

bird life of that district, many important observations being recorded. A study was also made of the conditions which are presented for improving the bad lands of this district by irrigation, and this will probably, before long, prove beneficial.

In Manitoba and Kewatin, north-east of Lake Winnipeg, investigations were continued by Mr. Tyrrell into the character and structure of the Archæan gneisses, etc., and of the overlying Pleistocene clays and sands, and the existence of considerable areas of good land suitable for agricultural pursuits was ascertained.

In Ontario, four parties were engaged at somewhat widely separated points. In the Rainy Lake district the question of the gold deposits was carefully studied by Mr. McInnes, and the indications observed point to the carrying on of very extensive mining operations in this area at no very distant date. Further east, near Lake Temiscaming, the relations of the Huronian and Laurentian were ascertained by Mr. Barlow during the first part of the season, considerable importance pertaining to this area from the presence there of the Huronian nickel-bearing rocks of Sudbury, while the latter half of the season was devoted to the mapping of the old rocks in the County of Haliburton, to the south of the Ottawa and Parry Sound railway.

In eastern Ontario work was carried on south of the Ottawa River, between Pembroke and Arnprior by Dr. Ellis, where the separation of the Grenville series of the Laurentian from the underlying or fundamental gneisses was accomplished over a very considerable area. The study of the relations of the schists and other rocks of the Hastings series to the crystalline limestone and the gneiss of the Laurentian was also taken up and satisfactory progress made. The Hastings series is an important one, economically considered, since it embraces the principal gold deposits of the Madoc and Marmora districts, and many of the iron ores along the Kingston and Pembroke railway occur in the rocks of this division. Considerable areas of the fossiliferous Cambro-Silurian rocks are also found in this portion of the province, resting upon the underlying gneiss and limestone.