

1959

A Pollen Diagram From the Site of Glacial Lake Aitkin

John H. McAndrews
University of Minnesota

Follow this and additional works at: <https://digitalcommons.morris.umn.edu/jmas>



Part of the [Botany Commons](#)

Recommended Citation

McAndrews, J. H. (1959). A Pollen Diagram From the Site of Glacial Lake Aitkin. *Journal of the Minnesota Academy of Science, Vol. 27 No.1*, 129-129.

Retrieved from <https://digitalcommons.morris.umn.edu/jmas/vol27/iss1/22>

This Article is brought to you for free and open access by the Journals at University of Minnesota Morris Digital Well. It has been accepted for inclusion in Journal of the Minnesota Academy of Science by an authorized editor of University of Minnesota Morris Digital Well. For more information, please contact skulann@morris.umn.edu.

A POLLEN DIAGRAM FROM THE SITE OF
GLACIAL LAKE AITKIN

JOHN H. MCANDREWS
University of Minnesota, Minneapolis

This is a preliminary report of a study of the vegetation history of the site of a former proglacial lake, Glacial Lake Aitkin. The area is now the site of a large bog in Aitkin County. The stratigraphic sequence of deposits from the time of glacier retreat to the present is as follows: stratified outwash sands deposited as the ice retreated, a three-foot layer of lake-laid silt deposited in Glacial Lake Aitkin which was formed shortly after the retreat of the glacier, and four feet of terrestrial peat which was formed after the drainage of Glacial Lake Aitkin. The uppermost strata of outwash sand contained spruce wood which has been radiocarbon dated as having an age of $11,710 \pm 300$ years.

Samples for pollen analysis were taken at regular intervals in the three different layers. The results of the pollen analyses indicate that the first vegetation in the area after the retreat of the glacier was a spruce forest having open areas which were occupied by herbs such as grass, sedge, and sage (*Artemisia*). This spruce forest was succeeded by a pine forest which contained many deciduous tree species. This forest succession occurred from 7,000 to 8,000 years ago (Flint and Deevey, 1951), and the forest does not appear to have changed greatly since then. The samples near the surface contained much birch pollen which may have resulted from the recent increase in birch due to lumbering and forest fires. The lake silts contain a great deal of a single type of grass pollen suggesting that the lake contained large stands of wild rice. Large amounts of sedge and bur-reed (*Sparganium*) pollen were found at the peat-silt contact indicating that these plants took part in the colonization of the former lake bottom.

LITERATURE CITED

- FLINT, R. F. and DEEVEY, E. S. 1951. Radiocarbon Dating of Pleistocene Events. *Amer. Jour. Sci.* 249:257-300.