

## 2007 NAMP Field Codes

Each plot is 20m X 20m (66ft X 66 ft)  
Corners are at 45 degrees from cardinal directions at 14.2 m (47 ft) from center stake.

### Crown closure:

- 1 - >70% closure, full, less than 30 percent sunlight penetration
- 2 - 31-70% closure, moderate, 30 to 69 percent of ground receives sunlight
- 3 - 15-30% closure, open, 70-85% percent of ground receives sunlight
- 4 - <15% closure, very open, more than 85% of ground receives sunlight

### Crown structure (vertical levels in the canopy)

- 1 - single-story (one level of overstory trees)
- 2 - two-story (overstory trees and a second level of regeneration)
- 3 - multistory (greater than 2 distinct vertical levels in the canopy, stems smaller than 3 cm in dia. are not considered)

**Ground cover** of ferns, herbaceous plants, woody shrubs, vines and tree seedlings (ground surface under plant foliage, estimated 4 categories):

- 0 = none
- 1 = <30%
- 2 = 30-75%
- 3 = >75%

### Regeneration

- Collect on each of the 5 plots
- Count on a circular milacre plot (3.7 foot radius) located at 6.6 m (20 feet) from the plot center, in the East direction (90 degrees)
- If E was unavailable, a second choice was made going clockwise (S, W, N).
- The milacre plot was permanently marked at the center with a ½ inch pvc pipe – after measuring, remove marker. We will no longer permanently mark.
- All seedlings/saplings with greater than 2 leaves (cotyledons)
- If stump sprouts or coppices generated multiple shoots, each shoot was considered a separate seedling. Only those seedlings whose stem was within the milacre plot were counted.

- A maximum of 50 seedlings are recorded.

### Lecanium

- Ratings on each of the 5 plots
  - Ten branches
  - Rate maximum on 12" of each branch
- Lecanium scale abundance rating system**
- 0 = None
  - 1 = Trace : spotty single scales
  - 2 = Light : less than 30% of twig surface area with scales
  - 3 = Moderate : 30-60% of twig surface area with scales
  - 4 = Heavy : more than 60% of twig surface area with scales
  - 5 = Other evidence of scale presence: honey dew, sooty mold, crawlers
  - 6 = No understory sugar maple to rate

### Tree Species Codes

Code	Tree species	Code	Tree species
10	Maple	43	Poplar, aspen
11	Sugar maple	44	Basswood
12	Black maple	45	Ironwood, hophornbeam
13	Red maple	46	Cherry
14	Silver maple	47	Elm
15	Striped maple	48	Beech
20	Oak	49	Other hardwoods
21	White oak	91	E. White Pine
22	Bur oak	92	Other pine
23	Northern red oak	93	Hemlock
24	Black oak	94	Balsam fir
30	Birch	95	Spruce
31	Yellow birch	96	White spruce
32	Paper birch	97	Red, black spruce
41	Ash	98	Tamarack
42	Hickory	99	Other conifers

### DBH

- Tree diameter was measured at d.b.h., 1.37 m or 4.5 ft.
- The measurements are recorded to the nearest 1 cm.

### Crown Position

- 1 - dominant
- 2 -codominant
- 3 -intermediate
- 4 -suppressed

## Vigor

**1 -healthy;** tree appears to be in reasonably good health; no major branch mortality; crown is reasonably normal within the stand situation; less than 10 percent branch or twig mortality, defoliation or discoloration present.

**2 -light decline;** branch mortality, twig dieback, or foliage discoloration present in 10 to 25 percent of the crown; broken branches or crown area missing based on presence of old snags is less than 26 percent.

**3 -moderate decline;** branch mortality, twig dieback, or foliage discoloration in 26 to 50 percent of the crown; broken branches, or crown area missing based on presence of old snags is 50 percent or less.

**4 -severe decline;** branch mortality, twig dieback, or foliage discoloration present in more than 50 percent of the crown, but foliage is still present to indicate the tree is alive; broken branches, or crown area missing based on presence of old snags is more than 50 percent; branch breakage and crown missing is recorded in the 5-percent classes in the notes.

**5 -dead, natural;** tree is dead, either standing or down; phloem under bark has brown streaks; few epicormic shoots may be present on the bole; no further entries needed.

**6 -dead, human caused;** tree removed; tree has been sawed or girdled by humans.

**7- dead, other**

**8 – dead and down**

## Bole Damage Codes

Bole damage agent	Bole damage code
porcupine damage	445
sapsucker damage	446
other animal damage	447
eutypella canker	203
nectria canker	202
other canker	207
Armillaria root rot	704
other conks	208
logging damage (>20% of circumference)	702
sugar maple borer	108
other borers	109
cracks and seams	708
wind thrown/uprooted	501
broken bole	709
other weather damage	505

**Defoliation** is estimated in four classes:

0 - none to light defoliation.

1 - less than 30 percent of crown defoliated.

2 - 31 to 60 percent defoliation.

3 - more than 60 percent defoliation.

## Seed Abundance

1=None (no seed is visible with binoculars)

2=Light to moderate seed present, BUT NOT abundant enough to cause noticeable discoloration in the upper crown

3=Heavy (branches in the upper crown with reddish-brown cast in mid- to late summer as a result of color change of samara from green to reddish-brown)