

TRAINING OPPORTUNITIES IN FISHERY AND WILDLIFE MANAGEMENT

FOR

FOREIGN NATIONALS

WITH THE

BUREAU OF SPORT FISHERIES AND WILDLIFE

September 4, 1969

The Bureau of Sport Fisheries and Wildlife is the principal agency of the United States Government involved in active fish and wildlife management. It conducts research on wildlife; is responsible for protecting migratory birds and developing regulations relating to their utilization, protection, and management; and administers a nationwide system of over 300 wildlife refuges covering more than 29 million acres. Habitat for big game; upland and migratory birds, and endangered wildlife is provided on lands managed by the Bureau.

The Bureau operates nearly 100 hatcheries where it raises salmon, trout, striped bass, catfish and other warm water fish. It conducts research on reservoirs, marine and game fishes, fish culture, nutrition and diseases of fish and on the effects of pesticides on fish and provides advice on the development and management of sport fishery resources to other governmental agencies.

Each year the Bureau conducts numerous courses in various aspects of fish and wildlife management and administration for its employees and others who are qualified. These last from one or more weeks to ten and one half months. There is no charge for the courses but students, other than Bureau employees, must provide their own transportation, living and personal expenses. Participation by foreign visitors is welcomed. Foreign biologists and technicians are welcome to accompany Bureau personnel during routine fieldwork and work in Bureau laboratories, again at no cost except for their personal expenses.

Courses of instruction and fieldwork are carried out by several divisions within the Bureau. On-the-job field training is available in fishery management, waterfowl management, and the management of big game.

Wildlife Management

Big game animals found on Bureau lands include pronghorn antelope, bison, elk, deer, mountain sheep and bear. Training is available in mountainous, prairie, and semi-desert areas from the tropics to the arctic. Game management experience on Bureau lands can include opportunities to help in surveys of wild populations, band (ring) and mark birds and mammals, study the use made of various habitat types by wildlife, and apply measures to improve habitat by timber management, soil and moisture practices, controlling vegetation or developing water supplies in dry areas. There are opportunities for learning wildlife law enforcement techniques and measures for controlling predators, rodents, and damaging birds. Irrigation and dam construction may damage wildlife habitat or provide opportunities to improve it. It may be possible to arrange for interested visitors to accompany crews studying damsites and water development schemes. Experienced personnel can learn Bureau techniques for evaluating research projects.

Fishery Research and Management

Foreign scientists can gain experience and conduct research at Bureau laboratories, hatcheries, and research stations scattered across the country. In addition to fish hatchery operations and experience with field and pond surveys, foreign scientists and technicians can secure training and experience in the following fields:

1. Marine biology: Sandy Hook Marine Laboratory where a broad research program is underway.

2. Reservoir research: Fayetteville, Ark., if the interest is in large warmwater reservoirs; Yankton, S.D., if the interest is in colder water reservoirs.
3. Effects of pesticides: Fish-Pesticide Research Laboratory, Columbia, Mo. Toxicological, pathological and ecological effects of pesticides on aquatic life.
4. Control of fish populations: Fish Control Laboratory, La Crosse, Wis. Development of methods for controlling fish to renovate out-of-balance fishing waters.
5. Warmwater fish culture: Fish Farming Experimental Station, Stuttgart, Ark. Study of nutrition, diseases, and pond management for warmwater fishes.
6. Fish nutrition: Western Fish Nutrition Laboratory, Cook, Wash. Nutritional requirements, physiology, toxicology and histopathology of salmonids.
7. Fish Disease: Eastern and Western Fish Disease Laboratories, Leetown, W. Va., and Seattle, Wash. Diagnosis, control and prevention of salmonid diseases.
8. Fish genetics: Fish Genetics Laboratory, Beulah, Wyo. Genetics and selective breeding of salmonids.

TITLE: Using Explosives to Improve Wetlands

LENGTH: 3 days

LOCATION: Variable--at a national wildlife refuge

DESCRIPTION: Some kinds of ammonium nitrate fertilizer in pellets can be used as an explosive. It is cheaper than dynamite. The course is designed to teach the principles of using ammonium nitrate to improve marsh conditions and to give practical experience in blasting.

DATE: One or more per year

SPACE AVAILABLE: Five to ten students

TITLE: Wildlife Law Enforcement Techniques

LENGTH: 4 Days

LOCATION: Location varies depending on need throughout the United States

DESCRIPTION: Through lectures, demonstration, and role-playing exercises, modern basic legal principles and practical law enforcement techniques are studied. Attention is directed to enforcement of Federal laws and regulations concerning the protection of wildlife and National Wildlife Refuges. The course is designed to keep seasoned officers abreast of the changes in criminal law and procedure, as well as provide a minimum of basic training for the new enforcement officer.

DATE: Several sessions are held each year as the need develops, but there is no formal schedule, application form, or nomination deadline.

SPACE AVAILABLE: In each session there is usually room for up to four additional students on relatively short notice.

TITLE: Basic Wildlife Refuge Management

LENGTH: 4 Weeks

LOCATION: Arden Hills, Minnesota (North Central U.S.)

DESCRIPTION: To develop a basic knowledge and understanding of wildlife refuge objectives, philosophies, policies, organization, administration, and operating programs.

DATE: Yearly, in the spring. Nominations should be submitted before the end of February

SPACE

AVAILABLE: Five students

TITLE: Methods of Capturing Migratory Birds for
Banding (Ringing)

LENGTH: 5 Days

LOCATION: Variable at a national wildlife refuge

DESCRIPTION: Principles behind the banding of migratory
birds and practical experience in both
trapping and banding migratory birds

DATE: Workshops usually conducted every year.

SPACE

AVAILABLE: Five to ten students

TITLE: Personnel Supervision and Advanced Refuge Management

LENGTH: 3 Weeks

LOCATION: Arden Hills, Minnesota (North Central U.S.)

DESCRIPTION: Principles and practices of personnel supervision and up-to-date, modern management practices for experienced refuge project leaders.

DATE: Yearly, in the spring. Nominations should be submitted before the end of February

SPACE

AVAILABLE: Five students

TITLE: Fire Fighting in Wild Areas

LENGTH: 2 Weeks

LOCATION: Variable--throughout the United States

DESCRIPTION: Covers fire behavior, prevention, and fire fighting in various situations and types of terrain. Of interest to personnel responsible for managing forest and grassland areas.

DATE: Yearly, usually last of February

SPACE

AVAILABLE: Two to three students

TITLE: Fish Pathology

LENGTH: 5 Months

LOCATION: Eastern Fish Disease Laboratory, Leetown, W. VA.

DESCRIPTION: The specialty of this school is fish pathology, and the training is intended primarily for Bureau employees who will eventually serve as Hatchery Biologists in the National Fish Hatchery System.

DATE: Course offered starting September 1 of even years. Nominations should be submitted before the end of April of the even years.

SPACE
AVAILABLE: 3 or 4 foreign trainees.

TITLE: Fish Disease Workshop

LENGTH: 2 Weeks

LOCATION: Eastern Fish Disease Laboratory, Leetown, W. VA.

DESCRIPTION: Intensive study of fish diseases through lectures, seminars, films, speakers, and individual projects.

DATE: Classes to be held in late winter each year.

Nominations should be submitted before November 15 every year.

SPACE
AVAILABLE: 4 or 5 foreign trainees

TITLE: Husbandry of Warm-water Fishes

LENGTH: 10 $\frac{1}{2}$ Months

LOCATION: Marion National Fish Hatchery, Marion, Alabama.

DESCRIPTION: Provides training in advanced warm-water fish culture, studies in pond limnology, pond construction, fish diseases, life in water, environmental modifications, aquatic plant taxonomy, life histories of important warm-water species, and management of ponds for sport fishing.

DATE: Classes held starting September 1 each year.
Nominations should be submitted before April 1 every year.

SPACE AVAILABLE: 1 or 2 foreign trainees

TITLE: Husbandry of Cold-water Fish

LENGTH: 9 $\frac{1}{2}$ Months

LOCATION: Spearfish Fisheries Center, Spearfish National
Fish Hatchery, Spearfish, South Dakota.

DESCRIPTION: Provides training, through lectures, seminars,
films, speakers, and individual projects, in
cold-water fish husbandry with emphasis on fish
nutrition.

DATE: Classes held starting September 1 each year.
Nominations should be submitted before April 1
every year.

SPACE
AVAILABLE: 1 or 2 foreign trainees.

TITLE: Wildlife Management Practices

LENGTH: One or more weeks.

LOCATION: One or more of the nearly 400 field offices engaged in wildlife management throughout the United States.

DESCRIPTION: By accompanying the Bureau's wildlife refuge managers and biologists, wildlife law enforcement agents or animal damage control specialists, the observer can see at first hand and participate in techniques employed in managing wildlife populations and improving habitats. Among the subjects which could be studied would be wildlife census methods, techniques for reducing damage to crops by birds and rodents, trapping and poisoning of predatory mammals, improving habitat for waterfowl, big game and upland game, and enforcement of game laws.

DATE: Can be arranged throughout the year. Some aspects of work are conducted only during certain seasons.

SPACE AVAILABLE: Two students per field station at one time.

TITLE: Fishery Management Practices

LENGTH: One week.

LOCATION: One or more of the 20 fishery management field stations throughout the United States.

DESCRIPTION: By accompanying the Bureau's fishery management biologists the observer can see at firsthand techniques employed in sampling fish populations and in improving fish habitats. The use of chemicals in fish population control or in control of aquatic plants can be seen, as well as fish marking and stocking procedures. The actual conduct of a management program on an Indian Reservation or other suitable area can be observed.

DATE: Can be arranged from April through October.

SPACE AVAILABLE: Two students per team with not more than one group in a region at one time.

TITLE: Training of Fishery and Wildlife Scientists

LENGTH: Two weeks.

LOCATION: At any of the 23 cooperative fishery units and 18 cooperative wildlife units.

DESCRIPTION: The Bureau in cooperation with State fish and wildlife agencies, State universities and other organizations directs the training of fishery and wildlife scientists at universities located throughout the United States. The visitor can observe the program developed for training of fishery and wildlife scientists in one or more of the 23 fishery units and 18 wildlife units. There would be an opportunity to visit classes in fishery and wildlife science, observe graduate students conducting research, and to participate in seminars. Visitors could select the units which specialize in the type of habitats and projects in which they are especially interested.

DATE: October through May.

SPACE AVAILABLE: Two visitors could be accommodated at a unit, preferably with not more than one group per region at one time.

In order for the Bureau of Sport Fisheries and Wildlife to plan an interesting and profitable training schedule for you, it will be necessary to give us a brief biographical sketch, the time you have available, subjects of major interest, and any other items you feel are important.

For any additional information write to:

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