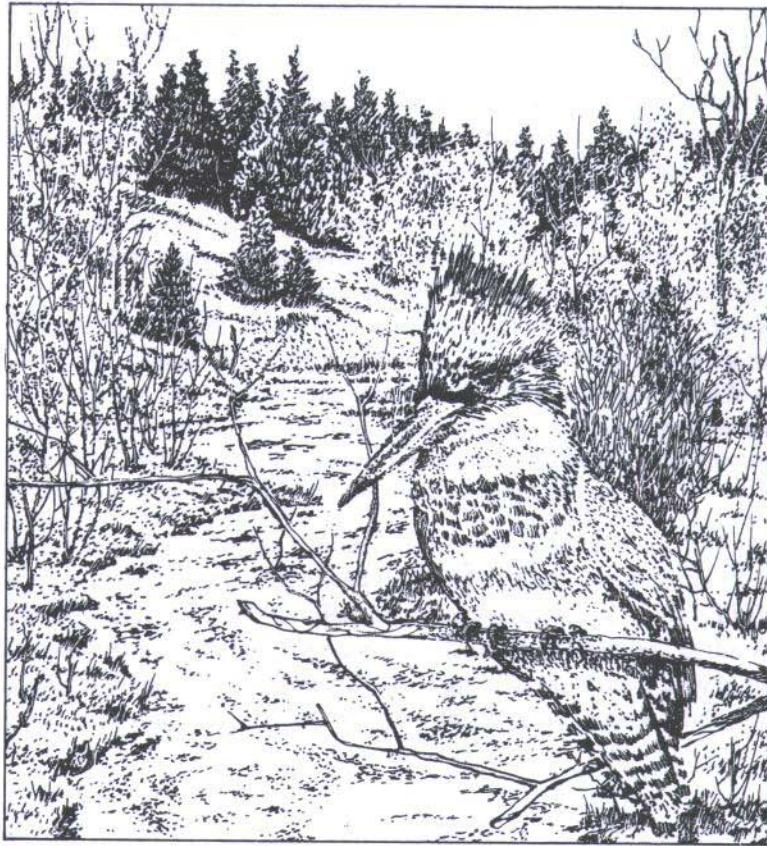


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The Ottawa Field-Naturalists' Club

Leitrim Albion Road Wetlands Part 3*

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Canadian Museum of Nature

Introduction

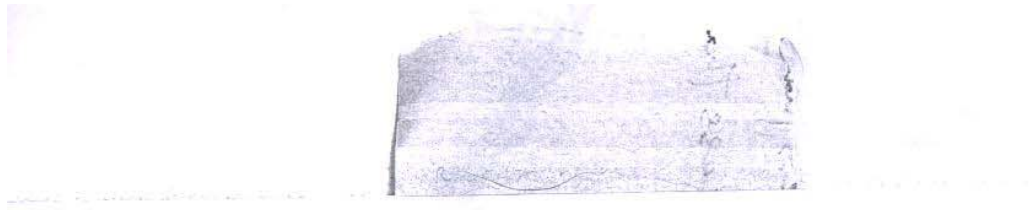
My admiration and understanding of this complex, threatened, Class 1 Wetland increases with each successive year of study. Poring over old documents has engendered new insights into the post-settlement history of the area. The catalyst spurring on my research took the form of a disintegrating, 1917 surficial geology map depicting extensive organic deposits in the Leitrim area. These features, in conjunction with land elevations and soil types, suggest that the Leitrim Wetlands is but a fragment of a once enormous wetland complex, the main body of which sprawled east of Highway 31. The possibility that this could be a remnant of a much larger ecosystem was reinforced by the appalling statistic that Ottawa-Carleton has already lost over 60% of its original wetlands!

The presence of provincially significant birds such as Northern Harrier, Red-shouldered Hawk and Sedge Wren in the wetlands was previously established, but until I actually started compiling a list, I failed to appreciate the richness of the avifauna (Appendix 1). This wealth of species was confirmed by Richard Poulin of the Canadian Museum of Nature, who stated that in a given year, 150-160 species can be seen, migrants included. The adjacent uplands also harbour significant bird species, the most noteworthy being the **endangered Loggerhead Shrike!** Henslow's Sparrow, Eastern Bluebird, Clay-coloured Sparrow and Mockingbirds also breed in these open areas.

In this article I will examine the historical relationship between the Leitrim Wetlands and others nearby. I shall present Dr. Nuttle's critique of the controversial Cumming Cockburn Report, implementation of which is likely to destroy this valuable Class 1 Wetland. I will also describe some of the wetland areas, with special emphasis on the "flowage" and show the fallacy of the "core concept" as promoted by the developers. In 1991, the Ontario Ministry of

*See *T&L* Vol. 26, No. 3, 1992 for Part 2 and Vol. 24, No. 2, 1990 for Part 1.

Leitrim Albion Road Wetlands Complex (Bowesville site)



Natural Resources (OMNR) produced a southern wetland boundary and the relevance of this and both Federal and Ontario wetland policies to the Leitrim Wetlands will be reviewed.

A Great Wetland Complex?

While rummaging through material on the Leitrim Wetlands, I came across part of a frayed, 1917 surficial geology map which was based on work completed by W.A. Johnston in 1915. His chart showed extensive organic deposits (muck and peat 30 cm [12"] or more in thickness) in the southern part of the City of Gloucester and northern part of Osgoode Township. As these deposits could originate only under extremely wet conditions (i.e. wetlands), I wondered if they could be components of a larger wetland complex, either directly connected or linked by streams. Subsequent study of the most recent surficial geology maps of our region indicates that Johnston missed several of these deep peat deposits. (These are included in Figure 1.)

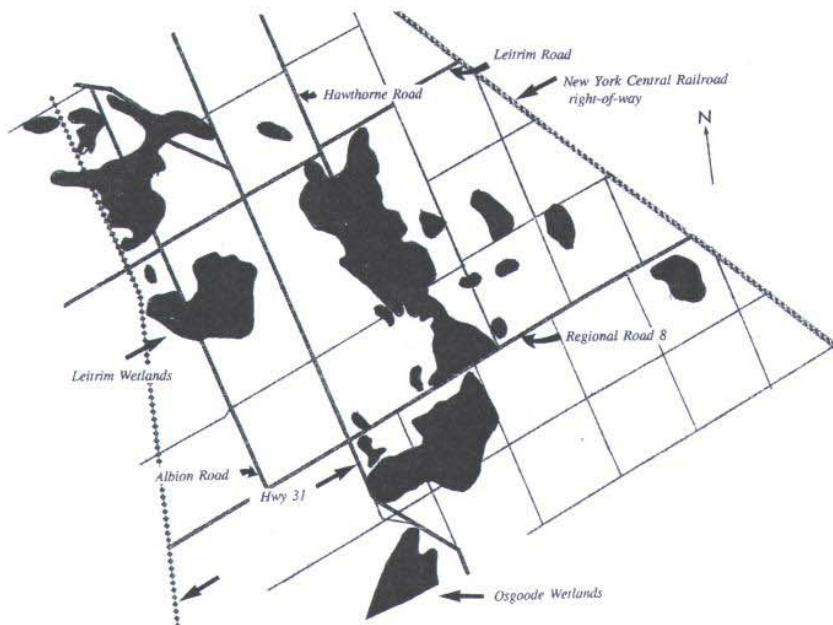
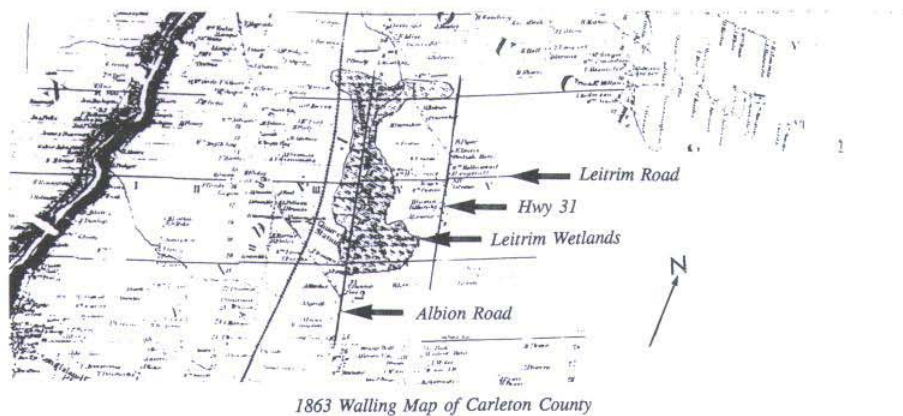
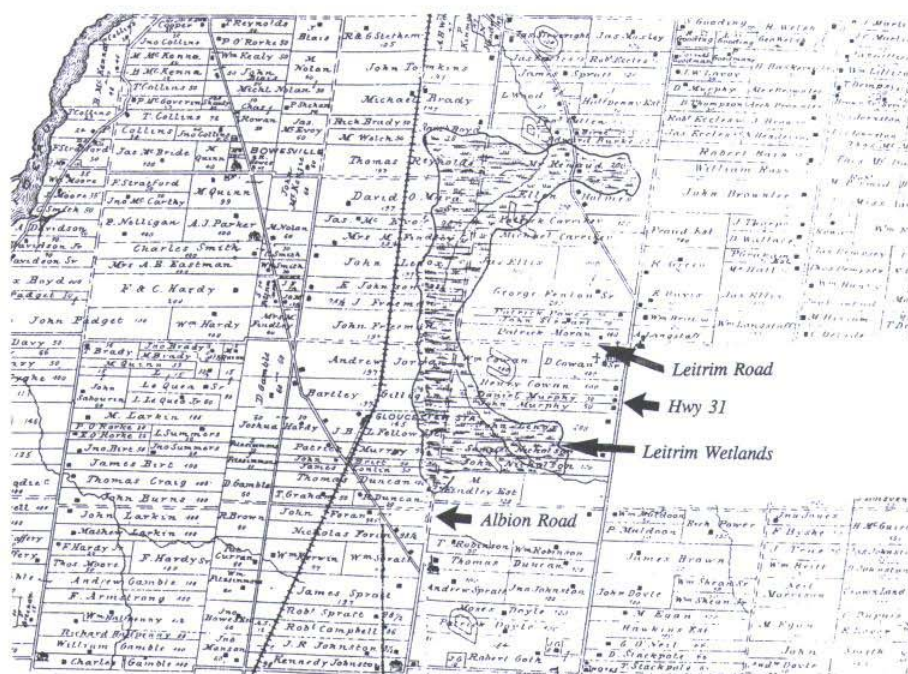


Figure 1. 1915 Organic deposits, 30 cm (12") or more in thickness. (Primarily based on a 1917 surficial geology map (No. 1662) with additions from maps 1506A & 1507A 1982.)

Leitrim Albion Road Wetlands Complex (Bowesville site)



1863 Walling Map of Carleton County



1879 Belden Atlas of Carleton County

Figure 2. Historical maps showing the Leitrim Wetlands to have been directly connected to wetlands on present-day NCC lands north of Leitrim Road.

Leitrim Albion Road Wetlands Complex (Bowesville site)

Earlier maps demonstrate a direct connection between the Leitrim Wetlands and neighbouring wetland areas owned by the National Capital Commission extending from Blossom Park to Leitrim Road (Figure 2). Were these also connected to the other wetlands east of Highway 31?

I carefully examined topographic maps dating back to 1906, and aerial photographs, especially the 1945 series (the first taken of this particular locale). Topographic maps depict changing drainage patterns due to ditching, elevation changes, and encroachments on various known wetland areas. Aerial photographs taken at the right time of year can often show old stream beds, poorly drained areas, and patterns in farm fields revealing the previous existence of wetlands.

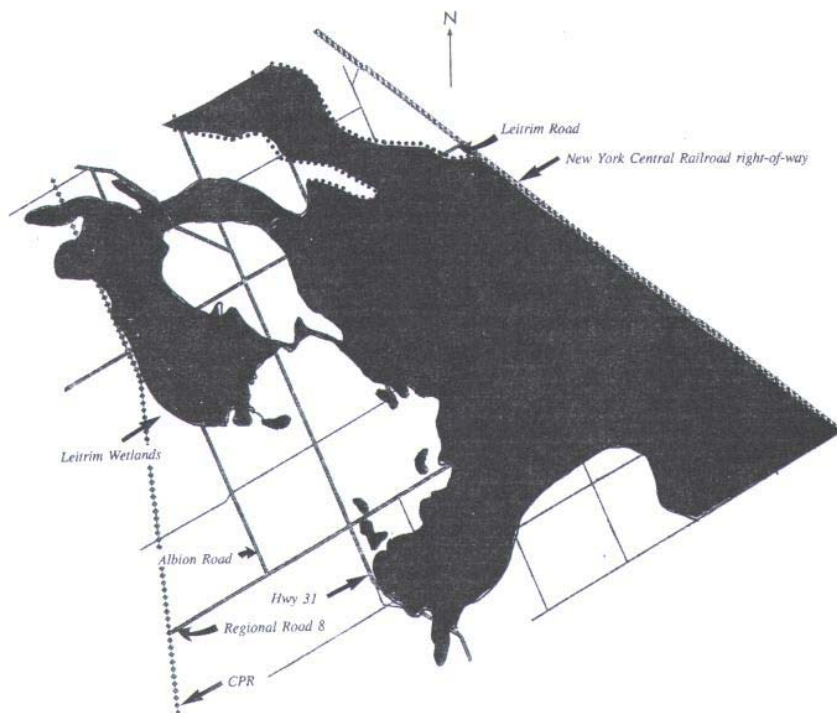


Figure 3. Approximate size of wetland complex west of N.Y.C.R. right-of-way circa 1830.

Leitrim Albion Road Wetlands Complex (Bowesville site)

Due to time constraints, only lands west of the New York Central Railroad right-of-way were studied. The evidence strongly suggests that most of these wetland areas were connected, forming a massive wetland complex centered east of Highway 31, hooking up with the Osgoode Wetlands in the southeast and the Leitrim Wetlands to the west via an arc of wetland (Figure 3).

Poor drainage, a feature still prevalent today, appears to be the main factor responsible for this vast, predominantly-treed wetland. Removal of excess water from the land was a prerequisite for agriculture, for as the Belden Atlas states: "Much of the land which was at first perfectly worthless on account of its low level has been brought into cultivation by a comprehensive and non-expensive system of drainage." As most of this wetland complex was covered with rich organic soils or peat, land drainage activated decay bacteria and organic materials broke down, releasing CO₂ in the process.

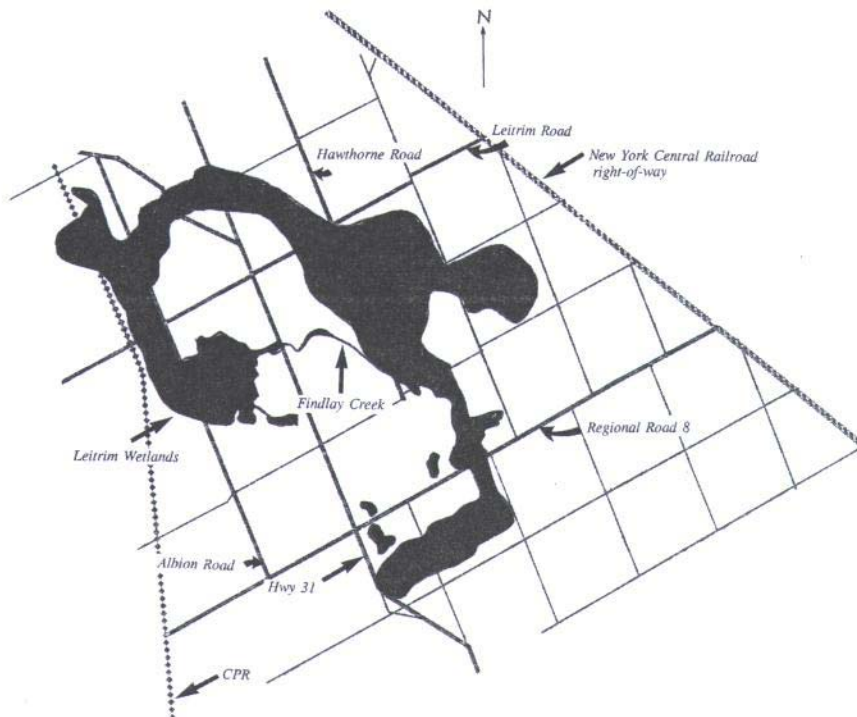


Figure 4. Proposed Class 1 Wetland Complex composed of fragments of pre-settlement wetlands complex.

Leitrim Albion Road Wetlands Complex (Bowesville site)

The initial extent of peat covering is difficult to estimate because the first surficial geology map was produced at least 40 years after the original ditching schemes, sufficient time for considerable peat wastage. Agricultural practices fragmented the once extensive wetland, leaving an assemblage of predominantly swampy woodlands. To protect these fragments, I optimistically requested that the Carleton Place OMNR incorporate them into a Class 1 Wetland Complex and that a new wetland complex boundary be drawn (Figure 4). Their response was: "In terms of defining a complex, firm evidence of existing biological and/or hydrological interrelationships must be present. Relative to the wetland areas which you mention in your letter, it is exceedingly difficult to make a case that such relationships exists."

This in spite of the following:

- The Leitrim Wetlands receives water from NCC lands north of Leitrim Road;
- The Leitrim Wetlands is linked to wetland areas along Hawthorne Road via Findlay Creek; and
- The small peripheral wetland area due south of the Leitrim Wetlands supplies water most of the year via a channelized stream.

Aside from the Leitrim Wetlands fragment and those in the old South Gloucester Conservation Area, little is known of the flora and fauna of this unit. However, a biological inventory of the unstudied segments is bound to yield interesting finds.

Both the existing and former wetland ecosystems obtained water from precipitation, runoff from adjacent highlands and seepage from outwash deposits. Findlay and Sawmill Creeks originate in the wetlands, which also contribute water to the North Castor River, Bear Brook and in the past, to Ramsay Creek.

Dr. Nuttle's Critique of the Cumming Cockburn Report and related correspondence

I had hoped that Part 2 of my article on the Leitrim Wetland which questioned the conclusions reached in the Cumming Cockburn Report "Planning for Leitrim - An Integrated Approach" (an Environmental / Storm Drainage Report) would stimulate some positive action for preserving these valuable wetlands. Instead, the Ontario Ministry of Natural Resources (OMNR) responded to me as follows: "while the data you provided was valid, the Cumming Cockburn Study was comprehensive, and compiled in a manner that is consistent with the approach laid out in the T.C. Winter article." Refuting this contradictory statement required a highly qualified wetland hydrologist. Dr. William