
MEETING OF THE BIOLOGICAL CLUB.

ORTON HALL, Nov. 2, 1908.

The minutes of the previous meeting were read and approved as read, after which the following, proposed at the last meeting, were elected to membership: B. M. Wells, Geo. Simmons, Clyde Miller, and John Foreman.

The nominating committee submitted the following names for officers of the club during the coming year:

President, Miss Freda Detmers; Vice President, H. H. Severin; Secretary-Treasurer, Arthur H. McCray.

The persons named were unanimously elected.

The program of the evening consisted of the president's annual address by Dr. Geo. D. Hubbard.

The retiring president presented a preliminary report on the physiography of the four local quadrangles, covered by the Dublin, Westerville, East Columbus, and West Columbus topographic maps of the United States Geological Survey. He had done the work during the last year or more under the direction of the Geological Survey of Ohio, which organization is looking forward to the preparation of a bulletin discussing the geology, mineral and rock resources and physiography of this region.

The area is about 27 miles east and west by about 35 north and south with Columbus near the center. At present, physiographically, it consists of a young till plain adorned with one large morainic belt in the northern part and several smaller moraines looped across it from east to west; with scattered kames and kame areas, and eskers; with kettle ponds and swamps usually now extinct; and the whole in a very youthful stage of dissection.

The moraines were left by the halting retreat of the Late Wisconsin ice sheet, while the till plain is the aggregate accumulation of drift from two or more ice invasions. Many localities were mentioned where drift older than the surface material had been

studied. The Powell moraine is the largest and was described in detail by Leverett several years ago. The kames are well illustrated by Spangler's hill now the site of the Hartman farms, by Baker's hill just south of Columbus and by a group of hills north of Canal Winchester; and the eskers are illustrated by a fine example over two miles long crossing the National Pike at Hibernia, and by another a mile or more south-east of Canal Winchester.

Post-glacial dissection of these glacial features, especially the till plain, has given rise to the four large north-south valleys and the multitude of short, steep-sided gorges.

These gorges and many well records have revealed much concerning the rock surface beneath the drift. This part of the study is yet incomplete but it has proceeded far enough to determine that there is very little agreement between the present topography and that of the rock below. The latter has broad elevations and broader shallow depressions which are probably portions of very mature divides and valleys. Because of their great maturity it seems that these features must have developed preglacially. The rock surface also has many narrow, steep-sided valleys now drift filled. No system has yet been worked out to which these valleys can be referred but they were undoubtedly due to erosion in interglacial periods, and there may be as many systems of these valleys, now filled and buried, as there have been interglacial periods.

The field work in this area will be continued, and the bulletin containing the completed report published as soon as possible.

Prof. Griggs moved that a committee be appointed to consider a new night for the meetings of the club. The motion was unanimously carried after which the club adjourned.

ARTHUR H. McCRAY, Secretary.

CORRECTION.

In the paper entitled "Rock Terraces Along the Streams near Columbus, Ohio," in the December, 1908, *Ohio Naturalist*, p. 398, the sentence beginning on line 1 should read: "The rocks along the Scioto and Olentangy rivers is all of Devonian age; two rather resistant limestones—the Columbus and Delaware—and two much less resistant shales above—the Olentangy and Ohio. Along the Big Darby the Columbus shows, and also below it the equally resistant Monroe limestone of Silurian age."