

laboratories may be looked upon as field work of a somewhat permanent type. The courses are credited at the University of Chicago, although not formally under its charge.

Besides the local field work in connection with residence courses in botany, zoology and geology, field work during the past summer has been conducted at a distance from the University by the departments of geology and botany.

I. GEOLOGY.

1. A course in elementary field geology was given by Mr. R. D. George for four weeks of the second term of the summer quarter, the remainder of the term being devoted to the preparation of a report on the field work. A party of eleven traversed a region in the Mississippi valley between Prairie du Chien, Wis., and Muscatine, Ia. They devoted themselves to a study of (*a*) Paleozoic strata and fossils, (*b*) the topographic features of the driftless area in Iowa and Wisconsin, (*c*) the stratified drift of the valleys, (*d*) the loess, and (*e*) the lead and zinc deposits of the Dubuque region.

2. Professor R. D. Salisbury is in charge of several parties in Montana, Idaho and Utah. These parties consist of advanced students and are working somewhat independently, Professor Salisbury visiting the different parties at intervals and making suggestions regarding the work. A party of two is at Kipp, Mont., a second party of two at Kalispell, Mont. These two parties are investigating the phenomena of local glaciation in the Rocky mountains. Another party of two is at work in the Santa Fé mountains of New Mexico, studying their structural and stratigraphic features. A party of six, under the immediate direction of Mr. W. W. Atwood, is at work on the Wahsatch mountains, studying similar problems.

BOTANY.

1. A party of eight, under the direction of Mr. S. M. Coulter, of Washington University, spent the first part of the second term of the summer quarter at North Manitou Island, passing over later to the mainland in the vicinity of Petoskey and Charlevoix, studying the ecological relations of the flora in these regions. This work is essentially an examination of the way

in which plants associate themselves and an investigation of the determining factors of environment for each society.

2. Similar but more extended work has been undertaken by a party of eighteen in charge of Dr. H. C. Cowles. This party has a car on the Great Northern Railroad, and is stopping at various favorable localities through Montana and Washington. Two weeks were spent at Flat Head Lake, Montana, the site of the biological station of the University of Montana, whose facilities were put at the disposal of the party; another week was spent at Belton, Mont.; and other stops were made at Leavenworth and Seattle, Wash. This is the most extended field trip yet offered in the department of botany and has certainly presented unusual advantages to the students for a study of widely different floras under most varied climatic conditions.

NEW YORK BOTANICAL GARDEN.

THE Misses Olivia E. Phelps Stokes and Caroline Phelps Stokes have recently contributed the sum of \$3,200 to the Garden, of which \$200 is to be added to the Special Book Fund, the remainder is to constitute a fund, the income of which is to be devoted to the protection and preservation of native wild flowers. This will increase the effectiveness of the Garden in a very desirable direction, and enable it to do much in the promotion of a healthy public sentiment in the matter.

Dr. M. A. Howe, assistant curator, accompanied by Mr. William Lange, museum aid, and Mr. Clifton D. Howe, of the University of Chicago, made an exploration of Nova Scotia. Special attention was paid to the collection of marine algæ, of which several thousand specimens, preserved in fluid and dried condition were secured. About 8,000 sheets of herbarium specimens of land plants were secured. The exploration reached New York on September 9. The expenses of the expedition were chiefly defrayed from funds contributed by Mr. George W. Perkins, of the Board of Managers.

Dr. D. T. MacDougal, first assistant, spent a portion of the summer in Montana in cooperation with the biological expedition of the State University. Dr. MacDougal was accom-

panied by Mr. Wilson P. Harris, as voluntary assistant, and secured a large number of plants for the outdoor plantations, many kinds of seed for growing additional species and over 900 numbers of herbarium and museum specimens, collectively including more than 3,000 specimens. In addition to these, all the duplicates of the collections of the University of Montana were obtained. Attention was also given to climatological observations. Mr. Harris devoted his attention chiefly to lichens. The exploration extended along the Mission range of mountains and into the southern Kootenais, and regions were reached which had never been touched by such an expedition. The expenses of this work were paid from funds contributed by Mr. W. E. Dodge, of the Board of Managers.

Dr. MacDougal is acting director-in-chief during the absence of Dr. Britton.

Professor L. M. Underwood, of the scientific directors, recently returned from a tour of Porto Rico, bringing with him a nice collection of cacti from the arid southern part of the island, some 75 species of seeds, many of which have already germinated in the propagating houses, a number of museum specimens and about 1,000 specimens for the herbarium. He will spend a month now in the Rocky Mountains of Colorado, continuing the exploration begun by Dr. P. A. Rydberg. A recent gift from Mr. Adrian Iselin has made the extension of the important work possible.

Professor N. L. Britton, director-in-chief, left for St. Kitts, and other of the Windward Islands, on August 30, accompanied by Mr. John H. Cowell, director of the Buffalo Botanic Gardens. The object of their expedition is to obtain living tropical plants and seeds for the conservatory collections, specimens for the public museums, and as complete a collection of herbarium specimens of these islands as can be obtained during a month or six weeks' residence there. This work is in continuation of the botanical exploration of the West Indies and Central America instituted in 1899, when Mr. A. A. Heller and Mr. Samuel Henshaw were sent to Porto Rico by means of funds contributed by Mr. Cornelius Vanderbilt, and of Professor Underwood's recent work in Porto

Rico made possible by funds contributed by Mr. W. E. Dodge.

Mr. Percy Wilson, museum aid, who was sent to the East Indies in March, accompanying Professor Todd, of Amherst College, on the total eclipse of the sun expedition, has returned, bringing with him ten large cases of museum specimens illustrating economic products, a number of living orchids, a collection of seeds for growing in the propagating houses, and a valuable set of books and pamphlets treating of the botany and agriculture of that region. He visited the botanical gardens at Singapore and at Buitenzorg, Java, where he was most kindly received, and arranged with these institutions for important exchanges of plants, books and specimens.

SCIENTIFIC NOTES AND NEWS.

THE French Institute will make the first award of the Osiris prize in 1903. It is of the value of 100,000 francs, and is awarded to the one who in the preceding three years accomplishes the most important work for science, industry or literature.

THE city of Berlin will contribute \$25,000 toward the Virchow foundation for research, now being enlarged in honor of Professor Virchow's eightieth birthday.

THE Austrian Emperor has addressed an appreciative autograph letter to Professor Ed. Suess, the eminent geologist, on the occasion of his retirement from the University at Vienna.

As the newspapers fully report, the steamship *Erik* reached North Sydney, Cape Breton, on August 14, with news from Lieutenant Peary. During the eighteen months in which no news had been received from him, he had succeeded in rounding the northern limit of the Greenland Archipelago, and in reaching the highest latitude gained by an American, 83° 50' north. Lieutenant Peary remains at Payer Harbor, and will attempt to reach the most northerly point possible in the spring of next year. Messrs. Stein and Warmbath are returning on the *Windward*, but no news is brought of Captain Sverdrup on the *Fram*.

MEMBERS of the British Geological Association visited France last month. They were