

Annual Report - The Amphibian Community of the Saratoga National Historical Park  
Permit # SARA-2002-SCI-0002  
Principle Investigator: Lawrence Woolbright  
For the 2005 calendar year

**Objectives.** This is a five-year study of the amphibian community at the Saratoga National Historical Park. Key goals are to determine species present on the site, population densities, and spatial and temporal patterns of habitat use. These will be accomplished mainly through auditory surveys, visual surveys, and driving transects during spring breeding season. Data will provide a historical baseline for future evaluations of amphibian population trends, along with information relevant to amphibian conservation.

The principle investigator was on sabbatical leave during the 2004-05 academic year. Therefore the year covered by this report was a scaled-back effort. Our primary goals were to continue to amass information on travel corridors via driving transects and to quantify egg clutch deposition by wood frogs.

**Accomplishments:**

1) Road transects confirmed the continued presence on the site of the following species: *Ambystoma maculatum*, *Bufo americanus*, *Hyla versicolor*, *Notophthalmus viridescens*, *Pseudacris crucifer*, *Rana catesbeiana*, *R. clamitans*, *R. pipiens*, and *R. sylvatica*. In addition, we discovered what appeared to be a mass unidirectional (west to east) migration of *Plethodon cinereus* in the vicinity of mile 4.8. Road transect results are on file in the Park office.

2) Clutch counts revealed 4606 egg masses of the woodfrog, *Rana sylvatica*. This is the highest number we have seen over the course of this project, perhaps reflecting a continuing pattern of mild winters. Egg masses were deposited in 19 locations, only one of which had not previously been used as a breeding site. Four breeding sites from previous years did not contain clutches this year. Clutch counts are on file in the Park office.

| Road transect data for 2005 - SNHP |          |          |          |           |          |       |
|------------------------------------|----------|----------|----------|-----------|----------|-------|
| Mile                               | 4/2/2005 | 4/3/2005 | 4/7/2005 | 4/20/2005 | 7/9/2005 | Total |
| 0.0                                |          |          |          |           |          | 0     |
| 0.1                                | 1        |          |          | 1         |          | 2     |
| 0.2                                | 1        |          | 2        |           | 2        | 5     |
| 0.3                                | 5        |          | 3        | 4         |          | 12    |
| 0.4                                | 6        | 2        |          | 7         |          | 15    |
| 0.5                                | 1        |          |          |           | 2        | 3     |
| 0.6                                | 3        |          | 1        | 1         |          | 5     |
| 0.7                                | 1        | 2        |          | 2         |          | 5     |
| 0.8                                | 2        |          |          |           |          | 2     |
| 0.9                                |          |          |          | 1         | 1        | 2     |
| 1.0                                |          |          | 1        | 1         |          | 2     |
| 1.1                                | 1        |          | 1        | 2         |          | 4     |
| 1.2                                |          |          | 2        | 1         | 1        | 4     |
| 1.3                                |          |          |          |           |          | 0     |
| 1.4                                |          |          |          |           |          | 0     |
| 1.5                                |          |          |          |           | 2        | 2     |
| 1.6                                |          |          |          |           |          | 0     |
| 1.7                                | 2        |          |          |           |          | 2     |
| 1.8                                |          |          |          | 3         | 1        | 4     |
| 1.9                                |          |          |          |           |          | 0     |
| 2.0                                |          |          |          |           |          | 0     |
| 2.1                                |          |          |          |           |          | 0     |
| 2.2                                |          |          |          |           |          | 0     |
| 2.3                                |          |          |          |           |          | 0     |
| 2.4                                |          |          |          |           |          | 0     |
| 2.5                                |          |          | 1        |           |          | 1     |
| 2.6                                | 1        |          |          | 1         | 2        | 4     |
| 2.7                                |          |          |          |           |          | 0     |
| 2.8                                |          |          |          |           |          | 0     |
| 2.9                                |          |          |          |           |          | 0     |
| 3.0                                |          |          |          | 1         |          | 1     |
| 3.1                                |          |          |          |           |          | 0     |
| 3.2                                |          |          |          |           |          | 0     |
| 3.3                                |          |          |          |           |          | 0     |
| 3.4                                |          |          |          |           |          | 0     |
| 3.5                                | 2        |          |          | 4         |          | 6     |
| 3.6                                |          |          | 2        | 1         |          | 3     |
| 3.7                                |          |          | 1        |           |          | 1     |
| 3.8                                | 2        |          |          | 7         | 1        | 10    |
| 3.9                                | 2        |          |          |           |          | 2     |
| 4.0                                | 3        |          |          | 2         |          | 5     |
| 4.1                                | 3        |          |          | 5         | 1        | 9     |
| 4.2                                | 6        |          |          | 2         |          | 8     |
| 4.3                                | 2        |          | 1        |           |          | 3     |
| 4.4                                |          |          |          |           |          | 0     |
| 4.5                                |          |          |          |           |          | 0     |
| 4.6                                | 1        |          |          | 1         |          | 2     |
| 4.7                                |          |          |          |           |          | 0     |
| 4.8                                | 2        |          |          | 11        | 2        | 15    |
| 4.9                                |          |          |          |           |          | 0     |

|       |    |   |    |    |    |     |
|-------|----|---|----|----|----|-----|
| 5.0   |    |   |    |    |    | 0   |
| 5.1   | 2  |   |    | 1  |    | 3   |
| 5.2   | 1  |   |    | 1  |    | 2   |
| 5.3   |    |   |    | 1  |    | 1   |
| 5.4   |    |   |    |    |    | 0   |
| 5.5   | 2  |   |    | 4  |    | 6   |
| 5.6   |    |   |    | 1  | 1  | 2   |
| 5.7   | 3  |   |    | 3  |    | 6   |
| 5.8   | 1  |   |    | 2  |    | 3   |
| 5.9   | 3  |   | 1  | 7  | 1  | 12  |
| 6.0   | 1  |   |    | 1  |    | 2   |
| 6.1   |    |   |    |    |    | 0   |
| 6.2   |    |   |    | 1  |    | 1   |
| 6.3   |    |   |    | 1  |    | 1   |
| 6.4   |    |   |    | 3  |    | 3   |
| 6.5   |    |   |    |    |    | 0   |
| 6.6   |    | 1 |    | 1  |    | 2   |
| 6.7   |    |   |    | 1  |    | 1   |
| 6.8   | 1  |   |    |    |    | 1   |
| 6.9   |    |   |    |    |    | 0   |
| 7.0   |    |   |    |    |    | 0   |
| 7.1   |    | 1 |    | 1  |    | 2   |
| 7.2   |    |   |    |    |    | 0   |
| 7.3   |    |   |    | 1  |    | 1   |
|       |    |   |    |    |    |     |
| Total | 61 | 6 | 16 | 88 | 17 | 188 |

| Pond location                             | 2001 Rs     | 2002 Rs     | 2003 Rs | 2004 Rs | 2005 Rs |
|-------------------------------------------|-------------|-------------|---------|---------|---------|
| Way back behind 1 (E end of trough)       | nf          | nf          | 13      | 174     | 60      |
| John's Pond 2 (off track past stop 1)     | nf          | nf          | 35      | 145     | 102     |
| stop 1                                    | 119         | 393         | 383     | 640     | 724     |
| service road                              | 174         | 1           | 100     | 149     | 511     |
| Beaver (old - top of hill nr Larry's)     | 2           | 7           |         | 0       | 0       |
| Sean's 2 (right of road at culvert)       | nf          | nf          | 0       | 0       | 0       |
| 1st flag to left before stop 2            | nf          | nf          | 2       | 0       | 34      |
| 2nd flag to left before stop 2            | nf          | nf          | 5       | 19      | 17      |
| stop 2 (all ponds combined)               | 0           | 0           | 12      | 162     | 89      |
| bottom of hill on left before stop 4      | nf          | nf          | 13      | 6       | 0       |
| stop 4 culvert                            | nf          | nf          | 0       | 0       | 0       |
| Sean's = bottom of hill past stop 4 on l  | nf          | 4           | 0       | 0       | 0       |
| Larry's = top of hill on left past stop 4 | nf          | 23          | 16      | 47      | 32      |
| Beaver pond below monument                | nf          | nf          | 16      | 0       | 0       |
| stop 5                                    | nf          | 160         | 91      | 160     | 217     |
| pond south of road in curve below 1       | nf          | nf          | 0       | 0       | 6       |
| roadside at John's Pond (all combined)    | nf          | 0           | 6       | 55      | 118     |
| John's Pond                               | nf          | 432         | 0       | 281     | 470     |
| ditches on dirt track JP - FF             | nf          | nf          | 0       | 45      | 88      |
| stop 8 fern field                         | 129         | 419         | 317     | 1420    | 1114    |
| stop 8 roadside                           | 89          | 220         | 114     | 124     | 233     |
| big pond on track thru Brit woods         | *incl below | *incl below | 246     | 133     | 61      |
| vernal depressions in Brit woods - all    | 126         | 555         | 0       | 445     | 563     |
| British camp north                        | 67 ?        |             | 65      | 119     | 102     |
| British camp south                        | 60 ?        |             | 121     | 96      | 65      |
| Total internal ponds                      | 766         | 2214        | 1555    | 4220    | 4606    |