WILDLIFE RESOURCES

WITH the signing of an agreement by state agencies in Ohio, nine states are now cooperating with the U. S. Bureau of Biological Survey in investigations to learn how to increase, maintain and use wildlife resources, and to show on trial areas how facts found in research can be applied in a practical manner. In addition to Ohio the cooperating states are: Alabama, Connecticut, Iowa, Maine, Oregon, Texas, Utah and Virginia.

Several other states sought to take part in the research program, but available funds limited the quota to nine. These were selected with a view to carrying on research on a regional basis with as little duplication as practicable. Each state program is arranged so that the practical information obtained may be applied in a large area.

Advisory committees of representatives of the Biological Survey, land grant colleges and state game departments administer the work and funds. Project leaders selected by the bureau and states direct the active work at the land grant colleges.

Major studies under way thus far at the college stations and project leaders are: mourning dove, Alabama Polytechnic Institute, Auburn, Ala., H. S. Peters; eastern cottontail rabbit, Connecticut Agricultural College, Storrs, Conn., Dr. Paul D. Dalke; muskrat, midwestern cottontail rabbit, and coot, Iowa State College, Ames, Ia., Logan J. Bennett; woodcock and moose, University of Maine, Orono, Me., C. M. Aldous; raccoon, gray squirrel and fox squirrel, Ohio State University, Columbus, Ohio; project leader not yet appointed; antelope and possibly blue grouse, Oregon Agricultural College, Corvallis, Ore., Arthur S. Einarsen; western bobwhite quail and western turkey, Texas A. & M. College, College Station, Texas, Dr. W. P. Taylor; mule deer and sage grouse, Utah State Agricultural College, Logan, Utah, Dr. D. I. Rasmussen; and wild turkey, Virginia Polytechnic Institute, Blacksburg, Va., C. O. Handley.

"Each year the money paid to trappers, and that spent by sportsmen and others directly interested in wildlife runs well over a half billion dollars," says Dr. W. B. Bell, chief of the division of wildlife research of the bureau. "Yet very little has been done," he says, "to systematize this industry through careful management. It is the ultimate aim in this research program to find out not only what can be done to produce more wildlife, but how it can be done on a practical land use basis."

One or more trial demonstration areas are being set up at each station in order to work out a complete life history and management practice for one or more particular fur, game or other wildlife species. Most of these areas will be established on land of private owners cooperating with the research projects and in state and national forests. Summaries of the state programs may be obtained by writing the bureau for leaflet, BS-38.

Funds to maintain the research stations come from the Biological Survey, the American Wildlife Institute and the colleges and game departments of states in which the stations are located.

NATURAL SCIENCE MUSEUMS AT DALLAS

The Museum News reports that three natural science institutions, costing more than half a million dollars, are being constructed on the grounds of the Texas Centennial Exposition in Dallas, which will be open from June 6 to November 29. They are the Museum of Natural History, the Museum of Horticulture and the Aquarium, all financed by the City of Dallas, as a contribution to the exposition and as permanent educational institutions.

The Museum of Natural History is 96 by 140 feet in ground dimensions and two stories high. It is of structural steel framework, faced with native Texas limestone. Texas marble is used for carved cornice and trim. On the first floor will be displayed habitat groups covering the full range of Texas animal, bird and reptile life, prepared by J. H. Wood, of Ann Arbor; W. A. Mayer, of Dallas, and Jonas Brothers, of Denver. Cases fourteen inches from the floor with view openings uniformly six feet in height are used. The cases range from nine feet deep and thirty feet wide downward. The backgrounds are by J. D. Figgins, formerly of the Colorado Museum of Natural History. On the second floor will be displayed mineral and geological material, mostly of Texas origin, gathered under the supervision of H. W. Law; also a display of photographic transparencies of Texas wildflowers in natural colors. In the basement is air-conditioning machinery for the operation of a system of temperature and humidity control, and space for workshops. The museum is under the direction of F. W. Miller, curator, with J. D. Figgins as assistant.

The aquarium is a concrete structure faced with cream-colored brick and is 150 by 70 feet. The building and equipment cost about $182,000. Skylights admit the maximum of sunlight through glass of a special type which passes a major portion of the ultraviolet rays. Water circulation is by electric pumps to gravity-feed tanks. The display facilities include eight tanks of 2,000 gallons capacity, four of 3,000 gallons, eighteen major and twenty-four balanced display tanks —all for fresh-water species; also four small tanks for salt water species, chiefly from the Gulf of Mexico off the Texas coast. The collection of tropical fishes comprises about 75 species. Pierre A. Fontaine, of Dallas, is aquarist in charge.

The Museum of Horticulture is of steel and cream

brick, metal sashed, with ultra-violet glass. It is 174 by 170 feet in ground dimensions and cost $125,000. It is equipped with the newest devices for regulation of temperature and humidity. By careful culture and adjustment of temperature a representative group of the best known Texas wildflowers will be kept in blossom in the building throughout the exposition period. The bluebonnet, official state flower of Texas, which ordinarily ceases blooming early in summer, will be kept in bloom until much later in the season. The features of the display in this building are the wildflower beds and the collection of desert plants, including many species of cacti, yucca, agaves and the thorny shrubs of the Big Bend country.

These three buildings, with the half-million dollar art museum also to be built by the city on the exposition grounds, will form a permanent civic center.

GIFT TO THE JOHN SIMON GUGGENHEIM MEMORIAL FOUNDATION

ANNOUNCEMENT of a gift of securities having a present market value of more than one million dollars, by former United States Senator and Mrs. Simon Guggenheim to enable the John Simon Guggenheim Memorial Foundation "to realize in larger measure the object of its creation," was made on May 11. With this third donation by Senator and Mrs. Guggenheim the capital fund of the foundation, wholly given by them, now stands at more than $6,000,000. The foundation is a memorial to a son of the founders, John Simon Guggenheim, who died on April 26, 1922. The foundation's income is devoted to providing opportunities for men and women of high ability to further their work, and the assistance is available, within the limits of the foundation's income, to scholars working in any field of knowledge and to artists working in any branch of the arts, including poets, novelists, essayists, sculptors, painters, etchers, composers of music and others.

In making this donation Senator and Mrs. Guggenheim conveyed to the Board of Trustees of the Foundation their "deep satisfaction with the truly notable results" which have been realized by the foundation in the eleven years since its establishment. Their first donation to the foundation was made in 1925 and four years later, in 1929, they increased the endowment to permit the establishment of Latin American Exchange Fellowships. Senator Guggenheim's letter to the trustees, written upon the occasion of making this new endowment, reads:

> In following the course of the foundation during the intervening years, we have observed with deep satisfaction the truly notable results which, even in so short a period have been realized by a faithful adherence to the basic purpose announced in the charter, of promoting "the advancement and diffusion of knowledge and understanding and the appreciation of beauty, by aiding without distinction on account of race, color or creed, scholars, scientists and artists of either sex in the prosecution of their labors." We have watched with growing interest the undertakings of the fellows of the foundation in their chosen fields, and have rejoiced in their successes and achievements. Those achievements, and the manner in which they have been acclaimed, would seem already to have proved the essential worth and soundness of the plan adopted. Two things, however, have convinced us of the intrinsic value of the foundation and of its worthiness to endure; first, the number and quality of those who apply to it for aid, and the variety and importance of the projects to which they devote their talents; and, second, the endorsement of the aims of the foundation evidenced by the willingness with which men and women of the highest distinction among the representatives of learning, art and letters have served on its Advisory Board and on its Committees of Selection, freely giving of their time and thought whatever was required.
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> These considerations have moved us to make a third donation to the John Simon Guggenheim Memorial Foundation in furtherance of its purpose. This we now do in the hope that the foundation will thereby be enabled in the future to accomplish greater good to greater numbers, and so realize in larger measure the object of its creation.

In its first eleven years the foundation has made 688 grants, carrying appropriations of more than $1,400,000. Of these 688 grants, 48 were made to citizens of Argentina, Chile, Cuba, Mexico and to Puerto Ricans, on the Latin American Fellowship program of the foundation. The remaining 640 grants include 115 renewals of fellowships and were made to 525 persons. The Committees of Selection of the Foundation have considered 9,584 applications. Of the fellows appointed from the United States, the youngest at the date of his appointment was 22 years old, the oldest 65. The average age was 34.9 years. Classified according to place of birth, and considering only fellows born in the United States, it is shown that 213 were born in rural areas—that is, on farms or in villages of less than 5,000 population—and that 215 were born in centers of more than 5,000 population. The foundation has granted fellowships to more than twice as many persons to assist research as to assist creative work in the arts. Three hundred and sixty scholars have received research fellowships while the number granted to workers in various fields of the fine arts is 165. More fellowships have been granted to assist research in the biological sciences, including medicine, than in any other field.