largemouth bass should be stocked per acre, than 960 bass should be stocked in a 7-acre pond.
- ____ ____ 10. Fish attractors may be made from discarded Christmas trees.

SUMMING IT UP

Environmental professionals may work for government agencies or private businesses. Many wildlife-related careers have interesting titles, such as zoo keeper, marine mammal trainer, pet shop owner, snake handler, conservation lobbyist and bass pro angler.

To be successful, these people deal with constant challenges, work as a team and problem-solve every day. Many "green" positions require a college degree or training along with good communication skills. Strategies for entering environmental fields involve understanding your own values and skills, keeping up on current issues and **networking**. Volunteer work and internships are also successful methods of becoming a "green" professional.