

BIOLOGY LABORATORIES

By "The Old Fossil"

At Lane Tech, Chicago

Zoos. The biology class with a good zoo at its disposal for visitation is fortunate. Students in so fortunate a class have an opportunity to obtain information regarding animals which can not be obtained by any other method. A trip to a zoo is an adventure; an intercontinental experience. Students will find generically related animals from several continents housed side by side. Concurrently they learn zoological taxonomy and nutrition; and geographical distribution and habitat. An experience my classes will never forget took place at Lincoln Park Zoo, in the Reptile House. They watched a snake about three feet long while it captured, ate, and swallowed a pine lizard. The earliest public zoo on record was established in Paris in 1793. However, they fed Christians to the lions in ancient Rome so there must have been a semblance of a zoo at that time. The first zoo in the United States was located at Philadelphia, in 1874. Today there are about thirty-five major zoos and a number of smaller ones. All large zoos maintain a fully equipped hospital to care for the ills of their animals. These are staffed not only with full-time attendants, but also with veterinarian, physicians and surgeons. Dietetic specialists supervise the preparation of food for each animal according to its needs. Attendants report zebras are the most troublesome animals. Giraffes easily get their necks broken, so must be housed and handled carefully.

CREATING INTEREST IN DOGS and other pets. Science classes in elementary schools, to create an interest in pets, could take a popularity poll of them in the class or school or even in the community. If the poll is taken about dogs the findings of the American Kennel Club will be of interest. They report that the top ten dog favorites are: 1. cocker spaniel, 2. beagle hound (evolved from cross breeding small foxhounds), 3. collie, 4. boxer, 5. Boston terrier (a medium between bulldog and terrier developed in Boston about 1800), 6. dachshund, 7. Pekingese, 8. English

Springer spaniel, 9. Mexican (hairless) Chihuahua, 10. German shepherd (police dog). Another elementary school activity is the pet parade. It is quite a popular project adopted by summer camps. The junior member of the firm took a first prize with her pet hamster in a pet parade in her summer camp.

THE TALLEST, LARGEST, and perhaps the oldest living thing is the "Founders' Tree" located in the Redwood Empire north of San Francisco. It is 364 feet high. . . . In this same county is the only whaling station on the North American continent. . . . Only the finest of Angora goat wool produced in the Turkish province of Anatolia is used for oriental rugs. . . . If you are doing a research problem in biology the 150-year-old Library of Congress houses nearly thirty million items of value, which are at your disposal. . . . Microscopic examination of cotton cloth woven about 3000 B.C. reveals no great discrepancy in that and the fibers of today. . . . Wheat seed found in the tombs of Egypt did not germinate as has been falsely rumored. Wheat has been known to have been cultivated in the "Fertile Crescent" nearly ten thousand years ago.

AN "ELLIS ISLAND" FOR ANIMALS. All animals imported into the United States are detained for a period at the United States Quarantine Station. This is a fifty-two-acre tract in Athenia, New Jersey, founded in 1900. This detention applies to all animals imported for exhibition, breeding, or commercial use or to replenish herds on dairy and other farms. Animals are held for a minimum of fifteen days. Cattle and swine are held for the maximum limit of thirty days. They may harbor highly infectious diseases and this double precaution is practiced. The mongoose, for apparent security reasons, is turned back at the station. It is not even permitted to be exhibited in zoos. The best a zoo can do is to display a taxidermic specimen. In 1880 a shipment of European cattle brought into the United States an epidemic of pleuropneumonia. This resulted in millions of dollars worth of damage to cattle herds in this country. Congress enacted laws which resulted in the establishment of the present station. The personnel

are carefully decontaminated every time they leave the station. For the same significant reason visitors are not welcome at any time.

CHICAGO PARK DISTRICT. During the war about a fifth of my students secured employment with the Chicago Park District during the summer months. The CPD at that time was in need of biologically minded boys. Since trained personnel is hard to get, CPD holds inservice training for its employees. I still place an occasional graduate with them. To get an idea of the CPD, there are seven thousand acres in 150 parks. These are landscaped and most have one or more field houses on them. Annually they use 25,000 pounds of grass seed. In their greenhouses they grow approximately 200,000 seedlings and propagate 250,000 cuttings each year, besides the thousands of bulb plants and perennials they have on hand. These are boosted with 150 tons of fertilizer. If you are contemplating a visit to Chicago write to my good friend Fred. G. Heuchling, Director of Publicity, Burnham Park Building, Chicago Park District, Chicago, for points of interest to visit in the District areas. If you contemplate bringing your classes by bus, train, or auto, write to him ahead of time. He will furnish you with a trained guide at any park for a conducted tour; it will be free. It is not uncommon to see groups of students from colleges and other schools as far away as three hundred miles.

How to STUDY, the pamphlet mentioned in the April 1950 issue, brought forth comment. Mrs. Mary E. Clark of Missouri: "All students need help along this line." Miss Elizabeth Dunlap of Lexington, Virginia: "I was interested in your paragraph on the first week of school in your biology course. I wish you would develop this theme further in an early issue of the Journal." (With the permission of the editor I will do that soon.) S. M. Pattee, of Cedar Rapids: "I would like to develop a 'How to Become a Better Reader' sheet to be handed to some of our poor readers." If you have any ideas about this write to S.M. at Roosevelt High School, Cedar Rapids, Iowa; or the Old Fossil will clear it for you.

SCHOOL GREENHOUSE. Mr. Ivory C. Mann-

ing of Mississippi has a daily program divided between chemistry and biology. In addition he has charge of the school greenhouse. He was interested in the method of placing it in charge of third semester boys for maintenance. Boys not planning on going to college, if they bring a written request from their parents, are permitted to take a third and fourth semester of biology. They maintain the greenhouse at a professional standard of excellence.

WRITE DR. GILBERT O. RAASCH, Illinois State Geological Survey, Urbana, Illinois, for *Aids to Schools and Teachers*. This has some attractive titles for you to choose from. He is head of Educational Extension Division. These aids are in mimeographed form.

THE OLD FOSSIL is still buried in the mid-century cultural debree of 1950. If you would like to unearth him for any reason, get out a three-cent postage pick and shovel and let the federal post filter it thru to 5061 North Saint Louis Avenue, Chicago, 25.

REVIEWS

NIXON, ALFRED F. *Teaching Biology for Appreciation*. 1st ed. Chapman and Grimes, Boston. 143 pp. + index. illus. 1949. \$3.00.

Teachers of biology will find in this authoritative book a valid foundation philosophy, and numerous techniques and activities, for integrations which biology can and should make with other subject-matter areas. Teachers of the fine arts, industrial arts, music, literature, and the social studies will also find suggestions for correlating their course work with the sciences. The first four chapters are devoted to a justification of teaching the sciences for appreciation, and present evidence that the sciences in general and biology in particular can be made functional and emotionally appealing to the non-specialist aside from factual knowledge, problem-solving techniques, and the inculcation of scientific attitudes. The remaining three chapters suggest aims, attitudes, materials, and techniques which may aid teachers of biology in developing appreciation through art, literature, and the social studies.

Some parts of the text matter imply that