

Largest Erratic in Saskatchewan ?

by **W. O. Kupsch**, University of Saskatchewan, Saskatoon

In the March, 1961, issue of the **Blue Jay** I requested information which would enable me to find out where the largest glacial erratic in Saskatchewan is located. The request was in the form of a contest and, first of all, I wish to thank all who participated. The promised glacial maps of Canada were sent out to those who called my attention to some genuine "whoppers". Thanks are also due to the Saskatchewan Research Council who defrayed part of the field trip expenses incurred by the writer when in search of the reported large erratics.

The following discussion of the results of the contest consists of some comments on the two largest erratics reported so far from the Interior Plains portion of Saskatchewan. Both are "free boulders" because they lie free on the land surface and are not enclosed in a matrix of till.

The **Little Manitou Lake Big Rock** is located at the west end of Little

Manitou Lake, Saskatchewan, in SW $\frac{1}{4}$ Sec. 17, T. 26, R. 32, W. 2nd Mer. It is a well-bedded and jointed block of dolomite having an angular box-like appearance and approximate dimensions of 34x22x13 feet (fig. 1). Its volume is therefore about 9724 cu. ft., and the estimated weight 750 tons (1 ton equals 2240 lbs.). The main block is surrounded by many smaller rectangular fragments clearly broken off along joints and bedding planes from the large erratic which lies in a shallow (approximately four feet deep) depression area in a glacial drainage channel, of which Little Manitou Lake is a part. The erratic is free because of water erosion which removed the surrounding finer material leaving a stony surface at the bottom of the channel. Water erosion may also account for the initial origin of the depression in which the erratic lies, but late loosening of the soil by hoofs of buffalo and cattle and subsequent



Photo by W. O. Kupsch

Fig. 1. Little Manitou Lake Big Rock. April, 1962.



Photo by W. O. Kupsch

Fig. 2. Aiktow Erratic. April, 1962.

wind erosion could have deepened it even more.

The dolomite is light greyish yellow, mottled in places, finely grained and contains halysitid, favositid, and zaphrentid corals as well as gastropods, brachiopods, a few orthoconic nautiloids and *Receptaculites* sp. The lithology and fossils are typically those of the Red River dolomite of Middle (?) Ordovician age. The nearest outcrops of the Red River formation are in the vicinity of Balantyne Bay, Deschambault Lake, at a distance of approximately 210 miles to the north-northeast of Little Manitou Lake. Over this distance a vertical lift of 625 feet is indicated from an altitude of 1075 feet at Deschambault Lake to 1700 feet at the site of the Big Rock.

The **Aiktow Erratic** is located $2\frac{1}{4}$ miles east-southeast of Aiktow, Saskatchewan, in NE $\frac{1}{4}$ Sec. 34, T. 23, R. 4, W. 3rd. Mer. Dr. J. S. Scott of the Geological Survey of Canada, kindly supplied me with some of the following information on this erratic, which I visited and photographed in the spring of 1962 (fig. 2). The erratic is a uniformly fine-grained, light-

colored, reddish, granitic rock consisting mainly of plagioclase, potash feldspar, and quartz, with minor amounts of pyroxenes as the chief dark mineral constituents. The boulder measures approximately 30 x 20 x 8 feet, is well rounded and apparently semi-spheroidal in shape, although it is difficult to estimate how much of the erratic is below ground level. The surface of the boulder is smooth and in only one place have a few large fragments broken off from the main mass. The volume of about 4800 cu. ft. implies a weight of 370 tons. Like the Little Manitou Lake Big Rock, the Aiktow Erratic lies in a depression, which is about three feet deep, located along the edge of a glacial drainage channel. Again, it is surmised that the boulder is free principally because water has eroded the surrounding till, which has been replaced by fine to medium-grained sand of stream origin.

The boulder near Aiktow was apparently used in the past by Indians as a gathering place. Artifacts, such as various projectile points, are said to have been collected from the

ground surrounding it. Henry Youle Hind, one of the first geologists to visit the Saskatchewan prairies, showed the geographic position of the Aiktow Erratic on a map and described the boulder as follows in his report (1859. Northwest Territory. Reports of progress together with a preliminary and general report of the Assiniboine and Saskatchewan exploring expedition. Toronto, John Lovell, p. 57):

"About fourteen miles from the [South] Saskatchewan [River] there is a gigantic erratic of unfossiferous [sic!] rock on the south side of the valley. It is seventy-nine feet in horizontal circumference, three feet from the ground; and a tape stretched across the exposed portion, from side to side, over the highest point, measured 46 feet. The Indians place on

it offerings to Manitou, and at the time of our visit it contained beads, bits of tobacco, fragments of cloth and other trifles."

As the Aiktow Erratic is located in the upper part of the Qu'Appelle Valley which will become flooded upon completion of the South Saskatchewan River Dam and because the boulder is of historic interest, moving the erratic to the high bank of the valley is contemplated. Although this is a herculean task for humans, the energy to be expended in this move is only an insignificant fraction of the work performed by the glacier which moved this piece of rock over a distance of at least 320 miles from the Precambrian Shield and from an original altitude of about 1250 feet to its present resting place at 1750 feet.

A Garganey duck in the Wild in Alberta

by Lawson G. Sugden, Can. Wildlife Service, Edmonton

An adult drake Garganey (*Anas querquedula*) was seen at a lake near Two Hills, Alberta, on June 22, 23, and 24, 1961. On the last day I was accompanied by Ronald H. Mackey, Canadian Wildlife Service, Edmonton. We observed the duck from about 100 yards through a 25-power telescope. It was observed standing on land, swimming and flying. Attempts to collect the bird were unsuccessful. It was in company with a flock of Blue-winged Teal (*A. discors*), predominantly males, which were very wild.

Delacour (*The Waterfowl of the World*, London, 1956, Vol. 2, p. 163) describes the male Garganey in breeding plumage as follows:

" . . . a black crown and throat, broad, long white supercilia joining on the nape, and the rest of the head and neck brownish chestnut streaked with white; mantle, black and tail blackish brown with pale borders to the feathers; wings generally as in other species of the group (blue-winged ducks), the long lanceolate, ornamental scapulars glossy black with a broad central white line, the wing coverts pale bluish grey, the mirror light between two wide white bands; breast light brown laced with black; rest of underparts white, finely waved with black on the sides and spotted on the vent and undertail coverts. Iris brown; bill and legs leaden grey."

The Garganey is similar in size to the Blue-winged Teal. The most dis-

tinctive features of the Two Hills' duck were the long white supercilia on the head and neck, the black lanceolate scapulars with central white line, the pale-bluish wing coverts, and the whitish underparts.

Previous to this time neither Mr. Mackay nor I had seen a Garganey. However, a month prior I had collected a strange-looking Blue-winged Teal drake which I thought might be some form of hybrid. It had the supercilia on the head and neck which joined the white crescent of the Blue-winged. This suggested a Garganey characteristic. Otherwise it resembled the Blue-winged. (According to Mr. W. Earl Godfrey, National Museum of Canada, it is a partial albino Blue-winged.) Consequently, I was familiar with the description and illustration of the Garganey in Delacour's book. In addition, we both reviewed this information prior to the last day's observation. There is no doubt in our minds about the identification. All observable details of the duck's appearance matched those given in the book.

Breeding range of the Garganey covers much of Europe and Asia from the British Isles to north-eastern Siberia. The species is not men-