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### Minto Coal Fields

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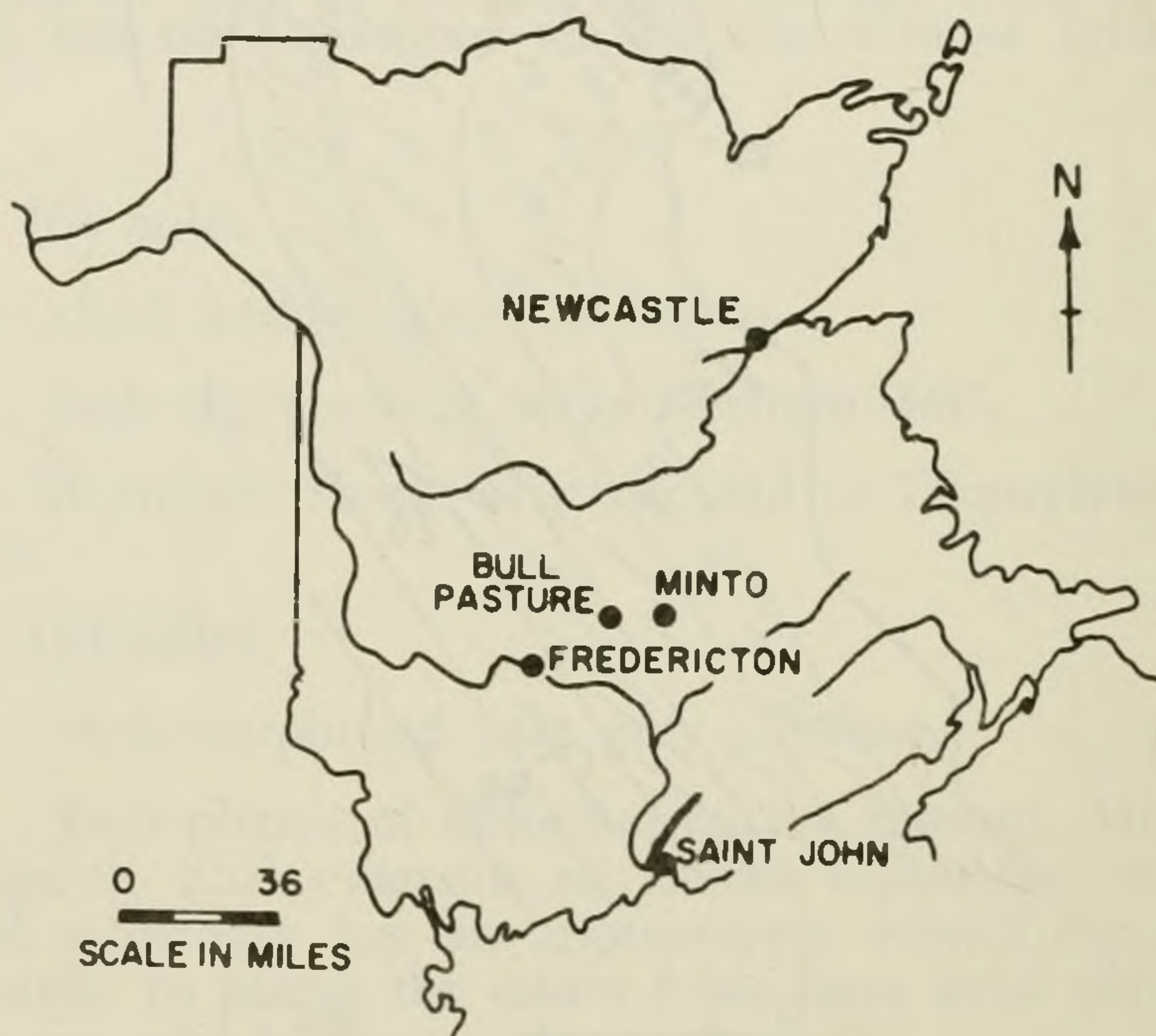
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TRIP A-11, by N. W. Radforth, Muskeg Research Institute, Fredericton, N. B.

## MINTO COAL FIELDS

This area is the site of one of the earliest industrial developments in the Province with coal exports to the United States starting over 100 years ago. Geologically, it lies within a large area of eastern New Brunswick composed of red to grey sandstones of Pennsylvanian age. The piles of mine wastes and newly exposed faces in the open pit mines have been a popular "Mecca" for paleobotanists for many years. With a minimum of exploration, a fascinating accumulation of plant fossils can be recovered with only a geologist's hammer. This ease of access enables the amateur naturalist and professional paleobotanist alike to encounter one of the continent's best fossil records of the Carboniferous system.



## BULL PASTURE BOG

This muskeg or peatland area is an excellent, undisturbed example of a raised bog. It is typical in that it encompasses all the aspects of raised bog development from minerotrophic to ombrotrophic conditions with an accompanying wide array of plant communities and a wider diversity of species.



Its proximity to the University of New Brunswick and the lack of ecosystem disturbance has enabled researchers at UNB to carry out surveying, development of sampling techniques, paly-nology, measurement of permeability and thermal conductivity of peat, remote sensing (airborne) techniques of analysis of ground water and vegetation distribution, ground water behaviour and developmental history of muskeg.

The geological significance of this and similar areas is that they provide a fossil record of the recent vegetational climatic and hydrological history of the region.

Easily identified as organic terrain, it is particularly impressive when viewed from the air, when it becomes obvious as a dynamic, developing feature of the New Brunswick landscape.

## LOG AND DIRECTIONS

### Location of Field Study:

- near Minto at the site of New Brunswick Coal Strip Mine and Bull Pasture in the Acadian Forest Reserve.

### SITE 1 – ROUTE:

- 9:00 – leave Fredericton (Route 10) Geology Bldg. to near Minto – see N. B. Road map – about 25 miles.
- 10:00 – arrive Minto Coalfield (site of strip mine)
- 12:00 to  
1:00 – Lunch (box lunch)

### SITE 2 – ROUTE:

- 14:00 – leave strip mines for Bull Pasture (see airphoto) via Route 10 towards Fredericton taking access forest trail (no. 10) to Bull Pasture (topo map)
- 15:30 – leave for Fredericton
- 16:30 – arrive Fredericton

*Objectives, Site 1* – to hear short account of Minto Coal Flora and geology of Minto Basin  
– to engage in fossil hunt

*Objectives, Site 2* – to hear story of the Bull Pasture Bog, study muskeg type, hydrology and survey procedure



## REQUIREMENTS:

- Knee waders, geologist's hammer, box lunch, 4 old newspapers, 1 1/2" nails
- For those keeping fossil compressions (the best in N. America), boxes will be provided and shipping charges levied.
- packing of fossils (by delegates at strip mine)

## FIELD TEAM:

- courtesy Muskeg Research Institute, U.N.B.

## In event of rain:

- lunch in buses and no shipment of fossils