

## PLOT 61

LOCATION: 80 m from western edge of Grid Square #: 61

DATE SAMPLED: 8/1/84

## SITE VARIABLES:

SLOPE: 2° ASPECT: 28° POSITION: foot of slope

SURFACE WATER: none

LITTER DEPTH: 2.00 cm EXPOSED BEDROCK: yes

SOIL SERIES (mapped):

SOIL pH:

VISUAL EVIDENCE OF: LOGGING: yes

GRAZING: no

STONE WALLS: no

FIRE: no

RECENT WINDTHROW: yes

MOUNDS & PITS: yes

AGES OF DOMINANT TREES: 43.1 cm Quercus alba : 98 years

CANOPY HEIGHT: 26.7 m % SKY VISIBLE: 7.0

## COMMENTS:

HYDROLOGY:

Plot at bottom of slope. Wash from heavy rain in plot. Slopes are more well drained.

SOILS:

Soils are shallow and rocky on slopes and deeper, poorly drained and slightly stony on flat section of plot.

HISTORY:

Old roads to the east and south of the plot. Cut stumps (chainsaw) in plot.

STAND CONDITION:

Most trees in good condition.

ADDITIONAL COMMENTS ON THE SITE:

There is a lot of old barbed wire in plot. The wash in the plot keeps the litter layer reduced and may also deposit some fine materials in its course. This should be detected in the soil samples and in the high diversity of species.

## VEGETATION STRUCTURE AND COMPOSITION:

**TREES:** Absolute density and basal area of stems > 10 cm DBH, by canopy position.

| SPECIES            | CANOPY               |       | SUB-CANOPY |       | UNDER-STORY |       | ALL STEMS |       |
|--------------------|----------------------|-------|------------|-------|-------------|-------|-----------|-------|
|                    | DENS                 | BA    | DENS       | BA    | DENS        | BA    | DENS      | BA    |
| Acer saccharum     | 20                   | 1.062 | 100        | 2.138 | 40          | 0.449 | 160       | 3.650 |
| Quercus rubra      | 20                   | 1.358 | 100        | 6.020 | 0           | 0.000 | 120       | 7.378 |
| Fraxinus americana | 0                    | 0.000 | 40         | 0.935 | 0           | 0.000 | 40        | 0.935 |
| Acer rubrum        | 0                    | 0.000 | 0          | 0.000 | 20          | 0.339 | 20        | 0.339 |
| Quercus alba       | 20                   | 2.918 | 40         | 1.171 | 0           | 0.000 | 60        | 4.089 |
| Quercus prinus     | 0                    | 0.000 | 40         | 2.175 | 0           | 0.000 | 40        | 2.175 |
| Carya glabra       | 20                   | 1.578 | 20         | 0.809 | 0           | 0.000 | 40        | 2.388 |
| TOTALS:            | DENSITY / HA         |       | 340        |       | 60          |       | 480       |       |
|                    | BASAL AREA (M2) / HA |       | 6.9160     |       | 13.2488     |       | 0.7887    |       |
|                    |                      |       |            |       |             |       | 20.9535   |       |

**TREES:** Relative density and basal area of stems > 10 cm DBH, by canopy position; and overall species importance values (mean of overall %D and %BA).

| SPECIES            | CANOPY |     | SUB-CANOPY |     | UNDER-STORY |     | ALL STEMS |     | IMPORTANCE |
|--------------------|--------|-----|------------|-----|-------------|-----|-----------|-----|------------|
|                    | %D     | %BA | %D         | %BA | %D          | %BA | %D        | %BA | VALUE      |
| Acer saccharum     | 25     | 15  | 29         | 16  | 67          | 57  | 33        | 17  | 25.38      |
| Quercus rubra      | 25     | 20  | 29         | 45  | 0           | 0   | 25        | 35  | 30.10      |
| Fraxinus americana | 0      | 0   | 12         | 7   | 0           | 0   | 8         | 4   | 6.40       |
| Acer rubrum        | 0      | 0   | 0          | 0   | 33          | 43  | 4         | 2   | 2.89       |
| Quercus alba       | 25     | 42  | 12         | 9   | 0           | 0   | 13        | 20  | 16.01      |
| Quercus prinus     | 0      | 0   | 12         | 16  | 0           | 0   | 8         | 10  | 9.36       |
| Carya glabra       | 25     | 23  | 6          | 6   | 0           | 0   | 8         | 11  | 9.86       |

**TREES:** Size class distribution of trees tallied in the 1/20 ha plot.

| SPECIES            | SIZE CLASS (cm) |       |       |       |       |       |       |       |      |
|--------------------|-----------------|-------|-------|-------|-------|-------|-------|-------|------|
|                    | 10-15           | 15-20 | 20-25 | 25-30 | 30-35 | 35-40 | 40-45 | 45-50 | > 50 |
| Acer saccharum     | 3               | 4     | 0     | 1     | 0     | 0     | 0     | 0     |      |
| Quercus rubra      | 0               | 1     | 1     | 2     | 1     | 1     | 0     | 0     |      |
| Fraxinus americana | 1               | 1     | 0     | 0     | 0     | 0     | 0     | 0     |      |
| Acer rubrum        | 1               | 0     | 0     | 0     | 0     | 0     | 0     | 0     |      |
| Quercus alba       | 0               | 2     | 0     | 0     | 0     | 0     | 1     | 0     |      |
| Quercus prinus     | 0               | 1     | 0     | 0     | 1     | 0     | 0     | 0     |      |
| Carya glabra       | 0               | 0     | 1     | 0     | 1     | 0     | 0     | 0     |      |
| TOTALS             | 5               | 9     | 2     | 3     | 3     | 1     | 1     | 0     | 0    |



**TREES:** Absolute density (per ha) and relative density (as % of density of live trees) of standing dead trees and trees with upper branch dieback

(NOTE: "% OF LIVE" = 999 indicates no live trees of that species in the plot).

| SPECIES            | STANDING DEAD |           | BRANCH DIEBACK |           |
|--------------------|---------------|-----------|----------------|-----------|
|                    | DENSITY       | % OF LIVE | DENSITY        | % OF LIVE |
| Acer saccharum     | 0.0           | 0.00      | 0.0            | 0.00      |
| Quercus rubra      | 20.0          | 16.67     | 20.0           | 16.67     |
| Fraxinus americana | 20.0          | 50.00     | 20.0           | 50.00     |
| Acer rubrum        | 0.0           | 0.00      | 0.0            | 0.00      |
| Quercus alba       | 0.0           | 0.00      | 40.0           | 66.67     |
| Quercus prinus     | 20.0          | 50.00     | 0.0            | 0.00      |
| Carya glabra       | 0.0           | 0.00      | 0.0            | 0.00      |
| TOTALS:            | 60.0          | 12.50     | 80.0           | 16.67     |

**SAPLINGS:** Densities per hectare of all stems >1 m height and < 10 cm DBH.

| SPECIES               | SIZE CLASSES (cm) |       |       |       |        | TOTAL |
|-----------------------|-------------------|-------|-------|-------|--------|-------|
|                       | 0 - 2             | 2 - 4 | 4 - 6 | 6 - 8 | 8 - 10 |       |
| Carpinus caroliniana  | 360               | 0     | 0     | 0     | 0      | 360   |
| Ostrya virginiana     | 1680              | 240   | 40    | 0     | 0      | 1960  |
| Hammamelis virginiana | 240               | 0     | 0     | 0     | 0      | 240   |
| Carya glabra          | 0                 | 40    | 0     | 0     | 0      | 40    |
| Acer saccharum        | 80                | 0     | 40    | 80    | 0      | 200   |
| Amelanchier sp.       | 640               | 120   | 40    | 0     | 0      | 800   |
| Acer rubrum           | 0                 | 0     | 80    | 40    | 0      | 120   |
| Fagus grandifolia     | 120               | 40    | 0     | 0     | 0      | 160   |
| Fraxinus americana    | 80                | 0     | 0     | 0     | 0      | 80    |
| Cornus florida        | 200               | 40    | 0     | 40    | 0      | 280   |
| TOTALS:               | 3400              | 480   | 200   | 160   | 0      | 4240  |

**SEEDLINGS:** Densities (per m<sup>2</sup>) of stems < 1 m tall.

| SPECIES              | DENSITY (#/m <sup>2</sup> ) |
|----------------------|-----------------------------|
| Carya glabra         | 0.500                       |
| Amelanchier sp.      | 0.250                       |
| Carpinus caroliniana | 0.250                       |
| Fraxinus americana   | 0.500                       |
| Quercus prinus       | 0.250                       |
| Prunus serotina      | 0.250                       |
| TOTAL:               | 2.000                       |

**SHRUBS:** Percent cover of shrub species within the stand.

| SPECIES                        | % COVER |
|--------------------------------|---------|
| <i>Vaccinium angustifolium</i> | 1.229   |
| <i>Viburnum acerifolium</i>    | 2.140   |
| <i>Smilax rotundifolia</i>     | 0.079   |
| TOTAL:                         | 3.448   |

**HERBACEOUS SPECIES AND THE FOREST FLOOR:** Percent cover (note: + means < 1 %).

|                                 | % COVER |
|---------------------------------|---------|
| Litter layer                    | 72.250  |
| Exposed soil                    | 4.500   |
| Exposed rock                    | 12.624  |
| Bryophytes                      | 5.250   |
| Lichens                         | 5.375   |
| Dead wood                       | 4.500   |
| Unknown seedlings               | +       |
| Tree boles                      | 2.500   |
| Carex sp.                       | 3.125   |
| Viola sp.                       | +       |
| <i>Solidago caesia</i>          | +       |
| <i>Arisaema triphyllum</i>      | +       |
| <i>Dryopteris noveboracense</i> | +       |
| <i>Viola palmata</i>            | +       |
| <i>Amphicarpa bracteata</i>     | +       |
| <i>Prenanthes</i> sp.           | +       |
| <i>Anemonella thalictroides</i> | +       |
| tree root                       | 3.750   |
| dead wood over                  | +       |
| <i>Hepatica americana</i>       | +       |
| <i>Monotropa uniflora</i>       | +       |