

The 1830 mean clearing rate for Emily was 1.35 acres per year, with ninety-eight settlers (58%) clearing one acre per year or less and forty-nine settlers (29%) clearing one to two acres per year. High clearing rates were reported by a number of settlers first assessed in 1830, including John Mitchell at Con.1, Lot 8 with eight acres cleared, John Windrim at Con.1, Lot 2 with ten acres cleared, John Magee at Con.1, Lot 19 with eight acres cleared, and John Collum at Con.3, Lot 12 with seven acres cleared. Russell (1989) argued that such high clearing rates (five or more acres per year) pointed to the probable existence of financial resources to hire labour or 'choppers.'

Average family size, steadily declining since 1826, was at a low point of 4.9 persons in 1830. Women and young children appear to have been most susceptible to the hardships of pioneer frontier life, with a net loss of twelve adult females and thirty-six children between 1826 and 1830 (Table 4.5). The low average family size may be attributed to: i) a number of young single men (20), and ii) a number of young families (21) with three or fewer members, many of whom had moved off the lot of the family head to their own lot.

The mean number of years settled in 1830 was 5.4, with a core group of forty-eight persistent settlers (29%) from 1825 or earlier (Figure 4.28). The modal value for years settled was five years, with seventy-six settlers, most of them Robinson emigrants.

Total livestock had risen to 480 head by 1830, including

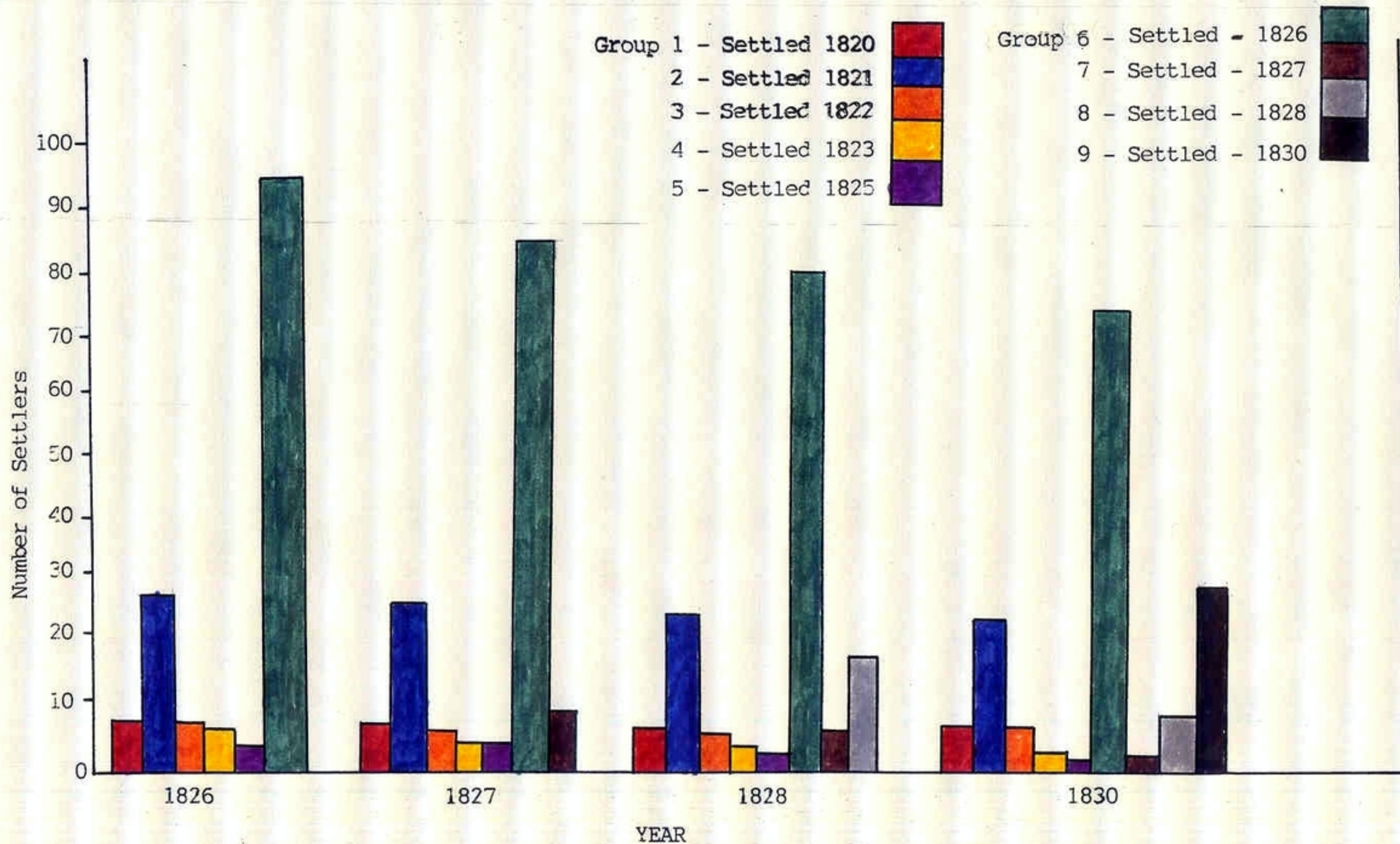


Figure 4.28 : Frequency Histogram of Settler Persistence - 1826-1830

129 oxen. Thirty-four of the forty-eight 1820-25 settlers had acquired oxen, while only seven of the 1829-30 arrivals had oxen. Oxen were closely associated with land clearance - nine of eleven settlers with 20% or more land cleared had one or two oxen, compared to the sixty-five of seventy-five settlers with less than 4% cleared who had no oxen.

Kinship ties in the township remained strong with sixty-two of ninety-two 'old' settlers with kin in Emily, while twenty-two of seventy-seven Robinson settlers had kin in the township (Figure 4.29). In the case of the Robinson Irish, it is quite likely that more adult sons and their families might be sharing a father's lot in an extended family.

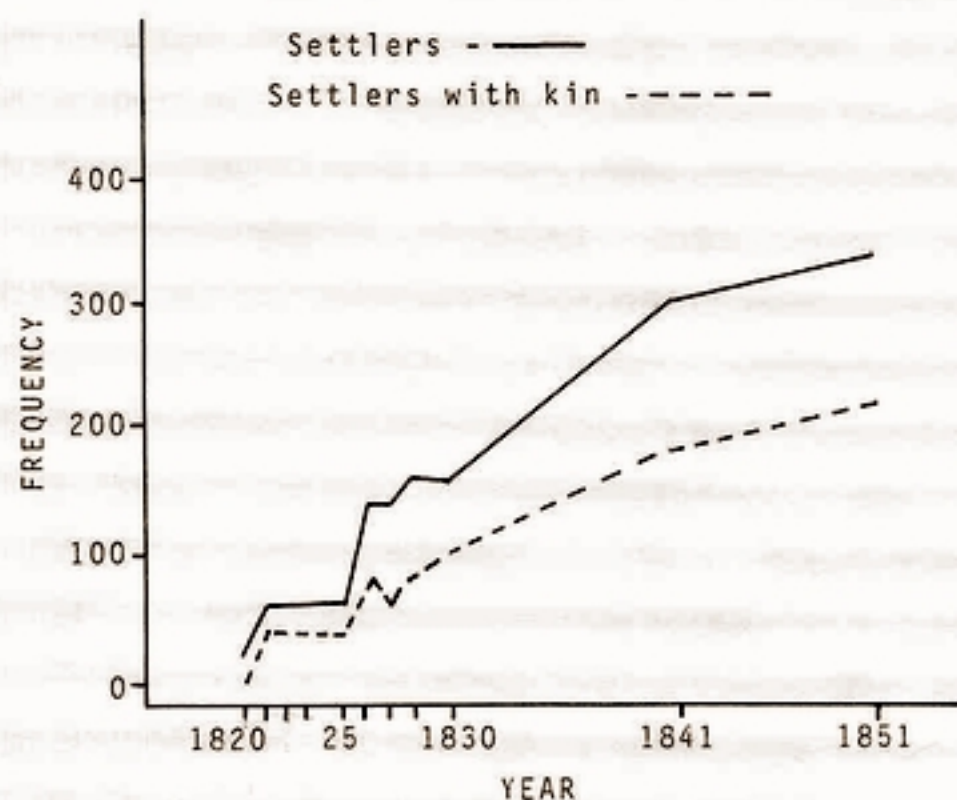


Figure 4.29 : Settlers and Settlers with Kin 1820-1851

Wood (1988) suggests that fluidity of population was an ubiquitous feature of Upper Canada and notes it was not unusual for a household to disappear from a township and then return after a few years. In 1827, James Phair, with a family of nine, returned to Con.3, Lot 13 after an absence of four years. Throughout the early settlement period, many more single men were absent for periods of one to five years, before showing up in the township again, often at a different location. James Tygert, for example, gone from Con.3, Lot 12 in 1822, was living at Con.4, Lot 19 in 1830.

4.5 Tests for Association 1826-1830

The results of the chi-square statistical tests of association are summarized in Table 4.6. The tests indicate that the measure of a successful settler, land cleared (%) is significantly associated with time settled for each year 1826 to 1830, further support for hypothesis I, that settler persistence and successful farms are closely linked.

Successful settlers were significantly associated with family size for the year 1827 only. Other variables including farm size, oxen, and soils were found to be associated with successful farms. Smaller farms (50 acres) were associated with successful farms in 1826 through 1830; oxen possession was significantly associated with land cleared (%) for 1826 to 1830; and a farm located on Class I, II, or III type soils was associated with greater land clearance (%). This fact supports hypothesis II, that successful farms were located on better quality soils.

Table 4.6 Summary of Chi-Square Tests 1826-1830

<u>Variable</u>	<u>Time Settled</u>	<u>Family Size</u>	<u>Farm Size</u>	<u>Oxen</u>	<u>Soils</u>
<u>Land Cleared (%)</u>	1826 1827 1828 1830	1827	1826 1827 1828 1830	1826 1827 1828 1830	1826 1827 1828 1830
<u>Time Settled</u>		1830	1826 1827 1828 1830	1830	
<u>Present Census</u>	<u>Next</u>	1828 1830*			

Note: Year denotes census year pairs of variables tested and found significant at the 0.05 level

* - indicates significance at the 0.10 level

Soils - Class I, II, III vs. Class IV, V, VI soils.

It is also interesting that persistent farmers, according to time settled, were significantly associated with farm size and the variable 'present next census year.' Persistent farmers generally had smaller farms with fifteen of thirty-three fifty-acre farms settled between 1820 and 1825. Persistent settlers were also likely to be present the next census year; i.e., the 1841 figures show forty-two of forty-eight 1820 to 1825 settlers, enumerated in 1830, were still on their farms.

The results of linear correlation analysis are presented in Table 4.7. Successful settlers are significantly associated with time settled (1826-1830), clearing rate (1827-30), livestock (1826-30), and oxen (1826-30). All are positive

Table 4.7 Significant Linear Correlations 1826-1830

<u>Variables Tested</u>	<u>1826</u>	<u>1827</u>	<u>1828</u>	<u>1830</u>
Clear Land (%)/ Time Settled	.6929	.6155	.7233	.6355
Clear Land (%)/ Livestock	.6761	.6761	.6765	.6502
Clear Land (%)/ Oxen	.5841	.5503	.5978	.5758
Clear Land (%)/ Clearing Rate	----	.4465	.3688	.3606
Time Settled/ livestock	.8049	.6727	.5951	.5047
Time Settled/ Farm Size	-.4605	-.3213	-.2457	----
Time Settled/ Clear Land (acres)	.5430	.6024	.7196	.6233
Time Settled/ Clearing Rate	-.5618	-.2370	----	-.2123
Clearing Rate/ Family Size	.4568	.1892	.2476	----
Clearing Rate/ Oxen	----	.1923*	.3102	.2630
Clearing Rate/ Farm Size	.5096	----	----	----
Clear Land (acres)/ Oxen	.5715	.5316	.6610	.6486
Clear Land (%)/ Horses	.3365	.1793*	.2823	.4458
Farm Density/ Family Size	-.5418	-.5229	-.3834	----
Farm Density/ Time Settled	.5311	.6202	.6198	----
Farm Density/ Farm Size	-.1987*	-.2464	-.2311	----

Note: variables significant at .01 level/ * sig. at .05 level.

relationships with land cleared (%) increasing as the value of the associated variables increases. This, particularly the relationship between land cleared (%) with time settled and livestock, further supports hypothesis I, that successful farmers tended to be persisters.

Several other relationships are notable, including the negative relationship between time settled and clearing rate, with lower clearing rates associated with longer settlement time. Farm density (acres cleared per family member) is negatively associated with family size (1826-28) and farm size (1826-28).

4.6 Settlement Pattern 1830-41

A major factor in the expanding settlement of Emily Township was a slowly improving transportation and communication system, for bringing settlers, their families, and supplies into the interior as well as for access to mills and markets outside the township. Figure 4.30 illustrates the early 'road' network that began to appear in Emily Township between 1830 and 1841. The first roads were likely peripheral, including the Boundary Road and the 1st Concession Road (present-day Parkhill Road west of Highway 28). Kirkconnell (1967,p.104) described roads in the 1830's as in 'unspeakable' condition. Burghardt (1990) noted that the most difficult problem for early settlers and roadbuilders was crossing rivers and creeks, which were plentiful in Emily.

The Omemee Road linked the township with Peterborough to the east and Purdy's Mills at Lindsay. The Emily Road

MAP OF **EMILY** TOWNSHIP

Transportation Routes 1830-41

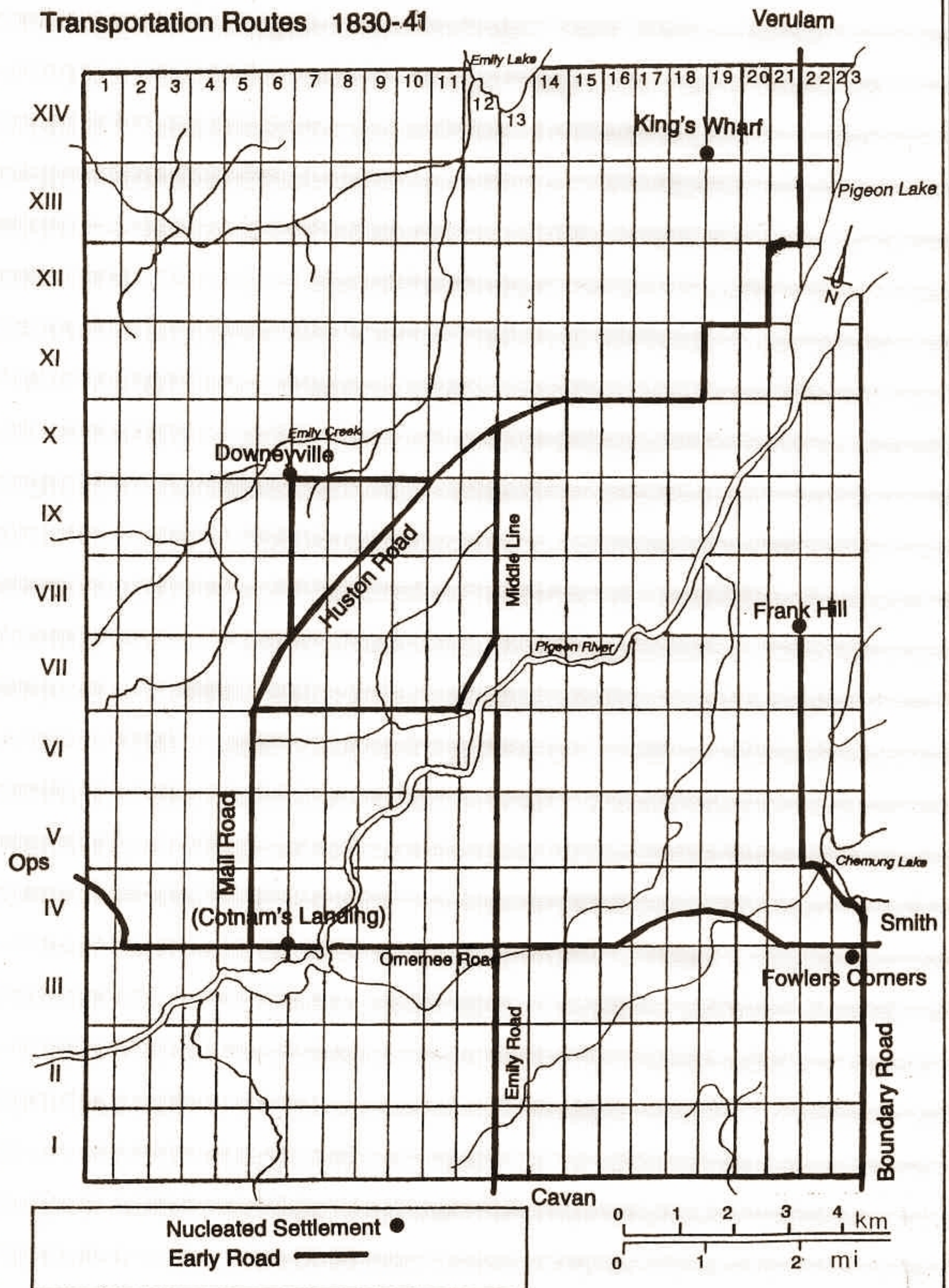


Figure 4.30 : Transportation Routes 1830-1841

connected Emily with Cavan Township and the mill at the settlement of Millbrook. The Boundary Road followed the old settlers' trail to Port Hope, while the Huston Road branched off the Mail Road in a northeasterly direction towards King's Wharf and Pigeon Lake.

Water transportation was very important in the pioneer period, as hundreds of incoming settlers were brought up the Otonabee River to Peterborough, by wagon to Mud (Chemung) Lake, by government scow around and up the Pigeon River to King's Wharf or Cotnam's Landing (Figure 4.30), and on by bush road to their lots (Pammett 1974,p.29).

The township in 1841 was beginning to fill up (Figure 4.31). Over 60% of the granted land was occupied (Figure 4.9) and the population density had increased to almost nineteen persons per square mile (Figure 4.14). The Robinson Irish now occupied 111 locations, a number of sons and daughters having left the family farm and cleared their own lots. In some cases the original family farm had been partitioned into smaller farms to accomodate a settler's offspring. The Herliheys and Owens in the twelfth concession had divided the original lots and acquired additional land for sons' farms.

In 1841 more than 50% of the land in Emily was occupied (Figure 4.32), with 14.6% of the occupied land cleared (Figure 4.33). In the southern concessions, much of the vacant land was swampy or non-agricultural. A few lake-port (Cobourg, Port Hope, or York) speculators, including John Burn and Henry Boulton, held lots in the southwest

MAP OF EMILY TOWNSHIP

Emily Township Settlement Pattern 1841

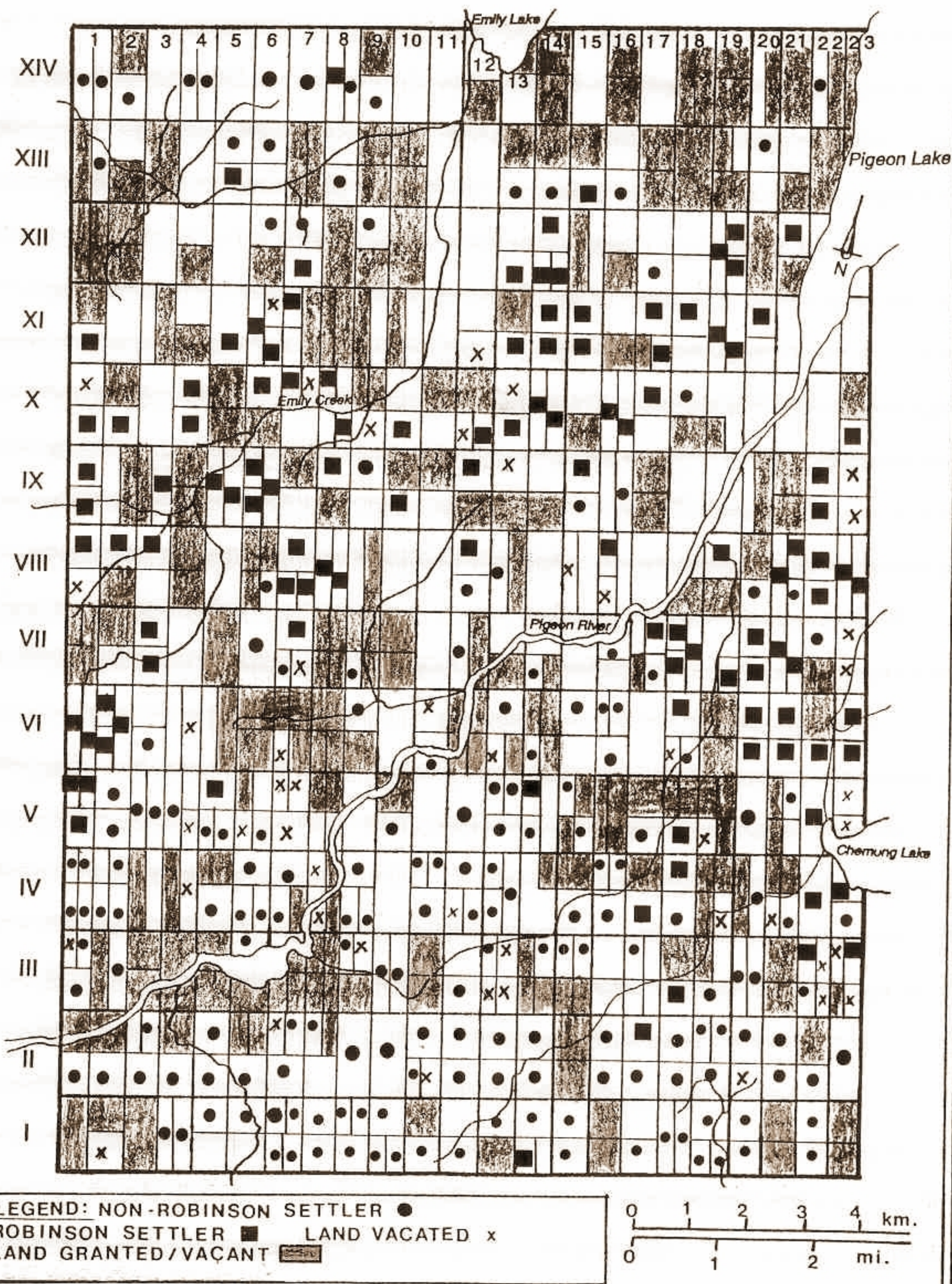


Figure 4.31: Emily Township Settlement Pattern - 1841

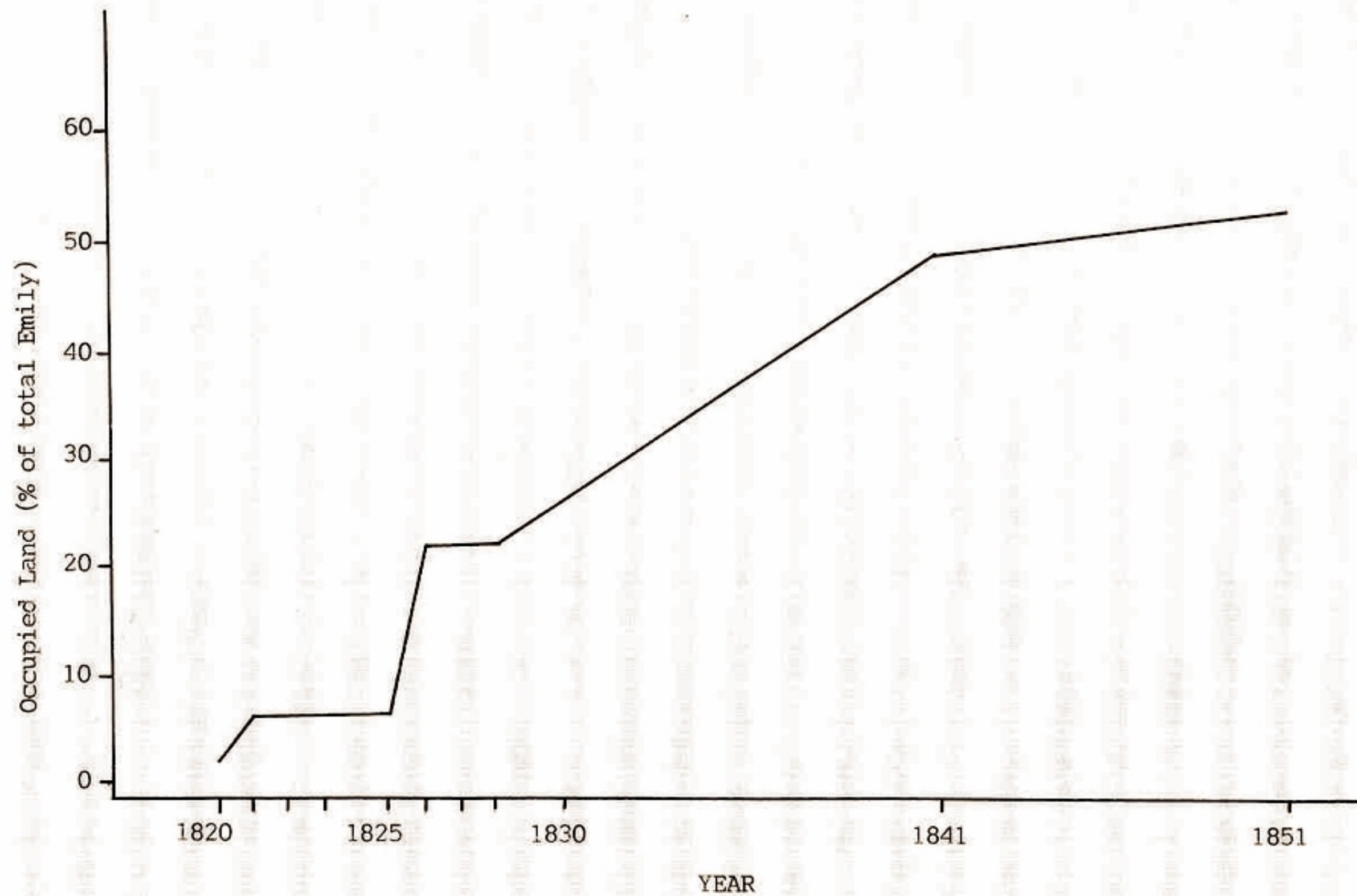


Figure 4.32 : Occupied Land - % of Emily 1820-1851

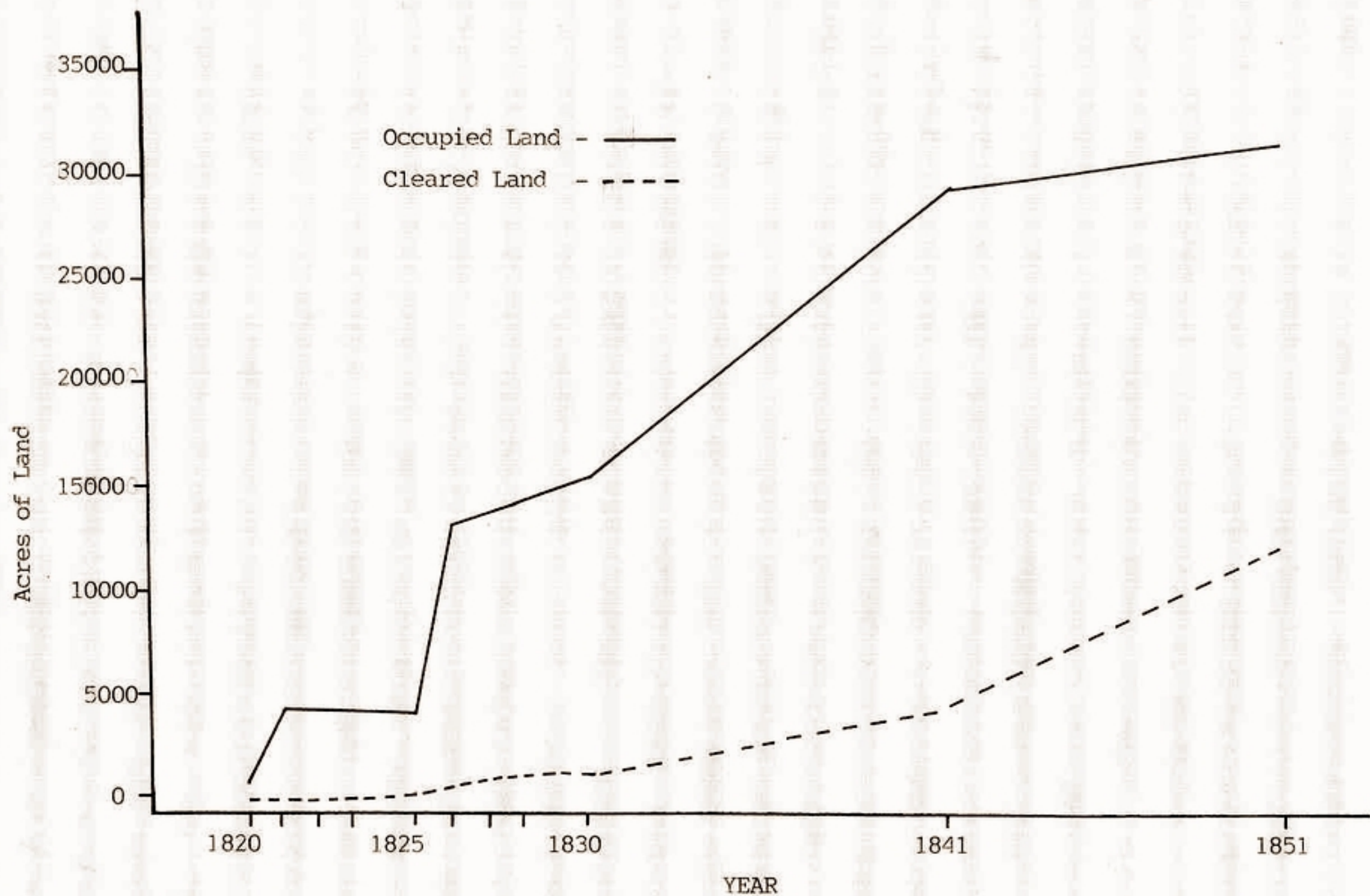


Figure 4.33 : Occupied Land and Cleared Land 1820-1851