

**The Atlantic white-cedar (*Chamaecyparis thyoides*)
regeneration experiments: years three and four
(final reports)**

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Executive Summary (ES)

Overview (ES)

This document is a combined final report for years three and four of a five year Atlantic white-cedar regeneration project. This report encompasses activities from August 1993 to April 1995.

The project now has eight study sites from the Jackson State Nursery south to sites on the Belleplain State Forest. Several different scenarios are studied on the sites. Within the sites major factors thought to be limiting cedar germination and establishment are manipulated. These limiting factors include deer browsing, hardwood competition, logging slash and availability of cedar propagules.

The scenarios, research sites, and treatments (in that order) are:

I. Failed clearcut

A. Colletti research site (Lebanon State Forest)

1. Herbicide (Arsenal aerially applied 9/90) plus five-strand solar powered electric fence (erected 6/91).
2. Herbicide (9/90).
3. Herbicide (9/90) plus periodic spraying of Hinder deer repellent on cedar regeneration.
4. Control (no herbicide, no deer exclusion).

II. Recent clearcut

A. Penn Swamp (Wharton State Forest)

1. Deer fence (10 foot high woven fence completed by 5/91).

Within the fence two Latin squares containing three levels of logging slash: none, slash, and double slash have been delineated (completed by 11/90).

III. Illegally logged cedar stand

A. Three-foot site (Stafford Forge, Bass River State Forest).

1. Electric fence (5 strand solar powered established 11/92) plus herbicide (two ground applications with Arsenal : 10/92 and 9/93).
2. Electric fence (11/92), no herbicide.

IV. Hardwood conversion.

A. Jackson site (New Jersey state tree nursery, Jackson N.J.).

1. Electric fence (5 strand established 7/91) plus herbicide (ground application of Arsenal 7/91) plus seeded (1989 and 7/91) plus seedlings / cuttings planted with protective sleeves (6/92).
2. Herbicide (9/91) plus seeded (7/91) plus seedlings / cuttings planted with protective sleeves.

B. Bass river site (Bass River State Forest).

1. Electric fence (five strand erected 7/91 expanded 11/92).

Within the fence numerous direct seeded and control areas have been started (the seedings took place 1991 through 1993).

C. Belleplain food-patch site (Belleplain State Forest). This site is adjacent to a large upland clearcut that was to act as a food patch to divert and lessen deer impact on the research site.

1. Electric fence (five strand erected 7/91) plus herbicide (aerial application with Arsenal 9/90) plus seeding (5/91) plus seedling / cutting (plantings in 1992, 1993 and 1994). Some additional herbicide treatment of selected rows of seedlings and cuttings was done in 9/93.

2. Herbicide (9/90).

3. Herbicide (9/90) plus seeded (5/91).

4. Herbicide (9/90) plus seeded (5/91) plus periodic application of Hinder on cedar regeneration.

D. Belleplain non-food patch site (Belleplain State Forest). This area acts as a control for the food patch site. It is not adjacent to any clearcut.

1. Electric fence (7/91) plus herbicide (ground application in 1991) plus seeded (5/91) plus plantings of seedlings / cuttings in 1992, 1993 and 1994.
2. Herbicide (1991).
3. Herbicide (1991) plus seeded (5/91).
4. Herbicide (1991) plus seeded (5/91) plus periodic Hinder deer repellent spraying of cedar regeneration.

V. Cranberry bog conversion.

- A. Sorrentino site (Tuckahoe N.J.). In cooperation with the federal government 400 seedlings from Bass River were transplanted with protective deer collars in October 1993.

METHODS (ES)

Four surveys were taken during this grant period: a full survey done in the late summer / early fall of 1993 and 1994, and 'mini-surveys' during the spring of 1993 and 1994. The full survey was done on all permanent plots and consists of counting all species and recording the number of stems browsed by height classes. The height classes are: less than .3 meters, .3 - .6 meters, .6 - 1.3 meters and greater than 1.3 meters. A one-meter squared plot is used to count species less than .3 meters. This plot is also used to determine percent coverage of downed debris. A point sample, used on all trees

possessing a diameter at breast height (1.3 meters), has not been used during this survey period since the trees are not large enough.

The data generated from these sampling schemes are densities (number per hectare), percent browsed (percent total stems showing 15% or more of their edible branches browsed), and percent frequency (the percentage of the total plots a species was present on). These variables are presented in tabular form by site, treatment, species, and height classes. Statistical analyses were done on full survey data. The primary thrust of statistical analysis was a determination of treatment effectiveness and differences with respect to species' densities and percent browse. The analyses used were ANOVA (analysis of variance) models appropriate to each research site experimental design. Transformations of the response variables were done to meet ANOVA assumptions. Multiple range tests were used to find the specific treatment differences detected in ANOVAs. If transformations didn't satisfy ANOVA assumptions, then non-parametric tests were conducted. Alpha levels were set to .05.

Numerous ancillary studies were done by faculty (at Stockton and Rutgers) as well as students. These studies include hydrologic analyses of some research sites, seedling / cutting experiments, carbon dating of peat deposits from Penn Swamp, analysis of Hinder chemical composition and residual effects.

RESULTS / DISCUSSION : 1993 / 1994 DATA (ES)

The Jackson site continues to show recruitment of cedar into both treatments. The seed seems to be responding to a small difference in elevation which has resulted in slightly higher moisture on the expanded, no fence area. In 1994 cedar in the greater than 1.3 meter category have appeared inside the fence. The plantings of seedlings and cuttings by Dr. Kuser on both treatments have yielded good results with minimal mortality and good growth that is not significantly different between the sexual and asexual propagules transplanted.

The Colletti site shows dramatic evidence of the effect of deer on cedar regeneration. Cedar first reached the > 1.3 meter height class only inside the electric fence in 1993. In 1994, cedar in this height class have also appeared in significant numbers on the Hinder treatment. Distribution and density of cedar are very good on all treatments except the no herbicide area.

The Penn swamp site also shows dramatic differences inside and outside the woven ten foot high fence. There is a statistically significant interaction for cedar densities across most height classes between protection and slash treatments. Cedar under .3 meters inside the fence react to slash levels as predicted by Korstian and Brush (1931) and Little (1950); that is, as slash levels increase cedar germination decreases. But there are no statistical differences in white-cedar densities between slash and no slash levels in cedar greater than .3 meters. The densities of cedar (inside the fence) within double slash, though the lowest of all slash treatments, still may be ample to stock the

site. Outside the fence cedar have not reached the > 1.3 meter height class, are less numerous and patchier than inside the fence.

Bass River continues to show recruitment into the $< .3$ meter class although in 1994 there was a drop in recruitment that may be due to less seed available to germinate and / or site conditions, particularly moisture. The site, underlain by an impenetrable clay bowl, has been determined to have precipitation as its only hydrologic input. The future growth of the cedar on the site will probably depend on cedar recruitment and growth, transpiration rates and meteorological factors such as precipitation.

The seedlings on both the Belleplain sites were not successful as the sites became drier during our study. There has been spotty natural regeneration from nearby mature cedar on the sites, particularly the control areas in the Belleplain food patch site. Of the three plantings attempted, the 1994 planting, which used the largest seedlings to date (and treatment of the roots with an anti-desiccant) was the most successful. The survival in October and November 1994 was 62% on the food patch and 84% on the non-food patch site.

The 1993 and 1994 data show a shift at the Three-foot site. The herbicide area in 1994 is now more successful in cedar recruitment. The difference is attributable to a second spraying of Arsenal just as the 1993 data were collected. The over 800,000 seedlings per hectare found on the herbicide area in 1994 represents the highest density of cedar measured to date on any site.

The Sorrentino site planting has mixed success due to a lack of control of water in the bog and hence wetter conditions than cedar prefer. The last survey in 1995 on a

subset of the 400 trees planted shows a 38.3 % survival rate with an average height of 40 cm. The cedar more upland (slightly higher elevation) seem to be surviving better. There have been problems with the protective collars staying upright either due to vandalism or other conditions.

Conclusions (ES)

The literature has no experimental data for minimum starting densities of cedar needed to obtain full stocking. The literature does give a range of 280 to 1,300 trees per acre at age 60 to be considered fully stocked depending on the site index (Korstian and Brush, 1931). It is therefore impossible to quantitatively state which sites are adequately stocked but reasonable assessments can be made. To date we feel that there is adequate cedar to achieve full stocking on the following sites (and treatments): Colletti (fenced and Hinder treatments), Penn Swamp (fenced treatment, all slash levels), Bass River (all areas except control and Stockton treatments), Belleplain food patch (control treatment), and Jackson (both fenced and unfenced).

It is too early to predict outcomes on some of the sites and treatments added later in the study, among them: Three-foot site, Sorrentino site, and the last plantings done inside the electric fence on both Belleplain sites.

The critical factors that have made the most difference have been deer protection in areas where densities are 10 or more deer per square kilometer, and moisture.

Moisture was either too little to make direct seeding and transplanting of small seedlings /

cuttings successful (Belleplain sites) or too much as in the Sorrentino site and limited areas at Bass River where flooding is too frequent or elevated areas too dry (Stockton treatment).

The variability between sites, even those considered 'similar', is great. This reinforces the idea that successful regeneration methodologies need more experimentation on a variety of sites.

Currently this project recommends regeneration of 'high-probability-for success' sites. These high probability sites include recent cedar clearcuts, illegally cut and failed clearcut scenarios where adequate moisture (hummocks, open water and sphagnum present), viable buried seed, hardwood control (herbicide) and adequate deer protection (electric fencing) are present or provided.

More problematic in the regeneration of cedar are sites that are drier, that do not already contain adequate buried viable cedar seed and lack adequate moisture. A number of swamp hardwood stands would fall into this category.

Introduction / Problem statement

The decline in acreage of Atlantic white-cedar (*Chamaecyparis thyoides*) is a fact supported by scientific and historical accounts (Vermeule and Pinchot 1900, Cottrell 1929, Pierson 1989). With the acknowledged value of wetlands it has become increasingly important to maintain and restore wetland communities whenever possible.

There are many causes for white-cedar's decline such as development, fire, successional trends, rising sea-level, and failure to regenerate after harvesting. This project focuses on a few 'loss' scenarios and concentrates on methodologies to deal with factors that prevent white-cedar establishment and growth. There are many opinions regarding proper methodologies to harvest and regenerate white-cedar (Korstian and Brush 1931, Little 1950, Zampella 1986). There have been shifts in the environment, changes in socio-economic conditions and new methodologies since the last large field research efforts (Korstian and Brush 1931, Little 1950) in white-cedar silviculture.

This project has established research sites for the following scenarios: a recent clearcut, a failed clearcut, an illegally logged site, hardwood conversion areas, and a cranberry bog/reservoir conversion. Within each of these scenarios, factors thought to be limiting white-cedar regeneration and establishment are being manipulated. These factors include browsing by white-tailed deer (*Odocoileus virginiana*), interspecies competition, logging slash, and white-cedar seed/seedling source or availability.

The project's primary objective is a determination of the biological effectiveness of our treatments as measured by white-cedar and competing vegetation densities, browse, and

percent frequency occurrences. The vegetation is measured by species in four height classes across the various scenarios and their experimental treatments. A record is being kept of person hours and costs incurred. At the end of the five year project the economic costs of the treatments will be calculated.

Research Methods

The project now includes the following scenarios (the research sites and the deer densities are also given). The deer densities are from N.J.D.E.P. Division of Fish, Game, and Wildlife's preseason 1991 average population estimates.

Site and Treatment Descriptions

Recent clearcut:

1. Penn Swamp. A 3.4 hectare clearcut (1989-1991) made in a larger white-cedar swamp. The site is located in deer management zone 23 and has an average deer density of 12 deer per square kilometer.

Failed clearcut:

2. Colletti site. Prior to this research the site had not permanently established cedar for five years since being clearcut in 1985. The site is in deer management zone 21 and averages 10 deer per square kilometer.

Illegally logged area:

3. Three-foot site. Prior to treatment this .2 hectare site had been illegally logged extirpating the white-cedar. The site was added to the project in 1993. The site is within deer management zone 24 and contains about 10 deer per square kilometer.

Hardwood conversions:

4. Jackson site. This swamp hardwood stand was once according to locals a cedar stand (Albert 1990). The site has been expanded twice to its present size .16 hectare size. The site is in deer management zone 16 and contains about 8 deer per square kilometer.

5. Belleplain food patch site. The site (1.01 hectares) represents the 'lower' (or drier) end of moisture regimes encountered on our research sites. It lies between an upland oak-pine clearcut and a white-cedar/swamp hardwood community. The upland clearcut was chosen to act as a food patch to divert white-tailed deer and/or 'flood' the area with alternative food sources. The site is in deer management zone 34 and averages 8 deer per square kilometer.

6. Belleplain non-food patch site. The .76 hectare site was chosen for its vegetative similarity to the food patch and to act as a control (no food patch). Both Belleplain areas were wetter when chosen for the study, but are drier in the more severe drought years that have followed. The site is in the same deer management zone as the food patch site.

7. Bass River. The study area (.64 hectares) is a wet area that is part of a 13.7 hectare pine hardwood forest clearcut and chipped in 1989. The research site within the larger clearcut has gotten progressively wetter and exhibits frequent ponding throughout the year due to a clay layer forming a bowl one to four feet beneath the surface. The site is in deer management zone 24 and averages 10 deer per square kilometer.

Cranberry bog/reservoir conversion:

8. Sorrentino site. The site is an abandoned cranberry bog/reservoir system that is privately owned. It is largely populated with various grass species and scattered red

maples (*Acer rubrum*). The site was partially planted in October 1993 with about 400 white-cedar transplanted from the Bass River site. This effort is in cooperation with the United States Fish and Wildlife Agency. The site is in deer management zone 24 and contains about 10 deer per square kilometer.

The variables chosen for manipulation the treatments at each site represent what were considered the major limiting factors to reproduction, these factors include: deer control, hardwood control, slash manipulation, and cedar sources (seeds, seedlings, and cuttings). Specifically, the treatments established at each research site (and their approximate locations) are as follows.

- Penn Swamp located in Wharton State Forest on Quaker Bridge road. A 3.4 hectare clear-cut was made in the in the swamp. This cut was completed in December 1990. A ten-foot high woven deer fence was erected, encompassing part of the clear-cut area. The fenced portion of the site serves as the treatment (deer exclusion) and the unfenced area serves as the control. Within both of these protection levels (fenced and unfenced) two Latin squares were established (see Figures 1 and 2, Appendix 4). A Latin square is an experimental design used to partition out variation that appears in two directions, horizontal and vertical. In this case the partitioned variations that were considered potential problems were: moisture gradients and residual stand effects. The Latin squares contain three slash treatments: no slash (N), normal slash (S), and double slash (D). Logging slash was composed of cedar branches and undesirable cut trees such as swamp hardwoods left on the site after logging. The

slash treatments were established shortly after most of the stand was clear-cut (11/90).

Due to delays by the state contractor the deer fence wasn't erected until after the first winter had passed (5/91).

- The Colletti white cedar stand, located in Lebanon State Forest, was harvested under state contract in 1985. This site never successfully re-established itself. The treatment delineations for this location were:
 - a. Herbicide (Arsenal sprayed 9/90) plus construction of a five strand, solar powered electric fence. The fence was completed in 6/91. The treatment area enclosed by the electric fence is 3.58 hectares, this includes some of the surrounding residual stand.
 - b. Herbicide (sprayed with Arsenal 9/90). The size of this treatment area is .29 hectares.
 - c. Herbicide (sprayed with Arsenal 9/90) and Hinder, a deer repellent applied continuously to the cedar. The area of this treatment is .30 hectares.
 - d. Control (no herbicide or deer exclusion techniques). Treatment area is .89 hectares.

Refer to Figure 3, Appendix 4 for the layout of the treatment areas.

- The Three-foot site, located at Stafford Forge in Bass River State forest, has two treatment delineations. (Figure 4, Appendix 4).

- a. Electric fence (five strand , solar powered, established 11/92) plus herbicide (Arsenal applied twice, 10/92 and 9/93). The treatment area is .10 hectares.
 - b. Electric fence (11/92), no herbicide. The treatment area is .10 hectares.
- The Jackson site is located on New Jersey state tree nursery land in Jackson, New Jersey. The original area which is now fenced was cut and seeded in 1989. The expansion of the experimental area was completed by 5/91. There are two treatments at this site (Figure 5, Appendix 4) :
 - a. Electric fence (five strand established 7/91) plus seed application (1989 and 7/91) plus herbicide. The area of this treatment is .09 hectares. Dr. Kuser of Rutgers recently established cuttings and seedling in protective sleeves in this location in June 1992.
 - b. No deer protection plus seed (9/91) and recent establishment of cuttings and seedlings in protective sleeves (6/92). This treatment area is .06 hectares.
- Belleplain food patch site, located in Belleplain State Forest, was cut and chipped in 1989. All four of the treatments occur between the two food patches. (Figure 6, Appendix 2). The established treatments are:
 - a. Electric fence (five strand erected 7/91), plus herbicide (Arsenal 9/90) plus seeding (5/91) plus establishment of seedlings and cuttings (5/92, 6/93). Some selected rows of cuttings and seedlings in the

electric fence area were treated with additional herbicide (9/93) in the electric fence area. This treatment area is .31 hectares.

- b. Herbicide (9/90). This treatment is split with half of the area in the northern part of the site and the other half at the southern end of the site. The combined treatment area is .26 hectares.
 - c. Herbicide (9/90), plus seed (5/91), plus Hinder (deer repellent) application. This treatment area is .25 hectares.
 - d. Herbicide (9/90), plus seed (5/91). The treatment area is .25 hectares.
- The Belleplain non-food patch site, also located in Belleplain State Forest, was cut and chipped during 1989 - 1990 and expanded in January/February 1991. The four treatments are nearly identical to the Belleplain food patch (see Figure 7, Appendix 4).
 - a. Electric fence (five strand, established 7/91), application of herbicide (Arsenal in 1991), seeded (5/91), planting of seedlings and cuttings (5/92 and 6/93). This treatment area is .19 hectares in area.
 - b. Herbicide (1991) plus seed (5/91). The area of this treatment is .21 hectares.
 - c. Herbicide (1991) plus seed (5/91) plus Hinder application. This area is .19 hectares.
 - d. Herbicide (1991). The treatment is .17 hectares in area.
- The Bass River site, located in Bass River State Forest, is part of a larger 13.7 hectare whole tree harvest which was completed in July 1989. The entire site was sprayed

with Arsenal in September 1990 and planted primarily with pitch pine in 1991. This area has undergone numerous seedings and two installations of electric fencing (see Figure 8, Appendix 4). The original forester plots were seeded in 4/91 and 1/91 respectively. A control plot was established between these two seeded areas. Additional plots have been established at various times since the original seeding. Please refer to Figure 8 in Appendix 4 for details. An electric fence, erected in 7/91, originally enclosed some of the plots. Stockton College established two plots outside the original electric fence, both of which were seeded (7/91) while only one was treated with the deer repellent Hinder. Hinder treatment was discontinued on the Stockton plots when no germination was apparent.

The electric fence was expanded in 11/92 to the size indicated in Figure 8, Appendix 4. Additional seeding of the entire expanded fenced area with the exception of established plots and a new control plot (labeled "new forester control" in Figure 8) was done in 1/93.

- The Sorrentino site is located in Tuckerton, N.J.. About 400 seedlings approximately two years old growing in the Bass River site were transplanted in October 1993. The United States Fish and Wildlife Agency, through their Partners in Wildlife program supplied the labor and 3 foot high plastic deer collars and poles used to protect each transplant (see Figure 9, Appendix 4).

For additional detailed information on the history of sites please refer to an earlier final report (Zimmermann, 1992).

Data Collection

Data has been collected on the sites every year since their establishment. The methodology used produces two surveys per year (or grant period): a full survey in the late summer/early fall, and a mini-survey in the following early spring.

The mini-survey is primarily taken to give a rough indication of what transpired over the winter season -- when deer browsing of white-cedar is at its maximum. The mini survey this year was taken on about half the number of permanent plots used in the full survey. The mini surveys in 1993-1994 produced no new insights and for brevity and efficiency are not presented in this report. We have discontinued the mini survey in 1995 due to its limited utility. The full survey involves extensive measurement and results in the highest resolution of what is on the site. The large number of sites, the amount of work involved gathering the data, and available resources necessitate sample sizes that are relatively modest at most sites. The surveys do, however, provide more than an adequate indication of vegetation trends and future of Atlantic white-cedar on the research areas.

The full survey included a point sample, which has not been used since the mature trees were cut. A five meter squared plot is delineated to record vegetation by height classes >.3 - .6 meters, .6 - 1.3 meters and over 1.3 meters tall. A one meter-squared plot is used to record vegetation less than .3 meters tall and to establish percent ground cover. A 2.5 meter transect is used to record interception lengths of downed debris. A detailed set of plot instructions and a sample plot card can be found in Appendix 3.

A 5 to 10% random sample of plots measured on a given day are re-measured and compared with the first measurements for discrepancies. If any errors are found, the source of those errors is discovered and corrected as well as the errors themselves.

Log books are maintained by all technicians. Any or all project related activities are recorded by date, activity and time. This serves as data for the project objective concerned with the costs of installing and maintaining treatments. The logs also serve as written record of other activities such as acts of vandalism to sites, electric fence readings and so on. The activity logs since the last report are contained in Appendix 3.

Data sheets are photocopied and stored in two different locations. Data are typed into the main frame VAX computer and additional copies of the data, after verification and any correction, are placed on diskettes and/or TK50 tapes as backup.

Statistical analysis is done using SAS on the Stockton VAX computer. The SAS (Statistical Analysis System) is a library of statistical programs developed and licensed by the SAS Institute in Cary, North Carolina. Dr. Richard Trout, of the Cook College Statistics department, Rutgers University, aided in developing the statistical models and methodologies used in the study.

The vegetation data consists of density (numbers per hectare), percent browsed (number of total stems showing 15% or more of their branches clipped), and percent frequency (the number of total plots on which the species is present). These data are presented and analyzed by site, treatment, species and height classes. The complete statistical analyses (analyses of variance, tests of normality of distribution, non-parametric tests, etc.) were run on the full survey data. Density and percent browse were

the response variables in the models, their function was to test the effects of the treatments. Models were run by species and height classes. An alpha level of .05 was used. All sites except Penn Swamp used a simple one-way analysis of variance model (density or browse = function (treatment)). The Penn Swamp experimental models are more complex in order to test multiple effects and take better advantage of the Latin square experimental design.

The two models developed for Penn swamp were:

An overall model done for each species by height class:

response variable = PROT, ROW (PROT), COL (PROT), TRT, PROT*TRT

Individual models are then run for each protection level. That is, a model is run for all the plots inside the deer fence and another is run for all the plots outside the deer fence:

response variable = SQ, ROW (SQ), COLUMN, TREATMENT

Where: PROT = protection level (fenced or unfenced)

COLUMN = Latin square column

SQ = Latin square (2 squares per protection level)

ROW = Latin square row.

The statistical analyses for all sites followed the same procedure: ANOVAs

(analysis of variance) were run using PROC GLM (General Linear Models) on SAS. The residuals (the difference between predicted and actual response values) were generated.

These residuals were then examined for distribution using PROC UNIVARIATE. A determination of normality is done utilizing a number of univariate measurements including the Kolomogorov D statistic (if n is greater than or equal to 50) or the Shapiro-Wilk statistic (if n is less than 51) for test of normality, normal probability plot, stem and

leaf plot, kurtosis and skewness measurements. If non-normality is determined then transformations such as, logarithmic transformations on density data or arcsine on percent browse data, are performed. If data meet ANOVA assumptions and statistically significant models are found, four multiple range tests (LSD, Tukey, Duncan and SNK) are performed in an effort to precisely determine where differences lie among treatment levels.

If, after transformation (s), residual analysis showed no improvement, analysis of the data for that particular species and height class are explored using non-parametric SAS procedures called NONPAR1WAY in which tests such as Kruskal-Wallis are performed.

Quality Control

The ultimate success or failure of sites to regenerate Atlantic white-cedar can be and is being determined by State foresters. Therefore, the findings, in this regard, are verified by our State foresters.

In addition to this check there are numerous controls set in the study. As mentioned, all data collected in the field is subject to a random check the day it is collected. Normally, 5 to 10% of the plots are re-measured and compared. Discrepancies have been few, small and always resolved. A permanent herbarium of most species encountered has been continually updated and maintained at Stockton. This herbarium has helped in accuracy and consistency of plant identification. Ted Gordon, a renowned Pine Barrens botanist, has helped in determining species on the sites, particularly rare species.

The data, once typed into the computer, is put through the same check system to verify accuracy in typing. To check computer program accuracy some figures are calculated by hand and checked against computer program outputs. With these checks and balances it is felt that the data and conclusions are as accurate as possible for this level of study. A formal quality assurance report is filed at the beginning of every grant period.

Results / Discussion : 1993 Data

Jackson Site : 1993 Data

Table 1 (Appendix 1) shows a few more layers of downed debris and a higher percent ground cover (Table 2, Appendix 1) of sphagnum in the unfenced area. This increase in sphagnum cover probably reflects the lower elevation and higher moisture levels.

Table 3 (Appendix 1) presents the density, browse and frequency data for vegetation less than .3 meters tall. The only two species that had statistically significant responses were the densities of Atlantic white-cedar and red maple (*Acer rubrum*). The white-cedar (under .3 meter) densities are greater in the unfenced treatment (123,333 per hectare) than the fenced area (15,333 per hectare). Red maple densities also display this pattern with 12,666 and 667 per hectare in the unfenced and fenced areas, respectively. As mentioned in the last final report (Zimmermann 1993) the unfenced area is lower in elevation and wetter than the fenced area. The response of cedar and maple is probably influenced more by the moisture gradient than protection from deer which aren't as numerous at this site. Table 4 (Appendix 1) shows only one species *Eupatorium dubium* with a statistically significant difference in density.

Although not statistically significant ($\alpha = .07$), white-cedar .6 - 1.3 meters tall show a higher density in the fenced area (1,600 per hectare) versus the unfenced area (Table 5, Appendix 1).

The analysis of vegetation greater than 1.3 meters tall shows no statistical differences in species' densities. (Table 6, Appendix 1).

The data in Tables 3 through 6 (Appendix 1) did not include the plantings (with deer protection collars) made by Dr. Kuser of Cook College, Rutgers University. These plantings, which include seedlings and cuttings of white-cedar, are doing well with little mortality (see Jackson 1994 data results).

Colletti Site : 1993 Data

Downed debris (Table 7, Appendix 1) figures show up to three layers present at the Colletti site in 1993. Percent ground coverage (Table 8, Appendix 1) shows a topography with hummocks, open water, and sphagnum occupying significant areas.

There is no statistical difference in white-cedar densities between treatments for first year recruitment ($< .3$ m). Although Table 9 (Appendix 1) shows higher cedar recruitment in the heavily browsed treatments (control: 118,000 white-cedar per hectare, Hinder: 108,000) where herbicide was applied. There is, however, a statistically significant difference in percent visible browse. All four multicomparison tests agree that the electric fence has the lowest browse at 7.5 %, and that there are no statistical differences ($\alpha > .05$) in browse among the remaining treatments.

The densities of *Acer rubrum* less than .3 meters tall are different among the treatments. The four multiple comparison tests used in the analysis found a statistical difference in red maple densities in the no herbicide and electric fence treatments. The densities were 53,000 and 7,000 red maples per hectare, respectively. Densities for swamp azalea, *Rhododendron viscosum*, are highest in the no herbicide treatment at

141,00 per hectare. There were no significant differences in swamp azalea densities between the remaining treatments.

Statistically significant differences in densities were found with the following species: *Gaylussacia frondosa* (dangleberry), *Leucothoe racemosa* (fetterbush), *Vaccinium corymbosum* (highbush blueberry), and *Lyonia ligustina* (maleberry) sprouts. Other statistical differences in densities and browse can be found in Table 9 (Appendix 1).

Examination of the higher height classes (greater than .3 meters) reveals the individual treatments' effectiveness, especially with white-cedar. In Table 10 the data show statistical differences in white-cedar densities, in the .3 - .6 meter height class. Of all the manipulations, the electric fence treatment has the highest density (25,000 per hectare) of cedar for this site. The no herbicide treatment for the .3 - .6 meter height class has the statistically highest densities for: *Clethra alnifolia*, *Acer rubrum*, *Rhododendron viscosum* and *Vaccinium corymbosum*. *Epilobium angustifolium* is densest in the Hinder treatment. The only statistical difference in percent browse occurs for chain fern, *Woodwardia virginica*, where 15.73% of this species were browsed in the control treatment and not in any other treatment.

Atlantic white-cedar in .6 - 1.3 meter height class (Table 11, Appendix 1) were statistically more numerous in the electric fence treatment (17,000 per hectare) than all other treatments combined. Visible browse of cedar in this height class is significantly ($\alpha = .0142$) higher in the Hinder (56 %) and control (32 %) than other treatments. As seen previously in the .3 - .6 meter height class, the .6 - 1.3 meter woody competitors such as

Clethera alnifolia, *Gaylussacia frondosa*, *Leucothoe racemosa*, *Rhododendron viscosum*, and *Vaccinium corymbosum*, are significantly more numerous in the no herbicide treatment. See Table 11 (Appendix 1) for additional information and statistical differences.

Vegetation greater than 1.3 meters tall data (Table 12, Appendix 1) dramatically show the effect of the electric fence. White-cedar this height in 1993 could only be found inside the electric fence (800 per hectare). Other statistical differences in density appear in the no herbicide treatment where *Vaccinium corymbosum* and *Clethera alnifolia* are more numerous.

Penn Swamp : 1993

Penn Swamp is the only site with logging slash as an experimental variable. The effect of slash on white-cedar regeneration is an area of some disagreement in the literature (Cotrell 1929, Korstian and Brush 1931, Little 1950). This experiment has followed cedar regeneration under three slash loads for four years.

Both overall and individual statistical models by height class and species were used in these analyses. These breakdowns in data analysis are essential in proper experimental interpretation of the results. For instance, this type of analysis avoids biases that the numerous smaller plants might add to the portrayal of the vegetation dynamics if grand averages were only employed.

Downed debris for Penn swamp in 1993 (Table 13, Appendix1) present a picture consistent with slash loads. The double slash treatments have up to four layers, while there are fewer layers for the lower slash levels. Ground cover (Table 14, Appendix 1)

data shows significant amounts of sphagnum as well as litter and a hummock topography. The overall model analyses of the 1993 data show a number of statistically significant differences. In the .3 - .6 meter height class there is a highly significant ($\alpha = .001$) interaction between protection and slash treatments. There were numerous instances in which rows, columns and squares were statistically significant and aided in the removal of spurious variation from the analysis. Contributing circumstances to row, column and square variation are: stochastic and non-stochastic processes such as seed shadows from non-cut forest edges, logging roads, and site moisture variations.

In the under .3 meter height class the overall model for white-cedar was highly significant ($\alpha = .0004$) with 53.9 % of the variability of white-cedar densities explained. The interaction between slash treatments and protection was significant ($\alpha = .0395$) as were row (protection): $\alpha = .0039$, and treatment ($\alpha = .006$). While protection was not statistically significant for the under .3 meter white-cedar, there were twice as many white-cedar inside the woven fence (131,944 per hectare) than outside (63,888 per hectare).

Additional overall model density differences for under .3 m vegetation in which protection was the statistically significant variable include: *Leucothoe racemosa*, *Epilobium angustifolium*, *Nyssa sylvatica*, *Rhus radicans*, *Smilax glauca* and *Hypericum canadense*. Significant percent browsing differences between protection treatments include: *Acer rubrum*, *Nyssa sylvatica*, and *Rhododendron viscosum*. *Nyssa sylvatica* is unusual in that any browse of its under .3 meter stems was found inside the fence. Small mammals such as rabbits and mice are not affected by the fence and account for most of

the browse found inside the fence. Individual model analyses within each protection level show a number of statistical differences. In the unfenced area (Table 19, Appendix 1) white-cedar under .3 meters tall displays significant density differences ($\alpha = .03$) for slash treatments. All multiple comparison tests agree that the statistical differences lie between double slash, with 37,500 cedar per hectare, and slash, with 94,167 cedar per hectare. All of the multiple comparison tests also found no density differences, for the under .3 meter height class, between slash (94,167 cedar per hectare) and no slash (60,000 per hectare).

The under .3 meter white-cedar inside the fence (Table 15, Appendix 1) densities are dramatically higher than outside the fence. The individual model for cedar densities was highly significant ($\alpha = .0008$) with 62.4 % of the variability in cedar density explained. All multiple range tests agree that one of the significant differences is between no slash, with 204,167 white-cedar per hectare, and double slash, with 64,167 per hectare. All tests agree that there is no difference between no slash (204,167 per hectare) and slash (127,500 per hectare). Although there is no statistical difference between no slash and slash as well as slash and double slash, the general trend for less cedar to germinate with less light is obvious. This trend supports the observations that white-cedar, at least in the first year, seems to be shade intolerant. The only other significant density differences between slash treatments was for *Drosera rotundifolia*, which also responded positively to higher light levels.

Overall model analysis of the vegetation in the .3 - .6 meter height class (Tables 16 and 20, Appendix 1) finds one of the highest r^2 terms for the experiment. For white-

cedar densities the overall model accounted for 85.5% of the variability found.

Protection and its interaction with slash treatments were among the highly statistically significant terms. The difference in white-cedar numbers inside the fence, 25,722 per hectare, and white-cedar outside the fence, 667 per hectare, is inarguably explicit about deer impact. Other .3 - .6 meter vegetation that exhibited significant density differences between protection treatments include: *Epllobium angustifolium*, *Ilex verticillata*, *Clethera alnifolia*, and sprouts of *Acer rubrum* and *Vaccinium corymbosum*. Individual model analysis of the .3 to .6 meter tall vegetation shows some significant differences. In the unfenced area (Table 20, Appendix 1) visible browse of white-cedar was only found in the double slash treatment where about 30% of the cedar showed partial browsing. Although, not statistically significant, the density of cedar in this height class was over twice as much as in the double slash treatment, with 1,167 cedar per hectare, versus 500 stems per hectare in the slash treatment and 300 stems in the no slash treatment. In the fenced area white-cedar densities were significantly higher in the no slash area (35,000 cedar per hectare) than in the double slash area (13,167 per hectare). There were no differences between no slash (35,000 per hectare) and slash (29,000 per hectare) according to all four multiple comparison tests.

The overall model analysis of the 1993 vegetation in the .6 to 1.3 meter height class (Tables 17 and 21, Appendix 1) reveals significant differences in white-cedar and a few other species. The white-cedar in this height class exist only inside the fence, with an average density of 23,222 cedar per hectare. Other species showing significantly higher densities inside the fence include *Acer rubrum* and its sprouts, *Clethera alnifolia* sprouts,

Ilex verticillata and *Rhododendron viscosum* sprouts. Fireweed, *Epilobium angustifolium*, shows an opposite but statistically significant trend with many more individuals outside the fence than inside the fence (60,277 stems per hectare and 944 per hectare respectively).

Individual model analysis of slash treatments for unfenced .6 - 1.3 meter vegetation found no statistically significant differences in density or percent browse. Inside the fence individual model analyses also show no effects from slash on white-cedar or other vegetation. This lack of statistical difference in white-cedar densities among slash treatments is important if it continues into higher height classes particularly when costs of slash removal are considered in clearcutting operations.

Overall model analysis conducted on vegetation greater than 1.3 meters tall (Table 18 and 22, Appendix 1) found protection to be significant. Interestingly, this effect is opposite for white-cedar and fireweed. White-cedar surviving to this height were only found inside the fence with a density of 2,944 per hectare and an $\alpha = .0001$. Fireweed, on the other hand, responded positively, directly or indirectly, to deer presence. In the > 1.3 meter height class it was found only outside the fence with a density of 1,111 per hectare and an $\alpha = .0058$.

Individual model analyses found no statistically significant effects of slash on density or percent browse for vegetation greater than 1.3 meters tall. White-cedar densities inside the fence for double, single and no slash were 2,833, 4,000 and 2,000 stems per hectare respectively. Once again, this result is important in future guidelines

for cedar harvest to maintain adequate stocking while managing costs. For the first time since its completion, no vandalism occurred to the fence.

Bass River : 1993

There is no formal statistical analysis of the Bass River site. As stated in the last final report (Zimmermann 1993) there have been too many changes at the site. Cedar seed and cedar seedlings have actually moved; floating from place to place via water during flood periods. Some seedlings travel with the wind after being freed from the ground as a result of frost heaving.

Inspection of the downed debris table (Table 23, Appendix 1) shows very little dead material present on any of the treatments, a probable consequence of the whole tree chipping operation. Tables 24 through 28 (Appendix 1) contain the data for vegetation by height class for all treatments. There is still significant white-cedar recruitment into the less than .3 meter height class on a number of treatments (Table 25, Appendix 1).

White-cedar remains one of, if not the most dominant species on most treatments. Grey birch, *Betula populifolia*, and white-cedar are the only species in the greater than 1.3 meter height class present on the plots in 1993. This site, given its hydrologic structure, which is an underlying clay bowl with precipitation as the only input, will remain a fascinating experiment to watch as the cedar grow and the transpiration rate increases. (see Epstein in Zimmermann 1993)

Belleplain Food patch : 1993

Both Belleplain sites reflect the drier regime that have characterized the year since they were chosen (see Epstein's drought paper in Zimmermann 1993). The Belleplain sites represent, on average, the driest of all the research areas encompassed by this project.

As with the Bass River site the 1993 downed debris data (Table 29, Appendix 1) shows the result of a whole tree chipping operation that leaves little material after harvest.

The percent ground cover data (Table 30, Appendix 1) shows high litter covers (i.e., dead leaves and small twigs). The lack of sphagnum underscores the dryness of the site at this time.

The analysis of vegetation in the less than .3 meter height class (Table 31, Appendix 1) finds only *Solidago* spp. density to be statistically significant with $\alpha = .0235$, and all individuals found within the electric fence.

The .3 - .6 meter vegetation analysis (Table 32, Appendix 1), finds only pokeweed, *Phytolacca americana*, as statistically significant in percent browse between treatments. Fifty percent of the pokeweed was browsed in the seed / herbicide / Hinder treatment.

In the .6 to 1.3 meter height class (Table 31, Appendix 1) white-cedar is highly significantly different ($\alpha = .0008$) in respect to density. The only natural cedar regeneration (not from the study's direct seeding) found is in the herbicide / control treatment. The underlying clay lens low elevation and nearby mature cedar densities are probably the primary factors responsible for this phenomenon. The data collected

independently regarding this regeneration is still being analyzed. *Solidago* spp. in this height class is, once again, only found within the electric fence. The electric fence treatment represents a higher elevation, drier area with deer excluded. Other significant densities for this size range are: *Kalmia latifolia* and *Phytolacca americana*. *Phytolacca americana* exhibited more browse on the Hinder site. It is important to point out that only cedar are sprayed with Hinder when this treatment is applied.

In the greater than 1.3 meter vegetation class white-cedar that naturally regenerated can be found only in the herbicide / control treatment ($\alpha = .0235$). Pokeweed ($\alpha = .0236$) exists only inside the electric fence with a density of 800 plants per hectare.

About 2,200 seedlings and cuttings were transplanted inside the electric fences at both the food patch and non-food patch sites in spring of 1993. Most were cuttings or seedlings grown for a year in the Stockton greenhouse. These transplants varied in size from 7.5 to 12.5 cm . Some seedlings from North Carolina were also transplanted. These were larger averaging 30 cm .

The fall 1993 survey revealed only about 9.2% survived on the food patch site. The larger North Carolina seedlings, however, had an average survival at this site of 40.9% compared to 9.7% survival for cuttings in jiffy pots, 8.3% survival of cuttings in bullets, 2.1% survival of bare root one year seedlings and 7.2% survival of one year N.J. nursery seedlings in bullets. It is apparent that the larger size (and root system) are necessary for increased survival at the drier food-patch site.

Belleplain Non-Food patch site : 1993

Table 35 (Appendix 1) contains the 1993 downed debris data. As found on its sister site the number of layers and amount of downed material is low, reflecting the harvest / chipping process.

Although there was once sphagnum on part of the site the dry conditions during the study have left only grass, litter, sand soil and stumps as the ground covers found on the plots (Table 36, Appendix 1).

The under .3 meter vegetation data analyses (Table 37, Appendix 1) find white-cedar present on all treatments but the control. The white-cedar densities (statistically significant at $\alpha = .0339$) are due to two reasons. Inside the electric fence most of the cedar encountered were from the 1993 spring planting. The cedar found on the other treatments, with the exception of the control area, are the result of direct seeding or natural seeding from the adjacent cedar plantation. The only other significant densities were for *Leucothoe racemosa* sprouts, which were found in high abundance on the seed / herbicide treatment, and *Epilobium angustifolium*, which is found at its highest density of 333,333 plants per hectare on the control treatment. Table 38 (Appendix 1) presents the .3 - .6 meter vegetation. *Epilobium angustifolium* is densest ($\alpha = .0001$) on the control treatment. Sprouts of *Gaylussacia frondosa* were more numerous, (26,500 per hectare) in the treatment where Hinder was applied. The only significant density for plants in the .6 to 1.3 meter range was for *Epilobium angustifolium*. Its density was highest in the control treatment at 18,000 stems per hectare.

The data for the greater than 1.3 meter height class (Table 40, Appendix 1) shows no statistically significant trends for density or percent browse. The only trees on our plots in this category were pitch pine (*Pinus rigida*) which appear in three of the four treatments. At the non-food patch site, a fall 1993 survey of the earlier spring planting revealed 13.4% survivorship. The non-food patch site's electric fence treatment encompasses a wetter area and this may explain the slightly higher survivorship when compared to the other Belleplain site.

Three-foot site : 1993

This site was started in 1992. The first application of the herbicide Arsenal was not completely effective, as will be seen in this year's data. As a result, an additional herbicide application was made in September 1993. Since this herbicide treatment took place after the 1993 survey, the 1994 data should reflect the effects of the latest application. The 1993 survey data presented in the last report were partially in error and are presented here in their corrected form.

Tables 41 and 42 (Appendix 1) present the downed debris and percent ground cover data, respectively. The downed debris data shows up to four layers occurring on the site. Sphagnum occurs in both treatments, although at twice the rate on the herbicide treatment. Litter is over twice as high in the control.

There is no statistical difference in white-cedar recruitment (see Table 45, Appendix 1). *Vaccinium corymbosum* was significant ($\alpha = .0139$) and found only in the control with a density of 21,111 stems per hectare. *Drosera rotundifolia* occurs in much

greater densities in the unsprayed area (84,444 per hectare) than the sprayed treatment (5,555 per hectare). *Clethera alnifolia* sprouts were significantly different between the treatments.

The .3 - .6 meter vegetation (Table 44, Appendix 1) analyses revealed significantly higher densities in the control for *Leucothoe racemosa*, *Vaccinium corymbosum* sprouts and *Clethera alnifolia* sprouts. Cedar densities were not significantly different. The .6 to 1.3 meter vegetation (Table 45, Appendix 1) shows the *Leucothoe racemosa* and *Gaylussaccia frondosa* sprouts to be higher in the control than herbicide area; a consequence of the first herbicide treatment.

There are no statistically significant differences in density for vegetation greater than 1.3 meters tall (Table 46, Appendix 1).

Sorrentino Site : 1993

Approximately 400 seedlings were transplanted in October 1993 to the Sorrentino's bog. The seedlings from non-sampled areas of the Bass River site were between one and two feet high when transplanted. Data on survival will be presented in the 1994 results / discussion section.

Results and Discussion 1994

Jackson site : 1994 data

The downed debris and percent ground coverages for the 1994 growing season are presented in Tables 1 and 2 (Appendix 2). The percent sphagnum has declined from 1993, particularly in the unfenced area, while grass and litter coverage increased in this treatment.

There is still a statistically significant difference in densities of white-cedar under .3 meters (Table 3, Appendix 2), however, the difference in recruitment is less dramatic than in 1993. *Acer rubrum* recruitment has increased, particularly in the fenced treatment with 104,666 stems per hectare. The reasons for these shifts are unknown but possible factors include changes in moisture and seed production from the surrounding red maple / swamp hardwood stand. Populations of *Eupatorium dubium* (under .3 meters) are also statistically different ($\alpha = .01$), with this species occurring only in the fenced area.

In Table 4 (Appendix 2) significant density differences for .3 to .6 meter vegetation were found for: *Acer rubrum* sprouts, *Aster simplex*, *Eupatorium perfoliatum*, and *Leucothoe racemosa* sprouts. Percent frequency figures for white cedar show it to be found on 50% of the plots in the fenced area and 67% in the unfenced treatment. The plantings by Dr. Kuser are not counted on the plots - these data are discussed later in this section. There are about twice as many .6 - 1.3 meter tall white cedar inside the electric fence as outside the fence, although the differences are not statistically significant. The

only statistical difference in this height class is *Eupatorium perfoliatum* which is found only in the unfenced area.

The Jackson vegetation over 1.3 meters tall, in 1994, is limited to seven species (Table 6, Appendix 2). White-cedar at this height is found only inside the electric fence, and only on 27% of the plots within the fence. Red maple is more numerous than white-cedar but is only found outside the fence.

The condition of seedlings and cuttings planted three seasons ago by Dr. John Kuser of Cook College, Rutgers University were re-measured in the fall of 1994. The mean height for all cuttings was 84 cm in comparison to seedlings which averaged 86 cm (Kuser 1994). There seems to be no difference between the growth of the two propagules. These results are similar to those from the North Carolina experiments (Summerville 1994). Of the 73 cedar planted in collars only four were missing. Of the eleven cedar planted without collars only four could be found -- this emphasizes the importance of protection from browsing. Dr. Kuser believes a large collar at least 48 inches tall by 12 inches in diameter are needed to provide adequate room and protection for the trees.

White-cedar densities during the period of our research (Figure 10, Appendix 4) show recruitment from 1992 to 1994 in the less than .3 meter height class has declined in both treatments, particularly outside the fence. This may be due to a diminution in viable seed sown at the beginning of the study. There are no mature cedars nearby to augment the seed bank. The unfenced area contains more white-cedar, probably in response to the lower elevation and wetter conditions. The deer pressure in the Jackson area is not as

high as some of the other sites of this project. The differences in direct seeding success within such a small area, and the growth of transplants at Jackson, have shown the potential problems in seeding versus transplants. The site will probably re-establish itself in cedar if the transplants continue to thrive. The direct seeding in the no fence area will probably be adequate for regeneration if deer pressures remain low.

Colletti Site : 1994

Downed debris (Table 6, Appendix 2) and percent ground cover (Table 7, Appendix 2) show similar trends to the 1993 data. Open water, sphagnum, and hummock systems are characteristic of this site.

Recruitment of white-cedar under .3 meters tall declined in 1994 (Table 9, Appendix 2) on all treatments compared to 1993. There is no statistical difference in the under .3 meter white-cedar number across treatments, although browse is significant ($\alpha = .0096$) in this height class. The electric fence has fewer cedar browsed. There are fewer statistical differences in the 1994 densities of under .3 meter vegetation as compared to the 1993 data. *Acer rubrum*, *Clethra alnifolia*, *Gaylussacia frondosa*, and *Vaccinium corymbosum* are some of the species exhibiting significant density differences across the treatments (Table 9, Appendix 2).

The white-cedar in the .3 to .6 meter height class (Table 10, Appendix 2) are statistically significant across treatments in both density ($\alpha = .0007$) and percent browse ($\alpha = .0080$). All multiple range tests concur that the electric fence contains the highest

cedar numbers. All comparison tests find no difference in cedar density between the Hinder and control treatments. Percent browse of white-cedar was significant. The Hinder treatment had the highest browse, at 54 %, but was not statistically different from the control area with browse of 44 %. The effectiveness of the electric fence in this area is dramatic as seen in both the absolute numbers of white-cedar (above .3 meters) and the percent visible browse.

Other .3 to .6 meter tall species (Table 10, Appendix 2) that exhibit statistical differences in density are: *Woodwardia virginica*, *Leucothoe racemosa* and sprouts of *Clethera alnifolia*, *Gaylussacia frondosa*, *Rhododendron viscosum* and *Vaccinium corymbosum*.

Densities of Atlantic white-cedar in the .6 to 1.3 meter height class are highly significantly different ($\alpha = .0001$) across treatments. The 29,000 white-cedar inside the electric fence are almost four times greater than the next highest density in the Hinder treatment. The population differences the Arsenal spray created in some of cedar's woody competitors are apparent in the significantly higher numbers of *Clethera alnifolia*, *Gaylussacia frondosa*, *Vaccinium corymbosum* and other species found in the non-herbicide treatment.

The white-cedar in the greater than 1.3 meter height class (Table 12, Appendix 2) are the most numerous inside the electric fence with a density of 4,200 stems per hectare. As in 1993 there were no white-cedar of this size in the non-herbicide area due to the intense competition from other woody species such as *Vaccinium corymbosum* and *Clethera alnifolia*. White-cedar densities at this site, as presented in Figures 11 and 12

(Appendix 4) demonstrate the dramatic effect of the electric fence and its efficiency in repelling white-tailed deer.

Penn Swamp : 1994

Downed debris for 1994 (Table 13 Appendix 2) is similar in structure to that seen in 1993 (Table 13, Appendix 1) with the exception of the slash structure. The slash structure has changed, exhibiting less layers than were measured in 1992 (Zimmermann 1993). Ground coverage (Table 14, Appendix 2) shows significant amounts of sphagnum particularly in the unfenced area.

There is a significant difference in 1994 densities due to the woven fence for species in the under .3 meter height class (Tables 15 and 19, Appendix 2). Included in this pool of significant density differences are: *Chamaecyparis thyoides*, *Clethera alnifolia*, *Drosera rotundifolia*, both *Epilobium* species, *Gaylussacia frondosa* (both sexual and asexual origin), *Nyssa sylvatica* and *Vaccinium corymbosum*. The effect of the fence even on initial survival of under .3 meter white-cedar is dramatic. The distribution of cedar is good, with percent frequencies varying from 83 % in the no fence slash area, to 100 % in the fenced double slash treatment. There was no significant interaction between slash treatment and protection in under .3 meter white-cedar. The effect of slash was statistically significant , for white-cedar only, inside the fence where deer are less of an interference in germination and survival. Three of the multiple range tests performed (SNK, Duncan and L.S.D) found the no slash treatment to be

significantly higher in cedar densities than all other slash treatments. The Tukey multiple range test finds no difference between the no slash treatment with 174,167 cedar per hectare and the slash treatment with 85,333 cedar per hectare. All four multiple comparison tests found no differences between slash and double slash (62,500 per hectare) as well as a significant difference in recruitment between no slash and double slash. Both species of sundew (*Drosera*) found the no slash treatment to be optimal habitat. *Rubus hispidus* had significantly higher ($\alpha = .029$) populations outside the fence under the slash treatment. Both *Epilobium* species populations seem to be directly or indirectly affected by deer pressure, existing in greater numbers outside the fence. This trend was also apparent in the 1993 data.

White-cedar .3 to .6 meters tall were also significantly ($\alpha = .0002$) and positively affected by the exclusion of deer (Table 16 and 20, Appendix 2). There were 18,611 cedar per hectare on average inside the fence in comparison to 1,389 per hectare outside the fence. Other species in this height class whose populations were positively affected by the deer exclusion include: *Hypericum virginicum*, and sprouts of *Gaylussacia frondosa*, *Leucothoe racemosa* and *Clethera alnifolia*. Oddly, white-cedar was more visibly browsed inside the fence, at 8.03 %, than outside the fence. The explanation for this probably rests with the higher numbers of cedar inside the fence combined with the resident rabbit and mice populations. Although there is a significant interaction ($\alpha = .0274$) between slash treatment and protection there are some interesting trends inside each protection treatment that warrant further discussion. Slash treatment is only significant inside the fence, with two of the multiple range tests finding the only

difference in cedar densities to be the double slash (7,000 cedar per hectare) versus the slash (24,667 per hectare) and no slash (24,167). *Clethera alnifolia* and *Smilax* also exhibited significant density differences inside the fence for the various slash loads. Outside the fence the only significant effects of slash in .3 to .6 meter category are *Gaylussaccia frondosa*, *Hypericum canadense* and asexually produced *Leucothoe racemosa*.

Acer rubrum of sexual and asexual origin in the .6 - 1.3 meter classes were more numerous inside than outside the fence (Tables 17 and 21, Appendix 2). White-cedar outside the fence in this height class were only found on one plot in the slash treatment. Inside the fence .6 - 1.3 meter tall cedar averaged 26,444 stems per hectare and appeared on 83 to 92% of the plots. The interaction of slash and protection is once again statistical significant with $\alpha = .0246$. All multiple range tests agree that the only statistical difference between no slash (36,333 per hectare) and the double slash treatment (15,000 per hectare). *Nyssa sylvatica* was the only other species in this height class to be significantly affected by slash loads (Table 17, Appendix 2).

In 1994 cedar greater than 1.3 meters tall (Tables 18 and 22, Appendix 2) could only be found inside the fence, where cedar averaged 11,277 per hectare. Statistically, *Rhododendron viscosum* also showed the same trend. Interestingly, in this height class or stage in growth, there is no statistical difference among the slash treatments with: 10,000 per hectare for no slash, 12,500 for slash and 11,333 for double slash. This is the second year cedar outside the fence have failed to match survival to this height class inside the fence.

An additional experiment was conducted on Penn Swamp in 1994. The peat was cored and radiocarbon dating of peat samples conducted by two Stockton students (Brown and Peer 1994). The dating (performed by Beta Analytic, Inc. using the reference year 1950) of the deepest part of the Penn Swamp peat layer (141 cm below the surface) produced an age of 9980 (plus or minus 210 years B.P.) . A peat sample at an intermediate depth of 60 cm was aged at 3,250 (plus or minus 140 years B.P.). These yield peat deposition rates of 1 cm of peat per 70 years and 1 cm of peat per 53.6 years, respectively. The formation of peat at 9980 years ago is consistent with post-glacial activity (Watts 1979). Analysis of 2 cm partitions to a depth of up to 44 cm revealed layers of charcoal and an average fire frequency of one fire every 165 years for the past 2,300 years (Brown and Peer 1994). Pollen analysis of the core sections was attempted but no pollen for *Chamaecyparis* or similar species was found.

The overall dynamics of white-cedar over the last four years of the study can be seen in Figures 13 and 14, Appendix 4. The striking contrast in vegetation inside and outside the fence is evident. The lack of significant differences between slash left or slash removed inside the fence are also visible. Throughout the study period the cedar density differences between double and no slash become less pronounced as cedar grow and move into the larger height classes.

During the winter of 1995 a browning of the tops and exposed twig ends of most cedar regeneration here and at Colletti's occurred. Samples were brought to the Plant Pathology labs at Cook College where a determination was made that the cause was a combination of the mild winter and dry conditions. The trees are resprouting and

recovering on both sites. Also, a small outbreak of *Gymnosporangia* was found on some Penn Swamp trees in 1995.

In March 1995 another major act of vandalism occurred with over 800 feet of fence and posts taken down and destroyed. It took twelve people over six hours to repair the damage. No deer were trapped inside the fence, and no effects on the experiment were detected.

Bass River site : 1994

The 'Stockton' treatment plots were removed from the sampling scheme due to a lack of significant cedar productivity. Once again, for reasons previously stated, no formal statistical analyses were done on Bass River. The downed debris for Bass River 1994 (Table 23, Appendix 2) is similar, on average, to 1993 except for a third layer that accumulated in one of the new seeded area plots. Changes in sphagnum and the presence of standing water characterize the percent ground coverages for 1994 (Table 24, Appendix 2).

There is a dramatic drop in cedar germination and / or survival in the under .3 meter height class in 1994 (Table 25, Appendix 2) compared to 1993 and previous years. The numbers of white-cedar under .3 meters in 1994 are 4% to 23% of the numbers found in this height class in 1993 across all treatments. Explanations for this could be site conditions (i.e., standing water preventing germination and diminishing survival), a

reduction in the number of seed for potential germination (there are no cedar seed sources nearby) or some combination of these factors.

In the .3 to .6 meter height class (Table 26, Appendix 2) Forester plot C has the highest white-cedar average density at 48,444 per hectare. There are only five other species found in this height class and treatment.

White-cedar, .6 - 1.3 meters tall (Table 27, Appendix 2), are abundant on all but the control plot. The absolute number of species encountered on the forester plots are three; this is due, in part, to the high density of cedar excluding other species.

Cedar over 1.3 meters tall dominate the other three species, *Acer rubrum*, *Betula populifolia* and *Solidago spp.*, found in small numbers on the treatments.

The Bass River site has been the most successful of the seeded sites (Belleplain and Jackson comprising the other sites).

Belleplain food patch site : 1994

In 1994 there was more downed debris accumulation (Table 29, Appendix 2) than in the previous year. The 1994 ground coverages (Table 30, Appendix 2) show fluctuations from 1993.

In the 1994 survey cedars that were transplanted in April 1994 (Jackson nursery seedlings) were noted as such on plot cards. Therefore, in the under .3 meter (Table 31, Appendix 2) and other height classes cedar plantings are delineated to distinguish source of propagule. The results of an October / November survey of a random subset of the

new plantings can be found in Appendix 5. Survival of these trees, all of which were treated with Terasorb to minimize root desiccation, was 62%. The average height of the living trees was 34.7 cm. The size of the cedar seems to be especially crucial on the drier sites, this is probably due to an increased root depth which in turn allows for a higher probability to reach favorable and constant moisture levels in the soil. This work is encouraging for those who wish to establish cedar on drier or varying moisture sites. In North Carolina transplants on drier mineral soils have been successful (Summerville 1994).

The under .3 meter vegetation data at this site (Table 31, Appendix 2) shows our last transplants to be the sole source of cedar encountered. Cedar is still naturally reproducing from seed blown from the adjacent swamp in the control area (14,000 white-cedar per hectare) although only 20 % of the plots contained cedar of this size. This underscores the patchiness of natural reproduction on this dry site. *Quercus ilicifolia* and *Solidago* spp. are the only species statistically significantly different among the treatments.

In the .3 to .6 meter class (Table 32, Appendix 2) only the cedar plantings and *Solidago* spp. are significant in their density distributions. The .6 to 1.3 meter vegetation (Table 33, Appendix 2) is statistically uniform in density and percent browse except for pokeweed, *Phytolacca americana*, which is denser inside the electric fence. *Rubus allegheniensis* and *Solidago* spp. also appear in significantly higher numbers, 18,200 stems per hectare and 11,820 stems per hectare, respectively, inside the fence.

For vegetation greater than 1.3 meters in height, only white-cedar is significant ($\alpha = .0008$) and exists at this height only in the control area (4,440 per hectare). This density figure is up from 1993 showing continued survival and growth of cedar on the control treatment.

The overall dynamics of cedar on the food patch treatments over the course of the study can be seen in Figures 15 and 16 (Appendix 4). The sporadic nature of recruitment and growth is evident on the charts.

Belleplain non-food patch site:

Downed debris in 1994 (Table 35, Appendix 2) shows the same trend from 1993 as seen in the food patch site: an accumulation of dead material. The 1994 percent ground cover data show the first presence of moss on the site (Table 36, Appendix 2). The non-food patch has always been the moister of the two sites with sphagnum and a nearby vernal pond present before drought conditions prevailed.

The less than .3 meter tall vegetation (Table 37, Appendix 2) analyses reveal significant differences in white-cedar naturally regenerated as well as the effects (84 % survival with an average height of 36.9 cm) of the latest cedar planting (see Appendix 5 for detailed survey). Sprout densities of *Rhododendron viscosum* and *Clethera alnifolia* were also different among the treatments in 1994. Among the .3 to .6 meter tall species whose densities were affected by treatment are: *Chamaecyparis thyoides*, *Epilobium angustifolium*, *Rhododendron viscosum* sprouts and *Smilax* species (Table 38, Appendix

2). No white-cedar in the .6 to 1.3 meter class was found on our sample plots (Table 39, Appendix 2). Few cedar were found in 1994 in the greater than 1.3 meters tall height class (Table 40, Appendix 2).

While the Belleplain sites in their current moisture regime do not represent a high probability for successful cedar regeneration they have helped to pinpoint problems of moisture, direct seeding, transplanting and overall survival of cedar.

Three-foot site : 1994

Downed debris data for 1994 (Table 41, Appendix 2) shows less coverage than the previous year. The 1994 percent ground coverages (Table 42, Appendix 2) show little difference from 1993. Three-foot has good sphagnum coverage in both treatments although there is more sphagnum where the herbicide was applied.

A shift in 1994 white-cedar germination can be seen in Table 43 (Appendix 2) when compared to 1993 (Table 43, Appendix 1). The second application of herbicide was more effective and has killed competing vegetation that remained after the first application. The germination found in the herbicided treatment was 877,777 per hectare, one of the highest ever recorded on any of the sites in this project. The coverage of cedar is also good, 78 % on the non-herbicide treatment and 100% on the herbicide treatment. Other significant density differences for the less than .3 meter height class can be seen in Table 43, Appendix 2.

The effect of the second herbicide application is also apparent in the .3 to .6 meter white-cedar. In 1993 the cedar in this height class were more numerous in the non-herbicide area (Table 44, Appendix 1); this trend has reversed in 1994, although the numbers are not statistically significant. Sprout densities of *Clethera alnifolia*, *Gaylussacia frondosa*, *Leucothoe racemosa* and *Vaccinium corymbosum* are significant and are only found in the non-herbicide treatment.

The same trends can be seen in the .6 - 1.3 meter and greater than 1.3 meter height classes (Tables 45 and 46, respectively, Appendix 2). White-cedar has reached into both of these upper height classes.

Three-foot represents a scenario where moisture, seed source, deer control have produced conditions highly favorable for white-cedar domination.

Sorrentino site : 1994

The first survey of the 1993 planting was conducted in July 1994. The water levels in the bog cannot be controlled and are influenced by a dam that has been sporadically blocked and cleared during the survey. Overall it seems the water levels have been too high. Survival of cedar has been higher nearer the house where the land elevation is only slightly higher but significantly drier. The survival was 43.3% in 1994 with an average height of 41.3 cm. About 16% of the protective sleeves were down when the first inspection was done. The sleeves, held up by two bamboo poles, have begun to

disintegrate sooner than expected. A survey in May 1995 reveals the survivorship has dropped to 38.3% with a lower average height of 40 cm

Conclusion

The literature has no direct evidence or experimental data that answers the question of minimum first year densities needed to grow a fully stocked white-cedar stand. Little (1950) suggests after strip cutting cedar an effective seeding would result in establishment of several thousand seedlings per hectare in a five year period. The literature (Korstian & Brush 1931, Little 1950, Gibson & Good 1986) does offer data on full stocking levels for varying site indices as well as characterizing the self-thinning equations for white-cedar. At a stand age of 60 years estimates for fully stocked stands vary (according to site index) from 1300 to 280 trees per acre. Even after five years the ultimate direction (species composition, distribution, height, etc.) is hard to predict. However, based on the continuing trends seen in these most recent data sets we will draw some tentative conclusions about the sites and the implications of the research.

On sites where moisture differences or regimes didn't cloud detailed statistical interpretation (i.e., Jackson, Sorrentino) deer have had the greatest (negative) impact on white-cedar regeneration. Penn Swamp (woven fence) and Colletti (five strand solar electric fence) offer dramatic views of successful versus unsuccessful cedar regeneration determined solely by controlling deer browsing. These sites represent the highest deer population areas in the study with 12 (Penn Swamp) and 10 (Colletti) deer per square kilometer. Currently, Colletti's and Penn Swamp's fenced areas support more than adequate cedar populations to obtain full stocking. The woven and electric fences at these sites have been the most effective deer protection measures.

The effectiveness of Hinder, based on the Colletti white-cedar density data, show that it is not as good as the electric fence throughout all height classes, except in the > 1.3m height class where in 1994 it is statistically the same as the electric fence in white-cedar densities. Hinder treatments, however, frequently contained large amounts of browse on surviving cedar. The frequent application of Hinder during the growing season and after rains makes its further use problematic not only for economic reasons but logistical ones (i.e., cost and time for Hinder spraying on large areas). Experiments measuring Hinder concentrations on cedar foliage were conducted at Belleplain and Colletti in March and April 1994 (Weidman *et al* 1994). Some of the experimental results include a measurement of large decreases in Hinder concentrations at the top and bottom of all cedar regardless of height class only four days after application. Rainfall increased the 'natural' loss of Hinder even more. Hinder provided only intermediate efficiency and was cited for its high costs in one study on mule deer (Andett *et al* 1991). Unfortunately there has been inadequate cedar regeneration at the Belleplain sites to test the food patch method of deer control.

The use of collars at Jackson have been successful in protecting cedar (Kuser 1994) although a larger collar, at least 48 " high and 12 " in diameter, would be needed to afford adequate protection. Kuser (1995) has started additional experiments using plastic collars to protect cedar at other sites which should expand our knowledge of this methodology. The collars do not offer protection from small rodents such as mice which have browsed cedar at the Sorrentino site among others. Bamboo poles used to support

the protective collars at the Sorrentino site were inferior to plastic ones used at Jackson. A number of bamboo poles were broken, infested by ants, etc. and had to be replaced.

Moisture regimes were limiting cedar establishment at some sites. At the Belleplain sites direct seedings did not work but on the southern control treatment (food-patch site) there is successful natural regeneration by the surrounding white-cedar. After numerous plantings it is evident that drier sites such as Belleplain can be regenerated provided cedar seedlings are large and their roots dipped in an antidessicant before outplanting. At Sorrentino and small parts of the Bass River sites regeneration has been limited to areas where flooding is not severe. These data support accounts by others (Ackerman 1923, Korstian 1924, Little 1950, Little 1965) as to cedar's optimal moisture regime.

The slash experiments at Penn Swamp have provided some results contrary to Korstian and Bush (1931) and Little (1950), but in agreement with Cottrell (1929). It has been consistent throughout the study that after the first year, cedar's survival and growth is not significantly affected by normal slash levels. It may even be argued that cedar populations under the double slash loads may be adequate for full stocking. There was a statistically significant interaction, through most height classes, between deer and slash so caution must be exercised in examining regeneration data under slash in other field situations. These data suggest no measures need be taken to remove logging slash loads such as created at Penn Swamp - provided adequate protection from deer is afforded.

Overall, we believe there is adequate white-cedar regeneration, either natural or artificial, to bring about full stocking at Jackson (in and outside the fence), Penn Swamp

(inside the fence), Colletti (inside the electric fence and Hinder treatments), Bass River (all treatments except controls and 'Stockton' treatments) and Belleplain food patch (control). It is still too early to predict the sites and treatments targeted later in the study: Belleplain sites (inside the fence plantings), Three-foot, and the Sorrentino site.

It has become obvious to this researcher that every site has yielded important data to our overall knowledge of cedar silviculture. The inter-site variability in variables critical to cedar establishment is great, particularly on the drier end (i.e., hardwood conversion scenarios). This situation therefore demands critical inspections of all potential cedar regeneration sites. It has become clear that the sites having the highest probability for successful cedar regeneration are sites that have in the last eight years or less supported a mature stand of white-cedar. The presence of adequate buried seed, water, and sphagnum at these sites, coupled with protection from deer (e.g., electric fence) are also necessary to increase the probability of successful cedar re-establishment. Sites with less probability for successful regeneration would be drier sites and sites lacking adequate and well dispersed viable buried cedar. These sites however, can be regenerated if not too dry by the use of cuttings or seedlings of adequate size properly planted.

Recommendations to N.J.D.E.P.

The Atlantic white-cedar ecosystem has been identified as one of the most valuable in N.J.. It is in decline. To reverse this trend research of this nature must continue. White-cedar research must be focused even more as a result of this study. For instance, another study of cedar response to slash loads is necessary since Penn Swamp is a single but important data point in a continuum of cedar cutting/slash conditions possible. Slash loads will increase with the percentage of undesirable species in the cedar stands to be cut, this may change cedar response and account for different experimental results seen in the literature. It is obvious that hardwood conversion sites must be studied more closely. Hardwood conversion to white-cedar is more complex due to the variability in hardwood sites: their hydrology, species composition, history, etc.. More work is needed if we perceive the need to restore cedar acreage beyond the restoration of the 'higher probability' sites. More work in classification of cedar regeneration potential on sites, cedar propagation and planting techniques should be pursued.

These cedar research sites should be revisited and formally remeasured at ten year intervals. There is still important data in cedar stand dynamics to measure from these sites. It is rare to have this much "hard" data on cedar sites so remeasurements add crucial data on cedar ecosystems valuable to all involved in cedar management.

A committee has recently been formed by N.J.D.E.P.'s Bureau of Forest Management. The committee will start working on the specifics of the cedar initiative proposed in my early final reports.

Publications / Presentations / Outcomes

Dr. Kuser and I have just authored an article that reviews all literature and research to date on artificial and natural regeneration of Atlantic white-cedar. It is now under peer review by Tree Planters Notes.

I have given numerous talks and presentations about the project to both professionals and non-professionals during the past two years.

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APPENDIX 1

**JACKSON
DOWNED DEBRIS**

	FENCED				UNFENCED	
LAYER	MEAN	STANDARD ERROR		LAYER	MEAN	STANDARD ERROR
FIRST LAYER	0.63%	0.34		FIRST LAYER	2.09%	1.21
SECOND LAYER	0.07%	0.07		SECOND LAYER	1.33%	1.33
THIRD LAYER	0.00%	0.00		THIRD LAYER	0.07%	0.07
FOURTH LAYER	0.00%	0.00		FOURTH LAYER	0.11%	0.11

Table 1. Jackson site downed debris. Average percent cover and standard error of the mean are presented by layer and treatment. The first layer is the closest debris to the ground, the second layer is debris (i.e. dead branches) found over the first layer, the third layer is over the second layer, etc. Data were collected during the full survey in summer 1993. (n = 15 for each treatment) fenced = seed plus electric fence plus herbicide. Unfenced = seed treatment plus herbicide only.

**JACKSON
PERCENT GROUND COVERAGES**

FENCE			UNFENCED		
LAYER	MEAN	STANDARD ERROR	LAYER	MEAN	STANDARD ERROR
GRASS	4.33%	3.99	GRASS	15.67%	5.89
LITTER	83.67%	6.91	LITTER	30.67%	10.21
LOG	0.00%	0.00	LOG	3.00%	2.06
MOSS	0.00%	0.00	MOSS	6.00%	3.53
SPHAGNUM	10.67%	6.05	SPHAGNUM	40.33%	9.12
STUMP	1.33%	1.33	STUMP	4.33%	2.62

Table 2. Jackson site percent ground coverages. Average percent cover and standard error of the mean are presented by layer category and treatment. Data were collected during the full survey in summer 1993. (n = 15 for each treatment) fenced = seed plus electric fence plus herbicide. unfenced = seed treatment plus herbicide only.

**JACKSON
< .3 M**

SPECIES	D	B	FENCED				UNFENCED			
			MEAN DENSITY (#/HA)	STANDARD ERROR	PERCENT BROWSE	FREQ.	MEAN DENSITY (#/HA)	STANDARD ERROR	PERCENT BROWSE	FREQ.
ACER RUBRUM	H		666.67	666.67	0.00%	7.00%	12,666.67	3,445.72	0.00%	73.00%
ARISAEMA SPP.			666.67	666.67	0.00%	7.00%	666.67	666.67	0.00%	7.00%
BETULA POPULIFOLIA			666.67	666.67	0.00%	7.00%	666.67	666.67	0.00%	7.00%
CHAMAECYPARIS THYOIDES	S		15,333.33	6,751.84	0.00%	40.00%	123,333.33	51,921.80	37.00%	80.00%
CLETHRA ALNIFOLIA			666.67	666.67	0.00%	7.00%	666.67	666.67	0.00%	7.00%
DENNSTAEDITA PUNCTILOBULA			7,333.33	4,625.67	0.00%	20.00%	0.00	0.00	0.00%	0.00%
EPILOBIUM ANGUSTIFOLIUM			40,666.67	13,468.36	0.00%	60.00%	64,000.00	21,598.06	316.00%	60.00%
ERIGERON CANADENSIS			666.67	666.67	0.00%	7.00%	0.00	0.00	0.00%	0.00%
EUPATORIUM DUBIUM			0.00	0.00	0.00%	0.00%	110,000.00	24,194.98	0.00%	33.00%
EUPATORIUM PERFOLIATUM			666.67	666.67	0.00%	7.00%	1,333.33	1,333.33	333.00%	7.00%
FERNS SPP.			130,000.00	116,169.01	0.00%	20.00%	52,000.00	52,000.00	0.00%	7.00%
GAULTHERIA PROCUMBENS			0.00	0.00	0.00%	0.00%	4,000.00	4,000.00	0.00%	7.00%
LYCOPUS VIRGINICUS			2,666.67	2,062.52	0.00%	13.00%	2,000.00	1,447.49	0.00%	13.00%
NYSSA SYLVATICA			3,333.33	2,323.11	0.00%	13.00%	12,666.67	7,462.07	667.00%	33.00%
OSMUNDA CINNAMOMEA			28,666.67	16,031.71	0.00%	40.00%	32,666.67	15,382.94	0.00%	33.00%
PARTHENOCISSUS QUINQUEFOLIA			1,333.33	1,333.33	0.00%	7.00%	8,000.00	5,182.39	0.00%	20.00%
PHYTOLACCA AMERICANA			2,666.67	2,666.67	0.00%	7.00%	0.00	0.00	0.00%	0.00%
PINUS RIGIDA			0.00	0.00	0.00%	0.00%	666.67	666.67	0.00%	7.00%
RHODODENDRON VISCOSUM (S)			0.00	0.00	0.00%	0.00%	1,333.33	1,333.33	0.00%	7.00%
RHUS COPALLINA			0.00	0.00	0.00%	0.00%	666.67	666.67	0.00%	7.00%
RUBUS HISPIDUS			268,000.00	76,258.96	0.00%	87.00%	282,000.00	61,498.74	0.00%	87.00%
SASSAFRAS ALBIDUM			1,333.33	1,333.33	0.00%	7.00%	2,000.00	1,069.04	0.00%	20.00%
SMILAX GLAUCA			666.67	666.67	0.00%	7.00%	0.00	0.00	0.00%	0.00%
SOLIDAGO SPECIOSA			1,333.33	908.51	0.00%	13.00%	0.00	0.00	0.00%	0.00%
SOLIDAGO SPP.			4,666.67	4,007.93	0.00%	13.00%	10,666.67	6,507.63	389.00%	20.00%
SYMPLOCARPUS FOETIDUS			0.00	0.00	0.00%	0.00%	666.67	666.67	0.00%	7.00%
THELYPTERIS PAULSTRIS			19,333.33	19,333.33	0.00%	7.00%	73,333.33	38,491.39	0.00%	27.00%
VIOLA BLANDA			170,666.67	72,561.74	0.00%	33.00%	110,666.67	63,564.49	0.00%	47.00%
WOODWARDIA AREOLATA			0.00	0.00	0.00%	0.00%	7,333.33	6,652.37	0.00%	13.00%

Table 3. Jackson site: all vegetation less than .3 meters tall. Average number of stems per hectare and its standard error of the mean, percent of stems browsed, and percent frequency are presented by treatment. Columns labeled D (stem density significant differences) and B (percent browse significant differences) when blank represents no statistical significance (alpha > .05) or not applicable (zero densities) across all treatments. S represents a statistically significant difference between treatments when alpha is between .05 and .005. H means highly significant difference among treatments (alpha less than .005). Data were collected during the full survey in late summer 1993. (n = 15 for each treatment) fenced = seed plus electric fence plus herbicide. Unfenced = seed treatment plus herbicide only.

JACKSON
.3 - .6 M

SPECIES	D	B	FENCED				UNFENCED			
			MEAN DENSITY (#/HA)	STANDARD ERROR	PERCENT BROWSE	FREQ.	MEAN DENSITY (#/HA)	STANDARD ERROR	PERCENT BROWSE	FREQ.
ACER RUBRUM (S)			0.00	0.00	0.00%	0.00%	1,200.00	1,200.00	0.00%	7.00%
AMELANCHIER ARBOREA			666.67	666.67	0.00%	7.00%	0.00	0.00	0.00%	0.00%
ARISAEMA SPP.			133.33	133.33	0.00%	7.00%	266.67	266.67	0.00%	7.00%
ARONIA SPP.			0.00	0.00	0.00%	0.00%	133.33	133.33	0.00%	7.00%
BETULA POPULIFOLIA			133.33	133.33	0.00%	7.00%	0.00	0.00	0.00%	0.00%
CHAMAECYPARIS THYOIDES			1,600.00	832.67	833.00%	27.00%	3,200.00	1,676.73	0.00%	33.00%
CLETHRA ALNIFOLIA (S)			0.00	0.00	0.00%	0.00%	533.33	533.33	0.00%	7.00%
CLETHRA ALNIFOLIA			533.33	363.41	0.00%	13.00%	0.00	0.00	0.00%	0.00%
EPILOBIUM ANGUSTIFOLIUM			69,333.33	17,383.81	0.00%	100.00%	73,600.00	18,674.35	26.00%	87.00%
EPILOBIUM GLANULOSUM			0.00	0.00	0.00%	0.00%	133.33	133.33	0.00%	7.00%
ERIGERON CANADENSIS			133.33	133.33	0.00%	7.00%	0.00	0.00	0.00%	0.00%
EUPATORIUM DUBIUM	H		133.33	133.33	0.00%	7.00%	22,800.00	6,661.33	195.00%	60.00%
HYPERICUM CANADENSE			133.33	133.33	0.00%	7.00%	0.00	0.00	0.00%	0.00%
LYCOPUS VIRGINICUS			5,200.00	2,745.04	0.00%	33.00%	7,866.67	7,448.79	0.00%	13.00%
LYONIA LIGUSTINA (S)			0.00	0.00	0.00%	0.00%	266.67	266.67	0.00%	7.00%
NYSSA SYLVATICA			800.00	545.11	0.00%	13.00%	0.00	0.00	0.00%	0.00%
OSMUNDA CINNAMOMEA			29,466.67	9,118.20	0.00%	53.00%	19,333.33	8,660.07	63.00%	40.00%
OSMUNDA REGALIS			133.33	133.33	0.00%	7.00%	0.00	0.00	0.00%	0.00%
PHYTOLACCA AMERICANA			133.33	133.33	0.00%	7.00%	133.33	133.33	0.00%	7.00%
PINUS RIGIDA			0.00	0.00	0.00%	0.00%	133.33	133.33	0.00%	7.00%
PRUNUS SEROTINA			0.00	0.00	0.00%	0.00%	133.33	133.33	0.00%	7.00%
RHODODENDRON VISCOSUM (S)			0.00	0.00	0.00%	0.00%	1,200.00	823.47	0.00%	13.00%
RUBUS ALLEGHENIENSIS			0.00	0.00	0.00%	0.00%	133.33	133.33	0.00%	7.00%
SASSAFRAS ALBIDUM			133.33	133.33	0.00%	7.00%	133.33	133.33	0.00%	7.00%
SMILAX GLAUCA			266.67	266.67	0.00%	7.00%	266.67	266.67	0.00%	7.00%
SMILAX ROTUNDIFOLIA			133.33	133.33	0.00%	7.00%	266.67	266.67	0.00%	7.00%
SOLIDAGO SPP.			8,533.33	6,527.50	667.00%	33.00%	3,866.67	1,505.12	111.00%	40.00%
THELYPTERIS PALUSTRIS			54,800.00	43,331.19	0.00%	33.00%	49,600.00	39,223.51	0.00%	27.00%
VACCINIUM CORYMBOSUM (S)			0.00	0.00	0.00%	0.00%	266.67	181.70	0.00%	13.00%
VITUS AESTIVALIS			0.00	0.00	0.00%	0.00%	133.33	133.33	0.00%	7.00%
WOODWARDIA AREOLATA			0.00	0.00	0.00%	0.00%	16,400.00	13,687.95	0.00%	13.00%

Table 4. Jackson site: all vegetation between .3 and .6 meters tall. Average number of stems per hectare and its standard error of the mean, percent of stems browsed, and percent frequency are presented by treatment. Columns labeled D (stem density significant differences) and B (percent browse significant differences) when blank represents no statistical significance (alpha > .05) or not applicable (zero densities) across all treatments. S represents a statistically significant difference between treatments when alpha is between .05 and .005. H represents highly significant difference among treatments (alpha less than .005). Data were collected during the full survey in summer 1993. (n = 15 for each treatment) fenced = seed plus electric fence plus herbicide. Unfenced = seed treatment plus herbicide only.

**JACKSON
.6 - 1.3 M**

			FENCED					UNFENCED			
SPECIES			MEAN	STANDARD	PERCENT			MEAN	STANDARD	PERCENT	
			DENSITY	ERROR	BROWSE			DENSITY	ERROR	BROWSE	
	D	B	(#/HA)					(#/HA)			
ACER RUBRUM			0.00	0.00	0.00%		0.00%	666.67	666.67	0.00%	7.00%
ACER RUBRUM (S)			0.00	0.00	0.00%		0.00%	1,600.00	1,600.00	0.00%	7.00%
ARISAEMA			133.33	133.33	0.00%		7.00%	0.00	0.00	0.00%	53.00%
BETULA POPULIFOLIA			266.67	266.67	0.00%		7.00%	133.33	133.33	0.00%	87.00%
CHAMAECYPARIS THYOIDES			1,600.00	1,054.69	750.00%		33.00%	133.33	133.33	0.00%	27.00%
CLETHERA ALNIFOLIA (S)			266.67	266.67	0.00%		7.00%	133.33	133.33	0.00%	7.00%
EPILOBIUM ANGUSTIFOLIUM			96,933.33	41,125.07	0.00%		93.00%	53,200.00	17,643.88	0.00%	50.00%
EPILOBIUM GLANDULOSUM			0.00	0.00	0.00%		0.00%	133.33	133.33	0.00%	7.00%
EUPATORIUM DUBIUM			533.33	306.54	0.00%		20.00%	10,533.33	6,111.56	0.00%	0.00%
HYPERICUM CANADENSE			133.33	133.33	0.00%		7.00%	0.00	0.00	0.00%	40.00%
LOBELIA CARDINALIS			0.00	0.00	0.00%		0.00%	266.67	266.67	0.00%	7.00%
LYCOPUS VIRGINICUS			3,866.67	1,966.06	0.00%		33.00%	933.33	933.33	0.00%	7.00%
OSMUNDA CINNAMOMEA			15,200.00	4,707.85	0.00%		60.00%	11,733.33	4,839.78	0.00%	7.00%
PHYTOLACCA AMERICANA			0.00	0.00	0.00%		0.00%	133.33	133.33	0.00%	7.00%
RHODODENDRON VISCOSUM (S)			0.00	0.00	0.00%		0.00%	266.67	266.67	0.00%	7.00%
SLUM SUAVE			0.00	0.00	0.00%		0.00%	266.67	266.67	0.00%	7.00%
SMILAX GLAUCA			266.67	266.67	0.00%		7.00%	400.00	400.00	0.00%	0.00%
SMILAX ROTUNDIFOLIA			266.67	181.70	0.00%		7.00%	1,333.33	1,333.33	0.00%	7.00%
SOLIDAGO SPP.			12,133.33	7,697.78	0.00%		27.00%	3,733.33	2,913.79	0.00%	7.00%
THELYPTERIS PALUSTRIS			11,200.00	11,200.00	0.00%		7.00%	1,866.67	1,866.67	0.00%	7.00%

Table 5. Jackson site: all vegetation between .6 and 1.3 meters tall. Average number of stems per hectare and its standard error of the mean, percent of stems browsed, and percent frequency are presented by treatment. Columns labeled D (stem density significant differences) and B (percent browse significant differences) when blank represents no statistical significance (alpha > .05) or not applicable (zero densities) across all treatments. An S in these columns represents a statistically significant between treatments (alpha is between .05 and .005). An H represents a highly significant difference among treatments (alpha less than .005). Data were collected during the full survey in summer 1993. (n = 15 for each treatment) fenced = seed plus electric fence plus herbicide. Unfenced = seed treatment plus herbicide only.

JACKSON
> 1.3 M

SPECIES	D	FENCED			UNFENCED		
		MEAN DENSITY (#/HA)	STANDARD ERROR	FREQ.	MEAN DENSITY (#/HA)	STANDARD ERROR	FREQ.
ACER RUBRUM (S)		0.00	0.00	0.00%	1,600.00	1,157.99	13.00%
EPILOBIUM ANGUSTIFOLIUM		5,066.67	3,253.52	27.00%	5,733.33	3,534.14	33.00%
SLUM SUAVE		0.00	0.00	0.00%	133.33	133.33	7.00%
SMILAX GLAUCA		0.00	0.00	0.00%	133.33	133.33	7.00%
SMILAX ROTUNDIFOLIA		400.00	400.00	7.00%	0.00	0.00	0.00%
SOLIDAGO SPECIOSA		400.00	400.00	7.00%	0.00	0.00	0.00%

Table 6. Jackson site: all vegetation over 1.3 meters tall. Average number of stems per hectare, standard error of the mean and percent frequency are presented by treatment. The column labeled D (stem density significant differences), when blank represents no statistical significance (alpha > .05) or not applicable (zero densities) across all treatments. S represents a statistically significant difference between treatments (alpha is between .05 and .005). H represents a highly significant difference among treatments (alpha less than .005). Data were collected during the full survey in summer 1993. (n = 15 for each treatment) fenced = seed plus electric fence plus herbicide; unfenced = seed treatment plus herbicide.

**COLLETTI
DOWNED DEBRIS**

FENCE			CONTROL			HINDER			NO HERB		
LAYER	MEAN	STANDARD ERROR	LAYER	MEAN	STANDARD ERROR	LAYER	MEAN	STANDARD ERROR	LAYER	MEAN	STANDARD ERROR
FIRST	6.46%	2.05	FIRST	17.70%	8.39	FIRST	6.74%	1.84	FIRST	7.08%	1.94
SECOND	1.46%	0.83	SECOND	3.46%	1.43	SECOND	4.12%	2.08	SECOND	1.96%	1.03
THIRD	0.10%	0.10	THIRD	2.16%	1.83	THIRD	0.48%	0.32	THIRD	0.00%	0.00

Table 7. Colletti site downed debris. Average percent cover and standard error of the mean are presented by layer and treatment. The first layer is the closest debris to the ground. The second layer is debris found over the first layer. The third layer is found over the second layer and so forth. Data were collected during the full survey in summer 1993. (n = 10 for each treatment) fence = herbicide plus electric fence; control = herbicide; Hinder = herbicide plus Hinder (deer repellent); no herb = no treatment.

**COLLETTI
GROUND COVERAGES**

FENCE			CONTROL			NO HERB			HINDER		
LAYER	MEAN	STANDARD ERROR	LAYER	MEAN	STANDARD ERROR	LAYER	MEAN	STANDARD ERROR	LAYER	MEAN	STANDARD ERROR
GRASS	10.50%	3.20	GRASS	24.40%	7.24	GRASS	23.50%	5.58	GRASS	20.70%	7.30
HUMMOCK	8.50%	4.72	HUMMOCK	17.00%	6.63	HUMMOCK	15.00%	5.37	HUMMOCK	23.00%	8.44
LITTER	29.50%	7.43	LITTER	22.00%	5.44	LITTER	29.50%	5.29	LITTER	28.00%	8.50
MOSS	3.50%	3.50	MOSS	0.50%	0.50	MOSS	1.00%	1.00	MOSS	0.50%	0.50
SOIL	0.50%	0.50	SOIL	2.50%	2.01	SOIL	0.00%	0.00	SOIL	0.00%	0.00
SPHAGNUM	22.50%	9.46	SPHAGNUM	17.60%	7.01	SPHAGNUM	20.00%	6.99	SPHAGNUM	12.80%	4.50
WATER	25.00%	8.85	WATER	16.00%	5.76	WATER	11.00%	7.06	WATER	15.00%	6.15

Table 8. Colletti site percent ground coverages. Average percent cover and standard error of the mean are presented by layer category and treatment. Data were collected during the full survey in summer 1993. (n = 10 for each treatment) fence = herbicide plus electric fence; control = herbicide; Hinder = herbicide plus Hinder (deer repellent); no herb = no treatment.

COLLETTI
< .3 M

SPECIES	FENCE					CONTROL				
	D	B	MEAN	STANDARD	PERCENT	FREQ.	MEAN	STANDARD	PERCENT	FREQ.
			DENSITY (#/HA)	ERROR	BROWSE		DENSITY (#/HA)	ERROR	BROWSE	
ACER RUBRUM	S		7,000.00	3,349.96	13.33%	40.00%	21,000.00	7,951.24	20.00%	80.00%
ALNUS SPP.			0.00	0.00	0.00%	0.00%	1,000.00	1,000.00	0.00%	10.00%
ARONIA SPP.			2,000.00	2,000.00	0.00%	10.00%	0.00	0.00	0.00%	0.00%
ARONIA SPP. (S)			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
ASTER NEMORALIS			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
CHAMAECYPARIS THYOIDES	H		64,000.00	18,147.54	7.50%	90.00%	118,000.00	28,627.88	58.37%	100.00%
CHAMAEDAPHNE CALYCVLATA			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
CLETHRA ALNIFOLIA	H		15,000.00	5,217.49	6.00%	60.00%	16,000.00	5,206.83	19.00%	60.00%
CLETHRA ALNIFOLIA (S)			8,000.00	5,537.75	10.00%	20.00%	16,000.00	9,910.71	10.00%	30.00%
CYPRIPEDIUM SPP.			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
DROSERIA INTERMEDIA			10,000.00	10,000.00	0.00%	10.00%	0.00	0.00	0.00%	0.00%
DROSERIA ROTUNDIFOLIA	S		31,000.00	15,162.09	0.00%	70.00%	84,000.00	21,715.33	0.00%	70.00%
EPILOBIUM ANGUSTIFOLIUM			0.00	0.00	0.00%	0.00%	1,000.00	1,000.00	0.00%	10.00%
FERN SPP.			0.00	0.00	0.00%	0.00%	8,000.00	8,000.00	5.00%	10.00%
GAULTHERIA PROCUMBENS			88,000.00	88,000.00	0.00%	10.00%	0.00	0.00	0.00%	0.00%
GAYLUSACCIA DUMOSA			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
GAYLUSACCIA BACCATA			0.00	0.00	0.00%	0.00%	1,000.00	1,000.00	0.00%	10.00%
GAYLUSACCIA FRONDOSA	S		4,000.00	2,666.67	0.00%	20.00%	3,000.00	1,527.53	0.00%	30.00%
GAYLUSACCIA FRONDOSA (S)			3,000.00	3,000.00	0.00%	10.00%	0.00	0.00	0.00%	0.00%
ILEX VERTICILLATA			1,000.00	1,000.00	0.00%	10.00%	7,000.00	5,174.72	4.00%	20.00%
ILEX VERTICILLATA (S)			0.00	0.00	0.00%	0.00%	2,000.00	2,000.00	0.00%	10.00%
KALMIA ANGUSTIFOLIA			9,000.00	6,046.12	0.00%	20.00%	1,000.00	1,000.00	0.00%	10.00%
KALMIA ANGUSTIFOLIA (S)			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
LEUCOTHOE RACEMOSA			31,000.00	16,224.12	0.00%	40.00%	6,000.00	4,000.00	10.00%	30.00%
LEUCOTHOE RACEMOSA (S)	S		4,000.00	2,211.08	0.00%	30.00%	0.00	0.00	0.00%	0.00%
LYONIA LIGUSTINA			15,000.00	10,246.95	0.00%	30.00%	18,000.00	13,727.51	0.00%	40.00%
LYONIA LIGUSTINA (S)	S		0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
ONOCLEA SENSIBILIS			8,000.00	5,353.33	0.00%	20.00%	66,000.00	39,191.84	0.00%	30.00%
OSMUNDA CINNAMOMEA			0.00	0.00	0.00%	0.00%	6,000.00	6,000.00	5.00%	10.00%
PARTHENOCESSUS QUINQUEFOLIA			11,000.00	9,836.70	0.00%	20.00%	0.00	0.00	0.00%	0.00%
PIRUS RIGIDA			4,000.00	3,055.05	0.00%	20.00%	1,000.00	1,000.00	0.00%	10.00%
POGONIA OPHIOGLOSSOIDES			0.00	0.00	0.00%	0.00%	46,000.00	46,000.00	0.00%	10.00%
RHEXIA VIRGINICA			0.00	0.00	0.00%	0.00%	2,000.00	1,333.33	0.00%	20.00%
RHODODENDRON VISCOSUM	S		25,000.00	15,220.60	0.00%	40.00%	27,000.00	9,893.88	21.33%	60.00%
RHODODENDRON VISCOSUM (S)	S		5,000.00	3,415.65	5.00%	20.00%	0.00	0.00	0.00%	0.00%
RHUS RADICANS			4,000.00	3,055.05	0.00%	20.00%	0.00	0.00	0.00%	0.00%
RUBUS HISPIDUS			51,000.00	15,380.36	0.00%	80.00%	35,000.00	20,234.73	0.00%	40.00%
SARRACENIA PURPUREA			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
SASSAFRAS ALBIDUM			1,000.00	1,000.00	0.00%	10.00%	1,000.00	1,000.00	0.00%	10.00%
SMILAX GLAUCA			0.00	0.00	0.00%	0.00%	1,000.00	1,000.00	0.00%	10.00%
SMILAX ROTUNDIFOLIA			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
TRIPOLIUM LESPEDEZA			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
VACCINIUM CORYMBOSUM	H	H	8,000.00	3,690.11	0.00%	40.00%	18,000.00	9,865.77	0.00%	80.00%
VACCINIUM CORYMBOSUM (S)	S		0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
VIOLA PRIMULIFOLIA			1,000.00	1,000.00	0.00%	10.00%	0.00	0.00	0.00%	0.00%
WOODWARDIA VIRGINICA			0.00	0.00	0.00%	0.00%	42,000.00	42,000.00	4.75%	10.00%

Table 9 (continued on next page). Colletti site: all vegetation less than .3 meters tall. Average number of stems per hectare and its standard error of the mean, percent of stems browsed and percent frequency are presented by treatment. Columns labeled D (stem density significant differences) and B (percent browse significant differences) when blank represent no statistical significance (alpha < .05) or not applicable (zero densities) across all treatments. S represents a statistically significant difference between treatments when alpha is between .05 and .005. H means highly significant difference among treatments, alpha less than .005. Data were collected during the full survey in summer 1993. (n = 10 for each treatment) fence = herbicide plus electric fence, control = herbicide, Hinder = herbicide plus Hinder (deer repellent), no herb = no treatment.

COLLETTI
< .3 M

SPECIES	NO HERB					HINDER				
	D	B	MEAN	STANDARD	PERCENT	FREQ.	MEAN	STANDARD	PERCENT	FREQ.
			DENSITY (#/HA)	ERROR	BROWSE		DENSITY (#/HA)	ERROR	BROWSE	
ACER RUBRUM	S		53,000.00	19,324.71	7.67%	80.00%	17,000.00	5,972.16	21.67%	70.00%
ALNUS SPP.			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
ARONIA SPP.			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
ARONIA SPP. (S)			6,000.00	6,000.00	0.00%	10.00%	0.00	0.00	0.00%	0.00%
ASTER NEMORALIS			2,000.00	2,000.00	0.00%	10.00%	74,000.00	74,000.00	4.73%	10.00%
CHAMAECYPARIS THYOIDES		H	76,000.00	20,396.08	50.33%	100.00%	108,000.00	22,744.96	59.45%	100.00%
CHAMAEDAPHNE CALYCVLATA			7,000.00	7,000.00	0.00%	10.00%	17,000.00	13,988.09	0.00%	20.00%
CLETHRA ALNIFOLIA		H	107,000.00	27,448.94	15.62%	90.00%	17,000.00	5,587.68	20.00%	80.00%
CLETHRA ALNIFOLIA (S)			19,000.00	8,621.68	5.71%	40.00%	51,000.00	35,353.77	7.35%	30.00%
CYPRIPEDIUM SPP.			0.00	0.00	0.00%	0.00%	13,000.00	13,000.00	0.00%	10.00%
DROSERIA INTERMEDIA			37,000.00	26,668.75	0.00%	30.00%	19,000.00	13,203.53	0.00%	20.00%
DROSERIA ROTUNDIFOLIA		S	50,000.00	12,110.60	0.00%	80.00%	64,000.00	17,713.77	0.00%	80.00%
EPILOBIUM ANGUSTIFOLIUM			0.00	0.00	0.00%	0.00%	5,000.00	5,000.00	0.00%	10.00%
FERNIS SPP.			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
GAULTHERIA PROCUMBENS			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
GAYLUSACCIA DUMOSA			0.00	0.00	0.00%	0.00%	1,000.00	1,000.00	0.00%	10.00%
GAYLUSSACIA BACCATA			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
GAYLUSSACIA FRONDOSA		S	28,000.00	11,566.23	5.00%	70.00%	2,000.00	1,333.33	0.00%	20.00%
GAYLUSSACIA FRONDOSA (S)			28,000.00	14,282.86	0.00%	40.00%	10,000.00	10,000.00	1.00%	10.00%
ILEX VERTICILLATA			11,000.00	4,333.33	17.50%	50.00%	1,000.00	1,000.00	0.00%	10.00%
ILEX VERTICILLATA (S)			1,000.00	1,000.00	10.00%	10.00%	1,000.00	1,000.00	0.00%	10.00%
KALMIA ANGUSTIFOLIA			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
KALMIA ANGUSTIFOLIA (S)			0.00	0.00	0.00%	0.00%	2,000.00	2,000.00	0.00%	10.00%
LEUCOTHOE RACEMOSA			24,000.00	8,459.05	1.25%	60.00%	5,000.00	3,415.65	6.67%	20.00%
LEUCOTHOE RACEMOSA (S)		S	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
LYONIA LIGUSTINA			2,000.00	1,333.33	0.00%	20.00%	9,000.00	9,000.00	0.00%	10.00%
LYONIA LIGUSTINA (S)		S	0.00	0.00	0.00%	0.00%	39,000.00	31,568.27	0.94%	30.00%
ONOCLEA SENSIBILIS			12,000.00	8,000.00	0.00%	20.00%	23,000.00	18,138.36	0.00%	20.00%
OSMUNDA CINNAMOMEA			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
PARTHENOCISSUS QUINQUEFOLIA			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
PINUS RIGIDA			4,000.00	2,666.67	0.00%	20.00%	2,000.00	1,333.33	0.00%	20.00%
POGONIA OPHIOGLOSSOIDES			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
RHEXIA VIRGINICA			3,000.00	3,000.00	3.33%	10.00%	0.00	0.00	0.00%	0.00%
RHODODENDRON VISCOSUM		S	141,000.00	44,906.07	12.43%	80.00%	44,000.00	30,594.12	8.48%	40.00%
RHODODENDRON VISCOSUM (S)		S	16,000.00	6,182.41	10.00%	60.00%	5,000.00	3,073.18	20.00%	30.00%
RHUS RADICANS			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
RUBUS HISPIDUS			20,000.00	12,382.78	0.00%	30.00%	7,000.00	5,972.16	0.00%	20.00%
SARRACENIA PURPUREA			3,000.00	3,000.00	0.00%	10.00%	0.00	0.00	0.00%	0.00%
SASSAFRAS ALBIDUM			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
SMILAX GLAUCA			0.00	0.00	0.00%	0.00%	2,000.00	2,000.00	0.00%	10.00%
SMILAX ROTUNDIFOLIA			1,000.00	1,000.00	0.00%	10.00%	1,000.00	1,000.00	0.00%	10.00%
TRIFOLIUM LESPEDeza			5,000.00	5,000.00	0.00%	10.00%	0.00	0.00	0.00%	0.00%
VACCINIUM CORYMBOSUM		H H	56,000.00	13,515.42	18.25%	100.00%	4,000.00	2,211.08	0.00%	30.00%
VACCINIUM CORYMBOSUM (S)		S	9,000.00	5,467.07	3.33%	30.00%	0.00	0.00	0.00%	0.00%
VIOLA PRIMULIFOLIA			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
WOODWARDIA VIRGINICA			3,000.00	3,000.00	0.00%	10.00%	0.00	0.00	0.00%	0.00%

Table 9 (continued)

COLLETTI
.3 - .6 M

SPECIES	FENCE					CONTROL				
	D	B	MEAN	STANDARD	PERCENT	FREQ.	MEAN	STANDARD	PERCENT	FREQ.
			DENSITY	ERROR	BROWSE		DENSITY	ERROR	BROWSE	
			(#/HA)				(#/HA)			
ACER RUBRUM	H		1,400.00	945.16	10.00%	20.00%	200.00	200.00	10.00%	10.00%
ACER RUBRUM (S)			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
ARONIA SPP.			400.00	400.00	0.00%	10.00%	0.00	0.00	0.00%	0.00%
ASTER NEMORALIS			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
CHAMAECYPARIS THYOIDES	H		25,000.00	7,075.78	10.00%	90.00%	7,200.00	1,466.67	87.30%	100.00%
CHAMAEDAPHNE CALYCVLATA			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
CLETHRA ALNIFOLIA	S		3,200.00	2,351.36	10.00%	40.00%	0.00	0.00	0.00%	0.00%
CLETHRA ALNIFOLIA (S)			800.00	442.22	0.00%	30.00%	400.00	400.00	0.00%	10.00%
EPILOBIUM ANGUSTIFOLIUM	S		0.00	0.00	0.00%	0.00%	200.00	200.00	0.00%	10.00%
GAYLUSSACIA DUMOSA			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
GAYLUSSACIA FRONDOSA	H		0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
GAYLUSSACIA FRONDOSA (S)	S		7,600.00	7,600.00	0.00%	10.00%	0.00	0.00	0.00%	0.00%
ILEX VERTICILLATA			0.00	0.00	0.00%	0.00%	200.00	200.00	0.00%	10.00%
ILEX VERTICILLATA (S)			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
KALMIA ANGUSTIFOLIA			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
KALMIA ANGUSTIFOLIA (S)			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
LEUCOTHOE RACEMOSA	S		2,000.00	2,403.70	0.00%	100.00%	0.00	0.00	0.00%	0.00%
LEUCOTHOE RACEMOSA (S)			7,600.00	5,232.38	0.00%	83.00%	1,000.00	666.67	0.00%	100.00%
LINDERA BENZOIN (S)			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
LYONIA LIGUSTINA			400.00	266.67	0.00%	20.00%	400.00	400.00	0.00%	10.00%
LYONIA LIGUSTINA (S)			0.00	0.00	0.00%	0.00%	200.00	200.00	0.00%	100.00%
MAGNOLIA VIRGINIANA			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
OSMUNDA CINNAMOMEA			0.00	0.00	0.00%	0.00%	2,800.00	2,800.00	0.00%	10.00%
PINUS RIGIDA			400.00	400.00	0.00%	10.00%	0.00	0.00	0.00%	0.00%
RHODODENDRON VISCOSUM	S		200.00	200.00	0.00%	10.00%	200.00	200.00	0.00%	10.00%
RHODODENDRON VISCOSUM (S)			1,000.00	1,000.00	0.00%	10.00%	0.00	0.00	0.00%	0.00%
SASSAFRAS ALBIDUM			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
VACCINIUM CORYMBOSUM	S		0.00	0.00	0.00%	0.00%	600.00	600.00	0.00%	10.00%
VACCINIUM CORYMBOSUM (S)			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
VIBURNUM DENTATUM			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
WOODWARDIA VIRGINICA	S		0.00	0.00	0.00%	0.00%	10,200.00	6,956.69	15.70%	30.00%
XYRIS SPP.			0.00	0.00	0.00%	0.00%	400.00	400.00	0.00%	10.00%

Table 10 (continued on next page). Colletti site: all vegetation between .3 and .6 meters tall. Average number of stems per hectare and its standard error of the mean, percent of stems browsed and percent frequency are presented by treatment. Columns labeled D (stem density significant differences) and B (percent browse significant differences) when blank represent no statistical significance (alpha > .05) or not applicable (zero densities) across all treatments. An S in these columns represents a statistically significant difference between treatments (alpha is between .05 and .005). An H in these columns means a highly significant difference among the treatments (alpha less than .005). Data were collected during the full survey in summer 1993. (n = 10 for each treatment) fence = herbicide plus electric fence, control = herbicide, Hinder = herbicide plus Hinder (deer repellent), no herb = no treatment.

COLLETTI
.3 -6 M

NO HERB						HINDER					
SPECIES		MEAN DENSITY (#/HA)	STANDARD ERROR	PERCENT BROWSE	FREQ.	MEAN DENSITY (#/HA)	STANDARD ERROR	PERCENT BROWSE	FREQ.		
	D	B									
ACER RUBRUM	H	1,800.00	466.67	20.00%	70.00%	0.00	0.00	0.00%	0.00%		
ACER RUBRUM (S)		200.00	200.00	10.00%	10.00%	0.00	0.00	0.00%	0.00%		
ARONIA SPP.		200.00	200.00	0.00%	10.00%	0.00	0.00	0.00%	0.00%		
ASTER NEMORALIS		600.00	600.00	0.00%	10.00%	0.00	0.00	0.00%	0.00%		
CHAMAECYPARIS THYOIDES	H	1,200.00	533.33	20.00%	40.00%	8,200.00	2,318.05	63.30%	80.00%		
CHAMAEDAPHNE CALYCVLATA		7,000.00	5,310.37	0.00%	20.00%	1,400.00	1,400.00	0.00%	10.00%		
CLETHRA ALNIFOLIA	S	12,400.00	4,420.16	0.00%	60.00%	800.00	326.60	30.00%	40.00%		
CLETHRA ALNIFOLIA (S)		5,600.00	2,454.93	0.00%	40.00%	1,000.00	683.13	10.00%	20.00%		
EPILOBIUM ANGUSTIFOLIUM	S	0.00	0.00	0.00%	0.00%	1,600.00	979.80	0.00%	40.00%		
GAYLUSSACIA DUMOSA		400.00	400.00	0.00%	10.00%	0.00	0.00	0.00%	0.00%		
GAYLUSSACIA FRONDOSA	H	15,200.00	5,949.42	0.00%	80.00%	800.00	533.33	0.00%	20.00%		
GAYLUSSACIA FRONDOSA (S)	S	5,600.00	2,103.96	0.00%	60.00%	800.00	533.33	0.00%	20.00%		
ILEX VERTICILLATA		200.00	200.00	0.00%	10.00%	0.00	0.00	0.00%	0.00%		
ILEX VERTICILLATA (S)		0.00	0.00	0.00%	0.00%	200.00	200.00	0.00%	10.00%		
KALMIA ANGUSTIFOLIA		0.00	0.00	0.00%	0.00%	400.00	400.00	0.00%	10.00%		
KALMIA ANGUSTIFOLIA (S)		0.00	0.00	0.00%	0.00%	400.00	400.00	0.00%	10.00%		
LEUCOTHOE RACEMOSA	S	2,200.00	1,469.69	0.00%	100.00%	0.00	0.00	0.00%	0.00%		
LEUCOTHOE RACEMOSA (S)		600.00	1,000.00	0.00%	100.00%	1,600.00	6,000.00	0.00%	100.00%		
LINDERA BENZOIN (S)		1,400.00	1,400.00	10.00%	10.00%	0.00	0.00	0.00%	0.00%		
LYONIA LIGUSTINA		200.00	200.00	0.00%	10.00%	400.00	400.00	0.00%	10.00%		
LYONIA LIGUSTINA (S)		0.00	0.00	0.00%	0.00%	2,000.00	0.00	0.00%	100.00%		
MAGNOLIA VIRGINIANA		200.00	200.00	0.00%	10.00%	0.00	0.00	0.00%	0.00%		
OSMUNDA CINNAMOMEA		0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%		
PINUS RIGIDA		0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%		
RHODODENDRON VISCOSUM	S	5,800.00	2,337.14	4.20%	50.00%	200.00	200.00	0.00%	10.00%		
RHODODENDRON VISCOSUM (S)		1,200.00	800.00	12.50%	30.00%	0.00	0.00	0.00%	0.00%		
SASSAFRAS ALBIDUM		200.00	200.00	0.00%	10.00%	0.00	0.00	0.00%	0.00%		
VACCINIUM CORYMBOSUM	S	2,000.00	843.27	0.00%	50.00%	0.00	0.00	0.00%	0.00%		
VACCINIUM CORYMBOSUM (S)		2,400.00	1,600.00	0.00%	30.00%	800.00	800.00	0.00%	10.00%		
VIBURNUM DENTATUM		200.00	200.00	0.00%	10.00%	0.00	0.00	0.00%	0.00%		
WOODWARDIA VIRGINICA	S	0.00	0.00	0.00%	0.00%	2,400.00	1,995.55	0.00%	20.00%		
XYRIS SPP.		0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%		

Table 10 continued.

COLLETTI
.6 - 1.3 M

			FENCE						CONTROL			
SPECIES			MEAN	STANDARD	PERCENT			MEAN	STANDARD	PERCENT		
			DENSITY	ERROR	BROWSE			DENSITY	ERROR	BROWSE		
	D	B	(#/HA)					(#/HA)				
ACER RUBRUM			0.00	0.00	0.00%			0.00	0.00	0.00%		
ACER RUBRUM (S)			0.00	0.00	0.00%			0.00	0.00	0.00%		
ALNUS SPP.			0.00	0.00	0.00%			200.00	200.00	0.00%		10.00%
ARONIA SPP.			200.00	200.00	0.00%		10.00%	0.00	0.00	0.00%		0.00%
CHAMAECYPARIS THYOIDES	H	S	17,000.00	3,467.31	0.00%		100.00%	1,400.00	791.62	32.50%		40.00%
CLETHRA ALNIFOLIA	H		200.00	200.00	0.00%		10.00%	0.00	0.00	0.00%		0.00%
CLETHRA ALNIFOLIA (S)	S		200.00	200.00	0.00%		10.00%	0.00	0.00	0.00%		0.00%
EPILOBIUM ANGUSTIFOLIUM			0.00	0.00	0.00%		0.00%	0.00	0.00	0.00%		0.00%
GAYLUSSACIA FRONDOSA	H		0.00	0.00	0.00%		0.00%	0.00	0.00	0.00%		0.00%
GAYLUSSACIA FRONDOSA (S)	H		1,000.00	1,000.00	0.00%		10.00%	0.00	0.00	0.00%		0.00%
ILEX VERTICILLATA (S)			0.00	0.00	0.00%		0.00%	0.00	0.00	0.00%		0.00%
LEUCOTHOE RACEMOSA			200.00	200.00	0.00%		10.00%	0.00	0.00	0.00%		0.00%
LEUCOTHOE RACEMOSA (S)			3,600.00	2,362.67	0.00%		30.00%	200.00	200.00	0.00%		10.00%
LYONIA LIGUSTINA (S)			0.00	0.00	0.00%		0.00%	200.00	200.00	0.00%		10.00%
MAGNOLIA VIRGINIANA			0.00	0.00	0.00%		0.00%	0.00	0.00	0.00%		0.00%
RHODODENDRON VISCOSUM	H		0.00	0.00	0.00%		0.00%	0.00	0.00	0.00%		0.00%
VACCINIUM CORYMBOSUM	H		0.00	0.00	0.00%		0.00%	0.00	0.00	0.00%		0.00%
VACCINIUM CORYMBOSUM (S)	H		400.00	400.00	0.00%		10.00%	0.00	0.00	0.00%		0.00%
WOODWARDIA VIRGINICA			0.00	0.00	0.00%		0.00%	1,800.00	1,800.00	3.33%		10.00%

Table 11 (continued on next page). Colletti site: all vegetation between .6 and 1.3 meters tall. Average number of stems per hectare, its standard error of the mean, percent of stems browsed, and percent frequency are presented by treatment. Columns labeled D (stem density significant differences) and B (percent browse significant differences) when blank represent no statistical significance (alpha > .05) or not applicable (zero densities) across all treatments. The occurrence of an S in these columns represents a statistically significant difference between treatments (when alpha is between .05 and .005). An H in these columns means a highly significant difference among treatments (alpha less than .005). Data were collected during the full survey in summer 1993. (n = 10 for each treatment) fence = herbicide plus electric fence; control = herbicide; Hinder = herbicide plus Hinder (deer repellent); no herb = no treatment.

COLLETTI
.6 - 1.3 M

	NO HERB						HINDER					
SPECIES			MEAN	STANDARD	PERCENT	FREQ.		MEAN	STANDARD	PERCENT	FREQ.	
			DENSITY	ERROR	BROWSE			DENSITY	ERROR	BROWSE		
	D	B	(#/HA)					(#/HA)				
ACER RUBRUM			200.00	200.00	0.00%	10.00%		0.00	0.00	0.00%	0.00%	
ACER RUBRUM (S)			400.00	400.00	5.00%	10.00%		0.00	0.00	0.00%	0.00%	
ALNUS SPP.			0.00	0.00	0.00%	0.00%		0.00	0.00	0.00%	0.00%	
ARONIA SPP.			200.00	200.00	0.00%	10.00%		0.00	0.00	0.00%	0.00%	
CHAMAECYPARIS THYOIDES	H	S	200.00	200.00	10.00%	10.00%		4,400.00	1,707.50	56.25%	60.00%	
CLETHRA ALNIFOLIA	H		9,800.00	3,533.33	2.00%	50.00%		0.00	0.00	0.00%	0.00%	
CLETHRA ALNIFOLIA (S)	S		12,400.00	7,959.90	0.00%	40.00%		0.00	0.00	0.00%	0.00%	
EPILOBIUM ANGUSTIFOLIUM			0.00	0.00	0.00%	0.00%		200.00	200.00	0.00%	10.00%	
GAYLUSSACIA FRONDOSA	H		14,400.00	7,830.42	0.00%	60.00%		0.00	0.00	0.00%	0.00%	
GAYLUSSACIA FRONDOSA (S)	H		11,000.00	6,884.77	0.00%	50.00%		0.00	0.00	0.00%	0.00%	
ILEX VERTICILLATA (S)			0.00	0.00	0.00%	0.00%		200.00	200.00	0.00%	10.00%	
LEUCOTHOE RACEMOSA	S		2,400.00	1,107.55	0.00%	40.00%		0.00	0.00	0.00%	0.00%	
LEUCOTHOE RACEMOSA (S)			2,000.00	1,366.26	0.00%	20.00%		0.00	0.00	0.00%	0.00%	
LYONIA LIGUSTINA (S)			0.00	0.00	0.00%	0.00%		0.00	0.00	0.00%	0.00%	
MAGNOLIA VIRGINIANA			800.00	800.00	0.00%	10.00%		0.00	0.00	0.00%	0.00%	
RHODODENDRON VISCOSUM	H		2,400.00	1,185.09	0.00%	40.00%		0.00	0.00	0.00%	0.00%	
VACCINIUM CORYMBOSUM	H		2,000.00	1,032.80	0.00%	40.00%		0.00	0.00	0.00%	0.00%	
VACCINIUM CORYMBOSUM (S)	H		5,000.00	2,333.33	0.00%	50.00%		0.00	0.00	0.00%	0.00%	
WOODWARDIA VIRGINICA			0.00	0.00	0.00%	0.00%		0.00	0.00	0.00%	0.00%	

Table 11 (continued).

COLLETTI
> 1.3 M

FENCE				CONTROL			
SPECIES	MEAN	STANDARD	FREQ.	MEAN	STANDARD	FREQ.	
	DENSITY	ERROR		DENSITY	ERROR		
	D (#/HA)			D (#/HA)			
ACER RUBRUM (S)	0.00	0.00	0.00%	0.00	0.00	0.00%	
CHAMAECYPARIS THYOIDES	S 800.00	442.22	30.00%	0.00	0.00	0.00%	
CLETHRA ALNIFOLIA	S 0.00	0.00	0.00%	0.00	0.00	0.00%	
CLETHRA ALNIFOLIA (S)	0.00	0.00	0.00%	0.00	0.00	0.00%	
GAYLUSSACIA FRONDOSA	0.00	0.00	0.00%	0.00	0.00	0.00%	
GAYLUSSACIA FRONDOSA (S)	0.00	0.00	0.00%	0.00	0.00	0.00%	
LEUCOTHOE RACEMOSA (S)	0.00	0.00	0.00%	0.00	0.00	0.00%	
LINDERA BENZOIN (S)	0.00	0.00	0.00%	0.00	0.00	0.00%	
NYSSA SYLVATICA	0.00	0.00	0.00%	0.00	0.00	0.00%	
VACCINIUM CORYMBOSUM	H 0.00	0.00	0.00%	0.00	0.00	0.00%	
VACCINIUM CORYMBOSUM (S)	0.00	0.00	0.00%	0.00	0.00	0.00%	
NO HERB				HINDER			
SPECIES	MEAN	STANDARD	FREQ.	MEAN	STANDARD	FREQ.	
	DENSITY	ERROR		DENSITY	ERROR		
	D (#/HA)			D (#/HA)			
ACER RUBRUM (S)	800.00	800.00	10.00%	0.00	0.00	0.00%	
CHAMAECYPARIS THYOIDES	S 0.00	0.00	0.00%	0.00	0.00	0.00%	
CLETHRA ALNIFOLIA	S 1,400.00	669.99	40.00%	200.00	200.00	10.00%	
CLETHRA ALNIFOLIA (S)	1,400.00	1,400.00	10.00%	0.00	0.00	0.00%	
GAYLUSSACIA FRONDOSA	200.00	200.00	10.00%	0.00	0.00	0.00%	
GAYLUSSACIA FRONDOSA (S)	400.00	400.00	10.00%	0.00	0.00	0.00%	
LEUCOTHOE RACEMOSA (S)	200.00	200.00	10.00%	0.00	0.00	0.00%	
LINDERA BENZOIN (S)	600.00	600.00	10.00%	0.00	0.00	0.00%	
NYSSA SYLVATICA	200.00	200.00	10.00%	0.00	0.00	0.00%	
VACCINIUM CORYMBOSUM	H 1,400.00	520.68	50.00%	0.00	0.00	0.00%	
VACCINIUM CORYMBOSUM (S)	200.00	200.00	10.00%	0.00	0.00	0.00%	

Table 12. Colletti site: all vegetation greater than 1.3 meters tall. Average number of stems per hectare, its standard error of the mean and percent frequency are presented by treatment. The column labeled D (stem density significant differences) when blank represents no statistical significance (alpha < .05) or not applicable (zero densities) across all treatments. S represents a statistically significant difference between treatments when alpha is between .05 and .005. H means a highly significant difference among treatments, alpha less than .005. Data were collected during the full survey in summer 1993. (n = 10 for each treatment) fence = herbicide plus electric fence, control = herbicide, Hinder = herbicide plus Hinder (deer repellent) , no herb = no treatment.

**PENN SWAMP
DOWNED DEBRIS**

			FENCE					
NO SLASH			SLASH			DOUBLE SLASH		
LAYER	MEAN	STANDARD ERROR	LAYER	MEAN	STANDARD ERROR	LAYER	MEAN	STANDARD ERROR
FIRST LAYER	2.27%	2.16	FIRST LAYER	2.25%	1.01	FIRST LAYER	17.78%	3.54
SECOND LAYER	1.17%	1.17	SECOND LAYER	0.00%	0.00	SECOND LAYER	5.89%	1.97
THIRD LAYER	0.00%	0.00	THIRD LAYER	0.00%	0.00	THIRD LAYER	2.05%	0.63
FOURTH LAYER	0.00%	0.00	FOURTH LAYER	0.00%	0.00	FOURTH LAYER	0.23%	0.16
			NO FENCE					
NO SLASH			SLASH			DOUBLE SLASH		
LAYER	MEAN	STANDARD ERROR	LAYER	MEAN	STANDARD ERROR	LAYER	MEAN	STANDARD ERROR
FIRST LAYER	0.10%	0.10	FIRST LAYER	3.07%	2.19	FIRST LAYER	16.15%	2.88
SECOND LAYER	0.00%	0.00	SECOND LAYER	0.00%	0.00	SECOND LAYER	5.12%	1.10
THIRD LAYER	0.00%	0.00	THIRD LAYER	0.00%	0.00	THIRD LAYER	0.78%	0.55
FOURTH LAYER	0.00%	0.00	FOURTH LAYER	0.00%	0.00	FOURTH LAYER	0.13%	0.13

Table 13. Penn Swamp site downed debris. Average percent cover and standard error of the mean are presented by layer and treatment. The first layer is the closest debris to the ground. The second layer is debris (i.e. dead branches) found over the first layer. The third layer is over the second layer and so forth. Data were collected during the full survey in summer 1993. (n = 12 for each slash treatment, total n = 72).

**PENN SWAMP
PERCENT GROUND COVERAGES**

FENCE								
NO SLASH			SLASH			DOUBLE SLASH		
LAYER	MEAN	STANDARD ERROR	LAYER	MEAN	STANDARD ERROR	LAYER	MEAN	STANDARD ERROR
GRASS	21.67%	5.95	GRASS	17.92%	6.89	GRASS	10.42%	3.77
HUMMOCK	33.33%	8.13	HUMMOCK	16.25%	5.08	HUMMOCK	11.67%	5.31
LITTER	8.75%	4.53	LITTER	36.25%	5.23	LITTER	50.42%	9.62
LOG	0.00%	0.00	LOG	0.42%	0.42	LOG	1.25%	1.25
MOSS	5.83%	2.03	MOSS	6.25%	1.86	MOSS	3.75%	1.64
SOIL	11.67%	8.42	SOIL	0.00%	0.00	SOIL	5.00%	5.00
SPHAGNUM	16.67%	4.82	SPHAGNUM	20.42%	6.67	SPHAGNUM	15.83%	4.39
STUMP	2.08%	1.44	STUMP	2.50%	1.69	STUMP	1.67%	1.67
NO FENCE								
NO SLASH			SLASH			DOUBLE SLASH		
LAYER	MEAN	STANDARD ERROR	LAYER	MEAN	STANDARD ERROR	LAYER	MEAN	STANDARD ERROR
GRASS	17.92%	4.01	GRASS	22.08%	4.71	GRASS	12.92%	4.06
HUMMOCK	7.50%	3.72	HUMMOCK	6.25%	3.65	HUMMOCK	0.00%	0.00
LITTER	15.42%	3.17	LITTER	28.33%	8.56	LITTER	37.50%	6.84
LOG	0.00%	0.00	LOG	0.00%	0.00	LOG	1.67%	1.67
MOSS	8.33%	2.25	MOSS	6.67%	2.56	MOSS	0.83%	0.83
SOIL	5.00%	5.00	SOIL	8.33%	8.33	SOIL	500.00%	0.00
SPHAGNUM	40.00%	8.44	SPHAGNUM	21.25%	4.00	SPHAGNUM	43.33%	7.11
STUMP	5.83%	3.98	STUMP	7.08%	3.61	STUMP	3.75%	3.32

Table 14. Penn Swamp site percent ground coverages. Average percent cover and standard error of the mean are presented by category and treatment. Data were collected during the full survey in summer 1993. (n = 12 for each slash treatment both inside and outside the fence, total n for the site = 72).

PENN SWAMP
FENCE
< .3 METERS

[illegible]

Table 15. Penn Swamp Site, fenced area: all vegetation less than .3 meters tall. Average number of stems per hectare and its standard error of the mean, percent of stems browsed, and percent frequency. Columns labeled "PROT" represent statistically significant differences between protection treatments (d = stem density statistical differences, b = percent browsed statistical differences). columns labeled "TRT" represent slash treatment statistical differences (d and b again represent density and browse). H in these columns means a highly statistically significant difference (alpha less than .005), S represents a statistically significant difference (alpha less than .05 but greater than .005), a blank represents no statistically significant difference or not applicable (i.e. zero density or percent browsed). Data were collected during the full survey in summer 1993. (n = 12 for each treatment within the protection, total n = 72)

PENN SWAMP
.3 - .6 M
FENCE

SPECIES	NO SLASH					FENCE				SLASH				DOUBLE SLASH			
	MEAN DENSITY (#/HA)		STANDARD ERROR	PERCENT BROWSE	FREQ.	MEAN DENSITY (#/HA)		STANDARD ERROR	PERCENT BROWSE	FREQ.	MEAN DENSITY (#/HA)		STANDARD ERROR	PERCENT BROWSE	FREQ.		
	PROT d	TRT b															
ACER RUBRUM			666.67	284.27	0.00%	33.00%	1,166.67	625.63	0.00%	25.00%	1,500.00	743.66	0.00%	33.00%			
ACER RUBRUM (S)	H		1,333.33	1,163.42	0.00%	17.00%	2,666.67	1,110.10	4.44%	50.00%	1,500.00	609.27	0.00%	42.00%			
ARONIA SPP. (S)			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	333.33	224.73	0.00%	17.00%			
ASCYRUM HYPERICOIDES			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%			
CHAMAECYPARIS THYOIDES	H	H	35,000.00	5,921.20	2.00%	100.00%	29,000.00	8,908.63	2.04%	100.00%	13,166.67	3,406.40	0.64%	92.00%			
CHAMAEDAPHNE CALYCVLATA (S)			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%			
CLETHRA ALINIFOLIA	S		166.67	166.67	0.00%	8.00%	0.00	0.00	0.00%	0.00%	500.00	261.12	0.00%	25.00%			
CLETHRA ALINIFOLIA (S)	H		166.67	166.67	0.00%	6.00%	8,666.67	4,252.15	0.00%	33.00%	2,333.33	1,123.67	0.00%	33.00%			
DENNSTAEDIA PUNCTILOBLA			166.67	166.67	0.00%	8.00%	666.67	666.67	0.00%	8.00%	2,833.33	1,679.99	0.00%	33.00%			
EPILOBIUM ANGUSTIFOLIUM	H	S	0.00	0.00	0.00%	0.00%	1,666.67	1,176.37	0.00%	25.00%	2,166.67	1,336.17	0.00%	25.00%			
FERN SPP.			0.00	0.00	0.00%	0.00%	1,500.00	1,500.00	0.00%	8.00%	0.00	0.00	0.00%	0.00%			
GAYLUSSACIA BACCATA (S)			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%			
GAYLUSSACIA FRONDOSA			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	1,166.67	1,166.67	0.00%	8.00%			
GAYLUSSACIA FRONDOSA (S)	S		4,333.33	2,057.26	0.00%	42.00%	7,333.33	2,916.34	0.00%	58.00%	4,833.33	2,467.47	0.00%	42.00%			
GNAPHALIUM OBTUSIFOLIUM			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%			
HYPERICUM CANADENSE			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%			
HYPERICUM VIRGINICUM			0.00	0.00	0.00%	0.00%	4,000.00	4,000.00	0.00%	8.00%	0.00	0.00	0.00%	0.00%			
ILEX GLABRA (S)			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%			
ILEX VERTICILLATA	S		666.67	376.05	0.00%	25.00%	0.00	0.00	0.00%	0.00%	666.67	666.67	0.00%	8.00%			
ILEX VERTICILLATA (S)			0.00	0.00	0.00%	0.00%	833.33	833.33	0.00%	8.00%	0.00	0.00	0.00%	0.00%			
ITEA VIRGINICA			166.67	166.67	0.00%	8.00%	2,666.67	2,666.67	0.00%	8.00%	0.00	0.00	0.00%	0.00%			
KALMIA ANGUSTIFOLIA			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%			
KALMIA ANGUSTIFOLIA (S)			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%			
LEUCOTHOE RACEMOSA			666.67	666.67	0.00%	8.00%	0.00	0.00	0.00%	0.00%	1,833.33	1,085.95	0.00%	25.00%			
LEUCOTHOE RACEMOSA (S)			15,166.67	4,789.25	0.00%	58.00%	12,333.33	3,906.74	0.00%	88.00%	8,166.67	2,917.64	0.00%	89.00%			
LYONIA LIGUSTINA			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	333.33	333.33	0.00%	8.00%			
LYONIA LIGUSTINA (S)			166.67	166.67	0.00%	8.00%	666.67	666.67	0.00%	8.00%	0.00	0.00	0.00%	0.00%			
MAGNOLIA VIRGINIANA (S)			0.00	0.00	0.00%	0.00%	333.33	333.33	0.00%	0.00%	0.00	0.00	0.00%	0.00%			
NYSSA SYLVATICA		S	833.33	519.81	0.00%	25.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%			
NYSSA SYLVATICA (S)			1,166.67	998.74	0.00%	17.00%	1,000.00	577.35	0.00%	25.00%	0.00	0.00	0.00%	0.00%			
PINUS RIGIDA			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%			
QUERCUS ILICIFOLIA			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%			
RHEXIA VIRGINICA			1,333.33	1,163.42	0.00%	17.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%			
RHODODENDRON VISCOSUM			666.67	512.47	0.00%	17.00%	833.33	833.33	0.00%	8.00%	1,666.67	810.29	2.78%	33.00%			
RHODODENDRON VISCOSUM (S)			12,166.67	6,899.53	0.00%	58.00%	9,666.67	4,531.60	0.00%	58.00%	5,166.67	1,622.91	0.00%	67.00%			
RUBUS ALLEGHENIENSIS			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%			
SASSAFRAS ALBIDUM			0.00	0.00	0.00%	0.00%	166.67	166.67	0.00%	8.00%	166.67	166.67	0.00%	8.00%			
SMILAX GLAUCA			666.67	512.47	0.00%	17.00%	0.00	0.00	0.00%	0.00%	166.67	166.67	0.00%	8.00%			
SMILAX ROTUNDIFOLIA			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	166.67	166.67	0.00%	8.00%			
SOLIDAGO SPP.			0.00	0.00	0.00%	0.00%	166.67	166.67	0.00%	8.00%	0.00	0.00	0.00%	0.00%			
VACCINIUM CORYMBOSUM			1,166.67	1,166.67	0.00%	8.00%	0.00	0.00	0.00%	0.00%	1,166.67	1,166.67	0.00%	8.00%			
VACCINIUM CORYMBOSUM (S)	S		28,833.33	6,092.51	0.00%	100.00%	30,500.00	4,742.82	0.00%	100.00%	22,833.33	2,645.27	0.00%	100.00%			
WOODWARDIA AREOLATA			333.33	333.33	0.00%	8.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%			
XYRIS SPP.			12,500.00	12,500.00	0.00%	8.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%			

Table 16. Penn Swamp site fenced area: all vegetation between .3 and .6 meters tall. Average number of stems per hectare, its standard error of the mean, percent of stems browsed and percent frequency. Columns labeled "PROT" represent statistically significant differences between protection treatments (d = stem density statistical differences, b = percent browsed statistical differences). Columns labeled "TRT" represent slash treatment statistical differences (d and b again represent density and browse). H in these columns means a highly statistically significant difference (alpha less than .005). S represents a statistically significant difference (alpha is less than .05 but greater than .005). A blank in these columns represents no statistically significant difference or not applicable (i.e. zero density or percent browsed). Data were collected during the full survey in summer 1993. (n = 12 for each treatment within the fence, total n for the site = 72)

PENN SWAMP
.5 - 1.3 M
FENCE

SPECIES	NO SLASH				SLASH				DOUBLE SLASH			
	PROT		TRT		PROT		TRT		PROT		TRT	
	d	b	d	b	d	b	d	b	d	b	d	b
	MEAN DENSITY (#/HA)	STANDARD ERROR	PERCENT BROWSE	FREQ.	MEAN DENSITY (#/HA)	STANDARD ERROR	PERCENT BROWSE	FREQ.	MEAN DENSITY (#/HA)	STANDARD ERROR	PERCENT BROWSE	FREQ.
ACER RUBRUM	166.67	166.67	0.00%	8.00%	333.33	224.73	0.00%	17.00%	333.33	224.73	0.00%	17.00%
ACER RUBRUM (S)	333.33	224.73	0.00%	17.00%	1,333.33	568.54	0.00%	42.00%	1,666.67	848.86	0.00%	42.00%
AMELANCHIER ARBOREA (S)	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	333.33	333.33	0.00%	8.00%
ARONIA SPP.	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	333.33	333.33	0.00%	8.00%
ARONIA SPP. (S)	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	500.00	358.87	0.00%	17.00%
CHAMAECYPARIS THYOIDES	27,166.67	6,278.67	0.40%	100.00%	24,833.33	4,907.99	0.00%	100.00%	17,666.67	4,656.92	0.00%	100.00%
CLETHRA ALNIFOLIA	500.00	358.87	0.00%	17.00%	500.00	500.00	0.00%	8.00%	1,333.33	1,163.42	0.00%	17.00%
CLETHRA ALNIFOLIA (S)	833.33	833.33	0.00%	8.00%	2,500.00	1,671.96	0.00%	33.00%	1,166.67	872.32	0.00%	25.00%
EPLOBOIUM ANGUSTIFOLIUM	0.00	0.00	0.00%	0.00%	666.67	512.47	0.00%	17.00%	2,166.67	1,192.36	0.00%	25.00%
ERIGERON CANADENSIS	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
GAYLUSSACIA FRONDOSA	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	1,333.33	1,333.33	0.00%	8.00%
GAYLUSSACIA FRONDOSA (S)	5,500.00	2,965.71	0.00%	50.00%	7,833.33	3,579.90	0.00%	50.00%	12,000.00	7,122.31	0.00%	33.00%
GNAPHALUM OBTUSIFOLIUM	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
ILEX VERTICILLATA	1,500.00	821.12	0.00%	25.00%	166.67	166.67	0.00%	8.00%	166.67	166.67	0.00%	8.00%
ILEX VERTICILLATA (S)	0.00	0.00	0.00%	0.00%	166.67	166.67	0.00%	8.00%	0.00	0.00	0.00%	0.00%
ITEA VIRGINICA	0.00	0.00	0.00%	0.00%	666.67	666.67	0.00%	8.00%	0.00	0.00	0.00%	0.00%
LEUCOTHOE RACEMOSA	1,166.67	1,166.67	0.00%	8.00%	0.00	0.00	0.00%	0.00%	1,666.67	915.63	0.00%	25.00%
LEUCOTHOE RACEMOSA (S)	17,500.00	6,238.32	0.00%	58.00%	18,666.67	5,304.85	0.00%	67.00%	22,500.00	9,102.53	0.00%	67.00%
LYONIA LIGUSTINA	0.00	0.00	0.00%	0.00%	500.00	500.00	0.00%	8.00%	500.00	500.00	0.00%	8.00%
LYONIA LIGUSTINA (S)	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
MAGNOLIA VIRGINIANA	333.33	224.73	0.00%	17.00%	166.67	166.67	0.00%	8.00%	0.00	0.00	0.00%	0.00%
MAGNOLIA VIRGINIANA (S)	166.67	166.67	0.00%	8.00%	0.00	0.00	0.00%	0.00%	333.33	333.33	0.00%	8.00%
NYSSA SYLVATICA	166.67	166.67	0.00%	8.00%	0.00	0.00	0.00%	0.00%	166.67	166.67	0.00%	8.00%
NYSSA SYLVATICA (S)	2,000.00	1,651.45	0.00%	25.00%	4,500.00	4,500.00	0.00%	8.00%	0.00	0.00	0.00%	0.00%
PIRUS RIGIDA	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
RHODODENDRON VISCOSUM	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	833.33	575.18	0.00%	17.00%
RHODODENDRON VISCOSUM (S)	4,666.67	3,259.08	0.00%	42.00%	3,000.00	1,087.11	0.00%	58.00%	3,000.00	1,058.87	0.00%	50.00%
RUBUS ALLEGHENIENSIS	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
SASSAFRAS ALBIDUM	0.00	0.00	0.00%	0.00%	166.67	166.67	0.00%	8.00%	0.00	0.00	0.00%	0.00%
SMILAX ROTUNDIFOLIA	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
SMILAX GLAUCA	166.67	166.67	0.00%	8.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
SOLIDAGO SPP.	0.00	0.00	0.00%	0.00%	166.67	166.67	0.00%	8.00%	500.00	500.00	0.00%	8.00%
VACCINIUM CORYMBOSUM	333.33	333.33	0.00%	8.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
VACCINIUM CORYMBOSUM (S)	22,500.00	8,920.95	0.00%	92.00%	27,166.67	9,120.27	0.00%	100.00%	28,500.00	7,616.27	0.00%	100.00%

Table 17. Penn Swamp site, fenced area: all vegetation between .5 and 1.3 meters tall. Average number of stems per hectare, its standard error of the mean, percent of stems browsed and percent frequency. Columns labeled "PROT" represent statistically significant differences between protection treatments (d = stem density statistical differences, b = percent browsed statistical difference). Columns labeled "TRT" represent slash treatment statistical differences (d and b again represent density and browse). H in these columns means a highly statistically significant difference (alpha less than .005). An S in these columns represents a statistically significant difference (alpha is less than .05 but greater than .005). A blank represents no statistically significant difference or not applicable (i.e. zero density or percent browsed). Data were collected during the full survey in summer 1993. (n = 12 for each slash treatment, total n for the site = 72)

**PENN SWAMP
> 1.3 M
FENCE**

SPECIES	PROT d	TRT d	NO SLASH			SLASH			DOUBLE SLASH		
			MEAN DENSITY (#/HA)	STANDARD ERROR	FREQ.	MEAN DENSITY (#/HA)	STANDARD ERROR	FREQ.	MEAN DENSITY (#/HA)	STANDARD ERROR	FREQ.
ACER RUBRUM			0.00	0.00	0.00%	166.67	166.67	8.00%	0.00	0.00	0.00%
ACER RUBRUM (S)			0.00	0.00	0.00%	666.67	512.47	17.00%	1,833.33	1,113.51	25.00%
CHAMAECYPARIS THYOIDES	H		2,000.00	778.50	50.00%	4,000.00	1,576.34	75.00%	2,833.33	936.09	67.00%
EPILOBIUM ANGUSTIFOLIUM	S		0.00	0.00	0.00%	0.00	0.00	0.00%	0.00	0.00	0.00%
GAYLUSSACIA FRONDOSA			0.00	0.00	0.00%	0.00	0.00	0.00%	0.00	0.00	0.00%
GAYLUSSACIA FRONDOSA (S)			0.00	0.00	0.00%	166.67	166.67	8.00%	0.00	0.00	0.00%
LEUCOTHOE RACEMOSA			0.00	0.00	0.00%	0.00	0.00	0.00%	333.33	333.33	8.00%
LEUCOTHOE RACEMOSA (S)			1,833.33	1,192.36	25.00%	333.33	224.73	17.00%	3,000.00	1,992.41	25.00%
MAGNOLIA VIRGINIANA			166.67	166.67	8.00%	0.00	0.00	0.00%	0.00	0.00	0.00%
MAGNOLIA VIRGINIANA (S)			333.33	333.33	8.00%	0.00	0.00	0.00%	0.00	0.00	0.00%
NYSSA SYLVATICA (S)			0.00	0.00	0.00%	500.00	500.00	8.00%	0.00	0.00	0.00%
SMILAX GLAUCA			0.00	0.00	0.00%	0.00	0.00	0.00%	0.00	0.00	0.00%
SMILAX ROTUNDIFOLIA			0.00	0.00	0.00%	0.00	0.00	0.00%	500.00	500.00	8.00%
SOLIDAGO SPP.			0.00	0.00	0.00%	0.00	0.00	0.00%	500.00	500.00	8.00%
VACCINIUM CORYMBOSUM			166.67	166.67	8.00%	0.00	0.00	0.00%	0.00	0.00	0.00%
VACCINIUM CORYMBOSUM (S)			166.67	166.67	8.00%	333.33	224.73	17.00%	1,000.00	460.57	33.00%

Table 18. Penn Swamp site, fenced area: all vegetation greater than 1.3 meters tall. Average number of stems per hectare, its standard error of the mean and percent frequency. Columns labeled "PROT" represent statistically significant differences between protection treatments (d = stem density statistical differences). Columns labeled "TRT" represent slash treatment statistical differences (d again represents stem density). H in these columns means a highly statistically significant difference (alpha less than .005). S represents statistically significant difference (alpha is less than .05 but greater than .005). A blank represents no statistically significant difference or not applicable (i.e. zero density). Data were collected during the full survey in summer 1993. (n = 12 for each treatment within the fence, total n for site = 72).

PENN SWAMP
NO FENCE
< .3 METERS

SPECIES	PROT d	b	TRT d b	NO SLASH				SLASH				DOUBLE SLASH			
				MEAN DENSITY (#/HA)	STANDARD ERROR	PERCENT BROWSE	FREQ.	MEAN DENSITY (#/HA)	STANDARD ERROR	PERCENT BROWSE	FREQ.	MEAN DENSITY (#/HA)	STANDARD ERROR	PERCENT BROWSE	FREQ.
ACER RUBRUM				85,833.33	19,363.29	13.89%	83.00%	40,833.33	14,059.31	17.55%	83.00%	39,166.67	18,441.49	5.23%	67.00%
ACER RUBRUM (S)				2,500.00	1,794.35	0.00%	17.00%	0.00	0.00	0.00%	0.00%	833.33	833.33	8.33%	8.00%
AMELANCHIER ARBorea				1,666.67	1,666.67	0.00%	8.00%	0.00	0.00	0.00%	0.00%	1,666.67	1,666.67	0.00%	8.00%
AMELANCHIER ARBorea (S)				4,166.67	4,166.67	3.33%	8.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
ARONIA SPP. (S)				6,666.67	4,660.17	5%	17.00%	833.33	833.33	8.33%	8.00%	0.00	0.00	0.00%	0.00%
ASCYRUM HYPERICOIDES				5,000.00	5,000.00	0.00%	8.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
BARTONIA VIRGINICA				833.33	833.33	0.00%	8.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
BETULA POPULIFOLIA				833.33	833.33	0.00%	8.00%	833.33	833.33	0.00%	8.00%	0.00	0.00	0.00%	0.00%
CHAMAECYPARIS THYOIDES			S	60,000.00	12,060.45	20.18%	100.00%	94,166.67	20,130.57	16.75%	92.00%	37,500.00	12,005.36	19.44%	67.00%
CHAMAEDAPHNE CALYCLATA (S)				0.00	0.00	0.00%	0.00%	12,500.00	12,500.00	1.67%	8.00%	0.00	0.00	0.00%	0.00%
CLETHRA ALNIFOLIA (S)				0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
CLETHRA ALNIFOLIA				1,666.67	1,123.67	0.00%	17.00%	3,333.33	3,333.33	0.00%	8.00%	833.33	833.33	0.00%	8.00%
DENNSTAEDTIA PUNCTILOBULA				95,000.00	5,000.00	0.00%	100.00%	136,666.67	86,666.67	0.00%	100.00%	115,000.00	49,749.37	0.00%	100.00%
DROSEROTA ROTUNDIFOLIA				2,500.00	1,305.58	0.00%	25.00%	1,666.67	1,666.67	0.00%	8.00%	1,666.67	1,123.67	0.00%	17.00%
EPILOBIA ANGUSTIFOLIA			H	295,000.00	90,850.36	0.60%	100.00%	324,166.67	106,028.43	0.00%	92.00%	185,000.00	34,056.55	1.09%	100.00%
FERNS SPP.				0.00	0.00	0.00%	0.00%	6,666.67	6,666.67	0.00%	8.00%	0.00	0.00	0.00%	0.00%
GALUTHIERA PROCUMBENS				1,666.67	1,666.67	0.00%	8.00%	6,666.67	6,666.67	0.00%	8.00%	0.00	0.00	0.00%	0.00%
GAYLUSSACIA BACCATA (S)				0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	7,500.00	7,500.00	0.00%	8.00%
GAYLUSSACIA FRONDOSA				6,666.67	4,660.17	1.67%	17.00%	8,333.33	5,751.59	0.00%	17.00%	1,666.67	1,666.67	0.00%	8.00%
GAYLUSSACIA FRONDOSA (S)				56,666.67	37,463.79	0.00%	50.00%	16,666.67	6,999.28	2.78%	58.00%	11,666.67	6,835.00	0.00%	33.00%
HYPERICUM CANADENSE			H	48,333.33	33,728.72	8.33%	33.00%	50,833.33	50,833.33	0.00%	8.00%	32,500.00	24,836.59	0.00%	25.00%
HYPERICUM VIRGINICUM				0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
ILEX GLABRA (S)				0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	3,333.33	3,333.33	0.00%	8.00%
ILEX VERTICILLATA				833.33	833.33	0.00%	8.00%	0.00	0.00	0.00%	0.00%	1,666.67	1,123.67	0.00%	17.00%
ILEX VERTICILLATA (S)				0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
KALMIA ANGUSTIFOLIA				0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
KALMIA ANGUSTIFOLIA (S)				7,500.00	7,500.00	0.00%	8.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
LEUCOTHOE RACEMOSA				0.00	0.00	0.00%	0.00%	4,166.67	4,166.67	0.00%	8.00%	5,833.33	4,993.68	0.00%	17.00%
LEUCOTHOE RACEMOSA (S)			S	82,500.00	32,801.83	0.00%	67.00%	52,500.00	14,041.34	0.00%	83.00%	5,833.33	4,993.68	0.00%	17.00%
LYONIA LIGUSTINA				0.00	0.00	0.00%	0.00%	833.33	833.33	0.00%	8.00%	0.00	0.00	0.00%	0.00%
LYONIA LIGUSTINA (S)				0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	5,000.00	5,000.00	0.00%	8.00%
MAGNOLIA VIRGINIANA				833.33	833.33	8.33%	8.00%	0.00	0.00	0.00%	0.00%	833.33	833.33	8.33%	8.00%
MITCHELLA REPENS				78,666.67	51,747.25	0.00%	100.00%	140,000.00	61,101.01	0.00%	100.00%	225,000.00	165,000.00	0.00%	100.00%
MUSHROOM SPP.				0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	833.33	833.33	0.00%	8.00%
NYSSA SYLVATICA				4,166.67	3,361.62	8.33%	17.00%	1,666.67	1,123.67	8.33%	17.00%	1,666.67	1,123.67	8.33%	17.00%
NYSSA SYLVATICA (S)			S S	6,666.67	4,974.68	25%	25.00%	5,000.00	3,588.70	8.33%	17.00%	0.00	0.00	0.00%	0.00%
OSMUNDA REGALIS				0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	4,166.67	4,166.67	0.00%	8.00%
PARTHENOCISSUS QUINQUEFOLIA				0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
PINUS RIGIDA				2,500.00	1,305.58	0.00%	25.00%	5,833.33	2,875.80	0.00%	33.00%	833.33	833.33	0.00%	8.00%
PINUS STROBUS				833.33	833.33	0.00%	8.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
PTERIDIUM AQUILINUM				833.33	833.33	0.00%	8.00%	833.33	833.33	0.00%	8.00%	0.00	0.00	0.00%	0.00%
QUERCUS MARILANDICA				0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
RHEXIA VIRGINICA				0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	26,666.67	26,666.67	3.55%	8.00%
RHODODENDRON VISCOSUM			S	32,500.00	20,379.91	8.33%	25.00%	20,000.00	8,071.65	4.17%	42.00%	34,166.67	23,946.23	7.83%	33.00%
RHODODENDRON VISCOSUM (S)				17,500.00	7,989.10	19.79%	42.00%	18,333.33	8,862.02	14.48%	42.00%	833.33	833.33	0.00%	8.00%
RHUS RADICANS			S	3,333.33	3,333.33	0.00%	8.00%	3,333.33	2,562.35	0.00%	17.00%	8,333.33	6,609.60	0.00%	25.00%
RUBUS ALLEGHENIENSIS				0.00	0.00	0.00%	0.00%	11,666.67	11,666.67	0.00%	8.00%	0.00	0.00	0.00%	0.00%
RUBUS HISPIDUS				2,500.00	2,500.00	0.00%	8.00%	8,333.33	6,809.60	0.00%	25.00%	1,666.67	1,123.67	0.00%	17.00%
SASSAFRAS ALBIDUM				1,666.67	1,123.67	16.67%	17.00%	1,666.67	1,123.67	8.33%	17.00%	1,666.67	1,666.67	0.00%	8.00%
SMILAX GLAUCA			S	5,000.00	2,888.75	0.00%	25.00%	6,666.67	4,660.17	0.00%	17.00%	2,500.00	2,500.00	0.00%	8.00%
SMILAX ROTUNDIFOLIA				0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	833.33	833.33	0.00%	8.00%
SOLIDAGO SPP.				0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	833.33	833.33	0.00%	8.00%
VACCINIUM CORYMBOSUM				5,833.33	5,833.33	0.00%	8.00%	35,000.00	35,000.00	0.00%	8.00%	30,000.00	19,306.15	0.00%	25.00%
VACCINIUM CORYMBOSUM (S)				195,000.00	39,667.18	0.87%	92.00%	242,500.00	41,888.58	0.00%	92.00%	93,333.33	30,583.55	0.35%	67.00%
VERBASCUM THAPSUS				833.33	833.33	0.00%	8.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
VIOLA BLANDA				0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
VIOLA PRIMULIFOLIA				833.33	833.33	0.00%	8.00%	833.33	833.33	0.00%	8.00%	0.00	0.00	0.00%	0.00%
WOODWARDIA AREOLATA				3,333.33	2,562.35	0.00%	17.00%	8,333.33	8,333.33	0.00%	8.00%	1,666.67	1,666.67	0.00%	8.00%
WOODWARDIA VIRGINICA				1,666.67	1,666.67	8.33%	8.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%

Table 19. Penn Swamp site, unfenced area: all vegetation less than .3 meters tall. Average number of stems per hectare and its standard error of the mean, percent of stems browsed, and percent frequency are presented by treatment. Columns labeled "PROT" represent statistically significant differences between protection treatments (d = stem density statistical differences, b = percent browsed statistical differences). Columns labeled "TRT" represent slash treatment statistical differences (d and b again represent density and browse). H in these columns means a highly statistically significant difference (alpha less than .005). S represents a statistically significant difference (alpha less than .05 but greater than .005). A blank in these columns means no statistically significant difference or not applicable (i.e. zero density or percent browsed). Data were collected during the full survey in summer 1993. (n = 12 for each treatment in the non-fenced area, total n for the site = 72)

PENN SWAMP
3 - .6 M
NO FENCE

SPECIES	NO SLASH								SLASH								DOUBLE SLASH							
	PROT		TRT		MEAN DENSITY (#/HA)	STANDARD ERROR	PERCENT BROWSE	FREQ.	MEAN DENSITY (#/HA)		STANDARD ERROR	PERCENT BROWSE	FREQ.	MEAN DENSITY (#/HA)		STANDARD ERROR	PERCENT BROWSE	FREQ.						
	d	b	d	b					d	b				d	b									
ACER RUBRUM					166.67	166.67	0.00%	8.00%	1,166.67	575.16	0.00%	33.00%	333.33	333.33	4.17%	8.00%								
ACER RUBRUM (S)	H				166.67	166.67	0.00%	8.00%	166.67	166.67	0.00%	8.00%	500.00	500.00	0.00%	8.00%								
ARONIA SPP. (S)					166.67	166.67	0.00%	8.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%								
ASCYRUM HYPERCOIDES					166.67	166.67	0.00%	8.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%								
CHAMAECYPARIS THYOIDES	H		S		333.33	224.73	0.00%	17.00%	500.00	261.12	0.00%	25.00%	1,166.67	575.16	30.56%	33.00%								
CHAMAEDAPHNE CALYCOLATA (S)					0.00	0.00	0.00%	0.00%	5,000.00	5,000.00	0.00%	8.00%	0.00	0.00	0.00%	0.00%								
CLETHRA ALNIFOLIA	S				0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%								
CLETHRA ALNIFOLIA (S)					0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	166.67	166.67	8.33%	8.00%								
DENNSTAEDTIA PUNCTILOBULA					0.00	0.00	0.00%	0.00%	833.33	833.33	0.00%	8.00%	333.33	333.33	0.00%	8.00%								
EPILOBIUM ANGUSTIFOLIUM	H				113,833.33	35,005.16	0.00%	92.00%	68,500.00	27,907.99	0.00%	92.00%	76,166.67	22,749.57	0.11%	92.00%								
FERN SPP.					0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%								
GAYLUSSACIA BACCATA (S)					0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	166.67	166.67	0.00%	8.00%								
GAYLUSSACIA FRONDOSA					666.67	666.67	0.00%	8.00%	1,833.33	1,659.83	0.00%	17.00%	166.67	166.67	0.00%	8.00%								
GAYLUSSACIA FRONDOSA (S)	S				32,333.33	10,143.91	0.00%	83.00%	17,166.67	3,432.98	0.00%	92.00%	9,666.67	4,791.82	0.76%	67.00%								
GNAPHALIUM OBTUSIFOLIUM					333.33	224.73	0.00%	17.00%	166.67	166.67	0.00%	8.00%	0.00	0.00	0.00%	0.00%								
HYPERICUM CANADENSE					0.00	0.00	0.00%	0.00%	166.67	166.67	0.00%	8.00%	0.00	0.00	0.00%	0.00%								
HYPERICUM VIRGINICUM					0.00	0.00	0.00%	0.00%	166.67	166.67	0.00%	8.00%	0.00	0.00	0.00%	0.00%								
ILEX GLABRA (S)					0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	500.00	358.87	0.00%	17.00%								
ILEX VERTICILLATA	S				0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%								
ILEX VERTICILLATA (S)					0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%								
ITEA VIRGINICA					0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%								
KALMIA ANGUSTIFOLIA					0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	1,166.67	1,166.67	0.00%	8.00%								
KALMIA ANGUSTIFOLIA (S)					833.33	833.33	0.00%	8.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%								
LEUCOTHOE RACEMOSA					166.67	166.67	0.00%	8.00%	0.00	0.00	0.00%	0.00%	3,166.67	2,138.51	0.00%	17.00%								
LEUCOTHOE RACEMOSA (S)	S				30,500.00	7,722.95	0.77%	100.00%	23,833.33	5,807.30	0.91%	100.00%	6,833.33	2,109.98	11.11%	89.00%								
LYONIA LIGUSTINA					0.00	0.00	0.00%	0.00%	166.67	166.67	0.00%	8.00%	1,000.00	834.85	0.00%	17.00%								
LYONIA LIGUSTINA (S)					1,333.33	1,163.42	0.00%	17.00%	166.67	166.67	0.00%	8.00%	1,000.00	1,000.00	0.00%	8.00%								
MAGNOLIA VIRGINIANA (S)					0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%								
NYSSA SYLVATICA					500.00	358.87	4.17%	17.00%	666.67	376.05	8.33%	25.00%	500.00	358.87	8.33%	17.00%								
NYSSA SYLVATICA (S)					333.33	333.33	4.17%	8.00%	166.67	166.67	0.00%	8.00%	0.00	0.00	0.00%	0.00%								
PNUS RIGIDA					166.67	166.67	0.00%	8.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%								
QUERCUS ILICIFOLIA					0.00	0.00	0.00%	0.00%	166.67	166.67	0.00%	8.00%	0.00	0.00	0.00%	0.00%								
RHEXIA VIRGINICA					0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	166.67	166.67	0.00%	8.00%								
RHODODENDRON VISCOSUM					1,500.00	743.66	0.00%	33.00%	666.67	376.05	8.33%	25.00%	166.67	166.67	8.33%	8.00%								
RHODODENDRON VISCOSUM (S)					0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	1,000.00	674.20	13.89%	17.00%								
RUBUS ALLEGHENIENSIS					0.00	0.00	0.00%	0.00%	1,333.33	1,333.33	0.00%	8.00%	0.00	0.00	0.00%	0.00%								
SASSAFRAS ALBIDUM					0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	500.00	358.87	8.33%	17.00%								
SMILAX GLAUCA					1,666.67	1,068.37	0.00%	25.00%	1,000.00	577.35	0.00%	25.00%	1,000.00	577.35	0.00%	25.00%								
SMILAX ROTUNDIFOLIA					0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	333.33	224.73	0.00%	17.00%								
SOLIDAGO SPP.					0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%								
VACCINIUM CORYMBOSUM					0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%								
VACCINIUM CORYMBOSUM (S)	S				42,000.00	8,559.95	0.64%	100.00%	60,333.33	9,402.88	0.48%	100.00%	30,333.33	7,331.27	0.00%	92.00%								
WOODWARDIA AREOLATA					0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%								
XYRIS SPP.					0.00	0.00	0.00%	0.00%	666.67	512.47	0.00%	17.00%	0.00	0.00	0.00%	0.00%								

Table 20. Penn Swamp site unfenced area: all vegetation between .3 and .6 meters tall. Average number of stems per hectare, standard error of the mean, percent of stems browsed, and percent frequency. Columns labeled "PROT" represent statistically significant differences between protection treatments (d = stem density statistical differences, b = percent browsed statistical differences). Columns labeled "TRT" represent slash treatment statistical differences (d and b again represent density and browse). H in these columns means a highly statistically significant difference (alpha less than .005). S represents a statistically significant difference (alpha is less than .05 but greater than .005). A blank represents no statistically significant difference or not applicable (i.e. zero density or percent browsed). Data were collected during the full survey in summer 1993.

PENN SWAMP
.6 - 1.3 M
NO FENCE

SPECIES	NO SLASH					SLASH					DOUBLE							
			MEAN DENSITY	STANDARD ERROR	PERCENT BROWSE	FREQ.			MEAN DENSITY	STANDARD ERROR	PERCENT BROWSE	FREQ.			MEAN DENSITY	STANDARD ERROR	PERCENT BROWSE	FREQ.
	PROT	TRT	(#/HA)						(#/HA)						(#/HA)			
	a	b	d	b														
ACER RUBRUM	S				0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00		0.00	0.00	0.00%	0.00%
ACER RUBRUM (S)	H				0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00		0.00	0.00	0.00%	0.00%
AMELANCHIER ARBOREA (S)					0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00		0.00	0.00	0.00%	0.00%
ARONIA SPP.					0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00		0.00	0.00	0.00%	0.00%
ARONIA SPP. (S)					0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00		0.00	0.00	0.00%	0.00%
CHAMAECYPARIS THYOIDES	H				0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00		0.00	0.00	0.00%	0.00%
CLETHRA ALNIFOLIA	S				0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00		0.00	0.00	0.00%	0.00%
CLETHRA ALNIFOLIA (S)	H				0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00		0.00	0.00	0.00%	0.00%
EPILOBIUM ANGUSTIFOLIUM					47,166.67	23,585.66	0.00%	58.00%	82,833.33	52,866.02	0.00%	58.00%	50,833.33	19,273.88	0.00%	58.00%	0.00%	58.00%
ERIGERON CANADENSIS					166.67	166.67	0.00%	8.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00%	0.00%
GAYLUSSACIA FRONDOSA					166.67	166.67	0.00%	8.00%	666.67	666.67	0.00%	8.00%	0.00	0.00	0.00%	0.00%	0.00%	0.00%
GAYLUSSACIA FRONDOSA (S)					21,166.67	10,760.36	0.00%	75.00%	8,833.33	3,334.47	0.00%	92.00%	3,833.33	1,695.95	0.00%	42.00%	0.00%	42.00%
GNAPHALIUM OBTUSIFOLIUM					0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	166.67	166.67	0.00%	8.00%	0.00%	8.00%
ILEX VERTICILLATA	S				0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00%	0.00%
ILEX VERTICILLATA (S)					0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00%	0.00%
ITEA VIRGINICA					0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00%	0.00%
LEUCOTHOE RACEMOSA					166.67	166.67	0.00%	8.00%	0.00	0.00	0.00%	0.00%	2,166.67	1,991.78	0.00%	17.00%	0.00%	17.00%
LEUCOTHOE RACEMOSA (S)					11,166.67	3,009.66	0.00%	83.00%	6,166.67	2,152.64	0.00%	67.00%	6,500.00	2,162.00	0.00%	58.00%	0.00%	58.00%
LYONIA LIGUSTINA					0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00%	0.00%
LYONIA LIGUSTINA (S)					0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	666.67	666.67	0.00%	8.00%	0.00%	8.00%
MAGNOLIA VIRGINIANA					0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00%	0.00%
MAGNOLIA VIRGINIANA (S)					0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00%	0.00%
NYSSA SYLVATICA					0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	166.67	166.67	0.00%	8.00%	0.00%	8.00%
NYSSA SYLVATICA (S)					0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	166.67	166.67	8.33%	8.00%	0.00%	8.00%
PINUS RIGIDA					166.67	166.67	0.00%	8.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00%	0.00%
RHODODENDRON VISCOSUM					0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	166.67	166.67	0.00%	8.00%	0.00%	8.00%
RHODODENDRON VISCOSUM (S)	H				0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00%	0.00%
RUBUS ALLEGHENIENSIS					0.00	0.00	0.00%	0.00%	166.67	166.67	0.00%	8.00%	0.00	0.00	0.00%	0.00%	0.00%	0.00%
SASSAFRAS ALBIDUM					0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00%	0.00%
SIMILAX ROTUNDIFOLIA					0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	166.67	166.67	0.00%	8.00%	0.00%	8.00%
SIMILAX GLAUCA					500.00	358.87	0.00%	17.00%	0.00	0.00	0.00%	0.00%	500.00	358.87	0.00%	17.00%	0.00%	17.00%
SOLIDAGO SPP.					0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00%	0.00%
VACCINIUM CORYMBOSUM					0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00%	0.00%
VACCINIUM CORYMBOSUM (S)					22,833.33	7,724.26	0.00%	100.00%	20,833.33	3,554.41	0.00%	100.00%	17,500.00	5,366.14	0.00%	92.00%	0.00%	92.00%

Table 21. Penn Swamp site unfenced area: all vegetation between .6 and 1.3 meters tall. Average number of stems per hectare, its standard error of the mean, percent of stems browsed and percent frequency. Columns labeled "PROT" represent statistically significant differences between protection treatments (d = stem density statistical differences, b = percent browsed statistical differences). Columns labeled "TRT" represent slash treatment statistical differences (d and b again represent density and browse). H in these columns means a highly statistically significant difference (alpha less than .005). An S in these columns represents a statistically significant difference (alpha is less than .05 but greater than .005). A blank represents no statistically significant difference or not applicable (i.e. zero density or percent browsed). Data were collected during the full survey in summer 1993. (n = 12 for each slash treatment, total n for the site = 72).

**PENN SWAMP
> 1.3 M
NO FENCE**

SPECIES	PROT d	TRT d	NO SLASH			SLASH			DOUBLE SLASH		
			MEAN DENSITY (#/HA)	STANDARD ERROR	FREQ.	MEAN DENSITY (#/HA)	STANDARD ERROR	FREQ.	MEAN DENSITY (#/HA)	STANDARD ERROR	FREQ.
ACER RUBRUM			0.00	0.00	0.00%	0.00	0.00	0.00%	0.00	0.00	0.00%
ACER RUBRUM (S)			166.67	166.67	8.00%	0.00	0.00	0.00%	0.00	0.00	0.00%
CHAMAECYPARIS THYOIDES	H		0.00	0.00	0.00%	0.00	0.00	0.00%	0.00	0.00	0.00%
EPILOBUIM ANGUSTIFOLIUM	S		0.00	0.00	0.00%	2,333.33	1,251.26	25.00%	1,000.00	460.57	33.00%
GAYLUSSACIA FRONDOSA			166.67	166.67	8.00%	0.00	0.00	0.00%	0.00	0.00	0.00%
GAYLUSSACIA FRONDOSA (S)			1,333.33	1,333.33	8.00%	166.67	166.67	8.00%	0.00	0.00	0.00%
LEUCOTHOE RACEMOSA			1,500.00	1,500.00	8.00%	166.67	166.67	8.00%	0.00	0.00	0.00%
LEUCOTHOE RACEMOSA (S)			1,000.00	1,000.00	8.00%	166.67	166.67	8.00%	666.67	666.67	8.00%
MAGNOLIA VIRGINIANA			0.00	0.00	0.00%	0.00	0.00	0.00%	0.00	0.00	0.00%
MAGNOLIA VIRGINIANA (S)			0.00	0.00	0.00%	0.00	0.00	0.00%	0.00	0.00	0.00%
NYSSA SYLVATICA (S)			0.00	0.00	0.00%	0.00	0.00	0.00%	0.00	0.00	0.00%
SMILAX GLAUCA			0.00	0.00	0.00%	0.00	0.00	0.00%	166.67	166.67	8.00%
SMILAX ROTUNDIFOLIA			0.00	0.00	0.00%	0.00	0.00	0.00%	666.67	666.67	8.00%
SOLIDAGO SPP.			0.00	0.00	0.00%	0.00	0.00	0.00%	0.00	0.00	0.00%
VACCINIUM CORYMBOSUM			166.67	166.67	8.00%	333.33	224.73	17.00%	500.00	500.00	8.00%
VACCINIUM CORYMBOSUM (S)			333.33	333.33	8.00%	1,333.33	791.37	25.00%	1,000.00	674.20	25.00%

Table 22. Penn Swamp site, unfenced area: all vegetation greater than 1.3 meters tall. Average number of stems per hectare and its standard error of the mean and percent frequency. Columns labeled "PROT" represent statistically significant differences between protection treatments (d = stem density statistical differences). Columns labeled "TRT" represent slash treatment statistical differences (d again represents density). H in these columns means highly statistically significant difference (alpha less than .005). S represents a statistically significant difference (alpha is less than .05 but greater than .005). A blank represents no statistically significant difference or not applicable (i.e. zero density). data were collected during the full survey in summer 1993. (n = 12 for each treatment in the unfenced area, total n for the site = 72)

**BASS RIVER
DOWNED DEBRIS**

FORESTER PLOT A			FORESTER PLOT B			FORESTER PLOT C		
LAYER	MEAN	STANDARD ERROR	LAYER	MEAN	STANDARD ERROR	LAYER	MEAN	STANDARD ERROR
FIRST LAYER	0.00%	0.00	FIRST LAYER	2.78%	1.06	FIRST LAYER	0.18%	0.18
SECOND LAYER	0.00%	0.00	SECOND LAYER	0.00%	0.00	SECOND LAYER	0.00%	0.00
NEW FORESTER CONTROL			NEW SEEDED			STOCKTON PLOT		
LAYER	MEAN	STANDARD ERROR	LAYER	MEAN	STANDARD ERROR	LAYER	MEAN	STANDARD ERROR
FIRST LAYER	0.84%	0.58	FIRST LAYER	1.74%	0.57	FIRST LAYER	1.32%	0.81
SECOND LAYER	0.00%	0.00	SECOND LAYER	0.12%	0.12	SECOND LAYER	0.00%	0.00

Table 23. Bass River site downed debris. Average percent cover and standard error of the mean are presented by layer and treatment. The first layer is the closest debris to the ground, the second layer (i.e. dead branches) is found over the first layer, the third layer is over the second layer, etc. Data were collected during the full survey in the summer of 1993. (n = 9 for each treatment forester plot A, B, C and new control, n = 20 for new seeded treatment, and n = 5 for 'Stockton' treatment; A = original forester plot seeded 4/16/91, B = original forester control, C = forester plot seeded 1/23/91)

**BASS RIVER
GROUND COVER**

FORESTER PLOT A			FORESTER PLOT B			FORESTER PLOT C		
	MEAN	STANDARD ERROR		MEAN	STANDARD ERROR		MEAN	STANDARD ERROR
GRASS	1.44%	1.12	GRASS	2.22%	0.88	GRASS	0.56%	0.56
LITTER	2.22%	2.22	LITTER	10.00%	3.44	LITTER	1.67%	1.18
MOSS	8.89%	5.64	MOSS	16.11%	7.90	MOSS	0.00%	0.00
SAND	0.00%	0.00	SAND	0.00%	0.00	SAND	0.00%	0.00
SOIL	11.11%	11.11	SOIL	10.00%	10.00	SOIL	0.00%	0.00
SPHAGNUM	69.11%	12.33	SPHAGNUM	55.00%	11.64	SPHAGNUM	97.78%	1.21
STUMP	7.22%	4.94	STUMP	6.67%	4.41	STUMP	0.00%	0.00
STOCKTON PLOTS			NEW FORESTER CONTROL			NEW SEEDED		
	MEAN	STANDARD ERROR		MEAN	STANDARD ERROR		MEAN	STANDARD ERROR
GRASS	23.00%	7.68	GRASS	11.67%	4.00	GRASS	8.50%	3.68
LITTER	26.00%	9.80	LITTER	7.78%	2.65	LITTER	17.25%	4.03
MOSS	3.00%	3.00	MOSS	10.00%	6.01	MOSS	7.00%	2.84
SAND	32.00%	13.56	SAND	0.00%	0.00	SAND	0.50%	0.50
SOIL	16.00%	13.64	SOIL	0.00%	0.00	SOIL	15.50%	8.16
SPHAGNUM	0.00%	0.00	SPHAGNUM	70.56%	8.99	SPHAGNUM	49.25%	7.84
STUMP	0.00%	0.00	STUMP	0.00%	0.00	STUMP	2.00%	1.38

Table 24. Bass River site percent ground coverages. Average percent cover and standard error of the mean are presented by layer category and treatment. Data were collected during the full survey in summer 1993. (n = 9 for each treatment forester plot A, B, C, and new control, n = 20 for new seeded treatment, and n = 5 for "Stockton" treatment; A = original forester plot seeded 4/16/91, B = original forester control, C = forester plot seeded 1/23/91).

BASS RIVER
< .3 M

SPECIES	FORESTER PLOT A				FORESTER PLOT B				FORESTER PLOT C			
	MEAN DENSITY (#/HA)	STANDARD ERROR	PERCENT BROWSE	FREQ.	MEAN DENSITY (#/HA)	STANDARD ERROR	PERCENT BROWSE	FREQ.	MEAN DENSITY (#/HA)	STANDARD ERROR	PERCENT BROWSE	FREQ.
ACER RUBRUM (S)	2,222.22	2,222.22	0.00%	11.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
ARONIA SPP. (S)	1,111.11	1,111.11	0.00%	11.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
BETULA POPULIFOLIA	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
CHAMAECYPARIS THYOIDES	34,444.44	15,644.59	370.00%	67.00%	200,000.00	120,531.23	0.00%	89.00%	132,222.22	52,009.02	0.00%	89.00%
CUSCUTA GRONOVII	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
DENNSTAEDTIA PUNCTILOBULA	3,333.33	3,333.33	0.00%	11.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
DROSER A FILIFORMES	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
EPILOBIUM ANGUSTIFOLIUM	1,111.11	1,111.11	0.00%	11.00%	10,000.00	4,409.59	556.00%	44.00%	1,111.11	1,111.11	0.00%	11.00%
ERIGERON CANADENSIS	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
FERN SPP.	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
GAULTHERIA PROCUMBENS	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
GAYLUSSACIA FRONDOSA	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
ILEX GLABRA	0.00	0.00	0.00%	0.00%	3,333.33	2,357.02	0.00%	22.00%	0.00	0.00	0.00%	0.00%
ILEX GLABRA (S)	4,444.44	4,444.44	0.00%	11.00%	5,555.56	4,444.44	0.00%	0.00%	0.00	0.00	0.00%	0.00%
ILEX OPACA	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
ILEX VERTICILLATA	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
JUNIPERUS VIRGINIANA	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
KALMIA ANGUSTIFOLIA	12,222.22	11,027.46	0.00%	22.00%	0.00	0.00	0.00%	0.00%	1,111.11	1,111.11	0.00%	11.00%
KALMIA ANGUSTIFOLIA (S)	0.00	0.00	0.00%	0.00%	61,111.11	52,926.69	0.00%	22.00%	0.00	0.00	0.00%	0.00%
LEUCOTHOE RACEMOSA	0.00	0.00	0.00%	0.00%	2,222.22	2,222.22	0.00%	11.00%	0.00	0.00	0.00%	0.00%
LEUCOTHOE RACEMOSA (S)	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
LYONIA LIGUSTRINA	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
LYONIA LIGUSTRINA (S)	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
MUSHROOM SPP.	1,111.11	1,111.11	0.00%	11.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
MYRICA HETEROPHYLLA	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
NYMPHAEA ODORATA	7,777.78	5,211.57	0.00%	22.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
PHYTOLACCA AMERICANA	1,111.11	1,111.11	0.00%	11.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
PINUS RIGIDA	1,111.11	1,111.11	0.00%	11.00%	2,222.22	1,469.86	0.00%	22.00%	0.00	0.00	0.00%	0.00%
PROSERPINACA PALUSTRIS	21,111.11	21,111.11	0.00%	11.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
PRUNUS SEROTINA	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
RHEXIA VIRGINICA	15,555.56	14,347.97	0.00%	22.00%	0.00	0.00	0.00%	0.00%	1,111.11	1,111.11	0.00%	11.00%
RHODODENDRON VISCOSUM	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
RHODODENDRON VISCOSUM (S)	4,444.44	4,444.44	0.00%	11.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
RUBUS ALLEGHENIENSIS	4,444.44	4,444.44	0.00%	11.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
RUBUS HISPIDUS	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
SASSAFRAS ALBIDUM	3,333.33	3,333.33	0.00%	11.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
SMILAX GLAUCA	0.00	0.00	0.00%	0.00%	1,111.11	1,111.11	0.00%	11.00%	1,111.11	1,111.11	0.00%	11.00%
SMILAX ROTUNDIFOLIA	1,111.11	1,111.11	0.00%	11.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
VACCINIUM CORYMBOSUM	4,444.44	4,444.44	0.00%	11.00%	3,333.33	3,333.33	0.00%	11.00%	0.00	0.00	0.00%	0.00%
VACCINIUM CORYMBOSUM (S)	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	1,111.11	1,111.11	0.00%	11.00%
VITIS AESTIVALIS	1,111.11	1,111.11	0.00%	11.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
VOILA PRIMULIFOLIA	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
WOODWARDIA VIRGINICA	127,777.78	56,094.61	0.00%	56.00%	71,111.11	33,310.18	0.00%	44.00%	0.00	0.00	0.00%	0.00%

Table 25 (continued on next page). Bass River site: all vegetation less than .3 meters tall. Average number of stems per hectare, its standard error of the mean, percent of stems browsed and percent frequency are presented by treatment. Data were collected during the full survey in summer 1993. (n = 9 for each treatment forester plot A, B, C and new forester control. n = 20 for new seeded treatment. n = 5 for Stockton treatment. A = original forester plot seeded 4/16/91, B = original forester control, C = forester plot seeded 1/23/91).

**BASS RIVER
< .3 M**

	NEW SEEDED					NEW FOR CONTROL					STOCKTON PLOT			
	MEAN DENSITY (#/HA)	STANDARD ERROR	PERCENT BROWSE	FREQ.		MEAN DENSITY (#/HA)	STANDARD ERROR	PERCENT BROWSE	FREQ.		MEAN DENSITY (#/HA)	STANDARD ERROR	PERCENT BROWSE	FREQ.
ACER RUBRUM (S)	0.00	0.00	0.00%	0.00%		0.00	0.00	0.00%	0.00%		0.00	0.00	0.00%	0.00%
ARONIA SPP. (S)	0.00	0.00	0.00%	0.00%		0.00	0.00	0.00%	0.00%		0.00	0.00	0.00%	0.00%
BETULA POPULIFOLIA	500.00	500.00	0.00%	5.00%		0.00	0.00	0.00%	0.00%		0.00	0.00	0.00%	0.00%
CHAMAECYPARIS THYOIDES	124,000.00	57,571.01	164.00%	70.00%		0.00	0.00	0.00%	0.00%		2,000.00	2,000.00	0.00%	20.00%
CUSCUTA GRONOVII	1,500.00	1,500.00	0.00%	5.00%		0.00	0.00	0.00%	0.00%		0.00	0.00	0.00%	0.00%
DENNSTAEDITA PUNCTILOBULA	0.00	0.00	0.00%	0.00%		0.00	0.00	0.00%	0.00%		0.00	0.00	0.00%	0.00%
DROSER A FILIFORMES	1,500.00	1,094.24	0.00%	10.00%		0.00	0.00	0.00%	0.00%		0.00	0.00	0.00%	0.00%
EPILOBIUM ANGUSTIFOLIUM	22,500.00	13,971.31	250.00%	35.00%		5,555.56	4,444.44	0.00%	22.00%		0.00	0.00	0.00%	0.00%
ERIGERON CANADENSIS	2,500.00	2,500.00	0.00%	5.00%		0.00	0.00	0.00%	0.00%		0.00	0.00	0.00%	0.00%
FERN SPP.	500.00	500.00	0.00%	5.00%		0.00	0.00	0.00%	0.00%		0.00	0.00	0.00%	0.00%
GAULTHERIA PROCUMBENS	43,000.00	29,674.55	0.00%	10.00%		0.00	0.00	0.00%	0.00%		0.00	0.00	0.00%	0.00%
GAYLUSSACIA FRONDOSA	2,500.00	993.40	0.00%	25.00%		1,111.11	1,111.11	0.00%	11.00%		0.00	0.00	0.00%	0.00%
ILEX GLABRA	0.00	0.00	0.00%	0.00%		1,111.11	1,111.11	0.00%	11.00%		0.00	0.00	0.00%	0.00%
ILEX GLABRA (S)	8,500.00	4,881.49	0.00%	20.00%		0.00	0.00	0.00%	0.00%		0.00	0.00	0.00%	0.00%
ILEX OPACA	1,000.00	688.25	0.00%	10.00%		2,222.22	2,222.22	0.00%	11.00%		0.00	0.00	0.00%	0.00%
ILEX VERTICILLATA	500.00	500.00	0.00%	5.00%		1,111.11	1,111.11	0.00%	11.00%		0.00	0.00	0.00%	0.00%
JUNIPERUS VIRGINIANA	2,000.00	1,169.80	0.00%	15.00%		0.00	0.00	0.00%	0.00%		0.00	0.00	0.00%	0.00%
KALMIA ANGUSTIFOLIA	0.00	0.00	0.00%	0.00%		12,222.22	7,412.04	0.00%	33.00%		0.00	0.00	0.00%	0.00%
KALMIA ANGUSTIFOLIA (S)	3,500.00	3,015.31	0.00%	10.00%		0.00	0.00	0.00%	0.00%		0.00	0.00	0.00%	0.00%
LEUCOTHOE RACEMOSA	0.00	0.00	0.00%	0.00%		0.00	0.00	0.00%	0.00%		0.00	0.00	0.00%	0.00%
LEUCOTHOE RACEMOSA (S)	1,000.00	688.25	0.00%	10.00%		0.00	0.00	0.00%	0.00%		0.00	0.00	0.00%	0.00%
LYONIA LIGUSTRINA	500.00	500.00	0.00%	5.00%		0.00	0.00	0.00%	0.00%		0.00	0.00	0.00%	0.00%
LYONIA LIGUSTRINA (S)	3,500.00	2,843.26	0.00%	10.00%		4,444.44	4,444.44	0.00%	11.00%		0.00	0.00	0.00%	0.00%
MUSHROOM SPP.	0.00	0.00	0.00%	0.00%		0.00	0.00	0.00%	0.00%		0.00	0.00	0.00%	0.00%
MYRICA HETEROPHYLLA	1,500.00	819.18	0.00%	15.00%		0.00	0.00	0.00%	0.00%		0.00	0.00	0.00%	0.00%
NYMPHAEA ODORATA	0.00	0.00	0.00%	0.00%		40,000.00	40,000.00	0.00%	11.00%		0.00	0.00	0.00%	0.00%
PHYTOLACCA AMERICANA	0.00	0.00	0.00%	0.00%		0.00	0.00	0.00%	0.00%		0.00	0.00	0.00%	0.00%
PINUS RIGIDA	500.00	500.00	0.00%	5.00%		1,111.11	1,111.11	0.00%	11.00%		2,000.00	2,000.00	0.00%	20.00%
PROSERPINACA PALUSTRIS	0.00	0.00	0.00%	0.00%		0.00	0.00	0.00%	0.00%		0.00	0.00	0.00%	0.00%
PRUNUS SEROTINA	500.00	500.00	0.00%	5.00%		0.00	0.00	0.00%	0.00%		0.00	0.00	0.00%	0.00%
RHEXIA VIRGINICA	2,000.00	1,555.97	0.00%	10.00%		1,111.11	1,111.11	0.00%	11.00%		0.00	0.00	0.00%	0.00%
RHODODENDRON VISCOSUM	2,000.00	2,000.00	0.00%	5.00%		0.00	0.00	0.00%	0.00%		6,000.00	2,449.49	0.00%	60.00%
RHODODENDRON VISCOSUM (S)	500.00	500.00	0.00%	5.00%		0.00	0.00	0.00%	0.00%		0.00	0.00	0.00%	0.00%
RUBUS ALLEGHENIENSIS	0.00	0.00	0.00%	0.00%		6,666.67	6,666.67	0.00%	11.00%		0.00	0.00	0.00%	0.00%
RUBUS HISPIDUS	11,000.00	7,708.51	0.00%	10.00%		1,111.11	1,111.11	0.00%	11.00%		0.00	0.00	0.00%	0.00%
SASSAFRAS ALBIDUM	2,000.00	1,169.80	0.00%	15.00%		2,222.22	2,222.22	0.00%	11.00%		0.00	0.00	0.00%	0.00%
SMILAX GLAUCA	2,000.00	1,555.97	0.00%	10.00%		0.00	0.00	0.00%	0.00%		16,000.00	16,000.00	0.00%	20.00%
SMILAX ROTUNDIFOLIA	500.00	500.00	0.00%	5.00%		0.00	0.00	0.00%	0.00%		2,000.00	2,000.00	0.00%	20.00%
VACCINIUM CORYMBOSUM	0.00	0.00	0.00%	0.00%		12,222.22	12,222.22	0.00%	11.00%		0.00	0.00	0.00%	0.00%
VACCINIUM CORYMBOSUM (S)	7,500.00	5,752.57	0.00%	10.00%		0.00	0.00	0.00%	0.00%		0.00	0.00	0.00%	0.00%
VIOLA PRIMULIFOLIA	0.00	0.00	0.00%	0.00%		0.00	0.00	0.00%	0.00%		76,000.00	48,846.70	0.00%	60.00%
VITUS AESTIVALIS	0.00	0.00	0.00%	0.00%		0.00	0.00	0.00%	0.00%		0.00	0.00	0.00%	0.00%
WOODWARDIA VIRGINICA	25,500.00	16,342.95	0.00%	15.00%		3,333.33	3,333.33	0.00%	11.00%		0.00	0.00	0.00%	0.00%

Table 25 (continued)

**BASS RIVER
.3 - .6 M**

SPECIES	FORESTER PLOT A				FORESTER PLOT B				FORESTER PLOT C			
	MEAN DENSITY (#/HA)	STANDARD ERROR	PERCENT BROWSE	FREQ.	MEAN DENSITY (#/HA)	STANDARD ERROR	PERCENT BROWSE	FREQ.	MEAN DENSITY (#/HA)	STANDARD ERROR	PERCENT BROWSE	FREQ.
ACER RUBRUM (S)	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	3,111.11	3,111.11	0.00%	11.00%
AMELANCHIER ARBOREA	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
ARONIA SPP.	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
CHAMAECYPARIS THYOIDES	18,444.44	6,435.82	0.00%	100.00%	32,666.67	20,061.02	0.00%	44.00%	188,888.89	41,058.37	0.00%	100.00%
CHAMAEDAPHNE CALYCVLATA	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
CLETHRA ALNIFOLIA	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
DENNSTAEDTIA PUNCTILOBULA	4,000.00	4,000.00	0.00%	11.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
EPILOBIUM ANGUSTIFOLIUM	0.00	0.00	0.00%	0.00%	2,000.00	666.67	0.00%	67.00%	2,000.00	816.50	0.00%	56.00%
ERIGERON CANADENSIS	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
FERN SPP.	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
GAYLUSSACIA FRONDOSA	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
GAYLUSSACIA FRONDOSA (S)	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
ILEX GLABRA	444.44	444.44	0.00%	11.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
ILEX GLABRA (S)	0.00	0.00	0.00%	0.00%	888.89	675.86	0.00%	22.00%	0.00	0.00	0.00%	0.00%
ILEX OPACA	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
ILEX VERTICILLATA	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
ILEX VERTICILLATA (S)	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
KALMIA ANGUSTIFOLIA	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
KALMIA ANGUSTIFOLIA (S)	0.00	0.00	0.00%	0.00%	6,888.89	8,174.42	0.00%	22.00%	0.00	0.00	0.00%	0.00%
LEUCOTHOE RACEMOSA	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
LEUCOTHOE RACEMOSA (S)	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
LYONIA LIGUSTINA	0.00	0.00	0.00%	0.00%	444.44	444.44	0.00%	11.00%	0.00	0.00	0.00%	0.00%
LYONIA LIGUSTINA (S)	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
MYRICA HETEROPHYLLA	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
MYRICA HETEROPHYLLA (S)	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	222.22	222.22	0.00%	11.00%
OSMUNDA CINNAMOMEA	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
PIRUS RIGIDA	0.00	0.00	0.00%	0.00%	666.67	333.33	0.00%	33.00%	222.22	222.22	0.00%	11.00%
PRUNUS SEROTINA	222.22	222.22	0.00%	11.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
PTERIDIUM AQUILINUM	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
RHEXIA VIRGINICA	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
RHODODENDRON VISCOSUM	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
RHODODENDRON VISCOSUM (S)	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
RUBUS ALLEGHENIENSIS	666.67	666.67	0.00%	11.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
SASSAFRAS ALBIDUM	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
SMILAX GLAUCA	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
SCULIDAGO SPP.	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
VACCINIUM CORYMBOSUM	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
VACCINIUM CORYMBOSUM (S)	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
VITUS AESTIVALIS	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
WOODWARDIA VIRGINICA	92,000.00	30,795.02	0.00%	78.00%	60,000.00	20,542.64	0.00%	89.00%	5,777.78	5,532.17	0.00%	22.00%

Table 26 (continued on the next page). Bass River site: all vegetation between .3 and .6 meters tall. Average number of stems per hectare and its standard error of the mean, percent of stems browsed, and percent frequency are presented by treatment. Data were collected during the full survey in summer 1993. (n = 9 for each treatment forester plot A, B, C, and new forester control. n = 20 for new seeded treatment, and n = 5 for Stockton treatment. A = original forester plot seeded 4/16/91, B = original forester control, C = forester plot seeded 1/ 23/91)

**BASS RIVER
.3 - 6 M**

SPECIES	STOCKTON PLOT				NEW FORESTER CONTROL				NEW SEEDED			
	MEAN DENSITY (#/HA)	STANDARD ERROR	PERCENT BROWSE	FREQ.	MEAN DENSITY (#/HA)	STANDARD ERROR	PERCENT BROWSE	FREQ.	MEAN DENSITY (#/HA)	STANDARD ERROR	PERCENT BROWSE	FREQ.
ACER RUBRUM (S)	0.00	0.00	0.00%	0.00%	222.22	222.22	0.00%	11.00%	300.00	300.00	0.00%	5.00%
AMELANCHIER ARBOREA	0.00	0.00	0.00%	0.00%	0.00	0	0.00%	0.00%	200.00	200.00	0.00%	5.00%
ARONIA SPP.	0.00	0.00	0.00%	0.00%	0.00	0	0.00%	0.00%	200.00	137.65	0.00%	10.00%
CHAMAECYPARIS THYOIDES	400.00	400.00	0.00%	20.00%	222.22	222.22	0.00%	11.00%	49,200.00	17,595.69	0.00%	80.00%
CHAMAEDAPHNE CALYCVLATA	0.00	0.00	0.00%	0.00%	0.00	0	0.00%	0.00%	400.00	400.00	0.00%	5.00%
CLETHRA ALNIFOLIA	0.00	0.00	0.00%	0.00%	0.00	0	0.00%	0.00%	300.00	218.85	0.00%	10.00%
DENNSTAEDITA PUNCTILOBULA	0.00	0.00	0.00%	0.00%	2,444.44	2444.44	0.00%	11.00%	6,400.00	6,400.00	0.00%	5.00%
EPILOBIUM ANGUSTIFOLIUM	0.00	0.00	0.00%	0.00%	6,000.00	2134.37	0.00%	67.00%	7,200.00	3,044.93	0.00%	45.00%
ERIGERON CANADENSIS	0.00	0.00	0.00%	0.00%	0.00	0	0.00%	0.00%	1,000.00	900.29	0.00%	10.00%
FERNIS SPP.	0.00	0.00	0.00%	0.00%	0.00	0	0.00%	0.00%	400.00	400.00	0.00%	5.00%
GAYLUSSACIA FRONDOSA	0.00	0.00	0.00%	0.00%	0.00	0	0.00%	0.00%	1,200.00	838.55	0.00%	10.00%
GAYLUSSACIA FRONDOSA (S)	0.00	0.00	0.00%	0.00%	666.67	666.67	0.00%	11.00%	200.00	200.00	0.00%	5.00%
ILEX GLABRA	0.00	0.00	0.00%	0.00%	1,777.78	1024.39	0.00%	33.00%	200.00	137.65	0.00%	10.00%
ILEX GLABRA (S)	0.00	0.00	0.00%	0.00%	1,111.11	888.89	0.00%	22.00%	400.00	311.19	0.00%	10.00%
ILEX OPACA	0.00	0.00	0.00%	0.00%	222.22	222.22	0.00%	11.00%	0.00	0.00	0.00%	0.00%
ILEX VERTICILLATA	0.00	0.00	0.00%	0.00%	222.22	222.22	0.00%	11.00%	300.00	300.00	0.00%	5.00%
ILEX VERTICILLATA (S)	0.00	0.00	0.00%	0.00%	444.44	444.44	0.00%	11.00%	0.00	0.00	0.00%	0.00%
KALMIA ANGUSTIFOLIA	0.00	0.00	0.00%	0.00%	444.44	293.97	0.00%	22.00%	0.00	0.00	0.00%	0.00%
KALMIA ANGUSTIFOLIA (S)	2,800.00	2,800.00	0.00%	20.00%	0.00	0	0.00%	0.00%	100.00	100.00	0.00%	5.00%
LEUCOTHOE RACEMOSA	0.00	0.00	0.00%	0.00%	0.00	0	0.00%	0.00%	1,400.00	963.55	0.00%	10.00%
LEUCOTHOE RACEMOSA (S)	0.00	0.00	0.00%	0.00%	0.00	0	0.00%	0.00%	100.00	100.00	0.00%	5.00%
LYONIA LIGUSTINA	0.00	0.00	0.00%	0.00%	0.00	0	0.00%	0.00%	100.00	100.00	0.00%	5.00%
LYONIA LIGUSTINA (S)	0.00	0.00	0.00%	0.00%	1,555.56	1555.56	0.00%	11.00%	100.00	100.00	0.00%	5.00%
MYRICA HETEROPHYLLA	0.00	0.00	0.00%	0.00%	0.00	0	0.00%	0.00%	100.00	100.00	0.00%	5.00%
MYRICA HETEROPHYLLA (S)	0.00	0.00	0.00%	0.00%	0.00	0	0.00%	0.00%	0.00	0.00	0.00%	0.00%
OSMUNDA CINNAMOMEA	0.00	0.00	0.00%	0.00%	0.00	0	0.00%	0.00%	1,100.00	1,100.00	0.00%	5.00%
PINUS RIGIDA	0.00	0.00	0.00%	0.00%	222.22	222.22	0.00%	11.00%	200.00	137.65	0.00%	10.00%
PRUNUS SEROTINA	0.00	0.00	0.00%	0.00%	0.00	0	0.00%	0.00%	0.00	0.00	0.00%	0.00%
PTERIDIUM AQUILINUM	0.00	0.00	0.00%	0.00%	0.00	0	0.00%	0.00%	900.00	717.82	0.00%	10.00%
RHEXIA VIRGINICA	0.00	0.00	0.00%	0.00%	888.89	587.94	0.00%	22.00%	200.00	137.65	0.00%	10.00%
RHODODENDRON VISCOSUM	0.00	0.00	0.00%	0.00%	0.00	0	0.00%	0.00%	300.00	300.00	0.00%	5.00%
RHODODENDRON VISCOSUM (S)	0.00	0.00	0.00%	0.00%	0.00	0	0.00%	0.00%	400.00	400.00	0.00%	5.00%
RUBUS ALLEGHENIENSIS	4,400.00	4,400.00	0.00%	20.00%	3,111.11	3111.11	0.00%	11.00%	0.00	0.00	0.00%	0.00%
SASSAFRAS ALBIDUM	0.00	0.00	0.00%	0.00%	222.22	222.22	0.00%	11.00%	300.00	218.85	250.00%	10.00%
SMILAX GLAUCA	800.00	489.90	0.00%	40.00%	666.67	666.67	0.00%	11.00%	300.00	300.00	0.00%	5.00%
SOLIDAGO SPP.	0.00	0.00	0.00%	0.00%	222.22	222.22	0.00%	11.00%	100.00	100.00	0.00%	5.00%
VACCINIUM CORYMBOSUM	0.00	0.00	0.00%	0.00%	444.44	444.44	0.00%	11.00%	800.00	822.39	0.00%	10.00%
VACCINIUM CORYMBOSUM (S)	400.00	400.00	0.00%	20.00%	0.00	0	0.00%	0.00%	600.00	600.00	0.00%	5.00%
VITUS AESTIVALIS	0.00	0.00	0.00%	0.00%	0.00	0	0.00%	0.00%	100.00	100.00	0.00%	5.00%
WOODWARDIA VIRGINICA	0.00	0.00	0.00%	0.00%	16,888.89	9092.8	0.00%	33.00%	20,800.00	9,725.06	0.00%	35.00%

Table 26 (continued)

**BASS RIVER
.6 - 1.3 M**

SPECIES	FORESTER PLOT A					FORESTER PLOT B					FORESTER PLOT C			
	MEAN DENSITY (#/HA)	STANDARD ERROR	PERCENT BROWSE	FREQ.		MEAN DENSITY (#/HA)	STANDARD ERROR	PERCENT BROWSE	FREQ.		MEAN DENSITY (#/HA)	STANDARD ERROR	PERCENT BROWSE	FREQ.
ACER RUBRUM (S)	0.00	0.00	0.00%	0.00%		0.00	0.00	0.00%	0.00%		2,222.22	2,222.22	0.00%	11.00%
CHAMAECYPARIS THYOIDES	3,111.11	1,206.98	0.00%	56.00%		3,777.78	3,290.47	0.00%	33.00%		78,000.00	26,476.40	0.00%	100.00%
DENNSTAEDTIA PUNCTILOBULA	0.00	0.00	0.00%	0.00%		0.00	0.00	0.00%	0.00%		0.00	0.00	0.00%	0.00%
EPILOBIUM ANGUSTIFOLIUM	222.22	222.22	0.00%	11.00%		666.67	471.40	0.00%	22.00%		0.00	0.00	0.00%	0.00%
ERIGERON CANADENSIS	0.00	0.00	0.00%	0.00%		0.00	0.00	0.00%	0.00%		0.00	0.00	0.00%	0.00%
LYONIA LIGUSTINA (S)	0.00	0.00	0.00%	0.00%		0.00	0.00	0.00%	0.00%		0.00	0.00	0.00%	0.00%
MYRICA HETEROPHYLLA	0.00	0.00	0.00%	0.00%		0.00	0.00	0.00%	0.00%		0.00	0.00	0.00%	0.00%
NYSSA SYLVATICA (S)	0.00	0.00	0.00%	0.00%		0.00	0.00	0.00%	0.00%		0.00	0.00	0.00%	0.00%
PINUS RIGIDA	0.00	0.00	0.00%	0.00%		0.00	0.00	0.00%	0.00%		0.00	0.00	0.00%	0.00%
PINUS TAEDA	0.00	0.00	0.00%	0.00%		0.00	0.00	0.00%	0.00%		0.00	0.00	0.00%	0.00%
PRUNUS SEROTINA	444.44	444.44	0.00%	11.00%		0.00	0.00	0.00%	0.00%		0.00	0.00	0.00%	0.00%
PTERIDIUM AQUILINUM	0.00	0.00	0.00%	0.00%		0.00	0.00	0.00%	0.00%		0.00	0.00	0.00%	0.00%
RHODODENDRON VISCOSUM	0.00	0.00	0.00%	0.00%		0.00	0.00	0.00%	0.00%		0.00	0.00	0.00%	0.00%
RUBUS ALLEGHENIENSIS	2,666.67	2,666.67	0.00%	11.00%		0.00	0.00	0.00%	0.00%		0.00	0.00	0.00%	0.00%
SOLIDAGO SPECIOSA	222.22	222.22	0.00%	11.00%		0.00	0.00	0.00%	0.00%		0.00	0.00	0.00%	0.00%
VITUS AESTIVALIS	0.00	0.00	0.00%	0.00%		0.00	0.00	0.00%	0.00%		0.00	0.00	0.00%	0.00%
WOODWARDIA VIRGINICA	9,333.33	4,384.32	0.00%	44.00%		2,666.67	1,333.33	0.00%	44.00%		222.22	222.22	0.00%	11.00%

Table 27 (continued on next page). Bass River site: all vegetation between .6 and 1.3 meters tall. Average number of stems per hectare, its standard error of the mean, percent of stems browsed and percent frequency are presented by treatment. Data were collected during the full survey in summer 1993. (n = 9 for each treatment A, B, C, and new control, n = 20 for new seeded treatment, n = 5 for 'Stockton' treatment. A = original forester plot seeded 4/16/91, B = original forester plot control, C = forester plot seeded 1/23/91).

**BASS RIVER
.6 -1.3 M**

SPECIES	NEW FORESTER CONTROL				NEW SEEDED PLOT				STOCKTON PLOT			
	MEAN DENSITY (#/HA)	STANDARD ERROR	PERCENT BROWSE	FREQ.	MEAN DENSITY (#/HA)	STANDARD ERROR	PERCENT BROWSE	FREQ.	MEAN DENSITY (#/HA)	STANDARD ERROR	PERCENT BROWSE	FREQ.
ACER RUBRUM (S)	444.44	293.97	0.00%	22.00%	500.00	320.38	0.00%	15.00%	0.00	0.00	0.00%	0.00%
CHAMAECYPARIS THYOIDES	1,777.78	1,351.73	0.00%	22.00%	25,300.00	9,940.11	0.00%	40.00%	0.00	0.00	0.00%	0.00%
DENNSTAEDTIA PUNCTILOBULA	0.00	0.00	0.00%	0.00%	1,000.00	1,000.00	0.00%	5.00%	0.00	0.00	0.00%	0.00%
EPILOBIUM ANGUSTIFOLIUM	666.67	471.40	0.00%	22.00%	600.00	293.80	0.00%	20.00%	0.00	0.00	0.00%	0.00%
ERIGERON CANADENSIS	0.00	0.00	0.00%	0.00%	800.00	146.53	0.00%	67.00%	0.00	0.00	0.00%	0.00%
LYONIA LIGUSTINA (S)	222.22	222.22	0.00%	11.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
MYRICA HETEROPHYLLA	0.00	0.00	0.00%	0.00%	100.00	100.00	0.00%	5.00%	0.00	0.00	0.00%	0.00%
NYSSA SYLVATICA (S)	0.00	0.00	0.00%	0.00%	100.00	100.00	0.00%	5.00%	0.00	0.00	0.00%	0.00%
PINUS RIGIDA	222.22	222.22	0.00%	11.00%	200.00	137.65	0.00%	10.00%	0.00	0.00	0.00%	0.00%
PINUS TAEDA	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	400.00	400.00	0.00%	20.00%
PRUNUS SEROTINA	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
PTERIDIUM AQUILINUM	0.00	0.00	0.00%	0.00%	100.00	31.50	0.00%	5.00%	0.00	0.00	0.00%	0.00%
RHODODENDRON VISCOSUM	0.00	0.00	0.00%	0.00%	100.00	100.00	0.00%	5.00%	0.00	0.00	0.00%	0.00%
RUBUS ALLEGHENIENSIS	3,777.78	3,777.78	0.00%	11.00%	0.00	0.00	0.00%	0.00%	11,600.00	11,600.00	0.00%	20.00%
SOLIDAGO SPECIOSA	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
VITIS AESTIVALIS	0.00	0.00	0.00%	0.00%	100.00	100.00	0.00%	5.00%	0.00	0.00	0.00%	0.00%
WOODWARDIA VIRGINICA	2,000.00	1,563.47	0.00%	22.00%	200.00	137.65	0.00%	10.00%	0.00	0.00	0.00%	0.00%

Table 27 (continued).

**BASS RIVER
> 1.3 M**

FORESTER PLOT A			FORESTER PLOT B			FORESTER PLOT C			
SPECIES	MEAN DENSITY (#/HA)	FREQ.	STANDARD ERROR	MEAN DENSITY (#/HA)	FREQ.	STANDARD ERROR	MEAN DENSITY (#/HA)	FREQ.	STANDARD ERROR
BETULA POPULIFOLIA	0.00	0.00%	0.00	0.00	0.00%	0.00	0.00	0.00%	0.00
CHAMAECYPARIS THYOIDES	0.00	0.00%	0.00	0.00	0.00%	0.00	0.00	0.00%	0.00
STOCKTON PLOTS			NEW FORESTER CONTROL			NEW SEEDED			
SPECIES	MEAN DENSITY (#/HA)	FREQ.	STANDARD ERROR	MEAN DENSITY (#/HA)	FREQ.	STANDARD ERROR	MEAN DENSITY (#/HA)	FREQ.	STANDARD ERROR
BETULA POPULIFOLIA	0.00	0.00%	0.00	222.22	11.00%	222.22	0.00	0.00%	0.00
CHAMAECYPARIS THYOIDES	0.00	0.00%	0.00	0.00	0.00%	0.00	200.00	10.00%	137.65

Table 28. Bass River site: all vegetation greater than 1.3 meters tall. Average number of stems per hectare and its standard error of the mean and percent frequency are presented by treatment. Data were collected during the full survey in summer 1993. (n = 9 for each treatment forester plot A, B, C, and new forester control, n = 20 for new seeded treatment and n = 5 for Stockton treatment. A = original forester plot seeded 4/16/91, B = original forester control, C = forester plot seeded 1/23/91).

**BELLEPLAIN FOOD PATCH
DOWNED DEBRIS**

FENCE			CONTROL			SEED / HERBICIDE			SEED / HERBICIDE / HINDER		
LAYER	MEAN	STANDARD ERROR	LAYER	MEAN	STANDARD ERROR	LAYER	MEAN	STANDARD ERROR	LAYER	MEAN	STANDARD ERROR
FIRST LAYER	2.14%	0.97	FIRST LAYER	1.38%	0.83	FIRST LAYER	1.84%	1.04	FIRST LAYER	0.74%	0.52
SECOND LAYER	0.20%	0.13	SECOND LAYER	0.40%	0.27	SECOND LAYER	0.00%	0.00	SECOND LAYER	0.00%	0.00

Table 29. Belleplain Food Patch site downed debris. Average percent cover and standard error of the mean are presented by layer and treatment. The first layer is the closest debris to the ground. The second layer is debris found over the first layer. The third layer is found over the second and so forth. Data were collected during the full survey in summer 1993. (n = 10 for each treatment) fence = herbicide plus seed plus electric fence; control = herbicide only; seed / herbicide = herbicide plus seed; seed / herbicide / Hinder = herbicide plus seed plus Hinder (deer repellent).

**BELLEPLAIN FOOD PATCH
GROUND COVERAGES**

FENCE			CONTROL			SEED / HERBICIDE			SEED / HERBICIDE / HINDER		
LAYER	MEAN	STANDARD ERROR	LAYER	MEAN	STANDARD ERROR	LAYER	MEAN	STANDARD ERROR	LAYER	MEAN	STANDARD ERROR
GRASS	12.00%	4.89	GRASS	17.50%	8.60	GRASS	3.50%	1.98	GRASS	14.00%	8.75
LITTER	85.00%	10.30	LITTER	79.50%	8.96	LITTER	95.50%	2.03	LITTER	78.00%	11.93
SAND	0.00%	0.00	SAND	3.00%	2.13	SAND	1.00%	1.00	SAND	8.00%	8.00
SOIL	2.00%	2.00	SOIL	0.00%	0.00	SOIL	0.00%	0.00	SOIL	0.00%	0.00
STUMP	1.00%	1.00	STUMP	0.00%	0.00	STUMP	0.00%	0.00	STUMP	0.00%	0.00

Table 30. Belleplain Food Patch site percent ground coverages. Average percent cover and standard error of the mean are presented by layer type and treatment. Data were collected during the full survey in summer 1993. (n = 10 for each treatment) fence = herbicide plus seed plus electric fence; control = herbicide only; seed / herbicide = herbicide plus seed; seed / herbicide / Hinder = herbicide plus seed plus Hinder (deer repellent).

**BELLEPLAIN FOOD PATCH
< .3 M**

SPECIES	FENCE						CONTROL					
			MEAN	STANDARD	PERCENT	FREQ.			MEAN	STANDARD	PERCENT	FREQ.
	D	B	DENSITY (#/HA)	ERROR	BROWSE				DENSITY (#/HA)	ERROR	BROWSE	
ACER RUBRUM (S)			0.00	0.00	0.00%	0.00%			1,000.00	1,000.00	0.00%	10.00%
ANAPHALIS MARGARITACEA			0.00	0.00	0.00%	0.00%			0.00	0.00	0.00%	0.00%
ASTER SPP.			3,000.00	3,000.00	0.00%	10.00%			0.00	0.00	0.00%	0.00%
CHAMAECYPARIS THYOIDES			1,000.00	1,000.00	0.00%	10.00%			12,000.00	9,165.15	0.00%	20.00%
CLETHRA ALNIFOLIA			2,000.00	2,000.00	0.00%	10.00%			12,000.00	8,537.50	1.25%	20.00%
CLETHRA ALNIFOLIA (S)			5,000.00	4,013.86	0.00%	20.00%			0.00	0.00	0.00%	0.00%
EPILOBIUM ANGUSTIFOLIUM			104,000.00	40,693.98	0.59%	60.00%			19,000.00	6,904.11	0.00%	50.00%
GAULTHERIA PROCUMBENS			22,000.00	11,234.87	0.00%	40.00%			14,000.00	9,451.63	0.00%	20.00%
GAYLUSSACIA FRONDOSA			9,000.00	7,951.24	0.00%	20.00%			0.00	0.00	0.00%	0.00%
GNAPHALIUM OBTUSIFOLIUM			1,000.00	1,000.00	0.00%	10.00%			9,000.00	7,951.24	0.00%	20.00%
ILEX OPACA			0.00	0.00	0.00%	0.00%			1,000.00	1,000.00	0.00%	10.00%
KALMIA LATIFOLIA			3,000.00	3,000.00	0.00%	10.00%			0.00	0.00	0.00%	0.00%
KALMIA LATIFOLIA (S)			0.00	0.00	0.00%	0.00%			1,000.00	1,000.00	0.00%	10.00%
LEUCOTHOE RACEMOSA			0.00	0.00	0.00%	0.00%			0.00	0.00	0.00%	0.00%
LYONIA LIGUSTINA			6,000.00	6,000.00	0.00%	10.00%			2,000.00	2,000.00	0.00%	10.00%
MAGNOLIA VIRGINIANA			1,000.00	1,000.00	0.00%	10.00%			0.00	0.00	0.00%	0.00%
NYSSA SYLVATICA (S)			0.00	0.00	0.00%	0.00%			3,000.00	3,000.00	0.00%	10.00%
PHYTOLACCA AMERICANA			6,000.00	3,399.35	0.00%	30.00%			1,000.00	1,000.00	0.00%	10.00%
PINUS RIGIDA (S)			0.00	0.00	0.00%	0.00%			0.00	0.00	0.00%	0.00%
PINUS STROBUS			0.00	0.00	0.00%	0.00%			0.00	0.00	0.00%	0.00%
PINUS VIRGINIANA			0.00	0.00	0.00%	0.00%			1,000.00	1,000.00	0.00%	10.00%
QUERCUS ILICIFOLIA			0.00	0.00	0.00%	0.00%			2,000.00	1,333.33	0.00%	20.00%
RHODODENDRON VISCOSUM			0.00	0.00	0.00%	0.00%			0.00	0.00	0.00%	0.00%
RHODODENDRON VISCOSUM (S)			0.00	0.00	0.00%	0.00%			0.00	0.00	0.00%	0.00%
RUBUS ALLEGHENIENSIS			5,000.00	5,000.00	0.00%	10.00%			0.00	0.00	0.00%	0.00%
RUBUS HISPIDUS			0.00	0.00	0.00%	0.00%			2,000.00	2,000.00	0.00%	10.00%
SASSAFRAS ALBIDUM			0.00	0.00	0.00%	0.00%			1,000.00	1,000.00	0.00%	10.00%
SASSAFRAS ALBIDUM (S)			0.00	0.00	0.00%	0.00%			2,000.00	2,000.00	0.00%	10.00%
SMILAX GLAUCA			2,000.00	1,333.33	0.00%	20.00%			9,000.00	6,046.12	0.00%	20.00%
SOLIDAGO SPP.	S		3,000.00	1,527.53	0.00%	30.00%			0.00	0.00	0.00%	0.00%
VACCINIUM CORYMBOSUM (S)			0.00	0.00	0.00%	0.00%			3,000.00	3,000.00	0.00%	10.00%
VERBASCUM THAPSUS			0.00	0.00	0.00%	0.00%			2,000.00	2,000.00	0.00%	10.00%

Table 31 (continued on next page). Belleplain Food Patch site: all vegetation less than .3 meters tall. Average number of stems per hectare, its standard error of the mean, percent of stems browsed and percent frequency are presented by treatment. Columns labeled D (stem density significant differences) and B (percent browse significant differences) when blank represent no statistical significance (alpha > .05) or not applicable (i.e. zero densities) across all treatments. An S in these columns represents a statistically significant difference between treatments (alpha is between .05 and .005). An H in these columns means highly significant difference among treatments (alpha less than .005). Data were collected during the full survey in summer 1993. (n = 10 for each treatment) fence = herbicide plus seed plus electric fence; control = herbicide only; seed / herbicide = herbicide plus seed; seed / herbicide / Hinder = herbicide plus seed plus Hinder (deer repellent).

**BELLEPLAIN FOOD PATCH
< .3 M**

SPECIES	D	B	SEED / HERBICIDE				SEED / HERBICIDE / HINDER			
			MEAN	STANDARD	PERCENT	FREQ.	MEAN	STANDARD	PERCENT	FREQ.
			DENSITY (#/HA)	ERROR	BROWSE		DENSITY (#/HA)	ERROR	BROWSE	
ACER RUBRUM (S)			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
ANAPHALIS MARGARITACEA			4,000.00	3,055.05	0.00%	20.00%	10,000.00	8,944.27	0.00%	20.00%
ASTER SPP.			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
CHAMAECYPARIS THYOIDES			1,000.00	1,000.00	0.00%	10.00%	0.00	0.00	0.00%	0.00%
CLETHRA ALNIFOLIA			16,000.00	14,922.02	0.00%	20.00%	0.00	0.00	0.00%	0.00%
CLETHRA ALNIFOLIA (S)			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
EPILOBIUM ANGUSTIFOLIUM			13,000.00	4,955.36	0.00%	50.00%	15,000.00	7,923.24	0.00%	40.00%
GAULTHERIA PROCUMBENS			48,000.00	30,832.88	0.00%	40.00%	85,000.00	56,159.50	0.00%	30.00%
GAYLUSSACIA FRONDOSA			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
GNAPHALIUM OBTUSIFOLIUM			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
ILEX OPACA			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
KALMIA LATIFOLIA			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
KALMIA LATIFOLIA (S)			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
LEUCOTHOE RACEMOSA			1,000.00	1,000.00	0.00%	10.00%	0.00	0.00	0.00%	0.00%
LYONIA LIGUSTINA			2,000.00	2,000.00	0.00%	10.00%	0.00	0.00	0.00%	0.00%
MAGNOLIA VIRGINIANA			1,000.00	1,000.00	10.00%	10.00%	0.00	0.00	0.00%	0.00%
NYSSA SYLVATICA (S)			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
PHYTOLACCA AMERICANA			3,000.00	1,527.53	0.00%	30.00%	5,000.00	2,687.42	10.00%	30.00%
PINUS RIGIDA (S)			2,000.00	2,000.00	0.00%	10.00%	0.00	0.00	0.00%	0.00%
PINUS STROBUS			1,000.00	1,000.00	0.00%	10.00%	0.00	0.00	0.00%	0.00%
PINUS VIRGINIANA			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
QUERCUS ILICIFOLIA			1,000.00	1,000.00	0.00%	10.00%	3,000.00	2,134.37	0.00%	20.00%
RHODODENDRON VISCOSUM			14,000.00	14,000.00	0.00%	10.00%	5,000.00	4,013.86	0.00%	20.00%
RHODODENDRON VISCOSUM (S)			49,000.00	49,000.00	0.00%	10.00%	0.00	0.00	0.00%	0.00%
RUBUS ALLEGHENIENSIS			12,000.00	8,919.39	7.78%	30.00%	0.00	0.00	0.00%	0.00%
RUBUS HISPIDUS			2,000.00	2,000.00	0.00%	10.00%	1,000.00	1,000.00	0.00%	10.00%
SASSAFRAS ALBIDUM			0.00	0.00	0.00%	0.00%	2,000.00	1,333.33	0.00%	20.00%
SASSAFRAS ALBIDUM (S)			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
SMILAX GLAUCA			2,000.00	2,000.00	0.00%	10.00%	0.00	0.00	0.00%	0.00%
SOLIDAGO SPP.	S		0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
VACCINIUM CORYMBOSUM (S)			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
VERBASCUM THAPSUS			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%

Table 31 (continued).

**BELLEPLAIN FOOD PATCH
.3 -.6 M**

SPECIES	FENCE					CONTROL				
	D	B	MEAN	STANDARD	PERCENT	FREQ.	MEAN	STANDARD	PERCENT	FREQ.
			DENSITY (#/HA)	ERROR	BROWSE		DENSITY (#/HA)	ERROR	BROWSE	
ACER RUBRUM			200.00	200.00	0.00%	10.00%	0.00	0.00	0.00%	0.00%
ACER RUBRUM (S)			400.00	266.67	0.00%	20.00%	0.00	0.00	0.00%	0.00%
ANAPHALIS MARGARITACEA			200.00	200.00	0.00%	10.00%	0.00	0.00	0.00%	0.00%
ASTER SPP. (S)			200.00	200.00	0.00%	10.00%	0.00	0.00	0.00%	0.00%
CHAMAECYPARIS THYOIDES			200.00	200.00	0.00%	10.00%	3,800.00	3,161.57	10.63%	30.00%
CLETHRA ALNIFOLIA			6,200.00	3,811.68	0.00%	40.00%	3,400.00	3,183.99	0.00%	20.00%
CLETHRA ALNIFOLIA (S)			1,000.00	802.77	0.00%	20.00%	4,800.00	4,800.00	0.00%	10.00%
EPILOBIUM ANGUSTIFOLIUM			4,000.00	3,141.13	0.00%	40.00%	3,400.00	2,066.67	0.00%	30.00%
GAYLUSSACIA FRONDOSA			1,600.00	1,600.00	0.00%	10.00%	0.00	0.00	0.00%	0.00%
GNAPHALIUM OBTUSIFOLIUM			200.00	200.00	0.00%	10.00%	3,000.00	1,868.00	37.50%	20.00%
ILEX GLABRA			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
ILEX OPACA			400.00	266.67	0.00%	20.00%	0.00	0.00	0.00%	0.00%
KALMIA ANGUSTIFOLIA			200.00	200.00	0.00%	10.00%	200.00	200.00	0.00%	10.00%
KALMIA ANGUSTIFOLIA (S)			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
KALMIA LATIFOLIA			0.00	0.00	0.00%	0.00%	400.00	400.00	0.00%	10.00%
KALMIA LATIFOLIA (S)			2,200.00	2,200.00	0.00%	10.00%	3,000.00	2,784.88	0.00%	20.00%
LEUCOTHOE RACEMOSA			800.00	800.00	0.00%	10.00%	400.00	400.00	0.00%	10.00%
LEUCOTHOE RACEMOSA (S)			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
LINARIA CANADENSIS			0.00	0.00	0.00%	0.00%	1,600.00	1,600.00	0.00%	10.00%
LYONIA LIGUSTINA			3,200.00	2,444.04	0.00%	20.00%	0.00	0.00	0.00%	0.00%
MAGNOLIA VIRGINIANA			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
MAGNOLIA VIRGINIANA (S)			0.00	0.00	0.00%	0.00%	200.00	200.00	10.00%	10.00%
NYSSA SYLVATICA			600.00	600.00	0.00%	10.00%	0.00	0.00	0.00%	0.00%
NYSSA SYLVATICA (S)			0.00	0.00	0.00%	0.00%	400.00	400.00	500.00%	10.00%
OSMUNDA CINNAMOMEA			0.00	0.00	0.00%	0.00%	2,600.00	1,789.44	0.00%	10.00%
PHYTOLACCA AMERICANA	S		1,000.00	447.21	0.00%	40.00%	400.00	266.67	10.00%	20.00%
PINUS RIGIDA (S)			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
PINUS VIRGINIANA			0.00	0.00	0.00%	0.00%	200.00	200.00	0.00%	10.00%
QUERCUS COCCINEA			0.00	0.00	0.00%	0.00%	200.00	200.00	0.00%	10.00%
RHODODENDRON VISCOSUM			0.00	0.00	0.00%	0.00%	2,200.00	1,474.22	0.00%	20.00%
RUBUS ALLEGHENIENSIS			2,600.00	1,739.73	0.00%	20.00%	0.00	0.00	0.00%	0.00%
SASSAFRAS ALBIDUM			1,000.00	614.64	0.00%	30.00%	200.00	200.00	10.00%	10.00%
SMILAX GLAUCA			1,800.00	866.67	0.00%	40.00%	1,400.00	1,194.43	0.00%	20.00%
SMILAX ROTUNDIFOLIA			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
SOLIDAGO SPP.			200.00	200.00	0.00%	10.00%	0.00	0.00	0.00%	0.00%
SOLIDAGO SPP. (S)			800.00	610.00	0.00%	10.00%	0.00	0.00	0.00%	0.00%
VACCINIUM CORYMBOSUM			5,800.00	5,800.00	0.00%	10.00%	0.00	0.00	0.00%	0.00%
VACCINIUM CORYMBOSUM (S)			0.00	0.00	0.00%	0.00%	1,400.00	1,400.00	0.00%	10.00%

Table 32 (continued on the next page). Belleplain Food Patch site: all vegetation between .3 and .6 meters tall. Average number of stem per hectare, its standard error of the mean, percent of stems browsed, and percent frequency are presented by treatment. Columns labeled D (stem density significant differences) and B (percent browse significant differences) when blank represent no statistical significance (alpha > .05) or not applicable (zero densities) across all treatments. An S in these columns represents a statistically significant difference between treatments when alpha is between .05 and .005. An H in these columns means a highly significant difference among treatments (alpha less than .005). Data were collected during the full survey in summer 1993. (n = 10 for each treatment) fence = herbicide plus seed plus electric fence; control = herbicide only; seed / herbicide = herbicide plus seed; seed / herbicide / Hinder = herbicide plus seed plus Hinder (deer repellent).

BELLEPLAIN FOOD PATCH
.3 - .6 M

SPECIES	SEED / HERBICIDE					SEED / HERBICIDE / HINDER				
	D	B	MEAN	STANDARD	PERCENT	FREQ.	MEAN	STANDARD	PERCENT	FREQ.
			DENSITY (#/HA)	ERROR	BROWSE		DENSITY (#/HA)	ERROR	BROWSE	
ACER RUBRUM			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
ACER RUBRUM (S)			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
ANAPHALIS MARGARITACEA			400.00	400.00	0.00%	10.00%	1,200.00	679.87	0.00%	30.00%
ASTER SPP. (S)			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
CHAMAECYPARIS THYOIDES			200.00	200.00	0.00%	10.00%	400.00	266.67	20.00%	20.00%
CLETHRA ALNIFOLIA			1,000.00	1,000.00	0.00%	10.00%	0.00	0.00	0.00%	0.00%
CLETHRA ALNIFOLIA (S)			7,800.00	5,921.34	2.00%	20.00%	0.00	0.00	0.00%	0.00%
EPILOBIUM ANGUSTIFOLIUM			800.00	442.22	0.00%	30.00%	9,600.00	6,086.78	0.00%	30.00%
GAYLUSSACIA FRONDOSA			1,400.00	1,400.00	0.00%	10.00%	0.00	0.00	0.00%	0.00%
GNAPHALIUM OBTUSIFOLIUM			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
ILEX GLABRA			200.00	200.00	0.00%	10.00%	0.00	0.00	0.00%	0.00%
ILEX OPACA			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
KALMIA ANGUSTIFOLIA			800.00	800.00	0.00%	10.00%	0.00	0.00	0.00%	0.00%
KALMIA ANGUSTIFOLIA (S)			3,000.00	3,000.00	0.00%	10.00%	0.00	0.00	0.00%	0.00%
KALMIA LATIFOLIA			0.00	0.00	0.00%	0.00%	1,200.00	853.75	0.00%	20.00%
KALMIA LATIFOLIA (S)			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
LEUCOTHOE RACEMOSA			200.00	200.00	0.00%	10.00%	0.00	0.00	0.00%	0.00%
LEUCOTHOE RACEMOSA (S)			800.00	800.00	0.00%	10.00%	1,400.00	1,400.00	0.00%	10.00%
LINARIA CANADENSIS			400.00	266.67	0.00%	20.00%	400.00	400.00	0.00%	10.00%
LYONIA LIGUSTINA			1,400.00	1,400.00	0.00%	10.00%	0.00	0.00	0.00%	0.00%
MAGNOLIA VIRGINIANA			400.00	400.00	5.00%	10.00%	200.00	200.00	10.00%	10.00%
MAGNOLIA VIRGINIANA (S)			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
NYSSA SYLVATICA			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
NYSSA SYLVATICA (S)			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
OSMUNDA CINNAMOMEA			1,000.00	688.25	0.00%	10.00%	0.00	0.00	0.00%	0.00%
PHYTOLACCA AMERICANA		S	600.00	426.87	10.00%	20.00%	2,000.00	843.27	50.00%	50.00%
PINUS RIGIDA (S)			200.00	200.00	0.00%	10.00%	0.00	0.00	0.00%	0.00%
PINUS VIRGINIANA			200.00	200.00	0.00%	10.00%	400.00	266.67	0.00%	20.00%
QUERCUS COCCINEA			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
RHODODENDRON VISCOSUM			600.00	426.87	0.00%	20.00%	200.00	200.00	10.00%	10.00%
RUBUS ALLEGHENIENSIS			4,400.00	4,400.00	0.00%	10.00%	0.00	0.00	0.00%	0.00%
SASSAFRAS ALBIDUM			200.00	200.00	0.00%	10.00%	1,200.00	679.87	16.67%	30.00%
SMILAX GLAUCA			1,800.00	813.77	2.50%	50.00%	400.00	400.00	0.00%	10.00%
SMILAX ROTUNDIFOLIA			200.00	200.00	0.00%	10.00%	600.00	426.87	0.00%	20.00%
SOLIDAGO SPP.			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
SOLIDAGO SPP. (S)			0.00	0.00	0.00%	0.00%	600.00	426.87	50.00%	20.00%
VACCINIUM CORYMBOSUM			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
VACCINIUM CORYMBOSUM (S)			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%

Table 32 (continued).

**BELLEPLAIN FOOD PATCH
.6 -1.3 M**

SPECIES	FENCE						CONTROL					
	D	B	MEAN	STANDARD	PERCENT	FREQ.	MEAN	STANDARD	PERCENT	FREQ.		
			DENSITY (#/HA)	ERROR	BROWSE		DENSITY (#/HA)	ERROR	BROWSE			
ACER RUBRUM			200.00	200.00	0.00%	10.00%	0.00	0.00	0.00%	0.00%		
ACER RUBRUM (S)			400.00	400.00	0.00%	10.00%	0.00	0.00	0.00%	0.00%		
ANAPHALIS MARGARITACEA			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%		
ARONIA SPP.			400.00	400.00	0.00%	10.00%	0.00	0.00	0.00%	0.00%		
CHAMAECYPARIS THYOIDES	H		0.00	0.00	0.00%	0.00%	4,000.00	2,129.16	0.00%	50.00%		
CLETHRA ALNIFOLIA			4,200.00	3,982.74	0.00%	20.00%	1,400.00	1,400.00	0.00%	10.00%		
CLETHRA ALNIFOLIA (S)			0.00	0.00	0.00%	0.00%	200.00	200.00	0.00%	10.00%		
EPILOBIUM ANGUSTIFOLIUM			200.00	200.00	0.00%	10.00%	0.00	0.00	0.00%	0.00%		
GAYLUSSACIA FRONDOSA			200.00	200.00	0.00%	10.00%	0.00	0.00	0.00%	0.00%		
GNAPHALIUM OBTUSIFOLIUM			1,600.00	1,600.00	0.00%	10.00%	0.00	0.00	0.00%	0.00%		
HYPOCHOERIS RADICATA			200.00	200.00	0.00%	10.00%	0.00	0.00	0.00%	0.00%		
ILEX OPACA			200.00	200.00	0.00%	10.00%	200.00	200.00	0.00%	10.00%		
KALMIA LATIFOLIA	S		0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%		
KALMIA LATIFOLIA (S)			200.00	200.00	0.00%	10.00%	0.00	0.00	0.00%	0.00%		
LEUCOTHOE RACEMOSA			200.00	200.00	0.00%	10.00%	0.00	0.00	0.00%	0.00%		
LEUCOTHOE RACEMOSA (S)			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%		
LINARIA CANADENSIS			0.00	0.00	0.00%	0.00%	400.00	400.00	0.00%	10.00%		
LYONIA LIGUSTINA			200.00	200.00	0.00%	10.00%	0.00	0.00	0.00%	0.00%		
MAGNOLIA VIRGINIANA (S)			0.00	0.00	0.00%	0.00%	200.00	200.00	10.00%	10.00%		
OSMUNDA CINNAMOMEA			0.00	0.00	0.00%	0.00%	4,400.00	3,028.29	0.00%	10.00%		
PHYTOLACCA AMERICANA	S	S	2,600.00	991.07	0.00%	60.00%	400.00	400.00	10.00%	10.00%		
PINUS RIGIDA (S)			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%		
PINUS VIRGINIANA			200.00	200.00	0.00%	10.00%	800.00	442.22	0.00%	30.00%		
RHODODENDRON VISCOSUM			0.00	0.00	0.00%	0.00%	1,400.00	1,400.00	0.00%	10.00%		
RUBUS ALLEGHENIENSIS			3,600.00	2,246.97	0.00%	30.00%	0.00	0.00	0.00%	0.00%		
SASSAFRAS ALBIDUM			600.00	600.00	0.00%	10.00%	0.00	0.00	0.00%	0.00%		
SMILAX GLAUCA			2,600.00	1,462.11	0.00%	30.00%	2,400.00	2,186.83	0.00%	20.00%		
SMILAX ROTUNDIFOLIA			400.00	400.00	0.00%	10.00%	0.00	0.00	0.00%	0.00%		
SOLIDAGO SPP. (S)	S		800.00	442.22	0.00%	30.00%	0.00	0.00	0.00%	0.00%		
VACCINIUM CORYMBOSUM			600.00	600.00	0.00%	10.00%	0.00	0.00	0.00%	0.00%		
VACCINIUM CORYMBOSUM (S)			0.00	0.00	0.00%	0.00%	600.00	600.00	0.00%	10.00%		

Table 33 (continued on next page). Belleplain Food Patch site: all vegetation between .6 and 1.3 meters tall. Average number of stem per hectare, its standard error of the mean, percent of stems browsed, and percent frequency are presented by treatment. Columns labelled D (stem density significant difference) and B (percent browse significant differences) when blank represent no statistical significance (alpha > .05) or not applicable (zero densities) across all treatments. The occurrence of an S in these columns represents a statistically significant difference between treatments (alpha is between .05 and .005). An H in these columns means a highly significant difference among treatments (alpha less than .005). Data were collected during the full survey in summer 1993. (n = 10 for each treatment) fence = herbicide plus seed plus electric fence; control = herbicide only; seed / herbicide = herbicide plus seed; seed / herbicide / Hinder = herbicide plus seed plus Hinder (deer repellent).

**BELLEPLAIN FOOD PATCH
.6 - 1.3 M**

SPECIES	SEED / HERBICIDE						SEED / HERBICIDE / HINDER					
			MEAN	STANDARD	PERCENT	FREQ.			MEAN	STANDARD	PERCENT	FREQ.
	D	B	DENSITY (#/HA)	ERROR	BROWSE			DENSITY (#/HA)	ERROR	BROWSE		
ACER RUBRUM			0.00	0.00	0.00%	0.00%		0.00	0.00	0.00%	0.00%	
ACER RUBRUM (S)			0.00	0.00	0.00%	0.00%		0.00	0.00	0.00%	0.00%	
ANAPHALIS MARGARITACEA			400.00	400.00	0.00%	10.00%		200.00	200.00	0.00%	10.00%	
ARONIA SPP.			0.00	0.00	0.00%	0.00%		0.00	0.00	0.00%	0.00%	
CHAMAECYPARIS THYOIDES	H		0.00	0.00	0.00%	0.00%		0.00	0.00	0.00%	0.00%	
CLETHRA ALNIFOLIA			0.00	0.00	0.00%	0.00%		0.00	0.00	0.00%	0.00%	
CLETHRA ALNIFOLIA (S)			1,400.00	1,194.43	0.00%	20.00%		0.00	0.00	0.00%	0.00%	
EPILOBIUM ANGUSTIFOLIUM			0.00	0.00	0.00%	0.00%		600.00	600.00	0.00%	10.00%	
GAYLUSSACIA FRONDOSA			200.00	200.00	0.00%	10.00%		0.00	0.00	0.00%	0.00%	
GNAPHALIUM OBTUSIFOLIUM			0.00	0.00	0.00%	0.00%		0.00	0.00	0.00%	0.00%	
HYPOCHOERIS RADICATA			0.00	0.00	0.00%	0.00%		0.00	0.00	0.00%	0.00%	
ILEX OPACA			0.00	0.00	0.00%	0.00%		0.00	0.00	0.00%	0.00%	
KALMIA LATIFOLIA	S		0.00	0.00	0.00%	0.00%		600.00	305.51	0.00%	30.00%	
KALMIA LATIFOLIA (S)			0.00	0.00	0.00%	0.00%		0.00	0.00	0.00%	0.00%	
LEUCOTHOE RACEMOSA			0.00	0.00	0.00%	0.00%		0.00	0.00	0.00%	0.00%	
LEUCOTHOE RACEMOSA (S)			800.00	800.00	0.00%	10.00%		0.00	0.00	0.00%	0.00%	
LINARIA CANADENSIS			400.00	400.00	0.00%	10.00%		0.00	0.00	0.00%	0.00%	
LYONIA LIGUSTINA			0.00	0.00	0.00%	0.00%		0.00	0.00	0.00%	0.00%	
MAGNOLIA VIRGINIANA (S)			0.00	0.00	0.00%	0.00%		0.00	0.00	0.00%	0.00%	
OSMUNDA CINNAMOMEA			9,400.00	6,469.52	0.00%	10.00%		0.00	0.00	0.00%	0.00%	
PHYTOLACCA AMERICANA	S	S	400.00	266.67	0.00%	20.00%		2,000.00	843.27	40.00%	50.00%	
PINUS RIGIDA (S)			400.00	400.00	0.00%	10.00%		0.00	0.00	0.00%	0.00%	
PINUS VIRGINIANA			0.00	0.00	0.00%	0.00%		0.00	0.00	0.00%	0.00%	
RHODODENDRON VISCOSUM			0.00	0.00	0.00%	0.00%		0.00	0.00	0.00%	0.00%	
RUBUS ALLEGHENIENSIS			4,400.00	4,400.00	0.00%	10.00%		0.00	0.00	0.00%	0.00%	
SASSAFRAS ALBIDUM			0.00	0.00	0.00%	0.00%		400.00	266.67	10.00%	20.00%	
SMILAX GLAUCA			2,200.00	1,051.98	0.00%	40.00%		400.00	266.67	0.00%	20.00%	
SMILAX ROTUNDIFOLIA			2,600.00	2,023.20	0.00%	20.00%		2,400.00	1,107.55	0.00%	40.00%	
SOLIDAGO SPP. (S)	S		0.00	0.00	0.00%	0.00%		0.00	0.00	0.00%	0.00%	
VACCINIUM CORYMBOSUM			0.00	0.00	0.00%	0.00%		0.00	0.00	0.00%	0.00%	
VACCINIUM CORYMBOSUM (S)			0.00	0.00	0.00%	0.00%		0.00	0.00	0.00%	0.00%	

Table 33 (continued).

**BELLEPLAIN FOOD PATCH
> 1.3 M**

		FENCE			CONTROL		
SPECIES		MEAN	STANDARD	FREQ.	MEAN	STANDARD	FREQ.
		DENSITY	ERROR		DENSITY	ERROR	
	D	(#/HA)			(#/HA)		
ASTER SPP.		200.00	200.00	10.00%	0.00	0.00	0.00%
CHAMAECYPARIS THYOIDES	S	0.00	0.00	0.00%	1,200.00	611.01	30.00%
CLETHRA ALNIFOLIA		0.00	0.00	0.00%	1,600.00	1,600.00	10.00%
PHYTOLACCA AMERICANA	S	800.00	442.22	30.00%	0.00	0.00	0.00%
PINUS VIRGINIANA		0.00	0.00	0.00%	200.00	200.00	10.00%
QUERCUS COCCINEA (S)		0.00	0.00	0.00%	0.00	0.00	0.00%
RUBUS ALLEGHENIENSIS		200.00	200.00	10.00%	0.00	0.00	0.00%
SMILAX GLAUCA		800.00	800.00	10.00%	0.00	0.00	0.00%
SMILAX ROTUNDIFOLIA		0.00	0.00	0.00%	0.00	0.00	0.00%
SEED / HERBICIDE				SEED / HERBICIDE / HINDER			
SPECIES		MEAN	STANDARD	FREQ.	MEAN	STANDARD	FREQ.
		DENSITY	ERROR		DENSITY	ERROR	
	D	(#/HA)			(#/HA)		
ASTER SPP.		0.00	0.00	0.00%	0.00	0.00	0.00%
CHAMAECYPARIS THYOIDES	S	0.00	0.00	0.00%	0.00	0.00	0.00%
CLETHRA ALNIFOLIA		0.00	0.00	0.00%	0.00	0.00	0.00%
PHYTOLACCA AMERICANA	S	0.00	0.00	0.00%	0.00	0.00	0.00%
PINUS VIRGINIANA		0.00	0.00	0.00%	0.00	0.00	0.00%
QUERCUS COCCINEA (S)		0.00	0.00	0.00%	200.00	200.00	10.00%
RUBUS ALLEGHENIENSIS		0.00	0.00	0.00%	0.00	0.00	0.00%
SMILAX GLAUCA		800.00	611.01	20.00%	0.00	0.00	0.00%
SMILAX ROTUNDIFOLIA		800.00	533.33	20.00%	1,400.00	733.33	30.00%

Table 34. Belleplain Food Patch site: all vegetation greater than 1.3 meters tall. Average number of stems per hectare, its standard error of the mean and percent frequency are presented by treatment. The column labeled D (stem density significant differences) when blank represents no statistical significance (alpha > .05) or not applicable (i.e. zero densities) across all treatments. S represents a statistically significant difference between treatments when alpha is between .05 and .005. H means highly significant difference among treatments (alpha less than .005). Data were collected during the full survey in summer 1993. (n = 10 for each treatment) fence = herbicide plus seed plus electric fence; control = herbicide only; seed / herbicide = herbicide plus seed; seed / herb / Hinder = herbicide plus seed plus Hinder (deer repellent).

**BELLEPLAIN NON-FOOD PATCH
DOWNED DEBRIS**

FENCE			CONTROL			SEED / HERBICIDE			SEED / HERBICIDE / HINDER		
LAYER	MEAN	STANDARD ERROR	LAYER	MEAN	STANDARD ERROR	LAYER	MEAN	STANDARD ERROR	LAYER	MEAN	STANDARD ERROR
FIRST LAYER	0.55%	0.31	FIRST LAYER	3.23%	2.81	FIRST LAYER	2.00%	0.92	FIRST LAYER	1.93%	1.34
SECOND LAYER	0.00%	0.00	SECOND LAYER	0.00%	0.00	SECOND LAYER	0.33%	0.33	SECOND LAYER	1.43%	0.97

Table 35. Belleplain Non-Food Patch site downed debris. Average percent cover and standard error of the mean are presented by layer and treatment. The first layer is the closest debris to the ground. The second layer (i.e. dead branches found over the first layer. The third layer is found over the second layer which is found over the first layer and so forth. Data were collected during the full survey in summer 1993. (n = 12 for each treatment) fence = herbicide plus seed plus electric fence; control = herbicide only; seed / herbicide = herbicide plus seed; seed / herbicide / Hinder = herbicide plus seed plus Hinder (deer repellent).

**BELLEPLAIN NON-FOOD PATCH
PERCENT GROUND COVERAGES**

FENCE			CONTROL			SEED / HERBICIDE			SEED / HERBICIDE / HINDER		
LAYER	MEAN	STANDARD ERROR	LAYER	MEAN	STANDARD ERROR	LAYER	MEAN	STANDARD ERROR	LAYER	MEAN	STANDARD ERROR
GRASS	0.00%	0.00	GRASS	9.17%	8.30	GRASS	0.42%	0.42	GRASS	6.25%	4.22
LITTER	83.33%	11.24	LITTER	76.67%	11.30	LITTER	82.92%	11.19	LITTER	82.08%	8.95
SAND	0.00%	0.00	SAND	5.00%	4.17	SAND	0.00%	0.00	SAND	3.33%	3.33
SOIL	16.67%	11.24	SOIL	8.33%	8.33	SOIL	16.67%	11.24	SOIL	8.33%	8.33
STUMP	0.00%	0.00	STUMP	0.83%	0.83	STUMP	0.00%	0.00	STUMP	0.00%	0.00

Table 36. Belleplain Non-Food patch site percent ground coverages. Average percent cover and standard error of the mean are presented by layer category and treatment. Data were collected during the full survey in summer 1993. (n = 12 for each treatment) fence = herbicide plus seed plus electric fence; control = herbicide only; seed / herbicide = herbicide plus seed; seed / herbicide / Hinder = herbicide plus seed plus Hinder (deer repellent).

**BELLEPLAIN NON-FOOD PATCH
< .3 M**

SPECIES	FENCE					CONTROL				
	D	B	MEAN	STANDARD	PERCENT	FREQ.	MEAN	STANDARD	PERCENT	FREQ.
			DENSITY (#/HA)	ERROR	BROWSE		DENSITY (#/HA)	ERROR	BROWSE	
ACER RUBRUM			1,666.67	1,123.67	0.00%	17.00%	2,500.00	1,794.35	0.00%	17.00%
AMELANCHIER ARBOREA			0.00	0.00	0.00%	0.00%	833.33	833.33	0.00%	8.00%
AMELANCHIER ARBOREA (S)			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
CHAMAECYPARIS THYOIDES	S		5,833.33	2,289.08	0.00%	42.00%	0.00	0.00	0.00%	0.00%
CLETHRA ALNIFOLIA			0.00	0.00	0.00%	0.00%	8,333.33	8,333.33	0.00%	8.00%
CLETHRA ALNIFOLIA (S)			0.00	0.00	0.00%	0.00%	833.33	833.33	0.00%	8.00%
EPILOBIUM ANGUSTIFOLIUM	S		8,333.33	4,740.75	0.00%	25.00%	333,333.33	152,043.32	0.00%	83.00%
GAULTHERIA PROCUMBENS			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
GAYLUSSACIA BACCATA			8,333.33	8,333.33	0.00%	8.00%	4,166.67	4,166.67	0.00%	8.00%
GAYLUSSACIA BACCATA (S)			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
GAYLUSSACIA FRONDOSA			55,833.33	34,825.50	0.00%	42.00%	5,000.00	3,588.70	0.00%	17.00%
GAYLUSSACIA FRONDOSA (S)			51,666.67	26,106.81	0.00%	33.00%	0.00	0.00	0.00%	0.00%
GNAPHALIUM OBTUSIFOLIUM			833.33	833.33	0.00%	8.00%	34,166.67	29,010.40	0.00%	25.00%
ILEX GLABRA (S)			6,666.67	6,666.67	0.00%	8.00%	0.00	0.00	0.00%	0.00%
KALMIA ANGUSTIFOLIA			8,333.33	8,333.33	0.00%	8.00%	44,166.67	42,363.12	0.00%	25.00%
KALMIA ANGUSTIFOLIA (S)			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
KALMIA LATIFOLIA			0.00	0.00	0.00%	0.00%	3,333.33	3,333.33	0.00%	8.00%
LEUCOTHOE RACEMOSA			833.33	833.33	0.00%	8.00%	5,000.00	5,000.00	0.00%	8.00%
LEUCOTHOE RACEMOSA (S)	H		0.00	0.00	0.00%	0.00%	833.33	833.33	0.00%	8.00%
LYONIA LIGUSTINA			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
LYONIA LIGUSTINA (S)			6,666.67	5,817.08	0.00%	17.00%	0.00	0.00	0.00%	0.00%
NYSSA SYLVATICA			833.33	833.33	0.00%	8.00%	0.00	0.00	0.00%	0.00%
NYSSA SYLVATICA (S)			833.33	833.33	8.33%	8.00%	0.00	0.00	0.00%	0.00%
OSMUNDA CINNAMOMEA			79,166.67	61,304.73	0.00%	17.00%	20,833.33	20,833.33	0.00%	8.00%
PHYTOLACCA AMERICANA			3,333.33	2,562.35	0.00%	17.00%	1,666.67	1,123.67	0.00%	17.00%
PINUS RIGIDA			833.33	833.33	0.00%	8.00%	0.00	0.00	0.00%	0.00%
PTERIDIUM AQUILINUM			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
RHODODENDRON VISCOSUM			47,500.00	36,330.24	0.00%	33.00%	0.00	0.00	0.00%	0.00%
RHODODENDRON VISCOSUM (S)			25,833.33	23,239.80	0.00%	17.00%	0.00	0.00	0.00%	0.00%
SASSAFRAS ALBIDUM			1,666.67	1,123.67	0.00%	17.00%	1,666.67	1,666.67	8.33%	8.00%
SMILAX GLAUCA			12,500.00	8,971.76	0.00%	17.00%	1,666.67	1,123.67	0.00%	17.00%
SMILAX ROTUNDIFOLIA			0.00	0.00	0.00%	0.00%	2,500.00	2,500.00	0.00%	8.00%
SOLIDAGO SPECIOSA			0.00	0.00	0.00%	0.00%	833.33	833.33	0.00%	8.00%
VACCINIUM CORYMBOSUM			11,666.67	8,241.92	0.00%	17.00%	0.00	0.00	0.00%	0.00%
VACCINIUM CORYMBOSUM (S)			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
WOODWARDIA VIRGINICA			0.00	0.00	0.00%	0.00%	833.33	833.33	0.00%	8.00%

Table 37 (continued on next page). Belleplain Non-Food Patch site: all vegetation less than .3 meters tall. Average number of stems per hectare, its standard error of the mean, percent of stems browsed, and percent frequency are presented by treatment. Columns labeled D (stem density significant differences) and B (percent browse significant differences) when blank represent no statistical significance (alpha > .05) or not applicable (zero densities) across all treatments. An S in these columns represents a statistically significant difference between treatments when alpha is between .05 and .005. An H means a highly significant difference among treatments (alpha less than .005). Data were collected during the full survey in summer 1993. (n = 12 for each treatment) fence = herbicide plus seed plus electric fence; control = herbicide only; seed / herbicide = herbicide plus seed; seed / herbicide / Hinder = herbicide plus seed plus Hinder (deer repellent).

**BELLEPLAIN NON-FOOD PATCH
< .3 M**

SPECIES	D	B	SEED / HERBICIDE				SEED / HERBICIDE / HINDER			
			MEAN	STANDARD	PERCENT	FREQ.	MEAN	STANDARD	PERCENT	FREQ.
			DENSITY (#/HA)	ERROR	BROWSE		DENSITY (#/HA)	ERROR	BROWSE	
ACER RUBRUM			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
AMELANCHIER ARBOREA			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
AMELANCHIER ARBOREA (S)			2,500.00	1,794.35	0.00%	17.00%	0.00	0.00	0.00%	0.00%
CHAMAECYPARIS THYOIDES	S		1,666.67	1,123.67	0.00%	17.00%	833.33	833.33	0.00%	8.00%
CLETHRA ALNIFOLIA			3,333.33	2,562.35	5.56%	17.00%	5,000.00	3,588.70	4.17%	17.00%
CLETHRA ALNIFOLIA (S)			1,666.67	1,123.67	0.00%	17.00%	10,833.33	10,833.33	0.00%	8.00%
EPILOBIUM ANGUSTIFOLIUM	S		92,500.00	39,487.72	0.00%	58.00%	57,500.00	30,454.26	4.17%	42.00%
GAULTHERIA PROCUMBENS			0.00	0.00	0.00%	0.00%	12,500.00	12,500.00	0.00%	8.00%
GAYLUSSACIA BACCATA			833.33	833.33	0.00%	8.00%	0.00	0.00	0.00%	0.00%
GAYLUSSACIA BACCATA (S)			12,500.00	12,500.00	0.00%	8.00%	0.00	0.00	0.00%	0.00%
GAYLUSSACIA FRONDOSA			16,666.67	10,754.37	0.00%	25.00%	7,500.00	4,105.61	0.00%	25.00%
GAYLUSSACIA FRONDOSA (S)			42,500.00	24,529.67	0.00%	33.00%	63,333.33	29,780.34	0.00%	33.00%
GNAPHALIUM OBTUSIFOLIUM			41,666.67	39,883.04	0.00%	17.00%	8,333.33	8,333.33	0.00%	8.00%
ILEX GLABRA (S)			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
KALMIA ANGUSTIFOLIA			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
KALMIA ANGUSTIFOLIA (S)			39,166.67	31,199.71	0.00%	17.00%	155,833.33	155,833.33	0.00%	8.00%
KALMIA LATIFOLIA			0.00	0.00	0.00%	0.00%	833.33	833.33	0.00%	8.00%
LEUCOTHOE RACEMOSA			0.00	0.00	0.00%	0.00%	833.33	833.33	0.00%	8.00%
LEUCOTHOE RACEMOSA (S)	H		70,833.33	41,568.82	0.00%	50.00%	833.33	833.33	0.00%	8.00%
LYONIA LIGUSTINA			3,333.33	3,333.33	0.00%	8.00%	7,500.00	7,500.00	0.00%	8.00%
LYONIA LIGUSTINA (S)			2,500.00	2,500.00	0.00%	8.00%	0.00	0.00	0.00%	0.00%
NYSSA SYLVATICA			0.00	0.00	0.00%	0.00%	833.33	833.33	0.00%	8.00%
NYSSA SYLVATICA (S)			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
OSMUNDA CINNAMOMEA			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
PHYTOLACCA AMERICANA			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
PINUS RIGIDA			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
PTERIDIUM AQUILINUM			0.00	0.00	0.00%	0.00%	4,166.67	3,361.62	0.00%	17.00%
RHODODENDRON VISCOSUM			1,666.67	1,123.67	0.00%	17.00%	10,000.00	9,128.71	0.76%	17.00%
RHODODENDRON VISCOSUM (S)			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
SASSAFRAS ALBIDUM			833.33	833.33	0.00%	8.00%	4,166.67	3,361.62	4.17%	17.00%
SMILAX GLAUCA			8,333.33	4,578.17	0.00%	33.00%	6,666.67	4,322.83	0.00%	25.00%
SMILAX ROTUNDIFOLIA			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
SOLIDAGO SPECIOSA			0.00	0.00	0.00%	0.00%	833.33	833.33	8.33%	8.00%
VACCINIUM CORYMBOSUM			0.00	0.00	0.00%	0.00%	1,666.67	1,123.67	0.00%	17.00%
VACCINIUM CORYMBOSUM (S)			833.33	833.33	0.00%	8.00%	0.00	0.00	0.00%	0.00%
WOODWARDIA VIRGINICA			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%

Table 37 (continued).

**BELLEPLAIN NON-FOOD PATCH
.3 -.6 M**

SPECIES	FENCE					CONTROL				
	D	B	MEAN DENSITY (#/HA)	STANDARD ERROR	PERCENT BROWSE	FREQ.	MEAN DENSITY (#/HA)	STANDARD ERROR	PERCENT BROWSE	FREQ.
ACER RUBRUM (S)			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
AMELANCHIER ARBOREA			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
AMELANCHIER ARBOREA (S)			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
ARONIA SPP. (S)			500.00	358.87	0.00%	17.00%	0.00	0.00	0.00%	0.00%
CHAMAECYPARIS THYOIDES			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
CLETHRA ALNIFOLIA			333.33	333.33	0.00%	8.00%	0.00	0.00	0.00%	0.00%
CLETHRA ALNIFOLIA (S)			666.67	666.67	0.00%	8.00%	2,666.67	2,666.67	0.00%	8.00%
EPILOBIUM ANGUSTIFOLIUM	H		3,333.33	1,711.52	0.00%	42.00%	79,500.00	23,222.41	0.00%	83.00%
GAYLUSSACIA BACCATA			500.00	358.87	0.00%	17.00%	333.33	333.33	0.00%	8.00%
GAYLUSSACIA FRONDOSA			2,500.00	2,500.00	0.00%	8.00%	1,333.33	791.37	0.00%	25.00%
GAYLUSSACIA FRONDOSA (S)	S		8,333.33	5,861.19	0.00%	25.00%	0.00	0.00	0.00%	0.00%
GNAPHALIUM OBTUSIFOLIUM			0.00	0.00	0.00%	0.00%	500.00	500.00	0.00%	8.00%
HYPOCHOERIS RADICATA			166.67	166.67	0.00%	8.00%	0.00	0.00	0.00%	0.00%
ILEX GLABRA			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
ILEX GLABRA (S)			500.00	500.00	0.00%	8.00%	0.00	0.00	0.00%	0.00%
KALMIA ANGUSTIFOLIA			333.33	333.33	0.00%	8.00%	500.00	500.00	0.00%	8.00%
KALMIA ANGUSTIFOLIA (S)			6,333.33	6,153.75	0.00%	17.00%	8,666.67	5,843.07	0.00%	17.00%
KALMIA LATIFOLIA			0.00	0.00	0.00%	0.00%	166.67	166.67	0.00%	8.00%
LEUCOTHOE RACEMOSA			1,000.00	674.20	0.00%	25.00%	0.00	0.00	0.00%	0.00%
LEUCOTHOE RACEMOSA (S)			0.00	0.00	0.00%	0.00%	1,000.00	834.85	0.00%	17.00%
LYONIA LIGUSTINA			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
LYONIA LIGUSTINA (S)			4,500.00	3,153.88	0.00%	17.00%	0.00	0.00	0.00%	0.00%
MYRICA HETEROPHYLLA			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
NYSSA SYLVATICA			333.33	224.73	0.00%	17.00%	0.00	0.00	0.00%	0.00%
NYSSA SYLVATICA (S)			833.33	833.33	0.00%	8.00%	0.00	0.00	0.00%	0.00%
OSMUNDA CINNAMOMEA			36,166.67	24,261.78	0.00%	25.00%	1,500.00	1,500.00	0.00%	8.00%
PHYTOLACCA AMERICANA			166.67	166.67	0.00%	8.00%	0.00	0.00	0.00%	0.00%
PINUS RIGIDA			166.67	166.67	0.00%	8.00%	166.67	166.67	0.00%	8.00%
PTERIDIUM AQUILINUM			666.67	512.47	0.00%	17.00%	0.00	0.00	0.00%	0.00%
QUERCUS ALBA			166.67	166.67	0.00%	8.00%	0.00	0.00	0.00%	0.00%
QUERCUS COCCINEA			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
QUERCUS ILICIFOLIA			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
QUERCUS ILICIFOLIA (S)			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
RHODODENDRON VISCOSUM			3,000.00	3,000.00	0.00%	8.00%	0.00	0.00	0.00%	0.00%
SASSAFRAS ALBIDUM			0.00	0.00	0.00%	0.00%	166.67	166.67	0.00%	8.00%
SMILAX GLAUCA			1,333.33	666.67	0.00%	33.00%	166.67	166.67	0.00%	8.00%
SMILAX ROTUNDFOLIA			0.00	0.00	0.00%	0.00%	166.67	166.67	0.00%	8.00%
SOLIDAGO SPECIOSA			0.00	0.00	0.00%	0.00%	333.33	224.73	0.00%	17.00%
SOLIDAGO SPP.			166.67	166.67	0.00%	8.00%	0.00	0.00	0.00%	0.00%
VACCINIUM CORYMBOSUM			166.67	166.67	0.00%	8.00%	500.00	500.00	0.00%	8.00%
VACCINIUM CORYMBOSUM (S)			5,666.67	5,666.67	0.00%	8.00%	166.67	166.67	0.00%	8.00%

Table 38 (continued on the next page). Belleplain Non-Food Patch site: all vegetation between .3 and .6 meters tall. Average number of stems per hectare, its standard error of the mean, percent of stems browsed and percent frequency are presented by treatment. Columns labeled D (stem density significant differences) and B (percent browse significant differences) when blank represent no statistical significance (alpha > .05) or not applicable (zero densities) across all treatments. The occurrence of an S in these columns represents a statistically significant difference between treatments (alpha is between .05 and .005). An H in these columns means a highly significant difference among treatments (alpha less than .005). Data were collected during the full survey in late summer 1993. (n = 12 for each treatment) fence = herbicide plus seed plus electric fence; control = herbicide only; seed / herbicide = herbicide plus seed; seed / herbicide / Hinder = herbicide plus seed plus Hinder (deer repellent).

BELLEPLAIN NON-FOOD PATCH
.3 - .6 M

SPECIES	SEED / HERBICIDE					SEED / HERBICIDE / HINDER				
	D	B	MEAN	STANDARD	PERCENT	FREQ.	MEAN	STANDARD	PERCENT	FREQ.
			DENSITY (#/HA)	ERROR	BROWSE		DENSITY (#/HA)	ERROR	BROWSE	
ACER RUBRUM (S)			0.00	0.00	0.00%	0.00%	666.67	512.47	2.78%	17.00%
AMELANCHIER ARBOREA			166.67	166.67	0.00%	8.00%	666.67	512.47	0.00%	17.00%
AMELANCHIER ARBOREA (S)			666.67	512.47	0.00%	17.00%	0.00	0.00	0.00%	0.00%
ARONIA SPP. (S)			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
CHAMAECYPARIS THYOIDES			166.67	166.67	0.00%	8.00%	0.00	0.00	0.00%	0.00%
CLETHRA ALNIFOLIA			0.00	0.00	0.00%	0.00%	2,166.67	2,166.67	0.00%	8.00%
CLETHRA ALNIFOLIA (S)			0.00	0.00	0.00%	0.00%	1,666.67	1,666.67	0.00%	8.00%
EPILOBIUM ANGUSTIFOLIUM	H		13,000.00	4,582.58	0.00%	75.00%	9,333.33	3,800.58	0.00%	75.00%
GAYLUSSACIA BACCATA			333.33	333.33	0.00%	8.00%	0.00	0.00	0.00%	0.00%
GAYLUSSACIA FRONDOSA			6,333.33	6,333.33	0.00%	8.00%	7,166.67	3,880.47	0.00%	33.00%
GAYLUSSACIA FRONDOSA (S)	S		10,333.33	3,462.64	0.00%	50.00%	26,500.00	24,359.83	0.00%	25.00%
GNAPHALIUM OBTUSIFOLIUM			166.67	166.67	0.00%	8.00%	0.00	0.00	0.00%	0.00%
HYPOCHOERIS RADICATA			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
ILEX GLABRA			0.00	0.00	0.00%	0.00%	500.00	500.00	0.00%	8.00%
ILEX GLABRA (S)			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
KALMIA ANGUSTIFOLIA			0.00	0.00	0.00%	0.00%	6,333.33	6,333.33	0.00%	8.00%
KALMIA ANGUSTIFOLIA (S)			1,166.67	998.74	0.00%	17.00%	0.00	0.00	0.00%	0.00%
KALMIA LATIFOLIA			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
LEUCOTHOE RACEMOSA			1,166.67	796.14	0.00%	17.00%	0.00	0.00	0.00%	0.00%
LEUCOTHOE RACEMOSA (S)			9,333.33	6,929.66	0.00%	33.00%	4,166.67	1,882.27	0.00%	42.00%
LYONIA LIGUSTINA			0.00	0.00	0.00%	0.00%	2,166.67	1,991.78	0.00%	17.00%
LYONIA LIGUSTINA (S)			166.67	166.67	0.00%	8.00%	2,833.33	2,833.33	0.00%	8.00%
MYRICA HETEROPHYLLA			166.67	166.67	0.00%	8.00%	0.00	0.00	0.00%	0.00%
NYSSA SYLVATICA			166.67	166.67	0.00%	8.00%	0.00	0.00	0.00%	0.00%
NYSSA SYLVATICA (S)			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
OSMUNDA CINNAMOMEA			8,166.67	8,166.67	0.00%	8.00%	0.00	0.00	0.00%	0.00%
PHYTOLACCA AMERICANA			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
PINUS RIGIDA			333.33	224.73	0.00%	17.00%	166.67	166.67	0.00%	8.00%
PTERIDIUM AQUILINUM			166.67	166.67	0.00%	8.00%	5,500.00	4,038.64	0.00%	17.00%
QUERCUS ALBA			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
QUERCUS COCCINEA			0.00	0.00	0.00%	0.00%	166.67	166.67	0.00%	8.00%
QUERCUS ILICIFOLIA			166.67	166.67	0.00%	8.00%	0.00	0.00	0.00%	0.00%
QUERCUS ILICIFOLIA (S)			166.67	166.67	0.00%	8.00%	0.00	0.00	0.00%	0.00%
RHODODENDRON VISCOSUM			500.00	358.87	0.00%	17.00%	1,500.00	1,328.59	0.00%	17.00%
SASSAFRAS ALBIDUM			0.00	0.00	0.00%	0.00%	333.33	333.33	8.33%	8.00%
SMILAX GLAUCA			1,000.00	460.57	0.00%	33.00%	1,000.00	674.20	0.00%	25.00%
SMILAX ROTUNDIFOLIA			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
SOLIDAGO SPECIOSA			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
SOLIDAGO SPP.			0.00	0.00	0.00%	0.00%	166.67	166.67	0.00%	8.00%
VACCINIUM CORYMBOSUM			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
VACCINIUM CORYMBOSUM (S)			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%

Table 38 (continued).

**BELLEPLAIN NON-FOOD PATCH
.6 - 1.3 M**

SPECIES	FENCE					CONTROL				
	D	B	MEAN	STANDARD	PERCENT	FREQ.	MEAN	STANDARD	PERCENT	FREQ.
			DENSITY	ERROR	BROWSE		DENSITY	ERROR	BROWSE	
			(#/HA)				(#/HA)			
CHAMAECYPARIS THYOIDES			0.00	0.00	0.00%	0.00%	166.67	166.67	8.33%	8.00%
CLETHERA ALNIFOLIA (S)			0.00	0.00	0.00%	0.00%	4,500.00	4,500.00	0.00%	8.00%
EPILOBIUM ANGUSTIFOLIUM	S		500.00	358.87	0.00%	17.00%	18,000.00	10,562.94	0.00%	67.00%
GAYLUSSACIA FRONDOSA			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
GAYLUSSACIA FRONDOSA (S)			166.67	166.67	0.00%	8.00%	0.00	0.00	0.00%	0.00%
ILEX GLABRA			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
ILEX OPACA			0.00	0.00	0.00%	0.00%	166.67	166.67	0.00%	8.00%
KALMIA LATIFOLIA			0.00	0.00	0.00%	0.00%	166.67	166.67	0.00%	8.00%
LEUCOTHOE RACEMOSA (S)			0.00	0.00	0.00%	0.00%	1,166.67	1,166.67	0.00%	8.00%
LYONIA LIGUSTINA			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
NYSSA SYLVATICA			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
NYSSA SYLVATICA (S)			333.33	333.33	0.00%	8.00%	0.00	0.00	0.00%	0.00%
OSMUNDA CINNAMOMEA			1,666.67	1,123.67	0.00%	17.00%	0.00	0.00	0.00%	0.00%
PINUS RIGIDA			333.33	333.33	0.00%	8.00%	333.33	333.33	0.00%	8.00%
PINUS VIRGINIANA			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
PTERIDIUM AQUILINUM			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
QUERCUS COCCINEA			166.67	166.67	0.00%	8.00%	0.00	0.00	0.00%	0.00%
RHODODENDRON VISCOSUM			166.67	166.67	0.00%	8.00%	0.00	0.00	0.00%	0.00%
RHODODENDRON VISCOSUM (S)			0.00	0.00	0.00%	0.00%	333.33	333.33	0.00%	8.00%
SMILAX GLAUCA			0.00	0.00	0.00%	0.00%	500.00	358.87	0.00%	17.00%
SMILAX ROTUNDIFOLIA			0.00	0.00	0.00%	0.00%	500.00	358.87	0.00%	17.00%
SOLIDAGO SPECIOSA			0.00	0.00	0.00%	0.00%	166.67	166.67	8.33%	8.00%
SOLIDAGO SPP.			1,000.00	1,000.00	0.00%	8.00%	0.00	0.00	0.00%	0.00%
VACCINIUM CORYMBOSUM (S)			833.33	833.33	0.00%	8.00%	166.67	166.67	0.00%	8.00%

Table 39 (continued on next page). Belleplain Non-food Patch site: all vegetation between .6 and 1.3 meters tall. Average number of stems per hectare, its standard error of the mean, percent of stems browsed, and percent frequency are presented by treatment. The columns labeled D (stem density significant difference) and B (percent browse significant differences) when blank represent no statistical significance (alpha > .05) or not applicable (zero densities) across all treatments. The occurrence of an S in these columns signifies a statistically significant difference between treatments (alpha is between .05 and .005). An H in these columns means a highly significant difference among treatments (alpha less than .005). Data were collected during the full survey in summer 1993. (n = 12 for each treatment) fence = herbicide plus electric fence; control = herbicide only; seed / herbicide = herbicide plus seed; seed / herbicide/ Hinder = herbicide plus seed plus Hinder (deer repellent).

**BELLEPLAIN NON-FOOD PATCH
.6 - 1.3 M**

SPECIES	SEED / HERBICIDE					SEED / HERBICIDE / HINDER				
	D	B	MEAN	STANDARD	PERCENT	FREQ.	MEAN	STANDARD	PERCENT	FREQ.
			DENSITY (#/HA)	ERROR	BROWSE		DENSITY (#/HA)	ERROR	BROWSE	
CHAMAECYPARIS THYOIDES			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
CLETHERA ALNIFOLIA (S)			0.00	0.00	0.00%	0.00%	4,500.00	4,500.00	0.00%	8.00%
EPILOBIUM ANGUSTIFOLIUM	S		333.33	224.73	0.00%	17.00%	5,666.67	4,416.45	0.00%	17.00%
GAYLUSSACIA FRONDOSA			333.33	333.33	0.00%	8.00%	833.33	833.33	0.00%	8.00%
GAYLUSSACIA FRONDOSA (S)			500.00	500.00	0.00%	8.00%	1,333.33	1,024.94	0.00%	17.00%
ILEX GLABRA			0.00	0.00	0.00%	0.00%	333.33	333.33	0.00%	8.00%
ILEX OPACA			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
KALMIA LATIFOLIA			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
LEUCOTHOE RACEMOSA (S)			0.00	0.00	0.00%	0.00%	333.33	333.33	0.00%	8.00%
LYONIA LIGUSTINA			0.00	0.00	0.00%	0.00%	500.00	358.87	0.00%	17.00%
NYSSA SYLVATICA			0.00	0.00	0.00%	0.00%	166.67	166.67	0.00%	8.00%
NYSSA SYLVATICA (S)			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
OSMUNDA CINNAMOMEA			1,166.67	1,166.67	0.00%	8.00%	0.00	0.00	0.00%	0.00%
PINUS RIGIDA			1,500.00	1,157.98	0.00%	25.00%	333.33	224.73	0.00%	17.00%
PINUS VIRGINIANA			333.33	333.33	0.00%	8.00%	0.00	0.00	0.00%	0.00%
PTERIDIUM AQUILINUM			166.67	166.67	0.00%	8.00%	4,833.33	4,833.33	0.00%	8.00%
QUERCUS COCCINEA			0.00	0.00	0.00%	0.00%	166.67	166.67	0.00%	8.00%
RHODODENDRON VISCOSUM			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
RHODODENDRON VISCOSUM (S)			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
SMILAX GLAUCA			0.00	0.00	0.00%	0.00%	666.67	666.67	0.00%	8.00%
SMILAX ROTUNDIFOLIA			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
SOLIDAGO SPECIOSA			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
SOLIDAGO SPP.			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
VACCINIUM CORYMBOSUM (S)			0.00	0.00	0.00%	0.00%	166.67	166.67	0.00%	8.00%

Table 39 (continued).

**BELLEPLAIN NON-FOOD PATCH
> 1.3 M**

SPECIES	FENCE			CONTROL		
	MEAN	STANDARD	FREQ.	MEAN	STANDARD	FREQ.
	DENSITY	ERROR		DENSITY	ERROR	
	D	(#/HA)			(#/HA)	
<i>ACER RUBRUM</i>	0.00	0.00	0.00%	0.00	0.00	0.00%
<i>CLETHRA ALNIFOLIA</i>	0.00	0.00	0.00%	166.67	166.67	8.00%
<i>EPILOBIUM ANGUSTIFOLIUM</i>	333.33	333.33	8.00%	0.00	0.00	0.00%
<i>GAYLUSSACIA FRONDOSA</i>	0.00	0.00	0.00%	0.00	0.00	0.00%
<i>PINUS RIGIDA</i>	0.00	0.00	0.00%	333.33	333.33	8.00%
<i>RHODODENDRON VISCOSUM</i>	0.00	0.00	0.00%	166.67	166.67	8.00%
<i>SMILAX ROTUNDIFOLIA</i>	0.00	0.00	0.00%	2,333.33	1,997.47	17.00%
SPECIES	SEED / HERBICIDE			SEED / HERBICIDE / HINDER		
	MEAN	STANDARD	FREQ.	MEAN	STANDARD	FREQ.
	DENSITY	ERROR		DENSITY	ERROR	
	D	(#/HA)			(#/HA)	
<i>ACER RUBRUM</i>	0.00	0.00	0.00%	166.67	166.67	8.00%
<i>CLETHRA ALNIFOLIA</i>	0.00	0.00	0.00%	1,500.00	1,500.00	8.00%
<i>EPILOBIUM ANGUSTIFOLIUM</i>	0.00	0.00	0.00%	333.33	224.73	17.00%
<i>GAYLUSSACIA FRONDOSA</i>	0.00	0.00	0.00%	166.67	166.67	8.00%
<i>PINUS RIGIDA</i>	166.67	166.67	8.00%	166.67	166.67	8.00%
<i>RHODODENDRON VISCOSUM</i>	0.00	0.00	0.00%	0.00	0.00	0.00%
<i>SMILAX ROTUNDIFOLIA</i>	0.00	0.00	0.00%	0.00	0.00	0.00%

Table 40. Belleplain Non-Food Patch site: all vegetation greater than 1.3 meters tall. Average number of stems per hectare, its standard error of the mean, and percent frequency are presented by treatment. The column labeled D (stem density significant differences) when blank represents no statistical significance (alpha < .05) or not applicable (zero densities) across all treatments. S represents a statistically significant difference between treatments (alpha is between .05 and .005). H means a highly significant difference among treatments (alpha less than .005). Data were collected during the full survey in summer 1993. (n = 12 for each treatment) fence = herbicide plus seed plus electric fence; control = herbicide only; seed / herbicide = herbicide plus seed; seed / herbicide / Hinder = herbicide plus seed plus Hinder (deer repellent).

**THREE FOOT
DOWNED DEBRIS**

CONTROL / ELECTRIC			HERB / ELECTRIC		
LAYER	MEAN	STANDARD ERROR	LAYER	MEAN	STANDARD ERROR
FIRST LAYER	14.22%	3.06	FIRST LAYER	6.11%	1.91
SECOND LAYER	3.49%	1.71	SECOND LAYER	1.89%	0.65
THIRD LAYER	1.00%	0.88	THIRD LAYER	9.33%	8.84
FOURTH LAYER	0.00%	0.00	FOURTH LAYER	0.73%	0.73

Table 41. Three Foot downed debris. Average percent cover and standard error of the mean are presented by layer and treatment. The first layer is the closest debris to the ground, the second layer (i.e. dead branches) is found over the first layer, the third layer is over the second layer, etc. Data were collected during the full survey in summer 1993. (n = 9 for each treatment) Control/electric = inside electric fence with no herbicide; herb/electric = inside electric fence with herbicide.

**THREE FOOT
PERCENT GROUND COVERS**

	CONTROL / ELECTRIC				HERB / ELECTRIC	
	MEAN	STANDARD ERROR			MEAN	STANDARD ERROR
GRASS	22.78%	7.95		GRASS	4.11%	1.65
LITTER	43.33%	13.64		LITTER	19.78%	6.76
MOSS	0.00%	0.00		MOSS	1.33%	1.33
SPHAGNUM	33.33%	8.66		SPHAGNUM	72.78%	6.93
STUMP	0.56%	0.56		STUMP	2.00%	1.33

Table 42. Three Foot site percent ground covers. Average percent cover and standard error of the mean are presented by layer category and treatment. Data were collected during the full survey in summer 1993. (n = 9 for each treatment) Control/electric = inside electric fence with no herbicide; herb/electric = inside electric fence with herbicide.

THREE FOOT
< .3 M

SPECIES	D	B	CONTROL / ELECTRIC				HERB / ELECTRIC			
			MEAN DENSITY (#/HA)	STANDARD ERROR	FREQ.	PERCENT BROWSE	MEAN DENSITY (#/HA)	STANDARD ERROR	FREQ.	PERCENT BROWSE
ACER RUBRUM			46,666.67	21,538.08	78.00%	0.00%	54,444.44	15,908.69	78.00%	0.00%
ACER RUBRUM (S)			11,111.11	8,731.24	33.00%	0.00%	4,444.44	4,444.44	11.00%	0.00%
CHAMAECYPARIS THYOIDES			295,555.56	104,218.14	78.00%	12.00%	293,333.33	93,660.14	89.00%	3.60%
CLETHRA ALNIFOLIA (S)	S		45,555.56	23,927.62	56.00%	0.00%	0.00	0.00	0.00%	0.00%
CLETHRA ALNIFOLIA			21,111.11	17,673.30	22.00%	0.00%	0.00	0.00	0.00%	0.00%
DROSER A ROTUNDIFOLIA	S		84,444.44	39,267.99	56.00%	0.00%	5,555.56	5,555.56	11.00%	0.00%
FERN SPP.			8,888.89	7,718.02	22.00%	0.00%	0.00	0.00	0.00%	0.00%
GAULTHERIA PROCUMBENS			4,444.44	3,379.31	22.00%	0.00%	41,111.11	21,631.02	44.00%	0.00%
GAYLUSSACIA FRONDOSA			3,333.33	3,333.33	11.00%	0.00%	3,333.33	1,666.67	33.00%	0.00%
GAYLUSSACIA FRONDOSA (S)			14,444.44	7,474.24	33.00%	0.00%	4,444.44	3,379.31	22.00%	0.00%
GAYLUSSACIA SPP.			5,555.56	5,555.56	11.00%	0.00%	0.00	0.00	0.00%	0.00%
ILEX GLABRA			2,222.22	1,469.86	22.00%	0.00%	2,222.22	1,469.86	22.00%	0.00%
ILEX VERTICILLATA			3,333.33	3,333.33	11.00%	0.00%	0.00	0.00	0.00%	0.00%
KALMIA ANGUSTIFOLIA			0.00	0.00	0.00%	0.00%	3,333.33	3,333.33	11.00%	0.00%
KALMIA ANGUSTIFOLIA (S)			2,222.22	2,222.22	11.00%	0.00%	16,666.67	16,666.67	11.00%	0.00%
KALMIA LATIFOLIA			4,444.44	3,379.31	22.00%	0.00%	0.00	0.00	0.00%	0.00%
KALMIA LATIFOLIA (S)			0.00	0.00	0.00%	0.00%	6,666.67	5,527.71	22.00%	0.00%
LEUCOTHOE RACEMOSA			2,222.22	2,222.22	11.00%	0.00%	0.00	0.00	0.00%	0.00%
LEUCOTHOE RACEMOSA (S)			3,333.33	3,333.33	11.00%	0.00%	0.00	0.00	0.00%	0.00%
LONICERA SPP.			1,111.11	1,111.11	11.00%	0.00%	0.00	0.00	0.00%	0.00%
LYONIA LIGUSTINA			2,222.22	2,222.22	11.00%	0.00%	0.00	0.00	0.00%	0.00%
LYONIA LIGUSTINA (S)			4,444.44	4,444.44	11.00%	0.00%	0.00	0.00	0.00%	0.00%
MYRICA HETEROPHYLLA			5,555.56	3,767.96	22.00%	0.00%	6,666.67	3,726.78	33.00%	3.70%
MYRICA HETEROPHYLLA (S)			11,111.11	9,922.54	22.00%	0.00%	0.00	0.00	0.00%	0.00%
NYSSA SYLVATICA			1,111.11	1,111.11	11.00%	0.00%	0.00	0.00	0.00%	0.00%
NYSSA SYLVATICA (S)			1,111.11	1,111.11	11.00%	0.00%	0.00	0.00	0.00%	0.00%
PINUS RIGIDA			1,111.11	1,111.11	11.00%	0.00%	0.00	0.00	0.00%	0.00%
POGONIA OPHIOGLOSSOIDES			5,555.56	5,555.56	11.00%	0.00%	0.00	0.00	0.00%	0.00%
RHODODENDRON VISCOSUM			12,222.22	9,828.78	33.00%	0.00%	0.00	0.00	0.00%	0.00%
RHODODENDRON VISCOSUM (S)			28,888.89	17,114.36	33.00%	0.00%	0.00	0.00	0.00%	0.00%
RHUS RADICANS			13,333.33	13,333.33	11.00%	0.00%	5,555.56	2,939.72	33.00%	0.00%
RUBUS HISPIDUS			14,444.44	10,015.42	33.00%	0.00%	25,555.56	14,635.49	44.00%	0.00%
SMILAX LAURIFOLIA			2,222.22	2,222.22	11.00%	0.00%	0.00	0.00	0.00%	0.00%
TRIENTALIS BOREALIS			0.00	0.00	0.00%	0.00%	4,444.44	2,421.61	33.00%	0.00%
VACCINIUM CORYMBOSUM	S		21,111.11	12,850.04	56.00%	0.00%	0.00	0.00	0.00%	0.00%
VACCINIUM CORYMBOSUM (S)			90,000.00	50,579.97	33.00%	0.00%	0.00	0.00	0.00%	0.00%
VACCINIUM OXYCOCCUS			1,111.11	1,111.11	11.00%	0.00%	0.00	0.00	0.00%	0.00%
WOODWARDIA AREOLATA			1,111.11	1,111.11	11.00%	0.00%	0.00	0.00	0.00%	0.00%

Table 43. Three Foot site: all vegetation less than .3 meters tall. Average number of stems per hectare, standard error of the mean, percent frequency and percent browse are presented by treatment. The columns labeled D (stem density significant difference) and B (percent browse significant differences) when blank represent no statistical significance (alpha > .05) or not applicable (zero densities) across all treatments. The occurrence of an S in these columns represents a statistically significant difference between treatments (alpha is between .05 and .005). An H in these columns means a highly significant difference among treatments (alpha less than .005). Data were collected during the full survey in summer 1993. (n=9 for each treatment) Control/electric = inside electric fence with no herbicide; herb/electric = inside fence with herbicide.

**THREE FOOT
.3 - .6 M**

SPECIES	D	B	CONTROL / ELECTRIC				HERB / ELECTRIC			
			MEAN DENSITY (#/HA)	STANDARD ERROR	PERCENT BROWSED	FREQ.	MEAN DENSITY (#/HA)	STANDARD ERROR	PERCENT BROWSE	FREQ.
ACER RUBRUM			0.00	0.00	0.00%	0.00%	222.22	222.22	0.00%	11.00%
ACER RUBRUM (S)			222.22	222.22	0.00%	11.00%	0.00	0.00	0.00%	0.00%
AMELANCHIER ARBOREA			222.22	222.22	0.00%	11.00%	0.00	0.00	0.00%	0.00%
CHAMAECYPARIS THYOIDES			2,000.00	2,000.00	0.00%	11.00%	888.89	675.86	0.00%	22.00%
CLETHRA ALNIFOLIA			2,666.67	2,211.08	0.00%	22.00%	0.00	0.00	0.00%	0.00%
CLETHRA ALNIFOLIA (S)	S		6,000.00	3,018.46	0.00%	44.00%	0.00	0.00	0.00%	0.00%
FERNS SPP.			3,333.33	3,091.21	0.00%	22.00%	0.00	0.00	0.00%	0.00%
GAYLUSSACIA FRONDOSA			4,888.89	2,869.59	0.00%	44.00%	222.22	222.22	0.00%	11.00%
GAYLUSSACIA FRONDOSA (S)			6,444.44	2,824.06	0.00%	56.00%	7,555.56	2,977.28	0.00%	67.00%
KALMIA ANGUSTIFOLIA (S)			0.00	0.00	0.00%	0.00%	222.22	222.22	0.00%	11.00%
KALMIA LATIFOLIA			666.67	666.67	0.00%	11.00%	0.00	0.00	0.00%	0.00%
KALMIA LATIFOLIA (S)			1,111.11	753.59	0.00%	22.00%	2,000.00	1,201.85	0.00%	33.00%
LEUCOTHOE RACEMOSA	S		4,888.89	2,057.81	0.00%	56.00%	0.00	0.00	0.00%	0.00%
LEUCOTHOE RACEMOSA (S)			444.44	444.44	0.00%	11.00%	0.00	0.00	0.00%	0.00%
LONICERA SPP			222.22	222.22	0.00%	11.00%	0.00	0.00	0.00%	0.00%
LYONIA LIGUSTINA			888.89	484.32	0.00%	33.00%	0.00	0.00	0.00%	0.00%
LYONIA MARIANA			222.22	222.22	0.00%	11.00%	0.00	0.00	0.00%	0.00%
MYRICA HETEROPHYLLA			222.22	222.22	0.00%	11.00%	1,555.56	1,324.04	0.00%	22.00%
MYRICA HETEROPHYLLA (S)			222.22	222.22	0.00%	11.00%	2,000.00	2,000.00	0.00%	11.00%
NYSSA SYLVATICA			444.44	293.97	0.00%	22.00%	222.22	222.22	0.00%	11.00%
OSMUNDA CINNAMOMEA			222.22	152.45	0.00%	11.00%	0.00	0.00	0.00%	0.00%
POGONIA OPHIOGLOSSOIDES			444.44	444.44	0.00%	11.00%	0.00	0.00	0.00%	0.00%
RHODODENDRON VISCOSUM			444.44	293.97	0.00%	22.00%	0.00	0.00	0.00%	0.00%
RHODODENDRON VISCOSUM (S)			1,333.33	942.81	0.00%	22.00%	0.00	0.00	0.00%	0.00%
RHUS VERNIX			222.22	222.22	0.00%	11.00%	0.00	0.00	0.00%	0.00%
SASSAFRAS ALBIDUM			222.22	222.22	0.00%	11.00%	0.00	0.00	0.00%	0.00%
VACCINIUM CORYMBOSUM			222.22	222.22	0.00%	11.00%	0.00	0.00	0.00%	0.00%
VACCINIUM CORYMBOSUM (S)	H		12,000.00	7,461.01	0.00%	67.00%	0.00	0.00	0.00%	0.00%
WOODWARDIA AREOLATA			222.22	222.22	0.00%	11.00%	0.00	0.00	0.00%	0.00%

Table 44. Three Foot site: all vegetation between .3 and .6 meters tall. Average number of stems per hectare, its standard error of the mean, percent frequency and percent browse are presented by treatment. The columns labeled D (stem density significant differences) and B (percent browse significant differences) when blank represent no statistical significance (alpha > .05) or not applicable (zero densities) across all treatments. The occurrence of an S in these columns signifies a statistically significant difference between treatments (alpha is between .05 and .005). An H in these columns means a highly significant difference among treatments (alpha less than .005). Data were collected during the full survey in summer 1993. (n = 9 for each treatment)
Control / electric = inside electric fence with no herbicide; herb / electric = inside electric fence with herbicide.

**THREE FOOT
.6 - 1.3 M**

SPECIES	D	B	CONTROL/ ELECTRIC				HERB/ELECTRIC			
			MEAN DENSITY (#/HA)	STANDARD ERROR	FREQ.	PERCENT BROWSE	MEAN DENSITY (#/HA)	STANDARD ERROR	FREQ.	PERCENT BROWSE
CLETHERA ALNIFOLIA (S)			444.44	293.97	22.00%	0.00%	0.00	0.00	0.00%	0.00%
GAYLUSSACIA FRONDOSA			10444.44	6,207.32	33.00%	0.00%	2,000.00	2,000.00	11.00%	0.00%
GAYLUSSACIA FRONDOSA (S)	S		2222.22	1,746.25	33.00%	0.00%	14,888.89	5,034.45	67.00%	0.00%
GAYLUSSACIA SPP.			222.22	222.22	11.00%	0.00%	0.00	0.00	0.00%	0.00%
KALMIA LATIFOLIA			1111.11	1,111.11	11.00%	0.00%	0.00	0.00	0.00%	0.00%
KALMIA LATIFOLIA (S)			666.67	471.40	22.00%	0.00%	2,666.67	1,201.85	44.00%	0.00%
LEUCOTHOE RACEMOSA	S		2444.44	1,143.96	44.00%	0.00%	0.00	0.00	0.00%	0.00%
LEUCOTHOE RACEMOSA (S)			666.67	666.67	11.00%	0.00%	0.00	0.00	0.00%	0.00%
MYRICA HETEROPHYLLA			0	0.00	0.00%	0.00%	1,777.78	1,175.89	22.00%	0.00%
MYRICA HETEROPHYLLA (S)			0	0.00	0.00%	0.00%	888.89	888.89	11.00%	0.00%
NYSSA SYLVATICA			222.22	222.22	11.00%	0.00%	0.00	0.00	0.00%	0.00%
RHODODENDRON VISCOSUM			222.22	222.22	11.00%	0.00%	0.00	0.00	0.00%	0.00%
RHODODENDRON VISCOSUM (S)			222.22	222.22	11.00%	0.00%	0.00	0.00	0.00%	0.00%
VACCINIUM CORYMBOSUM			1333.33	1,105.54	22.00%	0.00%	0.00	0.00	0.00%	0.00%
VACCINIUM CORYMBOSUM (S)			7555.56	6,117.17	44.00%	0.00%	222.22	222.22	11.00%	0.00%

Table 45. Three Foot site: all vegetation between .6 and 1.3 meters tall. Average number of stems per hectare, its standard error of the mean, percent frequency and percent browse are presented by treatment. The columns labelled D (stem density significant differences) and B (percent browse significant differences) when blank represent no statistical significance (alpha > .05) or not applicable (zero densities) across all treatments. The occurrence of an S in these columns represents a statistically significant difference between treatments (alpha is between .05 and .005). An H in these columns means a highly significant difference among treatments (alpha less than .005). Data were collected during the full survey in summer 1993. (n=9 for each treatment) Control/electric = inside electric fence with no herbicide; herb/electric = inside electric fence with herbicide.

**THREE FOOT
> 1.3 M**

SPECIES	D	CONTROL / ELETRIC			MEAN DENSITY (#/HA)	STANDARD ERROR	FREQ.	HERB /ELECTRIC		
		MEAN DENSITY (#/HA)	STANDARD ERROR	FREQ.				MEAN DENSITY (#/HA)	STANDARD ERROR	FREQ.
CHAMAECYPARIS THYOIDES		222.22	222.22	11.00%		0.00		0.00	0.00	0.00%
GAYLUSSACIA FRONDOSA		0.00	0.00	0.00%		222.22		222.22	222.22	11.00%
GAYLUSSACIA FRONDOSA (S)		666.67	471.40	22.00%		2,666.67		2,666.67	2,666.67	11.00%
KALMIA LATIFOLIA (S)		222.22	222.22	11.00%		0.00		0.00	0.00	0.00%
LONICERA SPP		222.22	222.22	11.00%		0.00		0.00	0.00	0.00%
NYSSA SYLVATICA		444.44	444.44	11.00%		0.00		0.00	0.00	0.00%
RHUS VERNIX		0.00	0.00	0.00%		222.22		222.22	222.22	11.00%
SMILAX LAURIFOLIA		222.22	222.22	11.00%		0.00		0.00	0.00	0.00%
VACCINIUM CORYMBOSUM		666.67	333.33	33.00%		0.00		0.00	0.00	0.00%

Table 46. Three Foot site: all vegetation greater than 1.3 meters tall. Average number of stems per hectare, its standard error of the mean and percent frequency are presented by treatment. The column labeled D (stem density significant differences) when blank represents no statistical significance (alpha > .05) or not applicable (zero densities) across all treatements. The occurrence of an S in this column represents a statistically significant difference between treatments (alpha is between .05 and .005) An H in this column indicates a highly significant difference among treatments (alpha less than .005) Data were collected during the full survey in summer 1993. (n=9 for each treatment) Control/electric = inside electric fence with no herbicide; herb/electric = inside electric fence with herbicide.

APPENDIX 2

**JACKSON
DOWNED DEBRIS**

FENCED			UNFENCED		
LAYER	MEAN	STANDARD ERROR	LAYER	MEAN	STANDARD ERROR
FIRST LAYER	2.69%	0.84	FIRST LAYER	1.09%	0.66
SECOND LAYER	0.64%	0.56	SECOND LAYER	0.80%	0.80
THIRD LAYER	0.01%	0.01	THIRD LAYER	0.19%	0.19

Table 1. Jackson site downed debris. Average percent cover and standard error of the mean are presented by layer and treatment. The first layer is the layer closest to the ground, the second layer is debris found over the first layer, the third layer is found over the second layer and so forth. Data were collected during the full survey in summer 1994. (n = 15 for each treatment) fenced = seed plus electric fence plus herbicide; unfenced = seed plus herbicide only.

**JACKSON
PERCENT GROUND COVERS**

FENCED			UNFENCED		
LAYER	MEAN	STANDARD ERROR	LAYER	MEAN	STANDARD ERROR
GRASS	1.07%	0.72	GRASS	32.33%	7.97
LITTER	73.60%	5.90	LITTER	55.27%	8.62
LOG	10.00%	0.66	LOG	0.00%	0.00
MOSS	2.67%	1.75	MOSS	0.07%	0.07
SOIL	19.33%	6.34	SOIL	3.67%	3.03
SPHAGNUM	2.67%	1.82	SPHAGNUM	8.67%	3.89

Table 2. Jackson site percent ground covers. Average percent cover and standard error of the mean are presented by layer category and treatment. Data were collected during the full survey summer 1994. (n = 15 for each treatment) fenced = seed plus electric fence plus herbicide; unfenced = seed treatment plus herbicide only.

JACKSON
< .3 M

SPECIES	D	B	FENCED				UNFENCED			
			MEAN	STANDARD	PERCENT	FREQ.	MEAN	STANDARD	PERCENT	FREQ.
			DENSITY (#/HA)	ERROR	BROWSE		DENSITY (#/HA)	ERROR	BROWSE	
ACER RUBRUM	H		104,666.67	46,052.42	0.00%	47.00%	32,000.00	17,215.72	1.33%	40.00%
ACER RUBRUM (S)			0.00	0.00	0.00%	0.00%	75,333.33	29,710.78	0.81%	40.00%
ARISAEMA			0.00	0.00	0.00%	0.00%	666.67	666.67	0.00%	7.00%
ASTER SIMPLEX			0.00	0.00	0.00%	0.00%	7,333.33	4,827.17	0.00%	20.00%
ASTER SPP.			0.00	0.00	0.00%	0.00%	6,666.67	5,315.45	0.00%	20.00%
BETULA POPULIFOLIA			666.67	666.67	0.00%	7.00%	666.67	666.67	0.00%	7.00%
BETULA POPULIFOLIA (S)			0.00	0.00	0.00%	0.00%	666.67	666.67	0.00%	7.00%
CHAMAECYPARIS THYOIDES	S		10,666.67	4,305.77	0.00%	40.00%	32,666.67	12,323.68	9.21%	47.00%
CLETHRA ALNIFOLIA			0.00	0.00	0.00%	0.00%	1,333.33	908.51	0.00%	13.00%
EPILOBIUM ANGUSTIFOLIUM			6,666.67	4,646.21	3.33%	13.00%	0.00	0.00	0.00%	0.00%
EUPATORIUM DUBIUM	S		666.67	666.67	0.00%	7.00%	0.00	0.00	0.00%	0.00%
EUPATORIUM PERFORIATUM			0.00	0.00	0.00%	0.00%	13,333.33	9,984.11	13.33%	27.00%
FERN SPP.			1,333.33	1,333.33	0.00%	7.00%	0.00	0.00	0.00%	0.00%
GAULTHERIA PROCUMBENS			0.00	0.00	0.00%	0.00%	2,000.00	2,000.00	0.00%	7.00%
ILEX VERTICILLATA (S)			0.00	0.00	0.00%	0.00%	666.67	666.67	0.00%	7.00%
LYCOPUS VIRGINICUS			2,000.00	2,000.00	0.00%	7.00%	8,666.67	5,509.01	2.22%	27.00%
LYONIA LIGUSTINA			1,333.33	1,333.33	0.00%	7.00%	0.00	0.00	0.00%	0.00%
MUSHROOM SPP.			4,666.67	4,007.93	0.00%	13.00%	0.00	0.00	0.00%	0.00%
NYSSA SYLVATICA			666.67	666.67	0.00%	7.00%	0.00	0.00	0.00%	0.00%
OSMUNDA CINNAMOMEA			0.00	0.00	0.00%	0.00%	24,000.00	22,610.57	0.00%	13.00%
PARTHENOCISSUS QUINQUEFOLIA			0.00	0.00	0.00%	0.00%	666.67	666.67	0.00%	7.00%
PINUS RIGIDA			0.00	0.00	0.00%	0.00%	666.67	666.67	0.00%	7.00%
PRUNUS SEROTINA (S)			0.00	0.00	0.00%	0.00%	666.67	666.67	0.00%	7.00%
RHUS COPALLINA			0.00	0.00	0.00%	0.00%	666.67	666.67	0.00%	7.00%
RUBUS HISPIDUS			330,666.67	56,133.06	0.00%	100.00%	317,333.33	36,416.46	0.00%	100.00%
SASSAFRAS ALBIDUM			1,333.33	908.51	0.00%	13.00%	666.67	666.67	0.00%	7.00%
SMILAX GLAUCA			666.67	666.67	6.67%	7.00%	666.67	666.67	0.00%	7.00%
SMILAX SPP.			1,333.33	1,333.33	0.00%	7.00%	666.67	666.67	6.67%	7.00%
SOLIDAGO SPP.			46,000.00	20,325.92	1.67%	60.00%	8,666.67	5,421.88	0.00%	27.00%
SYMPLOCARPUS FOETIDUS			0.00	0.00	0.00%	0.00%	666.67	666.67	0.00%	7.00%
THELYPTERIS PAULSTRIS			2,666.67	1,817.03	0.00%	13.00%	20,666.67	12,246.15	0.00%	27.00%
VACCINIUM CORYMBOSUM			666.67	666.67	0.00%	7.00%	2,666.67	1,532.71	0.00%	20.00%
VACCINIUM CORYMBOSUM (S)			0.00	0.00	0.00%	0.00%	3,333.33	2,702.14	0.00%	13.00%
VIBURNUM DENTATUM			0.00	0.00	0.00%	0.00%	666.67	666.67	0.00%	7.00%
VIOLA BLANDA			26,000.00	21,882.80	0.00%	27.00%	1,333.33	1,333.33	0.00%	7.00%
VIOLA SPP.			0.00	0.00	0.00%	0.00%	29,333.33	16,689.51	0.00%	27.00%
WOODWARDIA AREOLATA			666.67	666.67	0.00%	7.00%	22,000.00	15,374.69	0.00%	13.00%

Table 3. Jackson site: all vegetation less than .3 meters tall. Average number of stems per hectare, its standard error of the mean, percent of stems browsed and percent frequency are presented by treatment. Columns labeled D (stem density significant differences) and B (percent browse significant differences) when blank represents no statistical significance (alpha > .05) or not applicable (zero densities) across all treatments. S represents a statistically significant difference between treatments when alpha is between .05 and .005. H means a highly significant difference among treatments, when alpha is less than .005. Data were collected during the full survey in summer 1994. (n = 15 for each treatment) fenced = seed plus electric fence plus herbicide; unfenced = seed treatment plus herbicide only.

JACKSON
.3 -.6 M

SPECIES	FENCED					UNFENCED				
	D	B	MEAN DENSITY (#/HA)	STANDARD ERROR	PERCENT BROWSE	FREQ.	MEAN DENSITY (#/HA)	STANDARD ERROR	PERCENT BROWSE	FREQ.
ACER RUBRUM			1,500.00	760.95	0.00%	33.00%	133.33	133.33	0.00%	7.00%
ACER RUBRUM (S)	S		0.00	0.00	0.00%	0.00%	1,200.00	611.01	0.00%	27.00%
AMELANCHIER SPP.			133.33	133.33	0.00%	7.00%	0.00	0.00	0.00%	0.00%
ARISAEMA			266.67	266.67	0.00%	7.00%	0.00	0.00	0.00%	0.00%
ARONIA SPP. (S)			0.00	0.00	0.00%	0.00%	400.00	400.00	0.00%	7.00%
ASTER PRENANTHOIDES			800.00	670.47	0.00%	13.00%	0.00	0.00	0.00%	0.00%
ASTER SIMPLEX	S		0.00	0.00	0.00%	0.00%	2,400.00	1,369.05	6.67%	33.00%
ASTER SPP.			666.67	421.64	0.00%	20.00%	2,000.00	894.43	5.00%	27.00%
BETULA POPULIFOLIA (S)			0.00	0.00	0.00%	0.00%	533.33	363.41	0.00%	13.00%
BETULA POPULIFOLIA			933.33	547.43	1.67%	27.00%	133.33	133.33	0.00%	7.00%
CHAMAECYPARIS THYOIDES			2,266.67	1,048.66	0.00%	53.00%	7,200.00	2,467.31	0.56%	67.00%
CLETHRA ALNIFOLIA			933.33	472.75	0.00%	27.00%	133.33	133.33	0.00%	7.00%
CLETHRA ALNIFOLIA (S)			1,600.00	1,463.20	0.00%	13.00%	666.67	666.67	0.00%	7.00%
EPILOBIUM ANGUSTIFOLIUM			18,266.67	10,452.37	0.00%	40.00%	6,666.67	5,847.81	0.00%	20.00%
EUPATORIUM DUBIUM			266.67	181.70	0.00%	13.00%	11,600.00	8,859.11	7.59%	13.00%
EUPATORIUM PERFORIATUM	H		0.00	0.00	0.00%	0.00%	26,800.00	9,684.15	8.45%	53.00%
GAYLUSSACIA FRONDOSA			133.33	133.33	0.00%	7.00%	0.00	0.00	0.00%	0.00%
GNAPHALIUM OBTUSIFOLIUM			133.33	133.33	0.00%	7.00%	0.00	0.00	0.00%	0.00%
LEUCOTHOE RACEMOSA (S)	S		0.00	0.00	0.00%	0.00%	1,600.00	809.47	0.00%	27.00%
LYCOPUS VIRGINICUS			3,200.00	1,807.92	3.33%	27.00%	14,000.00	9,443.57	0.00%	47.00%
LYONIA LIGUSTINA			133.33	133.33	0.00%	7.00%	133.33	133.33	0.00%	7.00%
LYONIA LIGUSTINA (S)			0.00	0.00	0.00%	0.00%	666.67	666.67	0.00%	7.00%
NYSSA SYLVATICA			133.33	133.33	0.00%	7.00%	0.00	0.00	0.00%	0.00%
OSMUNDA CINNAMOMEA			1,866.67	600.53	0.00%	47.00%	21,733.33	13,990.29	0.00%	40.00%
OSMUNDA REGALIS			133.33	133.33	0.00%	7.00%	0.00	0.00	0.00%	0.00%
PARTHENOCISSUS QUINQUEFOLIA			0.00	0.00	0.00%	0.00%	133.33	133.33	0.00%	7.00%
PHYTOLACCA AMERICANA			0.00	0.00	0.00%	0.00%	266.67	181.70	0.00%	13.00%
PINUS RIGIDA			0.00	0.00	0.00%	0.00%	133.33	133.33	0.00%	7.00%
RHODODENDRON VISCOSUM			1,866.67	1,466.67	9.70%	20.00%	0.00	0.00	0.00%	0.00%
RHODODENDRON VISCOSUM (S)			0.00	0.00	0.00%	0.00%	533.33	412.50	0.00%	13.00%
RUBUS ALLEGHENIENSIS			0.00	0.00	0.00%	0.00%	133.33	133.33	0.00%	7.00%
RUBUS HISPIDUS			0.00	0.00	0.00%	0.00%	133.33	133.33	0.00%	7.00%
SASSAFRA ALBIDUM (S)			0.00	0.00	0.00%	0.00%	266.67	181.70	0.00%	13.00%
SASSAFRA ALBIDUM			933.33	472.75	0.00%	27.00%	133.33	133.33	0.00%	7.00%
SMILAX GLAUCA			0.00	0.00	0.00%	0.00%	533.33	412.50	0.00%	13.00%
SMILAX ROTUNDIFOLIA			133.33	133.33	0.00%	7.00%	266.67	266.67	0.00%	7.00%
SOLIDAGO SPP.			8,666.67	4,087.92	0.00%	60.00%	14,133.33	7,146.01	1.79%	47.00%
THELYPTERIS PALUSTRIS			117,333.33	59,473.46	0.00%	33.00%	58,266.67	33,027.47	0.00%	33.00%
VACCINIUM CORYMBOSUM			400.00	400.00	0.00%	7.00%	400.00	289.50	0.00%	13.00%
VACCINIUM CORYMBOSUM (S)			0.00	0.00	0.00%	0.00%	266.67	266.67	0.00%	7.00%
VIBURNUM DENTATUM			133.33	133.33	0.00%	7.00%	0.00	0.00	0.00%	0.00%
VIBURNUM SPP.			0.00	0.00	0.00%	0.00%	133.33	133.33	0.00%	7.00%
VITIS SPP.			0.00	0.00	0.00%	0.00%	133.33	133.33	0.00%	7.00%
WOODWARDIA AEROLATA			0.00	0.00	0.00%	0.00%	25,066.67	21,087.45	0.00%	20.00%

Table 4. Jackson site: all vegetation between .3 and .6 meters tall. Average number of stems per hectare, its standard error of the mean, percent of stems browsed and percent frequency are presented by treatment. columns labeled D (stem density significant differences) and B (percent browse significant differences) when blank represents no statistical significance (alpha > .05) or not applicable (zero densities) across all treatments. S represents a statistically significant difference between treatments when alpha is between .05 and .005. H means highly significant difference among treatments when alpha less than .005. Data were collected during the full survey in summer 1994. (n = 15 for each treatment) fenced = seed plus fence plus herbicide; unfenced = seed plus herbicide only.

JACKSON
.6 -1.3 M

			FENCED						UNFENCED			
SPECIES			MEAN	STANDARD	PERCENT			MEAN	STANDARD	PERCENT		FREQ.
	D	B	DENSITY	ERROR	BROWSE			DENSITY	ERROR	BROWSE		FREQ.
			(#/HA)					(#/HA)				
ACER RUBRUM (S)			0.00	0.00	0.00%		0.00%	533.33	306.54	0.00%		20.00%
ASTER PRENANTHOIDES			133.33	133.33	0.00%		7.00%	0.00	0.00	0.00%		0.00%
ASTER SIMPLEX			0.00	0.00	0.00%		0.00%	933.33	581.19	1.67%		20.00%
ASTER SPP.			3,200.00	1,743.56	0.00%		20.00%	133.33	133.33	0.00%		7.00%
BETULA POPULIFOLIA			933.33	801.59	0.00%		13.00%	0.00	0.00	0.00%		0.00%
BETULA POPULIFOLIA (S)			0.00	0.00	0.00%		0.00%	266.67	181.70	0.00%		13.00%
CHAMAECYPARIS THYOIDES			2,133.33	1,129.12	0.00%		27.00%	1,066.67	643.40	0.00%		20.00%
CLETHRA ALNIFOLIA			266.67	181.70	0.00%		13.00%	0.00	0.00	0.00%		0.00%
CLETHRA ALNIFOLIA (S)			933.33	643.40	0.00%		13.00%	666.67	666.67	0.00%		7.00%
EPILOBIUM ANGUSTIFOLIUM			22,800.00	12,241.69	0.00%		40.00%	5,733.33	3,738.43	0.00%		20.00%
EUPATORIUM DUBIUM			0.00	0.00	0.00%		0.00%	1,466.67	1,466.67	4.24%		7.00%
EUPATORIUM PERFORIATUM	H		0.00	0.00	0.00%		0.00%	12,400.00	6,931.50	15.10%		47.00%
LEUCOTHOE RACEMOSA (S)			0.00	0.00	0.00%		0.00%	533.33	533.33	0.00%		7.00%
LOBELIA CARDINALIS			0.00	0.00	0.00%		0.00%	266.67	266.67	0.00%		7.00%
LYCOPUS VIRGINICUS			25,333.33	16,839.48	0.00%		20.00%	6,800.00	4,572.38	0.00%		40.00%
LYONIA LIGUSTINA (S)			0.00	0.00	0.00%		0.00%	266.67	266.67	0.00%		7.00%
OSMUNDA CINNAMOMEA			4,933.33	1,584.05	0.00%		53.00%	12,266.67	4,736.35	0.00%		47.00%
PARTHENOCESSUS QUINQUEFOLIA			0.00	0.00	0.00%		0.00%	133.33	133.33	0.00%		7.00%
PHYTOLACCA AMERICANA			133.33	133.33	0.00%		7.00%	133.33	133.33	0.00%		7.00%
PINUS RIGIDA			0.00	0.00	0.00%		0.00%	133.33	133.33	0.00%		7.00%
PRUNUS SEROTINA (S)			0.00	0.00	0.00%		0.00%	266.67	266.67	0.00%		7.00%
RHODODENDRON VISCOSUM (S)			0.00	0.00	0.00%		0.00%	1,333.33	1,197.88	0.00%		13.00%
RUBUS ALLEGHENIENSIS			0.00	0.00	0.00%		0.00%	133.33	133.33	0.00%		7.00%
SASSAFRAS ALBIDUM			133.33	133.33	0.00%		7.00%	133.33	133.33	0.00%		7.00%
SMILAX ROTUNDIFOLIA			0.00	0.00	0.00%		0.00%	266.67	266.67	0.00%		7.00%
SOLIDAGO SPP.			22,133.33	18,045.94	0.00%		53.00%	3,066.67	1,776.75	0.00%		40.00%
THELYPTERIS PAULSTRIS			78,933.33	53,624.04	0.00%		33.00%	20,133.33	19,848.44	0.00%		20.00%
VACCINIUM CORYMBOSUM (S)			0.00	0.00	0.00%		0.00%	266.67	266.67	0.00%		7.00%
VITIS SPP.			0.00	0.00	0.00%		0.00%	133.33	133.33	0.00%		7.00%
WOODWARDIA AREOLATA			0.00	0.00	0.00%		0.00%	1,866.67	1,866.67	0.00%		7.00%

Table 5. Jackson site: all vegetation between .6 and 1.3 meters tall. Average number of stems per hectare, its standard error of the mean, percent of stems browsed and percent frequency are presented by treatment. Columns labeled D (stem density significant differences) and B (percent browse significant differences) when blank represent no statistical significance (alpha > .05) or not applicable (zero densities) across all treatments. S represents a statistically significant difference between treatments when alpha is between .05 and .005. H means a highly significant difference among treatments when alpha is less than .005. Data were collected during the full survey in summer 1994. (n = 15 for each treatment) fenced = seed plus electric fence plus herbicide; unfenced = seed plus herbicide only.

**JACKSON
> 1.3 M**

SPECIES	D	FENCED				UNFENCED		
		MEAN	STANDARD	FREQ.		MEAN	STANDARD	FREQ.
		DENSITY	ERROR			DENSITY	ERROR	
		(#/HA)				(#/HA)		
ACER RUBRUM (S)		0.00	0.00	0.00%		666.67	373.74	20.00%
CHAMAECYPARIS THYOIDES		533.33	236.37	27.00%		0.00	0.00	0.00%
EPILOBIUM ANGUSTIFOLIUM		0.00	0.00	0.00%		400.00	289.50	13.00%
RHODODENDRON VISCOSUM		0.00	0.00	0.00%		133.33	133.33	7.00%
SAMBUCUS CANADENSIS		133.33	133.33	7.00%		0.00	0.00	0.00%
SOLIDAGO SPP.		5,600.00	4,241.29	27.00%		0.00	0.00	0.00%
TYPHA SPP.		0.00	0.00	0.00%		133.33	133.33	7.00%

Table 6. Jackson site: all vegetation over 1.3 meters tall. Average number of stems per hectare, its standard error of the mean and percent frequency are presented by treatment. The column labeled D (stem density significant differences) when blank represents no statistical significance (alpha > .05) or not applicable (zero densities) across all treatments. The occurrence of an S in this column represents a statistically significant difference between treatments when alpha is between .05 and .005. An H in this column means a highly significant difference among treatments, alpha less than .005. Data were collected during the full survey in summer 1994. (n = 15 for each treatment) fenced = seed plus electric fence plus herbicide. Unfenced = seed treatment plus herbicide only.

**COLLETTI
DOWNED DEBRIS**

FENCE			CONTROL			NO HERB			HINDER		
LAYER	MEAN	STANDARD ERROR	LAYER	MEAN	STANDARD ERROR	LAYER	MEAN	STANDARD ERROR	LAYER	MEAN	STANDARD ERROR
FIRST LAYER	15.90%	3.51	FIRST LAYER	16.72%	5.59	FIRST LAYER	9.22%	2.35	FIRST LAYER	12.02%	3.12
SECOND LAYER	2.24%	0.94	SECOND LAYER	3.28%	1.73	SECOND LAYER	4.28%	1.65	SECOND LAYER	4.32%	2.11
THIRD LAYER	0.22%	0.22	THIRD LAYER	0.26%	0.18	THIRD LAYER	2.40%	2.40	THIRD LAYER	0.60%	0.36
FOURTH LAYER	0.00%	0.00	FOURTH LAYER	0.16%	0.11	FOURTH LAYER	0.00%	0.00	FOURTH LAYER	0.00%	0.00
FIFTH LAYER	0.00%	0.00	FIFTH LAYER	0.38%	0.38	FIFTH LAYER	0.00%	0.00	FIFTH LAYER	0.00%	0.00

Table 7. Colletti downed debris. Average percent cover and standard error of the mean are presented by layer and treatment. The first layer is the closest debris to the ground. The second layer is debris (i.e. dead branches) found over the first layer. The third layer is found over the second layer which is over the first layer and so forth. Data were collected during the full survey in summer 1994. (n = 10 for each treatment) fence = herbicide plus electric fence; control = herbicide; Hinder = herbicide plus Hinder (deer repellent); no herb = no treatment.

**COLLETTI
PERCENT GROUND COVERAGES**

FENCE			CONTROL			NO HERB			HINDER		
LAYER	MEAN	STANDARD ERROR	LAYER	MEAN	STANDARD ERROR	LAYER	MEAN	STANDARD ERROR	LAYER	MEAN	STANDARD ERROR
GRASS	19.09%	5.43	GRASS	32.50%	5.74	GRASS	25.50%	6.43	GRASS	32.00%	6.80
HUMMOCK	10.00%	3.73	HUMMOCK	8.00%	5.07	HUMMOCK	4.50%	3.53	HUMMOCK	9.00%	3.64
LITTER	12.00%	6.24	LITTER	7.00%	1.53	LITTER	21.00%	6.82	LITTER	9.50%	1.74
LOG	10.56%	2.56	LOG	12.50%	3.35	LOG	16.43%	2.61	LOG	20.00%	5.77
MOSS	1.50%	1.07	MOSS	1.50%	0.76	MOSS	0.50%	0.50	MOSS	0.50%	0.50
SOIL	1.00%	0.67	SOIL	7.00%	3.00	SOIL	0.50%	0.50	SOIL	4.00%	2.08
SPHAGNUM	25.00%	7.11	SPHAGNUM	12.50%	3.75	SPHAGNUM	14.50%	5.40	SPHAGNUM	12.00%	3.74
STUMP	2.50%	1.71	STUMP	10.00%	3.57	STUMP	9.50%	5.40	STUMP	10.50%	7.05
WATER	17.50%	5.01	WATER	14.00%	3.64	WATER	12.50%	6.16	WATER	13.50%	4.78

Table 8. Colletti site percent ground coverages. Average percent cover and standard error of the mean are presented by layer category and treatment. Data were collected during the full survey in summer 1994. (n = 10 for each treatment) fence = herbicide plus electric fence; control = herbicide; Hinder = herbicide plus Hinder (deer repellent); no herb = no treatment.

COLLETTI
< .3 M

SPECIES	FENCE					CONTROL				
	D	B	MEAN	STANDARD	PERCENT	FREQ.	MEAN	STANDARD	PERCENT	FREQ.
			DENSITY (#/HA)	ERROR	BROWSE		DENSITY (#/HA)	ERROR	BROWSE	
ACER RUBRUM	H		9,000.00	2,768.87	0.00%	60.00%	64,000.00	21,302.06	3.88%	90.00%
ARONIA SPP.			1,000.00	1,000.00	0.00%	10.00%	0.00	0.00	0.00%	0.00%
ASTER NEMORALIS			2,000.00	1,333.33	0.00%	20.00%	7,000.00	4,228.53	0.00%	30.00%
CHAMAECYPARIS THYOIDES	S		55,000.00	17,400.51	5.77%	80.00%	75,000.00	23,676.05	32.75%	100.00%
CHAMAEDAPHNE CALYCVLATA			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
CHAMAEDAPHNE CALYCVLATA (S)			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
CLETHRA ALNIFOLIA	S	S	21,000.00	11,780.40	0.00%	50.00%	41,000.00	17,816.47	800.00%	80.00%
CLETHRA ALNIFOLIA (S)			8,000.00	4,988.67	0.00%	30.00%	5,000.00	3,415.65	0.00%	20.00%
DROSERIA INTERMEDIA			16,000.00	14,922.02	0.00%	20.00%	2,000.00	1,333.33	0.00%	20.00%
DROSERIA ROTUNDFOLIA			155,000.00	60,067.14	0.00%	60.00%	45,000.00	14,776.11	0.00%	80.00%
FERN SPP.			7,000.00	4,228.53	0.00%	30.00%	10,000.00	5,962.85	0.00%	40.00%
GAULTHERIA PROCUMBENS			71,000.00	71,000.00	0.00%	10.00%	0.00	0.00	0.00%	0.00%
GAYLUSSACCIA DUMOSA			1,000.00	1,000.00	0.00%	10.00%	0.00	0.00	0.00%	0.00%
GAYLUSSACCIA FRONDOSA	S		1,000.00	1,000.00	0.00%	10.00%	2,000.00	1,333.33	0.00%	20.00%
GAYLUSSACCIA FRONDOSA (S)			4,000.00	4,000.00	0.00%	10.00%	0.00	0.00	0.00%	0.00%
GAYLUSSACCIA SPP.			1,000.00	1,000.00	0.00%	10.00%	0.00	0.00	0.00%	0.00%
ILEX GLABRA			0.00	0.00	0.00%	0.00%	1,000.00	1,000.00	0.00%	10.00%
ILEX VERTICILLATA	S		3,000.00	2,134.37	5.00%	20.00%	8,000.00	4,422.17	500.00%	30.00%
ILEX VERTICILLATA (S)			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
KALMIA ANGUSTIFOLIA			5,000.00	5,000.00	0.00%	10.00%	3,000.00	1,527.53	0.00%	30.00%
KALMIA ANGUSTIFOLIA (S)			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
LEUCOTHOE RACEMOSA			4,000.00	2,211.08	0.00%	30.00%	6,000.00	4,988.88	0.00%	20.00%
LEUCOTHOE RACEMOSA (S)			12,000.00	7,272.47	0.00%	30.00%	2,000.00	2,000.00	0.00%	10.00%
LYONIA LIGUSTINA			13,000.00	9,883.88	0.00%	30.00%	6,000.00	3,055.05	0.00%	40.00%
LYONIA LIGUSTINA (S)			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
MAGNOLIA VIRGINIANA			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
MUSHROOM SPP.			2,000.00	1,333.33	0.00%	20.00%	21,000.00	21,000.00	0.00%	10.00%
NYSSA SYLVATICA			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
PARTHENOCISSUS QUINQUEFOLIA			2,000.00	2,000.00	0.00%	10.00%	0.00	0.00	0.00%	0.00%
PINUS RIGIDA			4,000.00	3,055.05	0.00%	20.00%	0.00	0.00	0.00%	0.00%
RHEXIA VIRGINICA			0.00	0.00	0.00%	0.00%	7,000.00	5,174.72	5.00%	20.00%
RHODODENDRON VISCOSUM	H		30,000.00	10,327.96	500.00%	90.00%	9,000.00	3,480.10	0.00%	50.00%
RHODODENDRON VISCOSUM (S)			7,000.00	5,972.16	0.00%	20.00%	6,000.00	6,000.00	0.00%	10.00%
RHUS RADICANS			1,000.00	1,000.00	0.00%	10.00%	0.00	0.00	0.00%	0.00%
RUBUS HISPIDUS			93,000.00	31,342.20	0.00%	70.00%	63,000.00	44,448.47	0.00%	40.00%
SARRACENIA PURPUREA			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
SASSAFRAS ALBIDUM			3,000.00	3,000.00	0.00%	10.00%	0.00	0.00	0.00%	0.00%
SMILAX ROTUNDFOLIA			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
SOLIDAGO SPP.			0.00	0.00	0.00%	0.00%	2,000.00	2,000.00	0.00%	10.00%
VACCINIUM CORYMBOSUM	H		36,000.00	10,132.46	3.33%	70.00%	69,000.00	34,591.26	0.00%	80.00%
VACCINIUM CORYMBOSUM (S)			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
VIOLA PRIMULIFOLIA			10,000.00	10,000.00	0.00%	10.00%	41,000.00	41,000.00	0.00%	10.00%
WOODWARDIA VIRGINICA			0.00	0.00	0.00%	0.00%	1,000.00	1,000.00	0.00%	10.00%

Table 9 (continued on next page). Colletti site: all vegetation less than .3 meters tall. Average number of stems per hectare, its standard error of the mean, percent of stems browsed and percent frequency are presented by treatment. Columns labeled D (stem density significant differences) and B (percent browse significant differences) when blank represent no statistical significance (alpha > .05) or not applicable (zero densities) across all treatments. The occurrence of an S in these columns represents a statistically significant difference between treatments (when alpha is between .05 and .005). An H in these columns means a highly significant difference among treatments (alpha less than .005). Data were collected during the full survey in summer 1994. (n = 10 for each treatment) fence = herbicide plus electric fence; control = herbicide; Hinder = herbicide plus Hinder (deer repellent); no herb = no treatment.

COLLETTI
< .3 M

SPECIES	D	B	NO HERB				HINDER			
			MEAN	STANDARD	PERCENT	FREQ.	MEAN	STANDARD	PERCENT	FREQ.
			DENSITY (#/HA)	ERROR	BROWSE		DENSITY (#/HA)	ERROR	BROWSE	
ACER RUBRUM	H		156,000.00	42,874.49	6.21%	100.00%	98,000.00	18,784.62	2.97%	100.00%
ARONIA SPP.			11,000.00	8,875.68	0.00%	30.00%	1,000.00	1,000.00	0.00%	10.00%
ASTER NEMORALIS			5,000.00	5,000.00	0.00%	10.00%	47,000.00	47,000.00	0.00%	10.00%
CHAMAECYPARIS THYOIDES		S	60,000.00	15,347.82	45.56%	90.00%	52,000.00	12,882.72	25.71%	80.00%
CHAMAEDAPHNE CALYCVLATA			5,000.00	5,000.00	0.00%	10.00%	5,000.00	5,000.00	0.00%	10.00%
CHAMAEDAPHNE CALYCVLATA (S)			3,000.00	3,000.00	0.00%	10.00%	12,000.00	12,000.00	0.00%	10.00%
CLETHRA ALNIFOLIA	S	S	81,000.00	19,576.06	14.25%	90.00%	28,000.00	5,825.46	7.50%	90.00%
CLETHRA ALNIFOLIA (S)			44,000.00	23,673.71	4.17%	50.00%	8,000.00	5,537.75	0.00%	20.00%
DROSER A INTERMEDIA			8,000.00	8,000.00	0.00%	10.00%	8,000.00	4,000.00	0.00%	30.00%
DROSER A ROTUNDIFOLIA			110,000.00	56,960.02	0.00%	70.00%	90,000.00	23,475.76	0.00%	80.00%
FERN SPP.			1,000.00	1,000.00	0.00%	10.00%	5,000.00	2,236.07	0.00%	40.00%
GAULTHERIA PROCUMBENS			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
GAYLUSSACIA DUMOSA			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
GAYLUSSACIA FRONDOSA	S		18,000.00	7,423.68	10.00%	80.00%	10,000.00	5,962.85	0.00%	40.00%
GAYLUSSACIA FRONDOSA (S)			13,000.00	8,034.65	0.00%	40.00%	4,000.00	4,000.00	0.00%	10.00%
GAYLUSSACIA SPP.			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
ILEX GLABRA			0.00	0.00	0.00%	0.00%	1,000.00	1,000.00	0.00%	10.00%
ILEX VERTICILLATA	S		8,000.00	2,905.83	0.00%	80.00%	0.00	0.00	0.00%	0.00%
ILEX VERTICILLATA (S)			9,000.00	6,046.12	0.00%	20.00%	0.00	0.00	0.00%	0.00%
KALMIA ANGUSTIFOLIA			0.00	0.00	0.00%	0.00%	5,000.00	3,073.18	0.00%	30.00%
KALMIA ANGUSTIFOLIA (S)			1,000.00	1,000.00	0.00%	10.00%	0.00	0.00	0.00%	0.00%
LEUCOTHOE RACEMOSA			13,000.00	7,753.14	0.00%	50.00%	1,000.00	1,000.00	0.00%	10.00%
LEUCOTHOE RACEMOSA (S)			13,000.00	8,696.66	1.43%	20.00%	1,000.00	1,000.00	0.00%	10.00%
LYONIA LIGUSTINA			3,000.00	2,134.37	0.00%	20.00%	6,000.00	6,000.00	0.00%	10.00%
LYONIA LIGUSTINA (S)			0.00	0.00	0.00%	0.00%	10,000.00	7,302.97	0.00%	20.00%
MAGNOLIA VIRGINIANA			0.00	0.00	0.00%	0.00%	1,000.00	1,000.00	0.00%	10.00%
MUSHROOM SPP.			0.00	0.00	0.00%	0.00%	6,000.00	4,000.00	0.00%	30.00%
NYSSA SYLVATICA			2,000.00	1,333.33	0.00%	20.00%	3,000.00	3,000.00	0.00%	10.00%
PARTHENOCISSUS QUINQUEFOLIA			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
PINUS RIGIDA			2,000.00	1,333.33	0.00%	20.00%	1,000.00	1,000.00	0.00%	10.00%
RHEXIA VIRGINICA			1,000.00	1,000.00	0.00%	10.00%	1,000.00	1,000.00	0.00%	10.00%
RHODODENDRON VISCOSUM	H		68,000.00	20,099.75	13.33%	100.00%	14,000.00	4,988.88	5.00%	80.00%
RHODODENDRON VISCOSUM (S)			3,000.00	3,000.00	0.00%	10.00%	23,000.00	17,065.23	4.35%	30.00%
RHUS RADICANS			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
RUBUS HISPIDUS			25,000.00	14,317.82	0.00%	40.00%	4,000.00	3,055.05	0.00%	20.00%
SARRACENIA PURPUREA			2,000.00	2,000.00	0.00%	10.00%	0.00	0.00	0.00%	0.00%
SASSAFRAS ALBIDUM			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
SMILAX ROTUNDIFOLIA			1,000.00	1,000.00	0.00%	10.00%	1,000.00	1,000.00	0.00%	10.00%
SOLIDAGO SPP.			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
VACCINIUM CORYMBOSUM	H		68,000.00	17,333.33	500.00%	100.00%	48,000.00	12,242.91	2.50%	100.00%
VACCINIUM CORYMBOSUM (S)			13,000.00	6,333.33	3.33%	40.00%	0.00	0.00	0.00%	0.00%
VIOLA PRIMULIFOLIA			0.00	0.00	0.00%	0.00%	12,000.00	12,000.00	0.00%	10.00%
WOODWARDIA VIRGINICA			2,000.00	2,000.00	0.00%	10.00%	0.00	0.00	0.00%	0.00%

Table 9 (continued).

COLLETTI
.3 - .6 M

SPECIES	FENCE					CONTROL				
	D	B	MEAN	STANDARD	PERCENT	FREQ.	MEAN	STANDARD	PERCENT	FREQ.
			DENSITY (#/HA)	ERROR	BROWSE		DENSITY (#/HA)	ERROR	BROWSE	
ACER RUBRUM			600.00	426.87	10.00%	20.00%	1,000.00	447.21	0.00%	40.00%
ACER RUBRUM (S)			1,200.00	1,200.00	0.00%	10.00%	0.00	0.00	0.00%	0.00%
ALNUS SPP.			0.00	0.00	0.00%	0.00%	400.00	400.00	0.00%	10.00%
ARONIA SPP.			600.00	426.87	0.00%	20.00%	800.00	426.87	0.00%	20.00%
ARONIA SPP. (S)			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
ASTER NEMORALIS			0.00	0.00	0.00%	0.00%	600.00	600.00	0.00%	10.00%
CHAMAECYPARIS THYOIDES	H	S	33,800.00	9,607.64	9.82%	100.00%	11,400.00	2,781.69	44.89%	100.00%
CHAMAEDAPHNE CALYCVLATA			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
CHAMAEDAPHNE CALYCVLATA (S)			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
CLETHRA ALNIFOLIA			3,200.00	1,743.56	0.00%	60.00%	3,000.00	802.77	9.17%	80.00%
CLETHRA ALNIFOLIA (S)	H		1,200.00	679.87	0.00%	30.00%	600.00	426.87	0.00%	20.00%
EPILOBIUM ANGUSTIFOLIUM			0.00	0.00	0.00%	0.00%	200.00	200.00	0.00%	10.00%
GAYLUSSACIA FRONDOSA			1,800.00	1,590.25	0.00%	20.00%	600.00	305.51	0.00%	30.00%
GAYLUSSACIA FRONDOSA (S)	H		4,400.00	4,400.00	0.45%	10.00%	0.00	0.00	0.00%	0.00%
GAYLUSSACIA SPP.			400.00	400.00	0.00%	10.00%	0.00	0.00	0.00%	0.00%
ILEX GLABRA			0.00	0.00	0.00%	0.00%	200.00	200.00	0.00%	10.00%
ILEX VERTICILLATA			0.00	0.00	0.00%	0.00%	600.00	426.87	0.00%	20.00%
ILEX VERTICILLATA (S)			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
KALMIA ANGUSTIFOLIA			400.00	400.00	0.00%	10.00%	0.00	0.00	0.00%	0.00%
KALMIA ANGUSTIFOLIA (S)			600.00	600.00	0.00%	10.00%	0.00	0.00	0.00%	0.00%
LEUCOTHOE RACEMOSA	S		2,400.00	1,185.09	2.50%	40.00%	200.00	200.00	0.00%	10.00%
LEUCOTHOE RACEMOSA (S)			10,800.00	6,374.95	5.91%	60.00%	1,800.00	1,093.41	3.33%	30.00%
LINDERA BENZOIN			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
LINDERA BENZOIN (S)			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
LYONIA LIGUSTINA			1,600.00	1,066.67	0.00%	20.00%	2,200.00	1,775.14	0.00%	30.00%
LYONIA LIGUSTINA (S)			1,200.00	853.75	0.00%	20.00%	600.00	600.00	0.00%	10.00%
OSMUNDA CINNAMOMEA			0.00	0.00	0.00%	0.00%	400.00	400.00	0.00%	10.00%
PINUS RIGIDA			600.00	600.00	0.00%	10.00%	200.00	200.00	0.00%	10.00%
RHEXIA VIRGINICA			0.00	0.00	0.00%	0.00%	600.00	600.00	0.00%	10.00%
RHODODENDRON VISCOSUM	H		1,400.00	1,034.94	2.00%	20.00%	200.00	200.00	0.00%	10.00%
RHODODENDRON VISCOSUM (S)	H		2,000.00	1,229.27	0.00%	30.00%	0.00	0.00	0.00%	0.00%
SASSAFRAS ALBIDUM			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
SMILAX ROTUNDIFOLIA			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
VACCINIUM CORYMBOSUM			0.00	0.00	0.00%	0.00%	1,000.00	614.64	0.00%	30.00%
VACCINIUM CORYMBOSUM (S)	H		0.00	0.00	0.00%	0.00%	400.00	400.00	0.00%	10.00%
WOODWARDIA VIRGINICA	S		0.00	0.00	0.00%	0.00%	16,000.00	10,176.23	0.43%	40.00%

Table 10 (continued on the next page). Colletti site: all vegetation between .3 and .6 meters tall. Average number of stems per hectare, its standard error of the mean, percent of stems browsed and percent frequency are presented by treatment. Columns labeled D (stem density significant differences) and B (percent browse significant differences) when blank represents no statistical significance (alpha > .05) or not applicable (zero densities) across all treatments. The occurrence of an S in these columns represents a statistically significant difference between treatments (when alpha is between .05 and .005). An H in these columns means a highly significant difference among treatments (alpha less than .005). Data were collected during the full survey in summer 1994. (n = 10 for each treatment) fence = herbicide plus electric fence; control = herbicide; Hinder = herbicide plus Hinder (deer repellent); no herb = no treatment.

COLLETTI
.3 - .6 M

SPECIES	D	B	NO HERB				HINDER			
			MEAN	STANDARD	PERCENT	FREQ.	MEAN	STANDARD	PERCENT	FREQ.
			DENSITY (#/HA)	ERROR	BROWSE		DENSITY (#/HA)	ERROR	BROWSE	
ACER RUBRUM			1,200.00	696.02	13.33%	50.00%	1,400.00	520.68	10.00%	50.00%
ACER RUBRUM (S)			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
ALNUS SPP.			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
ARONIA SPP.			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
ARONIA SPP. (S)			600.00	600.00	0.00%	10.00%	0.00	0.00	0.00%	0.00%
ASTER NEMORALIS			1,000.00	683.13	0.00%	20.00%	800.00	611.01	0.00%	20.00%
CHAMAECYPARIS THYOIDES	H	S	5,600.00	2,825.28	20.00%	70.00%	12,200.00	2,606.83	54.24%	90.00%
CHAMAEDAPHNE CALYCVLATA			0.00	0.00	0.00%	0.00%	400.00	400.00	0.00%	10.00%
CHAMAEDAPHNE CALYCVLATA (S)			8,600.00	5,750.75	0.00%	20.00%	6,000.00	6,000.00	0.00%	10.00%
CLETHRA ALNIFOLIA			3,600.00	1,292.71	0.00%	70.00%	3,000.00	1,527.53	8.21%	40.00%
CLETHRA ALNIFOLIA (S)	H		20,000.00	6,338.59	5.87%	80.00%	4,000.00	2,043.96	6.00%	50.00%
EPILOBIUM ANGUSTIFOLIUM			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
GAYLUSSACIA FRONDOSA			2,200.00	952.19	0.00%	80.00%	2,000.00	730.30	10.00%	50.00%
GAYLUSSACIA FRONDOSA (S)	H		16,400.00	6,294.97	0.00%	70.00%	6,200.00	3,846.50	0.00%	40.00%
GAYLUSSACIA SPP.			200.00	200.00	0.00%	10.00%	0.00	0.00	0.00%	0.00%
ILEX GLABRA			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
ILEX VERTICILLATA			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
ILEX VERTICILLATA (S)			200.00	200.00	0.00%	10.00%	0.00	0.00	0.00%	0.00%
KALMIA ANGUSTIFOLIA			0.00	0.00	0.00%	0.00%	1,200.00	853.75	0.00%	20.00%
KALMIA ANGUSTIFOLIA (S)			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
LEUCOTHOE RACEMOSA	S		2,000.00	730.30	0.00%	60.00%	400.00	400.00	0.00%	10.00%
LEUCOTHOE RACEMOSA (S)			4,800.00	2,735.77	0.00%	40.00%	2,600.00	1,886.80	1.11%	20.00%
LINDERA BENZOIN			600.00	600.00	0.00%	10.00%	0.00	0.00	0.00%	0.00%
LINDERA BENZOIN (S)			200.00	200.00	0.00%	10.00%	0.00	0.00	0.00%	0.00%
LYONIA LIGUSTINA			800.00	533.33	0.00%	20.00%	400.00	266.67	0.00%	20.00%
LYONIA LIGUSTINA (S)			200.00	200.00	0.00%	10.00%	0.00	0.00	0.00%	0.00%
OSMUNDA CINNAMOMEA			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
PINUS RIGIDA			400.00	266.67	0.00%	20.00%	0.00	0.00	0.00%	0.00%
RHEXIA VIRGINICA			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
RHODODENDRON VISCOSUM	H		4,600.00	1,936.78	5.33%	80.00%	0.00	0.00	0.00%	0.00%
RHODODENDRON VISCOSUM (S)	H		3,800.00	1,245.44	0.00%	60.00%	0.00	0.00	0.00%	0.00%
SASSAFRAS ALBIDUM			200.00	200.00	0.00%	10.00%	0.00	0.00	0.00%	0.00%
SMILAX ROTUNDIFOLIA			200.00	200.00	0.00%	10.00%	0.00	0.00	0.00%	0.00%
VACCINIUM CORYMBOSUM			2,600.00	1,978.78	0.00%	30.00%	200.00	200.00	0.00%	10.00%
VACCINIUM CORYMBOSUM (S)	H		4,200.00	1,443.76	3.33%	70.00%	1,400.00	1,194.43	0.00%	20.00%
WOODWARDIA VIRGINICA	S		0.00	0.00	0.00%	0.00%	1,200.00	853.75	0.00%	20.00%

Table 10 (continued).

COLLETTI
.6 - 1.3 M

SPECIES	FENCE					CONTROL				
	D	B	MEAN	STANDARD	PERCENT	FREQ.	MEAN	STANDARD	PERCENT	FREQ.
			DENSITY (#/HA)	ERROR	BROWSE		DENSITY (#/HA)	ERROR	BROWSE	
ACER RUBRUM			200.00	200.00	0.00%	10.00%	200.00	200.00	0.00%	10.00%
ACER RUBRUM (S)			200.00	200.00	0.00%	10.00%	0.00	0.00	0.00%	0.00%
ALNUS SPP.			0.00	0.00	0.00%	0.00%	200.00	200.00	0.00%	10.00%
ARONIA SPP.			200.00	200.00	0.00%	10.00%	0.00	0.00	0.00%	0.00%
ARONIA SPP. (S)			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
CHAMAECYPARIS THYOIDES	H	H	29,000.00	4,533.82	4.33%	100.00%	5,800.00	1,209.22	55.00%	90.00%
CHAMAEDAPHNE CALYculata (S)			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
CLETHRA ALNIFOLIA	H		0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
CLETHRA ALNIFOLIA (S)	S		600.00	426.87	0.00%	20.00%	0.00	0.00	0.00%	0.00%
GAYLUSSACIA FRONDOSA			600.00	600.00	0.00%	10.00%	0.00	0.00	0.00%	0.00%
GAYLUSSACIA FRONDOSA (S)	H		1,400.00	1,400.00	0.00%	10.00%	0.00	0.00	0.00%	0.00%
ILEX VERTICILLATA			0.00	0.00	0.00%	0.00%	200.00	200.00	0.00%	10.00%
LEUCOTHOE RACEMOSA			600.00	426.87	0.00%	20.00%	0.00	0.00	0.00%	0.00%
LEUCOTHOE RACEMOSA (S)			6,400.00	3,448.67	0.00%	50.00%	600.00	600.00	0.00%	10.00%
LINDERA BENZOIN			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
LYONIA LIGUSTINA			0.00	0.00	0.00%	0.00%	200.00	200.00	0.00%	10.00%
PINUS RIGIDA			200.00	200.00	0.00%	10.00%	0.00	0.00	0.00%	0.00%
RHODODENDRON VISCOSUM			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
RHODODENDRON VISCOSUM (S)			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
SMILAX ROTUNDIFOLIA			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
VACCINIUM CORYMBOSUM			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
VACCINIUM CORYMBOSUM (S)	H		0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
WOODWARDIA VIRGINICA			0.00	0.00	0.00%	0.00%	2,600.00	2,600.00	0.00%	10.00%

Table 11 (continued on next page). Colletti site: all vegetation between .6 and 1.3 meters tall. Average number of stems per hectare, its standard error of the mean, percent of stems browsed, and percent frequency are presented by treatment. Columns labeled D (stem density significant differences) and B (percent browse significant differences) when blank represent no statistical significance (alpha > .05) or not applicable (zero densities) across all treatments. The occurrence of an S in these columns represents a statistically significant difference between treatments (when alpha is between .05 and .005). An H in these columns means a highly significant difference among treatments (alpha less than .005). Data were collected during the full survey in summer 1994. (n = 10 for each treatment) fence = herbicide plus electric fence; control = herbicide; Hinder = herbicide plus Hinder (deer repellent); no herb = no treatment.

COLLETTI
.6 - 1.3 M

SPECIES	D	B	NO HERB				HINDER			
			MEAN	STANDARD	PERCENT	FREQ.	MEAN	STANDARD	PERCENT	FREQ.
			DENSITY (#/HA)	ERROR	BROWSE		DENSITY (#/HA)	ERROR	BROWSE	
ACER RUBRUM			400.00	266.67	0.00%	20.00%	0.00	0.00	0.00%	0.00%
ACER RUBRUM (S)			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
ALNUS SPP.			0.00	0.00	0.00%	0.00%	200.00	200.00	0.00%	10.00%
ARONIA SPP.			200.00	200.00	0.00%	10.00%	0.00	0.00	0.00%	0.00%
ARONIA SPP. (S)			600.00	600.00	0.00%	10.00%	0.00	0.00	0.00%	0.00%
CHAMAECYPARIS THYOIDES	H	H	200.00	200.00	10.00%	10.00%	7,400.00	2,891.37	44.17%	60.00%
CHAMAEDAPHNE CALYCVLATA (S)			200.00	200.00	0.00%	10.00%	0.00	0.00	0.00%	0.00%
CLETHRA ALNIFOLIA	H		1,000.00	333.33	0.00%	50.00%	0.00	0.00	0.00%	0.00%
CLETHRA ALNIFOLIA (S)	S		23,200.00	10,014.21	0.00%	50.00%	0.00	0.00	0.00%	0.00%
GAYLUSSACIA FRONDOSA			1,400.00	991.07	0.00%	30.00%	0.00	0.00	0.00%	0.00%
GAYLUSSACIA FRONDOSA (S)	H		24,800.00	12,483.06	0.00%	80.00%	400.00	266.67	0.00%	20.00%
ILEX VERTICILLATA			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
LEUCOTHOE RACEMOSA			400.00	266.67	0.00%	20.00%	200.00	200.00	0.00%	10.00%
LEUCOTHOE RACEMOSA (S)			6,000.00	3,794.73	0.00%	40.00%	400.00	400.00	0.00%	10.00%
LINDERA BENZOIN			400.00	400.00	0.00%	10.00%	0.00	0.00	0.00%	0.00%
LYONIA LIGUSTINA			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
PINUS RIGIDA			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
RHODODENDRON VISCOSUM			1,000.00	614.64	0.00%	30.00%	0.00	0.00	0.00%	0.00%
RHODODENDRON VISCOSUM (S)			200.00	200.00	0.00%	10.00%	0.00	0.00	0.00%	0.00%
SMILAX ROTUNDIFOLIA			200.00	200.00	0.00%	10.00%	0.00	0.00	0.00%	0.00%
VACCINIUM CORYMBOSUM			200.00	200.00	0.00%	10.00%	0.00	0.00	0.00%	0.00%
VACCINIUM CORYMBOSUM (S)	H		5,200.00	2,171.53	0.00%	70.00%	600.00	600.00	0.00%	10.00%
WOODWARDIA VIRGINICA			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%

Table 11 (continued).

**COLLETTI
> 1.3 M**

FENCE				CONTROL			
SPECIES	MEAN DENSITY (#/HA)	STANDARD ERROR	FREQ.	MEAN DENSITY (#/HA)	STANDARD ERROR	FREQ.	
D							
ACER RUBRUM (S)	0.00	0.00	0.00%	0.00	0.00	0.00%	
ARONIA SPP.	0.00	0.00	0.00%	0.00	0.00	0.00%	
BETULA POPULIFOLIA	0.00	0.00	0.00%	0.00	0.00	0.00%	
CHAMAECYPARIS THYOIDES	H 4,200.00	1,443.76	70.00%	200.00	200.00	10.00%	
CLETHRA ALNIFOLIA	0.00	0.00	0.00%	0.00	0.00	0.00%	
CLETHRA ALNIFOLIA (S)	H 0.00	0.00	0.00%	0.00	0.00	0.00%	
GAYLUSSACIA FRONDOSA (S)	0.00	0.00	0.00%	0.00	0.00	0.00%	
LINDERA BENZOIN (S)	0.00	0.00	0.00%	0.00	0.00	0.00%	
NYSSA SYLVATICA (S)	0.00	0.00	0.00%	0.00	0.00	0.00%	
VACCINIUM CORYMBOSUM (S)	H 0.00	0.00	0.00%	0.00	0.00	0.00%	
NO HERB				HINDER			
SPECIES	MEAN DENSITY (#/HA)	STANDARD ERROR	FREQ.	MEAN DENSITY (#/HA)	STANDARD ERROR	FREQ.	
D							
ACER RUBRUM (S)	600.00	600.00	10.00%	0.00	0.00	0.00%	
ARONIA SPP.	200.00	200.00	10.00%	0.00	0.00	0.00%	
BETULA POPULIFOLIA	200.00	200.00	10.00%	0.00	0.00	0.00%	
CHAMAECYPARIS THYOIDES	H 0.00	0.00	0.00%	2,200.00	963.79	60.00%	
CLETHRA ALNIFOLIA	200.00	200.00	10.00%	0.00	0.00	0.00%	
CLETHRA ALNIFOLIA (S)	H 3,800.00	2,657.48	30.00%	0.00	0.00	0.00%	
GAYLUSSACIA FRONDOSA (S)	600.00	426.87	20.00%	0.00	0.00	0.00%	
LINDERA BENZOIN (S)	400.00	400.00	10.00%	0.00	0.00	0.00%	
NYSSA SYLVATICA (S)	200.00	200.00	10.00%	0.00	0.00	0.00%	
VACCINIUM CORYMBOSUM (S)	H 1,800.00	628.93	60.00%	0.00	0.00	0.00%	

Table 12. Colletti site: all vegetation greater than 1.3 meters tall. Average number of stems per hectare, its standard error of the mean, and percent frequency are presented by treatment. The column labeled D (stem density significant differences) when blank represents no statistical significance (alpha > .05) or not applicable (zero densities) across all treatments. The occurrence of an S in this column signifies a statistically significant difference between treatments (alpha is between .05 and .005). An H in this column means a highly significant difference among treatments (alpha less than .005). Data were collected during the full survey in summer 1994. (n = 10 for each treatment) fence = herbicide plus electric fence; control = herbicide; Hinder = herbicide plus Hinder (deer repellent); no herb = no treatment.

**PENN SWAMP
DOWNED DEBRIS**

FENCE								
NO SLASH			SLASH			DOUBLE SLASH		
LAYER	MEAN	STANDARD ERROR	LAYER	MEAN	STANDARD ERROR	LAYER	MEAN	STANDARD ERROR
FIRST LAYER	2.17%	1.53	FIRST LAYER	7.47%	1.76	FIRST LAYER	27.00%	5.87
SECOND LAYER	0.22%	0.22	SECOND LAYER	0.53%	0.25	SECOND LAYER	9.80%	2.70
THIRD LAYER	0.00%	0.00	THIRD LAYER	0.07%	0.07	THIRD LAYER	1.47%	0.51
FOURTH LAYER	0.00%	0.00	FOURTH LAYER	0.00%	0.00	FOURTH LAYER	0.42%	0.18
FIFTH LAYER	0.00%	0.00	FIFTH LAYER	0.00%	0.00	FIFTH LAYER	0.18%	0.18
NO FENCE								
NO SLASH			SLASH			DOUBLE SLASH		
LAYER	MEAN	STANDARD ERROR	LAYER	MEAN	STANDARD ERROR	LAYER	MEAN	STANDARD ERROR
FIRST LAYER	0.47%	0.25	FIRST LAYER	6.00%	2.80	FIRST LAYER	20.60%	3.27
SECOND LAYER	0.00%	0.00	SECOND LAYER	0.10%	0.07	SECOND LAYER	5.87%	1.47
THIRD LAYER	0.00%	0.00	THIRD LAYER	0.03%	0.03	THIRD LAYER	1.72%	0.96
FOURTH LAYER	0.00%	0.00	FOURTH LAYER	0.00%	0.00	FOURTH LAYER	0.18%	0.18
FIFTH LAYER	0.00%	0.00	FIFTH LAYER	0.00%	0.00	FIFTH LAYER	0.00%	0.00

Table 13. Penn Swamp site downed debris. Average percent cover and standard error of the mean are presented by layer and treatment. The first layer is the closest debris to the ground. The second layer is debris (i.e. dead branches) found over the first layer. The third layer is found over the second layer which is over the first layer and so forth. Data were collected during the full survey in summer 1994. (n = 12 for each slash treatment inside and outside the fence, total n for the site = 72)

PENN SWAMP

PERCENT GROUND COVERAGES

FENCE								
NO SLASH			SLASH			DOUBLE SLASH		
LAYER	MEAN	STANDARD ERROR	LAYER	MEAN	STANDARD ERROR	LAYER	MEAN	STANDARD ERROR
GRASS	17.50%	4.87	GRASS	11.67%	2.97	GRASS	3.75%	1.39
HUMMOCK	13.75%	6.25	HUMMOCK	4.58%	2.71	HUMMOCK	4.17%	2.60
LITTER	18.33%	7.13	LITTER	18.75%	3.38	LITTER	18.75%	5.15
LOG	0.00%	0.00	LOG	6.25%	2.47	LOG	30.83%	7.48
MOSS	2.50%	1.15	MOSS	5.00%	2.04	MOSS	1.67%	0.71
SOIL	7.08%	2.85	SOIL	9.17%	3.58	SOIL	5.00%	2.22
SPHAGNU	13.75%	3.70	SPHAGNU	17.92%	5.42	SPHAGNU	17.08%	5.45
STUMP	20.42%	7.82	STUMP	13.75%	5.30	STUMP	10.42%	4.37
WATER	6.67%	2.33	WATER	4.58%	3.72	WATER	0.00%	0.00
NO FENCE								
NO SLASH			SLASH			DOUBLE SLASH		
LAYER	MEAN	STANDARD ERROR	LAYER	MEAN	STANDARD ERROR	LAYER	MEAN	STANDARD ERROR
GRASS	20.42%	5.52	GRASS	28.33%	5.72	GRASS	8.75%	2.39
HUMMOCK	22.50%	8.45	HUMMOCK	10.42%	5.89	HUMMOCK	2.50%	2.50
LITTER	15.00%	4.65	LITTER	20.42%	5.69	LITTER	17.50%	3.77
LOG	3.33%	3.33	LOG	2.08%	1.14	LOG	19.17%	4.88
MOSS	6.67%	1.78	MOSS	5.00%	1.63	MOSS	3.33%	1.67
SOIL	2.92%	2.50	SOIL	3.33%	2.49	SOIL	0.00%	0.00
SPHAGNU	23.33%	6.23	SPHAGNU	19.58%	4.46	SPHAGNU	34.58%	7.80
STUMP	5.00%	3.37	STUMP	10.42%	4.86	STUMP	11.67%	5.85
WATER	0.83%	0.56	WATER	0.42%	0.42	WATER	2.08%	0.96

Table 14. Penn Swamp site percent ground coverages. Average percent cover and standard error of the mean are presented by category and treatment. Data were collected during the full survey in summer 1994. (n = 12 for each slash treatment both inside and outside the fence, total n for the site = 72).

PENN SWAMP
< 3 M
FENCE

SPECIES	PROT d b	TRT t b	NO SLASH				SLASH				DOUBLE SLASH			
			MEAN DENSITY (#/HA)	STANDARD ERROR	PERCENT BROWSE	FREQ.	MEAN DENSITY (#/HA)	STANDARD ERROR	PERCENT BROWSE	FREQ.	MEAN DENSITY (#/HA)	STANDARD ERROR	PERCENT BROWSE	FREQ.
ACER RUBRUM	S	H	36,166.67	10,783.18	0.00%	100.00%	23,333.33	12,512.62	0.00%	42.00%	32,500.00	15,478.48	0.00%	67.00%
ACER RUBRUM (S)			0.00	0.00	0.00%	0.00%	833.33	833.33	0.00%	8.00%	0.00	0.00	0.00%	0.00%
ANAPHALIS MARGARITACEA			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
ARONIA SPP.	S	S	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
ASCYRUM HYPERICOIDES			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
BETULA POPULIFOLIA			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
CHAMAECYPARIS THYOIDES	S	S	174,166.67	40,441.85	33.49%	92.00%	85,833.33	19,284.88	18.34%	92.00%	62,500.00	13,207.28	29.85%	100.00%
CHAMAEDAPHNE CALYCLATA			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
CHAMAEDAPHNE CALYCLATA (S)			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
CLETHRA ALNIFOLIA	S		833.33	833.33	0.00%	8.00%	19,166.67	13,896.71	0.49%	42.00%	5,833.33	2,289.08	0.00%	42.00%
CLETHRA ALNIFOLIA (S)			833.33	833.33	0.00%	8.00%	2,500.00	2,500.00	0.00%	8.00%	1,866.67	1,123.67	0.00%	17.00%
DEWSTAYDIA PUNCTLOBULA			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
DROSERA INTERMEDIA	S		36,866.67	24,505.20	0.00%	33.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
DROSERA ROTUNDFOLIA	S	S	120,000.00	43,519.41	0.00%	75.00%	38,333.33	31,378.27	0.00%	25.00%	9,166.67	5,701.98	0.00%	42.00%
ERIOBOLUS ANGUSTIFOLIUM	H	H	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	833.33	833.33	0.00%	8.00%
ERIOBOLUS GLANDULOSUS	S		0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
ERIGERON CANADENSIS			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
EUPATORIUM PERFORIATUM			0.00	0.00	0.00%	0.00%	10,833.33	10,833.33	0.00%	8.00%	0.00	0.00	0.00%	0.00%
PERNIS SPP.			3,333.33	2,582.35	0.00%	17.00%	4,166.67	2,289.08	0.00%	25.00%	5,000.00	2,811.16	0.00%	33.00%
GALUTHIERIA PROCUMBENS			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
GAYLUSSACIA FRONDOSA	H		5,000.00	2,302.83	0.00%	33.00%	30,833.33	25,715.76	0.27%	25.00%	9,166.67	8,299.17	0.00%	17.00%
GAYLUSSACIA FRONDOSA (S)	H		833.33	833.33	0.00%	8.00%	14,166.67	8,999.86	0.00%	25.00%	1,866.67	1,666.67	0.00%	8.00%
GAYLUSSACIA SPP.			0.00	0.00	0.00%	0.00%	4,166.67	4,166.67	0.00%	8.00%	9,166.67	8,299.17	0.00%	17.00%
HYPERICUM CANADENSE	H		0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
HYPERICUM VIRGINICUM			17,500.00	12,560.46	0.00%	25.00%	20,000.00	20,000.00	0.00%	8.00%	833.33	833.33	0.00%	8.00%
ILEX GLABRA			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
ILEX VERTICILLATA			3,333.33	2,562.35	8.33%	17.00%	4,166.67	4,166.67	500.00%	8.00%	833.33	833.33	0.00%	8.00%
KALMA ANGUSTIFOLIA	S		0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
KALMA ANGUSTIFOLIA (S)			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
LEUCOTHOE RACEMOSA	S		11,866.67	7,571.21	0.00%	33.00%	15,000.00	6,885.58	6.94%	42.00%	15,833.33	9,570.87	0.00%	33.00%
LEUCOTHOE RACEMOSA (S)			14,166.67	7,829.48	0.00%	33.00%	12,500.00	7,797.14	2.78%	33.00%	13,333.33	7,521.01	0.00%	42.00%
LYONIA LIGUSTINA	S		833.33	833.33	0.00%	8.00%	1,866.67	1,866.67	0.00%	8.00%	7,500.00	6,842.95	0.00%	17.00%
LYONIA LIGUSTINA (S)			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
MAGNOLIA VIRGINIANA			2,500.00	2,500.00	0.00%	8.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
MITCHELLA REPENS			25,000.00	25,000.00	0.00%	8.00%	9,166.67	6,860.86	0.00%	25.00%	24,166.67	23,272.38	0.00%	17.00%
MUSHROOM SPP.			3,333.33	1,880.25	0.00%	25.00%	0.00	0.00	0.00%	0.00%	5,000.00	2,886.75	0.00%	25.00%
NYSSA SYLVATICA	S	S	4,166.67	3,361.82	0.00%	17.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
NYSSA SYLVATICA (S)			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
PARTHENOCESSUS QUINQUEFOLIA			0.00	0.00	0.00%	0.00%	1,866.67	1,866.67	0.00%	8.00%	0.00	0.00	0.00%	0.00%
PINUS RIGIDA			833.33	833.33	0.00%	8.00%	3,333.33	1,880.25	0.00%	25.00%	0.00	0.00	0.00%	0.00%
RHEXIA VIRGINICA			30,000.00	29,102.74	0.00%	17.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
RHODOCENDRON VISCOSUM	S		74,166.67	25,299.67	0.00%	83.00%	19,166.67	9,491.49	8.33%	42.00%	26,333.33	9,847.09	0.00%	83.00%
RHODOCENDRON VISCOSUM (S)			21,866.67	12,722.76	3.03%	33.00%	15,833.33	9,727.99	0.00%	25.00%	15,000.00	7,833.49	5.21%	33.00%
RHUS RADICANS	S		20,000.00	10,075.47	0.00%	42.00%	34,166.67	17,843.71	0.00%	42.00%	14,166.67	8,588.65	0.00%	33.00%
RUBUS ALLEGHENIENSIS			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
RUBUS HISPIDUS			15,833.33	11,109.53	0.00%	17.00%	5,069.00	5,000.00	0.00%	8.00%	0.00	0.00	0.00%	0.00%
SASSAFRAS ALBIDUM			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
SMILAX GLAUCA			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
SMILAX ROTUNDFOLIA			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	833.33	833.33	8.33%	8.00%
SMILAX SPP.			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
SOLIDAGO SPP.			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
THELYPTERIS PALUSTRIS			3,333.33	1,880.25	0.00%	25.00%	5,000.00	3,588.70	0.00%	17.00%	8,866.67	4,322.83	0.00%	25.00%
THELYPTERIS SIMULATA			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	833.33	833.33	0.00%	8.00%
VACCINIUM CORYMBOSUM	S	S	282,500.00	49,841.25	6.28%	100.00%	182,500.00	53,216.81	12.60%	82.00%	188,333.33	73,627.17	4.80%	100.00%
VACCINIUM CORYMBOSUM (S)			57,500.00	28,432.45	2.01%	58.00%	114,166.67	75,251.68	20.13%	83.00%	78,333.33	38,980.05	9.68%	83.00%
WOODWARDIA AREOLATA	S		5,000.00	5,000.00	0.00%	8.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
XYRIS SPP.			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%

Table 15. Penn Swamp site fenced area: all vegetation less than 3 meters tall. Average number of stems per hectare, its standard error of the mean, percent of stems browsed, and percent frequency. Columns labeled "PROT" represent statistically significant differences between protection treatments (d = stem density statistical differences, b = percent browsed statistical differences). Columns labeled "TRT" represent slash treatment statistical differences (d and b again represent density and browse). An H in these columns means a highly statistically significant difference (alpha less than .005). S represents a statistically significant difference (alpha is less than .05 but greater than .005). A blank represents no statistically significant difference or not applicable (i.e. zero density or percent browsed). Data were collected during the full survey in summer 1994. (n = 12 for each treatment, total n for the site = 72)

PENN SWAMP
.3 - .6 M
FENCED

NO SLASH																SLASH																DOUBLE SLASH															
SPECIES				MEAN DENSITY		STANDARD ERROR	PERCENT BROWSE	FREQ.	MEAN DENSITY		STANDARD ERROR	PERCENT BROWSE	FREQ.	MEAN DENSITY		STANDARD ERROR	PERCENT BROWSE	FREQ.	MEAN DENSITY		STANDARD ERROR	PERCENT BROWSE	FREQ.																								
				PROT	TRT																																										
				d	b	(#/HA)							(#/HA)											(#/HA)																							
ACER RUBRUM						1,833.33	575.16	0.00%	58.00%					2,833.33	757.12	0.00%	67.00%					2,166.67	757.12	0.00%	58.00%																						
ACER RUBRUM (S)						0.00	0.00	0.00%	0.00%					0.00	0.00	0.00%	0.00%					0.00	0.00	0.00%	0.00%																						
AMELANCHIER SPP						0.00	0.00	0.00%	0.00%					333.33	0.00	0.00%	8.00%					333.33	0.00	0.00%	0.00%																						
ARONIA SPP						0.00	0.00	0.00%	0.00%					0.00	0.00	0.00%	0.00%					166.67	166.67	0.00%	8.00%																						
ARONIA SPP. (S)						0.00	0.00	0.00%	0.00%					0.00	0.00	0.00%	0.00%					0.00	0.00	0.00%	0.00%																						
BETULA POPULIFOLIA						0.00	0.00	0.00%	0.00%					0.00	0.00	0.00%	0.00%					0.00	0.00	0.00%	0.00%																						
CHAMAECYPARIS THYOIDES				H	S	24,166.67	5,311.27	6.15%	92.00%					24,666.67	8,928.45	8.59%	83.00%					7,000.00	2,037.53	9.52%	92.00%																						
CHAMAEDAPHNE CALYCVLATA					S	0.00	0.00	0.00%	0.00%					666.67	666.67	0.00%	8.00%					0.00	0.00	0.00%	0.00%																						
CHAMAEDAPHNE CALYCVLATA (S)						0.00	0.00	0.00%	0.00%					0.00	0.00	0.00%	0.00%					0.00	0.00	0.00%	0.00%																						
CLETHRA ALNIFOLIA					S	0.00	0.00	0.00%	0.00%					8,333.33	3,591.52	0.00%	42.00%					2,500.00	1,305.58	0.00%	33.00%																						
CLETHRA ALNIFOLIA (S)				H		333.33	333.33	0.00%	8.00%					3,666.67	2,496.46	8.33%	25.00%					2,333.33	1,226.80	0.00%	33.00%																						
EPILOBIUM ANGUSTIFOLIUM				H	S	0.00	0.00	0.00%	0.00%					0.00	0.00	0.00%	0.00%					500.00	500.00	0.00%	8.00%																						
EPILOBIUM GLANDULOSUM						0.00	0.00	0.00%	0.00%					0.00	0.00	0.00%	0.00%					0.00	0.00	0.00%	0.00%																						
EUPATORIUM PERFORIATUM						0.00	0.00	0.00%	0.00%					166.67	166.67	0.00%	8.00%					0.00	0.00	0.00%	0.00%																						
GAYLUSSACIA FRONDOSA						3,166.67	967.92	0.00%	67.00%					4,666.67	2,108.19	0.00%	50.00%					5,333.33	2,136.74	0.00%	67.00%																						
GAYLUSSACIA FRONDOSA (S)				H		2,666.67	1,729.13	0.00%	25.00%					6,666.67	2,988.19	0.00%	50.00%					5,666.67	2,805.12	0.00%	50.00%																						
HYPERICUM CANADENSE				H		0.00	0.00	0.00%	0.00%					0.00	0.00	0.00%	0.00%					0.00	0.00	0.00%	0.00%																						
HYPERICUM VIRGINICUM				S		3,666.67	2,660.98	0.00%	17.00%					10,166.67	9,294.70	0.00%	17.00%					166.67	166.67	0.00%	8.00%																						
ILEX GLABRA						0.00	0.00	0.00%	0.00%					0.00	0.00	0.00%	0.00%					0.00	0.00	0.00%	0.00%																						
ILEX VERTICILLATA						333.33	333.33	4.17%	8.00%					500.00	500.00	8.33%	8.00%					0.00	0.00	0.00%	0.00%																						
ITEA VIRGINICA						0.00	0.00	0.00%	0.00%					333.33	333.33	0.00%	8.00%					0.00	0.00	0.00%	0.00%																						
KALMIA ANGUSTIFOLIA						0.00	0.00	0.00%	0.00%					0.00	0.00	0.00%	0.00%					0.00	0.00	0.00%	0.00%																						
KALMIA ANGUSTIFOLIA (S)						0.00	0.00	0.00%	0.00%					0.00	0.00	0.00%	0.00%					0.00	0.00	0.00%	0.00%																						
LEUCOTHOE RACEMOSA						5,333.33	1,974.59	0.00%	67.00%					5,500.00	1,892.97	0.00%	50.00%					9,166.67	2,735.38	0.00%	100.00%																						
LEUCOTHOE RACEMOSA (S)				H	H	11,500.00	6,050.92	0.00%	58.00%					4,000.00	1,477.10	0.00%	50.00%					7,666.67	2,294.04	0.00%	75.00%																						
LUNARIA ALTERNIFOLIA						0.00	0.00	0.00%	0.00%					0.00	0.00	0.00%	0.00%					0.00	0.00	0.00%	0.00%																						
LYONIA LIGUSTINA				S		0.00	0.00	0.00%	0.00%					166.67	166.67	0.00%	8.00%					0.00	0.00	0.00%	0.00%																						
LYONIA LIGUSTINA (S)						0.00	0.00	0.00%	0.00%					1,833.33	998.74	0.00%	33.00%					1,500.00	1,500.00	0.00%	8.00%																						
MAGNOLIA VIRGINIANA						166.67	166.67	0.00%	8.00%					0.00	0.00	0.00%	0.00%					0.00	0.00	0.00%	0.00%																						
NYSSA SYLVATICA				S	S	833.33	457.82	0.00%	25.00%					333.33	224.73	0.00%	17.00%					0.00	0.00	0.00%	0.00%																						
NYSSA SYLVATICA (S)						333.33	333.33	0.00%	8.00%					0.00	0.00	0.00%	0.00%					0.00	0.00	0.00%	0.00%																						
PINUS RIGIDA						0.00	0.00	0.00%	0.00%					0.00	0.00	0.00%	0.00%					0.00	0.00	0.00%	0.00%																						
RHEXIA VIRGINIANA						500.00	358.87	0.00%	17.00%					0.00	0.00	0.00%	0.00%					0.00	0.00	0.00%	0.00%																						
RHODODENDRON VISCOSUM						8,500.00	3,627.55	0.00%	67.00%					4,833.33	2,152.64	0.00%	58.00%					6,500.00	1,183.86	0.00%	100.00%																						
RHODODENDRON VISCOSUM (S)						6,833.33	2,701.94	1.19%	58.00%					9,833.33	4,529.09	0.00%	50.00%					6,833.33	3,029.73	0.76%	50.00%																						
RHUS RADICANS						1,000.00	834.85	0.00%	17.00%					333.33	224.73	0.00%	17.00%					0.00	0.00	0.00%	0.00%																						
RUBUS ALLEGHENIENSIS						0.00	0.00	0.00%	0.00%					0.00	0.00	0.00%	0.00%					0.00	0.00	0.00%	0.00%																						
RUBUS HISPIDUS						0.00	0.00	0.00%	0.00%					0.00	0.00	0.00%	0.00%					0.00	0.00	0.00%	0.00%																						
SASSAFRAS ALBIDUM						0.00	0.00	0.00%	0.00%					166.67	166.67	0.00%	8.00%					0.00	0.00	0.00%	0.00%																						
SMILAX ROTUNDIFOLIA				S	S	166.67	166.67	0.00%	8.00%					0.00	0.00	0.00%	0.00%					500.00	261.12	0.00%	25.00%																						
SMILAX SPP						0.00	0.00	0.00%	0.00%					0.00	0.00	0.00%	0.00%					0.00	0.00	0.00%	0.00%																						
SOLIDAGO SPP						0.00	0.00	0.00%	0.00%					0.00	0.00	0.00%	0.00%					0.00	0.00	0.00%	0.00%																						
THELYPTERIS PALUSTRIS						666.67	376.05	0.00%	25.00%					166.67	166.67	0.00%	8.00%					1,166.67	672.32	0.00%	33.00%																						
THELYPTERIS SIMULATA						0.00	0.00	0.00%	0.00%					0.00	0.00	0.00%	0.00%					166.67	166.67	0.00%	8.00%																						
VACCINIUM CORYMBOSUM						13,500.00	3,220.44	11.67%	92.00%					16,500.00	3,220.44	0.98%	92.00%					9,333.33	2,035.05	6.25%	92.00%																						
VACCINIUM CORYMBOSUM (S)				H		28,666.67	7,415.52	1.23%	83.00%					22,666.67	4,974.68	1.66%	92.00%					29,833.33	9,050.22	1.57%	92.00%																						
XYRIS SPP						0.00	0.00	0.00%	0.00%					0.00	0.00	0.00%	0.00%					0.00	0.00	0.00%	0.00%																						

Table 16. Penn Swamp site fenced area: all vegetation between .3 and .6 meters tall. Average number of stems per hectare, its standard error of the mean, percent of stems browsed and percent frequency. Columns labeled "PROT" represent statistically significant differences between protection treatments (d = stem density statistical differences, b = percent browsed statistical differences). Columns labeled "TRT" represent slash treatment statistical differences (d and b again represent density and browse). An H in these columns means a highly statistically significant difference (alpha less than .005). An S represents a statistically significant difference (alpha is less than .05 but greater than .005). A blank in these columns represents no statistically significant difference or not applicable (i.e. zero density or percent browsed). Data were collected during the full survey in summer 1994. (n = 12 for each treatment within the fence, total n for the site = 72)

**PENN SWAMP
> 1.3 M
FENCE**

SPECIES	PROT d	TRT d	NO SLASH			SLASH			DOUBLE SLASH		
			MEAN DENSITY (#/HA)	STANDARD ERROR	FREQ.	MEAN DENSITY (#/HA)	STANDARD ERROR	FREQ.	MEAN DENSITY (#/HA)	STANDARD ERROR	FREQ.
ACER RUBRUM			0.00	0.00	0.00%	500.00	358.87	17.00%	0.00	0.00	0.00%
ACER RUBRUM (S)			0.00	0.00	0.00%	500.00	500.00	8.00%	1,666.67	1,123.67	17.00%
ARONIA SPP.			0.00	0.00	0.00%	0.00	0.00	0.00%	500.00	358.87	17.00%
CHAMAECYPARIS THYOIDES	H		10,000.00	2,774.34	75.00%	12,500.00	2,861.71	92.00%	11,333.33	2,064.61	100.00%
CLETHRA ALNIFOLIA (S)			166.67	166.67	8.00%	0.00	0.00	0.00%	0.00	0.00	0.00%
EPILOBIUM ANGUSTIFOLIUM			0.00	0.00	0.00%	0.00	0.00	0.00%	0.00	0.00	0.00%
GAYLUSSACIA FRONDOSA (S)			0.00	0.00	0.00%	0.00	0.00	0.00%	333.33	333.33	8.00%
LEUCOTHOE RACEMOSA			166.67	166.67	8.00%	0.00	0.00	0.00%	2,000.00	1,435.48	17.00%
LEUCOTHOE RACEMOSA (S)			2,833.33	1,799.97	25.00%	1,166.67	672.32	25.00%	2,833.33	1,866.10	33.00%
LYONIA LIGUSTINA (S)			0.00	0.00	0.00%	0.00	0.00	0.00%	0.00	0.00	0.00%
MAGNOLIA VIRGINIANA			166.67	166.67	8.00%	0.00	0.00	0.00%	166.67	166.67	8.00%
NYSSA SYLVATICA			0.00	0.00	0.00%	333.33	333.33	8.00%	0.00	0.00	0.00%
NYSSA SYLVATICA (S)			166.67	166.67	8.00%	333.33	333.33	8.00%	0.00	0.00	0.00%
RHODODENDRON VISCOSUM	S		333.33	224.73	17.00%	0.00	0.00	0.00%	333.33	224.73	17.00%
RHODODENDRON VISCOSUM (S)			0.00	0.00	0.00%	0.00	0.00	0.00%	833.33	672.32	17.00%
SMILAX ROTUNDIFOLIA			0.00	0.00	0.00%	0.00	0.00	0.00%	500.00	500.00	8.00%
VACCINIUM CORYMBOSUM			500.00	261.12	25.00%	333.33	224.73	17.00%	0.00	0.00	0.00%
VACCINIUM CORYMBOSUM (S)	S		1,000.00	834.85	17.00%	3,333.33	1,693.72	42.00%	2,500.00	1,233.99	42.00%

Table 18. Penn Swamp site fenced area: all vegetation greater than 1.3 meters tall. Average number of stems per hectare, its standard error of the mean and percent frequency. The column labeled "PROT" represent statistically significant differences between protection treatments (d = stem density statistical differences). The column labeled "TRT" represents slash treatment statistical differences (d again represents stem density). An H in these columns means a highly statistically significant difference (alpha less than .005). An S represents a statistically significant difference (alpha is less than .05 but greater than .005) A blank in these columns represents no statistically significant difference or not applicable (i.e. zero density). Data were collected during the full survey in summer 1994. (n = 12 for each treatment inside the fence, total n for the site = 72).

PENN SWAMP
<.3 M
NO FENCE

SPECIES	NO SLASH						SLASH						DOUBLE SLASH					
	PROT		TRT		MEAN DENSITY (#/HA)	STANDARD ERROR	PERCENT BROWSE	FREQ.	MEAN DENSITY (#/HA)	STANDARD ERROR	PERCENT BROWSE	FREQ.	MEAN DENSITY (#/HA)	STANDARD ERROR	PERCENT BROWSE	FREQ.	MEAN DENSITY (#/HA)	STANDARD ERROR
	d	b	d	b														
ACER RUBRUM	S		H		90,833.33	22,544.85	8.33%	100.00%	78,333.33	18,862.88	16.13%	100.00%	44,166.67	13,509.72	16.03%	92.00%	92.00%	0.00%
ANAPHALIS MARGARITACEA					0.00	0.00	0.00%	0.00%	1,666.67	1,666.67	0.00%	8.00%	0.00	0.00	0.00%	0.00%	0.00%	0.00%
ARONIA SPP.	S	S			20,833.33	16,808.11	2.50%	17.00%	3,333.33	2,247.33	8.33%	17.00%	6,666.67	6,666.67	1.04%	8.00%	0.00%	0.00%
ASCYRUM HYPERICOIDES					43,333.33	43,333.33	0.00%	8.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00%	0.00%
BETULA POPULIFOLIA					833.33	833.33	0.00%	8.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00%	0.00%
CHAMAECYPARIS THYOIDES	S				38,333.33	6,509.60	28.91%	100.00%	60,833.33	11,511.41	28.40%	100.00%	35,000.00	12,154.31	19.13%	58.00%	0.00%	0.00%
CHAMAEDAPHNE CALYCLATA					0.00	0.00	0.00%	0.00%	3,333.33	3,333.33	0.00%	8.00%	1,666.67	1,666.67	0.00%	8.00%	0.00%	0.00%
CHAMAEDAPHNE CALYCLATA (S)					0.00	0.00	0.00%	0.00%	17,500.00	17,500.00	0.79%	8.00%	1,666.67	1,666.67	0.00%	8.00%	0.00%	0.00%
CLETHRA ALNIFOLIA	S				2,500.00	1,305.58	0.00%	25.00%	6,666.67	5,817.08	2.38%	17.00%	0.00	0.00	0.00%	0.00%	0.00%	0.00%
CLETHRA ALNIFOLIA (S)					0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00%	0.00%
DEWSTAEEDIA PUNCTILOBULA					833.33	833.33	0.00%	8.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00%	0.00%
DROSERIA INTERMEDIA			S		3,333.33	1,880.25	0.00%	25.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00%	0.00%
DROSERIA ROTUNDIFOLIA	S				12,500.00	4,286.17	0.00%	58.00%	14,166.67	8,829.90	0.00%	33.00%	9,166.67	7,432.35	0.00%	25.00%	0.00%	0.00%
EPILOBIUM ANGUSTIFOLIUM	H	H			155,000.00	43,909.34	7.74%	82.00%	321,666.67	116,617.96	15.93%	92.00%	309,166.67	76,390.73	8.88%	100.00%	0.00%	0.00%
EPILOBIUM GLANDULOSUM	S				0.00	0.00	0.00%	0.00%	5,000.00	3,988.70	4.17%	17.00%	3,333.33	2,562.35	0.00%	17.00%	0.00%	0.00%
ERIGERON CANADENSIS					1,666.67	1,666.67	0.00%	8.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00%	0.00%
EUPATORIUM PERFORIATUM					3,333.33	1,880.25	8.33%	25.00%	833.33	833.33	0.00%	8.00%	0.00	0.00	0.00%	0.00%	0.00%	0.00%
FERNIS SPP.					4,166.67	2,289.08	0.00%	25.00%	5,000.00	2,811.16	0.00%	33.00%	833.33	833.33	0.00%	8.00%	0.00%	0.00%
GALLUTHERIA PROCLUMENS					10,000.00	10,000.00	0.00%	8.00%	15,833.33	15,833.33	0.00%	8.00%	3,333.33	3,333.33	0.00%	8.00%	0.00%	0.00%
GAYLUSSACIA FRONDOSA	H				33,333.33	10,175.23	1.18%	67.00%	35,000.00	9,414.69	0.69%	92.00%	24,166.67	10,194.53	1.88%	58.00%	0.00%	0.00%
GAYLUSSACIA FRONDOSA (S)	H				55,000.00	26,443.19	2.50%	75.00%	15,000.00	7,537.78	5.56%	33.00%	10,000.00	4,605.86	0.00%	42.00%	0.00%	0.00%
GAYLUSSACIA SPP.					0.00	0.00	0.00%	0.00%	1,666.67	1,666.67	0.00%	8.00%	0.00	0.00	0.00%	0.00%	0.00%	0.00%
HYPERICUM CANADENSE	H				125,000.00	89,903.15	0.00%	67.00%	130,833.33	127,222.42	0.00%	25.00%	22,500.00	15,330.95	0.00%	25.00%	0.00%	0.00%
HYPERICUM VIRGINICUM					1,666.67	1,666.67	0.00%	8.00%	833.33	833.33	0.00%	8.00%	0.00	0.00	0.00%	0.00%	0.00%	0.00%
ILEX GLABRA					0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	833.33	833.33	8.33%	8.00%	0.00%	0.00%
ILEX VERTICILLATA					833.33	833.33	0.00%	8.00%	833.33	833.33	8.33%	8.00%	833.33	833.33	0.00%	8.00%	0.00%	0.00%
KALMIA ANGUSTIFOLIA	S				9,166.67	8,299.17	1.67%	17.00%	2,500.00	2,500.00	0.00%	8.00%	11,666.67	11,666.67	0.00%	8.00%	0.00%	0.00%
KALMIA ANGUSTIFOLIA (S)					5,000.00	5,000.00	0.00%	8.00%	0.00	0.00	0.00%	0.00%	2,500.00	2,500.00	0.00%	8.00%	0.00%	0.00%
LEUCOTHOE RACEMOSA	S				46,966.67	19,936.77	2.36%	67.00%	35,000.00	12,880.57	9.38%	75.00%	24,166.67	8,020.65	3.47%	58.00%	0.00%	0.00%
LEUCOTHOE RACEMOSA (S)					37,500.00	12,799.44	6.02%	50.00%	38,333.33	14,079.50	6.30%	58.00%	10,833.33	5,833.33	1.67%	25.00%	0.00%	0.00%
LYONIA LIGUSTINA					13,333.33	7,316.79	0.00%	50.00%	5,000.00	2,886.75	0.00%	25.00%	7,500.00	3,918.75	0.00%	25.00%	0.00%	0.00%
LYONIA LIGUSTINA (S)					5,000.00	5,000.00	0.00%	8.00%	833.33	833.33	0.00%	8.00%	10,000.00	10,000.00	0.00%	8.00%	0.00%	0.00%
MAGNOLIA VIRGINIANA					0.00	0.00	0.00%	0.00%	2,500.00	1,794.35	0.00%	17.00%	833.33	833.33	8.33%	8.00%	0.00%	0.00%
MITCHELLA REPENS					20,833.33	14,273.22	0.00%	25.00%	17,500.00	11,942.10	0.00%	17.00%	92,500.00	90,688.65	0.00%	25.00%	0.00%	0.00%
MUSHROOM SPP.					4,166.67	2,289.08	0.00%	25.00%	4,166.67	2,559.75	0.00%	41.00%	7,500.00	5,789.88	3.33%	8.00%	0.00%	0.00%
NYSSA SYLVATICA	S	S			5,833.33	4,344.68	9.17%	17.00%	5,833.33	3,579.90	16.67%	25.00%	4,583.34	3,321.94	11.86%	41.00%	0.00%	0.00%
NYSSA SYLVATICA (S)					2,500.00	2,500.00	0.00%	8.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00%	0.00%
PARTHENOCISSUS QUINQUEFOLIA					0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00%	0.00%
PINUS RIGIDA					2,500.00	1,305.58	0.00%	25.00%	2,500.00	1,305.58	0.00%	25.00%	833.33	833.33	0.00%	8.00%	0.00%	0.00%
RHEXIA VIRGINICA					0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00%	0.00%
RHODODENDRON VISCOSUM					70,000.00	27,024.12	19.96%	67.00%	42,500.00	16,857.19	15.56%	58.00%	40,000.00	25,375.96	7.40%	42.00%	0.00%	0.00%
RHODODENDRON VISCOSUM (S)					10,000.00	5,773.50	8.33%	25.00%	0.00	0.00	0.00%	0.00%	4,166.67	2,875.80	8.94%	17.00%	0.00%	0.00%
RHUS RADICANS	S				8,333.33	7,470.48	0.00%	17.00%	4,166.65	4,166.65	0.00%	16.00%	15,000.00	14,115.33	0.00%	17.00%	0.00%	0.00%
RUBUS ALLEGHENIENSIS					0.00	0.00	0.00%	0.00%	4,166.67	4,166.67	0.00%	8.00%	0.00	0.00	0.00%	0.00%	0.00%	0.00%
RUBUS HISPIDUS			S		6,250.00	6,250.00	0.00%	16.00%	26,666.67	11,899.09	0.00%	33.00%	0.00	0.00	0.00%	0.00%	0.00%	0.00%
SASSAFRAS ALBIDUM					0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	833.33	833.33	0.00%	8.00%	0.00%	0.00%
SMILAX GLAUCA					0.00	0.00	0.00%	0.00%	5,000.00	3,371.00	0.00%	17.00%	0.00	0.00	0.00%	0.00%	0.00%	0.00%
SMILAX ROTUNDIFOLIA					2,500.00	1,305.58	8.33%	25.00%	833.33	833.33	8.33%	8.00%	3,333.33	3,333.33	0.00%	8.00%	0.00%	0.00%
SMILAX SPP.					0.00	0.00	0.00%	0.00%	1,666.67	1,666.67	0.00%	8.00%	3,333.33	3,333.33	6.25%	8.00%	0.00%	0.00%
SOLIDAGO SPP.					0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	2,500.00	1,794.35	0.00%	17.00%	0.00%	0.00%
THELYPTERIS PALUSTRIS					3,333.33	1,880.25	0.00%	25.00%	6,666.67	3,760.51	0.00%	25.00%	10,000.00	3,266.69	0.00%	58.00%	0.00%	0.00%
THELYPTERIS SIMULAT					1,666.67	1,123.67	0.00%	17.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00%	0.00%
VACCINIUM CORYMBOSUM	S				207,500.00	48,619.19	2.87%	100.00%	180,000.00	26,796.91	2.61%	100.00%	117,500.00	30,229.55	1.88%	92.00%	0.00%	0.00%
VACCINIUM CORYMBOSUM (S)	S				115,000.00	22,207.70	11.58%	92.00%	123,333.33	36,954.79	10.45%	92.00%	68,333.33	18,250.50	13.47%	75.00%	0.00%	0.00%
WOODWARDIA AREOLATA	S				833.33	833.33	0.00%	8.00%	3,333.33	1,421.34	0.00%	33.00%	3,333.33	1,880.25	0.00%	25.00%	0.00%	0.00%
XYRIS SPP.					5,333.33	4,344.68	0.00%	17.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00%	0.00%

Table 19. Penn Swamp site unfenced area: all vegetation less than .3 meters tall. Average number of stems per hectare, standard error of the mean, percent of stems browsed and percent frequency. Columns labeled "PROT" represent statistically significant differences between protection treatments (d = stem density statistical differences, b = percent browse statistical differences). Columns labeled "TRT" represent slash treatment statistical differences (d and b again represent density and browse). H in these columns means a highly statistically significant difference (alpha less than .005). S represents a statistically significant difference (alpha is less than .05 but greater than .005). A blank represents no statistically significant difference or not applicable (i.e. zero density or percent browsed). Data were collected during the full survey in summer 1994. (n = 12 for each treatment outside the fence, total n for the site = 72)

PENN SWAMP
.3 - .6 M
NO FENCE

SPECIES	NO SLASH				SLASH				DOUBLE SLASH			
	PROT		TRT		PROT		TRT		PROT		TRT	
	d	b	d	b	d	b	d	b	d	b	d	b
		MEAN DENSITY (#/HA)		STANDARD ERROR	PERCENT BROWSE	FREQ.		MEAN DENSITY (#/HA)		STANDARD ERROR	PERCENT BROWSE	FREQ.
ACER RUBRUM		2,333.33		689.02	0.00%	58.00%		3,166.67		1,113.51	12.50%	67.00%
ACER RUBRUM (S)		0.00		0.00	0.00%	0.00%		0.00		0.00	0.00%	0.00%
AMELANCHIER SPP.		0.00		0.00	0.00%	0.00%		0.00		0.00	0.00%	0.00%
ARONIA SPP.		1,000.00		717.74	0.00%	17.00%		166.67		166.67	0.00%	8.00%
ARONIA SPP. (S)		166.67		166.67	0.00%	8.00%		0.00		0.00	0.00%	0.00%
BETULA POPULIFOLIA		166.67		166.67	0.00%	8.00%		0.00		0.00	0.00%	0.00%
CHAMAECYPARIS THYOIDES	H	1,500.00	S	557.32	0.00%	50.00%		1,000.00		460.57	8.33%	33.00%
CHAMAEDAPHNE CALYCVLATA		0.00		0.00	0.00%	0.00%		2,000.00		1,669.69	0.00%	17.00%
CHAMAEDAPHNE CALYCVLATA (S)		0.00		0.00	0.00%	0.00%		13,000.00		13,000.00	0.00%	8.00%
CLETHRA ALNIFOLIA		333.33		333.33	0.00%	8.00%		1,000.00		674.20	0.00%	17.00%
CLETHRA ALNIFOLIA (S)	H	0.00		0.00	0.00%	0.00%		0.00		0.00	0.00%	0.00%
EPILOBIUM ANGUSTIFOLIUM	H	59,333.33	S	28,752.16	122.00%	83.00%		173,500.00		107,493.52	0.26%	75.00%
EPILOBIUM GLANDULOSUM		0.00		0.00	0.00%	0.00%		0.00		1,333.33	0.00%	25.00%
EUPATORIUM PERFORIATUM		0.00		0.00	0.00%	0.00%		0.00		0.00	0.00%	0.00%
GAYLUSSACIA FRONDOSA		11,666.67		3,566.11	167.00%	75.00%		10,166.67		2,833.33	0.00%	92.00%
GAYLUSSACIA FRONDOSA (S)	H	39,500.00	S	9,358.60	19.00%	83.00%		18,000.00		3,821.79	0.36%	92.00%
HYPERICUM CANADENSE	H	2,166.67	S	796.14	0.00%	50.00%		2,166.67		998.74	0.00%	42.00%
HYPERICUM VIRGINICUM	S	0.00		0.00	0.00%	0.00%		0.00		0.00	0.00%	0.00%
ILEX GLABRA		0.00		0.00	0.00%	0.00%		0.00		0.00	0.00%	0.00%
ILEX VERTICILLATA		0.00		0.00	0.00%	0.00%		0.00		0.00	0.00%	0.00%
ITEA VIRGINICA		0.00		0.00	0.00%	0.00%		0.00		0.00	0.00%	0.00%
KALMIA ANGUSTIFOLIA		166.67		166.67	0.00%	8.00%		0.00		0.00	0.00%	0.00%
KALMIA ANGUSTIFOLIA (S)		666.67		666.67	0.00%	8.00%		500.00		500.00	0.00%	8.00%
LEUCOTHOE RACEMOSA		11,666.67		3,346.94	0.00%	83.00%		8,500.00		2,606.81	0.00%	83.00%
LEUCOTHOE RACEMOSA (S)	H	45,166.67	S	8,729.81	134.00%	92.00%		28,166.67		7,545.65	1.79%	92.00%
LUNARIA ALTERNIFOLIA		0.00		0.00	0.00%	0.00%		500.00		358.67	0.00%	17.00%
LYONIA LIGUSTINA	S	666.67		512.47	0.00%	17.00%		333.33		333.33	0.00%	8.00%
LYONIA LIGUSTINA (S)		2,166.67		1,336.17	417.00%	33.00%		500.00		500.00	0.00%	8.00%
MAGNOLIA VIRGINIANA		0.00		0.00	0.00%	0.00%		0.00		0.00	0.00%	0.00%
NYSSA SYLVATICA	S	1,833.33	S	1,057.68	139.00%	33.00%		1,500.00		657.13	11.11%	42.00%
NYSSA SYLVATICA (S)		0.00		0.00	0.00%	0.00%		0.00		0.00	0.00%	0.00%
PINUS RIGIDA		166.67		166.67	0.00%	8.00%		166.67		166.67	0.00%	8.00%
RHEXIA VIRGINIANA		0.00		0.00	0.00%	0.00%		0.00		0.00	0.00%	0.00%
RHODODENDRON VISCOSUM		2,833.33		1,028.63	556.00%	58.00%		2,866.67		828.78	0.00%	58.00%
RHODODENDRON VISCOSUM (S)		0.00		0.00	0.00%	0.00%		0.00		0.00	0.00%	0.00%
RHUS RADICANS		0.00		0.00	0.00%	0.00%		0.00		0.00	0.00%	0.00%
RUBUS ALLEGHENIENSIS		0.00		0.00	0.00%	0.00%		3,333.33		3,333.33	0.00%	8.00%
RUBUS HISPIDUS		500.00		358.87	0.00%	17.00%		166.67		166.67	0.00%	8.00%
SASSAFRAS ALBIDUM		0.00		0.00	0.00%	0.00%		0.00		0.00	0.00%	0.00%
SMILAX ROTUNDIFOLIA	S	1,833.33		1,113.51	1833.00%	25.00%		333.33		224.73	8.33%	17.00%
SMILAX SPP.		166.67		166.67	0.00%	8.00%		0.00		0.00	0.00%	0.00%
SOLIDAGO SPP.		500.00		500.00	0.00%	8.00%		0.00		0.00	0.00%	0.00%
THELYPTERIS PALUSTRIS		500.00		358.87	0.00%	17.00%		333.33		224.73	0.00%	17.00%
THELYPTERIS SIMULATA		166.67		166.67	0.00%	8.00%		0.00		0.00	0.00%	0.00%
VACCINIUM CORYMBOSUM		15,833.33		3,450.59	56.00%	92.00%		17,666.67		3,975.94	2.15%	92.00%
VACCINIUM CORYMBOSUM (S)	H	65,333.33		13,360.58	178.00%	100.00%		84,166.67		14,427.37	3.69%	100.00%
XYRIS SPP.		4,166.67		3,988.30	0.00%	17.00%		0.00		0.00	0.00%	0.00%

Table 20. Penn Swamp site unfenced area: all vegetation between .3 and .6 meters tall. Average number of stems per hectare, standard error of the mean, percent of stems browsed, and percent frequency. Columns labeled "PROT" represent statistically significant differences between protection treatments (d = stem density statistical differences, b = percent browsed statistical differences). Columns labeled "TRT" represent slash treatment statistical differences (d and b again represent density and browse). H in these columns means a highly statistically significant difference (alpha less than .005). An S represents a statistically significant difference (alpha less than .05 but greater than .005). A blank represents no statistically significant difference or not applicable (i.e. zero density or percent browsed). Data were collected during the full survey in summer 1994. (n = 12 for each treatment outside the fence, total n for the site = 72)

PENN SWAMP
.5 - 1.3 M
NO FENCE

SPECIES	NO SLASH								SLASH				DOUBLE SLASH			
	PROT	TRT	D	B	MEAN DENSITY (#/HA)	STANDARD ERROR	PERCENT BROWSE	FREQ.	MEAN DENSITY (#/HA)	STANDARD ERROR	PERCENT BROWSE	FREQ.	MEAN DENSITY (#/HA)	STANDARD ERROR	PERCENT BROWSE	FREQ.
ACER RUBRUM	H				0.00	0.00	0.00%	0.00%	166.67	166.67	0.00%	8.00%	0.00	0.00	0.00%	0.00%
ACER RUBRUM (S)	S				0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
AMELANCHIER SPP.					0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
ARONIA SPP.					0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
BETULA POPULIFOLIA					166.67	166.67	0.00%	8.00%	166.67	166.67	0.00%	8.00%	0.00	0.00	0.00%	0.00%
CHAMAECYPARIS THYOIDES	H				166.67	166.67	8.33%	8.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
CHAMAEDAPHNE CALYCVLATA					0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
CLETHRA ALNIFOLIA	H				0.00	0.00	0.00%	0.00%	166.67	166.67	0.00%	8.00%	0.00	0.00	0.00%	0.00%
CLETHRA ALNIFOLIA (S)	H				0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
EPILOBIUM ANGUSTIFOLIUM	H				18,333.33	13,938.90	0.00%	58.00%	14,333.33	8,193.02	0.00%	67.00%	23,666.67	12,321.04	0.00%	58.00%
GAYLUSSACIA FRONDOSA					3,666.67	2,086.51	0.00%	58.00%	3,000.00	1,167.75	0.00%	50.00%	666.67	449.47	0.00%	17.00%
GAYLUSSACIA FRONDOSA (S)	S	S			37,000.00	16,867.58	0.00%	83.00%	11,500.00	2,851.10	0.00%	100.00%	7,500.00	2,852.90	0.00%	87.00%
ILEX VERTICILLATA	S				0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
ITEA VIRGINICA					0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
ITEA VIRGINICA (S)					0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
KALMIA ANGUSTIFOLIA					166.67	166.67	0.00%	8.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
KALMIA ANGUSTIFOLIA (S)					0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	333.33	333.33	0.00%	8.00%
LEUCOTHOE RACEMOSA					3,666.67	846.86	0.00%	75.00%	1,166.67	518.81	0.00%	42.00%	2,000.00	738.55	0.00%	50.00%
LEUCOTHOE RACEMOSA (S)					26,833.33	6,283.13	1.46%	92.00%	18,666.67	5,966.24	0.00%	83.00%	10,833.33	3,801.58	0.00%	58.00%
LUDWIGIA ALTERNIFOLIA					0.00	0.00	0.00%	0.00%	166.67	166.67	0.00%	8.00%	0.00	0.00	0.00%	0.00%
LYONIA LIGUSTINA					0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	166.67	166.67	0.00%	8.00%
LYONIA LIGUSTINA (S)					0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	2,000.00	2,000.00	0.00%	8.00%
MAGNOLIA VIRGINIANA					0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
NYSSA SYLVATICA	S				666.67	284.27	0.00%	33.00%	166.67	166.67	0.00%	8.00%	166.67	166.67	0.00%	8.00%
NYSSA SYLVATICA (S)					0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
PARTHENOCISSUS QUINQUEFOLIA					0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
PINUS RIGIDA					333.33	224.73	0.00%	17.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
RHODODENDRON VISCOSUM	H				333.33	224.73	0.00%	17.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
RHODODENDRON VISCOSUM (S)	H				0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	166.67	166.67	0.00%	8.00%
RHUS RADICANS					0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
RUBUS ALLEGHENIENSIS					0.00	0.00	0.00%	0.00%	2,166.67	2,166.67	0.00%	8.00%	0.00	0.00	0.00%	0.00%
SASSAFRAS ALBIDUM					0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
SMILAX ROTUNDIFOLIA					1,166.67	715.98	2.08%	25.00%	0.00	0.00	0.00%	0.00%	666.67	666.67	0.00%	8.00%
SMILAX GLAUCA					0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	166.67	166.67	0.00%	8.00%
SOLIDAGO SPP.					500.00	500.00	0.00%	8.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
THELYPTERIS PALUSTRIS					0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	166.67	166.67	0.00%	8.00%
VACCINIUM CORYMBOSUM					5,000.00	1,547.24	0.00%	75.00%	4,333.33	979.59	0.00%	83.00%	1,500.00	609.27	0.00%	42.00%
VACCINIUM CORYMBOSUM (S)	S				58,166.67	18,408.59	0.00%	100.00%	88,666.67	15,414.15	0.31%	100.00%	40,666.67	9,093.23	0.00%	92.00%

Table 21. Penn Swamp site unfenced area: all vegetation between .5 and 1.3 meters tall. Average number of stems per hectare, its standard error of the mean, percent of stems browsed and percent frequency. Columns labeled "PROT" represent statistically significant differences between protection treatments (d = stem density statistical differences, b = percent browse statistical differences). Columns labeled "TRT" represent slash treatment statistical difference (d and b again represent density and browse). An H in these columns means a highly statistically significant difference (alpha less than .005). An S represents a statistically significant difference (alpha is less than .05 but greater than .005). A blank represents no statistically significant difference or not applicable (i.e. zero density or percent browsed). Data were collected during the full survey in summer 1994. (n = 12 for each treatment within the fence, total n for the site = 72)

**PENN SWAMP
> 1.3 M
NO FENCE**

SPECIES	NO SLASH			SLASH			DOUBLE SLASH		
	MEAN	STANDARD	FREQ.	MEAN	STANDARD	FREQ.	MEAN	STANDARD	FREQ.
	DENSITY	ERROR		DENSITY	ERROR		DENSITY	ERROR	
	PROT	TRT							
	d	d							
ACER RUBRUM			0.00		0.00	0.00%		0.00	0.00%
ACER RUBRUM (S)			166.67		166.67	8.00%		0.00	0.00%
ARONIA SPP.			0.00		0.00	0.00%		0.00	0.00%
CHAMAECYPARIS THYOIDES	H		0.00		0.00	0.00%		0.00	0.00%
CLETHERA ALNIFOLIA (S)			0.00		0.00	0.00%		0.00	0.00%
EPILOBIUM ANGUSTIFOLIUM			500.00		500.00	8.00%		0.00	0.00%
GAYLUSSACIA FRONDOSA (S)			3,166.67		2,989.46	17.00%		500.00	8.00%
LEUCOTHOE RACEMOSA			0.00		0.00	0.00%		0.00	0.00%
LEUCOTHOE RACEMOSA (S)			2,500.00		1,971.39	33.00%		666.67	25.00%
LYONIA LIGUSTINA (S)			0.00		0.00	0.00%		0.00	0.00%
MAGNOLIA VIRGINIANA			0.00		0.00	0.00%		0.00	0.00%
NYSSA SYLVATICA			0.00		0.00	0.00%		0.00	0.00%
NYSSA SYLVATICA (S)			0.00		0.00	0.00%		0.00	0.00%
RHODODENDRON VISCOSUM	S		0.00		0.00	0.00%		0.00	0.00%
RHODODENDRON VISCOSUM (S)			0.00		0.00	0.00%		0.00	0.00%
SMILAX ROTUNDIFOLIA			333.33		224.73	17.00%		166.67	8.00%
VACCINIUM CORYMBOSUM			333.33		224.73	17.00%		0.00	0.00%
VACCINIUM CORYMBOSUM (S)	S		3,333.33		964.00	75.00%		4,666.67	1,563.47

Table 22. Penn Swamp site unfenced area: all vegetation greater than 1.3 meters tall. Average number of stems per hectare, its standard error of the mean and percent frequency. The column labeled "PROT" represents statistically significant differences between protection treatments (d = stem density statistical differences). The column labeled "TRT" represents slash treatment statistical differences (d again represents stem density). An H in these columns means a highly statistically significant difference (alpha less than .005). An S represents a statistically significant difference (alpha is less than .05 but greater than .005). A blank represents no statistically significant difference or not applicable (i.e. zero density). Data were collected during the full survey in summer 1994. (n = 12 for each treatment outside the fence, total n for the site = 72).

**BASS RIVER
DOWNED DEBRIS**

FORESTER PLOT A			FORESTER PLOT B			FORESTER PLOT C		
LAYER	MEAN	STANDARD ERROR	LAYER	MEAN	STANDARD ERROR	LAYER	MEAN	STANDARD ERROR
FIRST LAYER	2.24%	1.51	FIRST LAYER	0.73%	0.52	FIRST LAYER	1.33%	0.59
SECOND LAYER	0.00%	0.00	SECOND LAYER	0.56%	0.46	SECOND LAYER	0.00%	0.00
THIRD LAYER	0.00%	0.00	THIRD LAYER	0.00%	0.00	THIRD LAYER	0.00%	0.00
NEW FORESTER CONTROL			NEW SEEDED PLOT					
LAYER	MEAN	STANDARD ERROR	LAYER	MEAN	STANDARD ERROR	LAYER	MEAN	STANDARD ERROR
FIRST LAYER	1.04%	0.51				FIRST LAYER	1.65%	0.90
SECOND LAYER	0.04%	0.04				SECOND LAYER	0.14%	0.10
THIRD LAYER	0.00%	0.00				THIRD LAYER	0.08%	0.08

Table 23. Bass River site downed debris. Average percent cover and standard error of the mean are presented by layer and treatment. The first layer is the closest debris to the ground, the second layer (i.e. dead branches) is found over the first layer, the third layer is over the second layer, etc. Data were collected during the full survey in the summer of 1994. (n = 9 for each treatment forester plot A, B, C and new control, n = 20 for new seeded treatment. A = original forester plot seeded 4/16/91, B = original forester control, C = forester plot seeded 1/23/91)

**BASS RIVER
GROUND COVERAGES**

FORESTER PLOT A			FORESTER PLOT B			FORESTER PLOT C		
LAYER	MEAN	STANDARD ERROR	LAYER	MEAN	STANDARD ERROR	LAYER	MEAN	STANDARD ERROR
GRASS	0.56%	0.56	GRASS	3.56%	3.31	GRASS	0.11%	0.11
HUMMOCK	13.33%	8.98	HUMMOCK	0.00%	0.00	HUMMOCK	0.00%	0.00
LITTER	0.00%	0.00	LITTER	1.44%	1.12	LITTER	0.44%	0.44
LOG	0.00%	0.00	LOG	0.00%	0.00	LOG	0.33%	0.33
MOSS	0.00%	0.00	MOSS	2.22%	2.22	MOSS	0.00%	0.00
SOIL	0.00%	0.00	SOIL	18.89%	7.76	SOIL	0.56%	0.56
SPHAGNUM	4.44%	3.38	SPHAGNUM	10.11%	4.46	SPHAGNUM	35.56%	15.19
STUMP	4.44%	4.44	STUMP	8.33%	5.14	STUMP	0.22%	0.22
WATER	43.89%	15.22	WATER	22.11%	13.27	WATER	18.33%	12.30
NEW FORESTER CONTROL			NEW SEEDED PLOT					
LAYER	MEAN	STANDARD ERROR	LAYER	MEAN	STANDARD ERROR	LAYER	MEAN	STANDARD ERROR
GRASS	21.44%	9.82				GRASS	6.90%	2.80
HUMMOCK	0.00%	0.00				HUMMOCK	0.00%	0.00
LITTER	4.67%	2.23				LITTER	3.00%	1.17
LOG	0.00%	0.00				LOG	1.50%	1.03
MOSS	0.56%	0.56				MOSS	0.00%	0.00
SOIL	7.78%	5.41				SOIL	15.35%	5.76
SPHAGNUM	10.00%	8.16				SPHAGNUM	6.00%	3.26
STUMP	0.00%	0.00				STUMP	1.50%	1.09
WATER	22.22%	10.07				WATER	5.75%	3.58

Table 24. Bass River site percent ground coverages. Average percent cover and standard error of the mean are presented by layer category and treatment. Data were collected during the full survey in summer 1994. (n = 9 for each treatment forester plot A, B, C, and new control, n = 20 for new seeded treatment. A = original forester plot seeded 4/16/91, B = original forester control, C = forester plot seeded 1/23/91).

BASS RIVER
< .3 M

SPECIES	FORESTER PLOT A				FORESTER PLOT B				FORESTER PLOT C			
	MEAN DENSITY (#/HA)	STANDARD ERROR	PERCENT BROWSE	FREQ.	MEAN DENSITY (#/HA)	STANDARD ERROR	PERCENT BROWSE	FREQ.	MEAN DENSITY (#/HA)	STANDARD ERROR	PERCENT BROWSE	FREQ.
ACER RUBRUM	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
ARONIA SPP.	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
CHAMAECYPARIS THYOIDES	5,555.56	4,444.44	0.00%	22.00%	8,888.89	7,718.02	3.10%	22.00%	31,111.11	23,300.24	0.50%	33.00%
CUSCUTA GRONOVII	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
DENNSTAEDTIA PUNCTILOBULA	3,333.33	3,333.33	0.00%	11.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
EPILOBIUM ANGUSTIFOLIUM	2,222.22	2,222.22	0.00%	11.00%	5,555.56	4,444.44	0.00%	22.00%	0.00	0.00	0.00%	0.00%
GAULTHERIA PROCUMBENS	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
GAYLUSACCIA SPP.	0.00	0.00	0.00%	0.00%	1,111.11	1,111.11	0.00%	11.00%	0.00	0.00	0.00%	0.00%
GAYLUSSACIA FRONDOSA	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
ILEX GLABRA	0.00	0.00	0.00%	0.00%	3,333.33	2,357.02	0.00%	22.00%	0.00	0.00	0.00%	0.00%
ILEX OPACA	1,111.11	1,111.11	0.00%	11.00%	1,111.11	1,111.11	0.00%	11.00%	0.00	0.00	0.00%	0.00%
KALMIA ANGUSTIFOLIA	1,111.11	1,111.11	0.00%	11.00%	2,222.22	1,469.86	0.00%	22.00%	1,111.11	1,111.11	0.00%	11.00%
KALMIA ANGUSTIFOLIA (S)	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
LYONIA LIGUSTINA	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
MUSHROOM SPP.	0.00	0.00	0.00%	0.00%	3,333.33	3,333.33	0.00%	11.00%	1,111.11	1,111.11	0.00%	11.00%
MYRICA HETEROPHYLLA	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
NYMPHAEA ODORATA	7,777.78	5,719.79	0.00%	22.00%	3,333.33	3,333.33	0.00%	11.00%	0.00	0.00	0.00%	0.00%
OSMUNDA CINNAMOMEA	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
RHEXIA VIRGINICA	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
RHODODENDRON VISCOSUM	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
RUBUS ALLEGHENIENSIS	6,666.67	6,666.67	0.00%	11.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
RUBUS HISPIDUS	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
SASSAFRAS ALBIDUM	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
SASSAFRAS ALBIDUM (S)	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
SMILAX ROTUNDIFOLIA	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
SOLIDAGO SPP.	1,111.11	1,111.11	0.00%	11.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
VACCINIUM CORYMBOSUM	0.00	0.00	0.00%	0.00%	1,111.11	1,111.11	0.00%	11.00%	0.00	0.00	0.00%	0.00%
VACCINIUM CORYMBOSUM (S)	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
WOODWARDIA VIRGINICA	52,222.22	28,856.82	0.00%	33.00%	84,444.44	62,983.93	0.00%	33.00%	4,444.44	4,444.44	0.00%	11.00%

Table 25 (continued on next page). Bass River site: all vegetation less than .3 meters tall. Average number of stems per hectare and its standard error of the mean, percent of stems browsed and percent frequency are presented by treatment. Data were collected during the full survey in summer 1994. (n = 9 for each treatment forester plot A, B, C and new forester control. n = 20 for new seeded treatment. A = original forester plot seeded 4/16/91, B = original forester control, C = forester plot seeded 1/23/91).

BASS RIVER
< .3 M

SPECIES	NEW FORESTER CONTROL				NEW SEEDED PLOT			
	MEAN	STANDARD	PERCENT	FREQ.	MEAN	STANDARD	PERCENT	FREQ.
	DENSITY (#/HA)	ERROR	BROWSE		DENSITY (#/HA)	ERROR	BROWSE	
ACER RUBRUM	2,222.22	1,469.86	0.00%	22.00%	500.00	500.00	0.00%	5.00%
ARONIA SPP.	0.00	0.00	0.00%	0.00%	500.00	500.00	0.00%	5.00%
CHAMAECYPARIS THYOIDES	0.00	0.00	0.00%	0.00%	13,000.00	5,670.79	17.50%	35.00%
CUSCUTA GRONOVII	0.00	0.00	0.00%	0.00%	1,000.00	1,000.00	0.00%	5.00%
DENNSTAEDITA PUNCTILOBULA	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
EPILOBIUM ANGUSTIFOLIUM	0.00	0.00	0.00%	0.00%	5,500.00	5,500.00	0.00%	5.00%
GAULTHERIA PROCUMBENS	0.00	0.00	0.00%	0.00%	41,000.00	41,000.00	0.00%	5.00%
GAYLUSACCIA SPP.	0.00	0.00	0.00%	0.00%	500.00	500.00	0.00%	5.00%
GAYLUSSACIA FRONDOSA	1,111.11	1,111.11	0.00%	11.00%	1,500.00	1,094.24	0.00%	10.00%
ILEX GLABRA	0.00	0.00	0.00%	0.00%	500.00	500.00	0.00%	5.00%
ILEX OPACA	2,222.22	2,222.22	0.00%	11.00%	0.00	0.00	0.00%	0.00%
KALMIA ANGUSTIFOLIA	1,111.11	1,111.11	0.00%	11.00%	1,500.00	1,094.24	0.00%	10.00%
KALMIA ANGUSTIFOLIA (S)	3,333.33	3,333.33	0.00%	11.00%	0.00	0.00	0.00%	0.00%
LYONIA LIGUSTINA	1,111.11	1,111.11	11.10%	11.00%	0.00	0.00	0.00%	0.00%
MUSHROOM SPP.	1,111.11	1,111.11	0.00%	11.00%	1,000.00	1,000.00	0.00%	5.00%
MYRICA HETEROPHYLLA	0.00	0.00	0.00%	0.00%	500.00	500.00	0.00%	5.00%
NYMPHAEA ODORATA	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
OSMUNDA CINNAMOMEA	8,888.89	8,888.89	0.00%	11.00%	1,000.00	1,000.00	0.00%	5.00%
RHEXIA VIRGINICA	42,222.22	36,085.46	0.00%	44.00%	0.00	0.00	0.00%	0.00%
RHODODENDRON VISCOSUM	0.00	0.00	0.00%	0.00%	1,000.00	688.25	0.00%	10.00%
RUBUS ALLEGHENIENSIS	6,666.67	6,666.67	0.00%	11.00%	0.00	0.00	0.00%	0.00%
RUBUS HISPIDUS	0.00	0.00	0.00%	0.00%	3,000.00	3,000.00	0.00%	5.00%
SASSAFRAS ALBIDUM	0.00	0.00	0.00%	0.00%	1,000.00	1,000.00	0.00%	5.00%
SASSAFRAS ALBIDUM (S)	3,333.33	3,333.33	0.00%	11.00%	0.00	0.00	0.00%	0.00%
SMILAX ROTUNDIFOLIA	2,222.22	2,222.22	11.10%	11.00%	0.00	0.00	0.00%	0.00%
SOLIDAGO SPP.	1,111.11	1,111.11	0.00%	11.00%	500.00	500.00	0.00%	5.00%
VACCINIUM CORYMBOSUM	3,333.33	3,333.33	0.00%	11.00%	0.00	0.00	0.00%	0.00%
VACCINIUM CORYMBOSUM (S)	12,222.22	12,222.22	100.00%	11.00%	0.00	0.00	0.00%	0.00%
WOODWARDIA VIRGINICA	8,888.89	8,888.89	0.00%	11.00%	36,000.00	25,354.33	0.00%	15.00%

Table 25 (continued).

**BASS RIVER
.3 - .6 M**

SPECIES	FORESTER PLOT A				FORESTER PLOT B				FORESTER PLOT C			
	MEAN DENSITY (#/HA)	STANDARD ERROR	PERCENT BROWSE	FREQ.	MEAN DENSITY (#/HA)	STANDARD ERROR	PERCENT BROWSE	FREQ.	MEAN DENSITY (#/HA)	STANDARD ERROR	PERCENT BROWSE	FREQ.
ACER RUBRUM (S)	444.44	444.44	0.00%	11.00%	0.00	0.00	0.00%	0.00%	6,222.22	6,222.22	0.00%	11.00%
ARONIA SPP.	222.22	222.22	0.00%	11.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
CHAMAECYPARIS THYOIDES	7,777.78	3,821.64	0.00%	56.00%	44,444.44	40,980.38	0.00%	67.00%	48,444.44	20,903.95	0.00%	56.00%
DENNSTAEDITA PUNCTIOBULA	2,000.00	2,000.00	0.00%	11.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
EPILOBIUM ANGUSTIFOLIUM	0.00	0.00	0.00%	0.00%	2,222.22	1,507.18	0.00%	22.00%	0.00	0.00	0.00%	0.00%
GAYLUSSACIA FRONDOSA	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
GAYLUSSACIA FRONDOSA (S)	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
GAYLUSSACIA SPP.	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
GAYLUSSACIA SPP. (S)	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
ILEX GLABRA	222.22	222.22	0.00%	11.00%	2,222.22	1,351.73	0.00%	33.00%	222.22	222.22	0.00%	11.00%
ILEX GLABRA (S)	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
JUNIPERUS VIRGINIANA	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
KALMIA ANGUSTIFOLIA	222.22	222.22	0.00%	11.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
KALMIA ANGUSTIFOLIA (S)	0.00	0.00	0.00%	0.00%	888.89	888.89	0.00%	11.00%	0.00	0.00	0.00%	0.00%
LYONIA LIGUSTINA	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
LYONIA LIGUSTINA (S)	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
ONOCLEA SENSIBLIS	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
OSMUNDA CINNAMOMEA	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
PINE SPP.	0.00	0.00	0.00%	0.00%	222.22	222.22	0.00%	11.00%	0.00	0.00	0.00%	0.00%
PINUS RIGIDA	222.22	222.22	0.00%	11.00%	888.89	484.32	0.00%	33.00%	444.44	293.97	0.00%	22.00%
PRUNUS SEROTINA	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
RHEXIA VIRGINICA	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
RHODODENDRON VISCOSUM	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
RHODODENDRON VISCOSUM (S)	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
RUBUS ALLEGHENIENSIS	3,777.78	3,777.78	0.00%	11.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
SASSAFRAS ALBIDUM	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
SMILAX ROTUNDIFOLIA	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
SOLIDAGO SPP.	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
VACCINIUM CORYMBOSUM	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
VACCINIUM CORYMBOSUM (S)	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
VITIS AESTIVALIS	222.22	222.22	0.00%	11.00%	0.00	0.00	0.00%	0.00%	222.22	222.22	0.00%	11.00%
WOODWARDIA VIRGINICA	98,444.44	38,065.41	0.00%	56.00%	73,777.78	24,311.51	0.00%	56.00%	5,555.56	5,310.13	0.00%	22.00%

Table 26 (continued on the next page). Bass River site: all vegetation between .3 and .6 meters tall. Average number of stems per hectare and its standard error of the mean, percent of stems browsed, and percent frequency are presented by treatment. Data were collected during the full survey in summer 1994. (n = 9 for each treatment forester plot A, B, C, and new forester control. n = 20 for new seeded treatment. A = original forester plot seeded 4/16/91, B = original forester control, C = forester plot seeded 1/ 23/91)

BASS RIVER
.3 - .6 M

SPECIES	NEW FORESTER CONTROL				NEW SEEDED PLOT			
	MEAN	STANDARD	PERCENT	FREQ.	MEAN	STANDARD	PERCENT	FREQ.
	DENSITY (#/HA)	ERROR	BROWSE		DENSITY (#/HA)	ERROR	BROWSE	
ACER RUBRUM (S)	444.44	444.44	0.00%	11.00%	300.00	218.85	0.00%	10.00%
ARONIA SPP.	0.00	0.00	0.00%	0.00%	300.00	300.00	0.00%	5.00%
CHAMAECYPARIS THYOIDES	0.00	0.00	0.00%	0.00%	13,700.00	5,993.46	1.35%	40.00%
DENNSTAEDITA PUNCTILOBULA	666.67	666.67	0.00%	11.00%	4,700.00	4,700.00	0.00%	5.00%
EPILOBIUM ANGUSTIFOLIUM	0.00	0.00	0.00%	0.00%	5,300.00	5,300.00	0.00%	5.00%
GAYLUSSACIA FRONDOSA	0.00	0.00	0.00%	0.00%	100.00	100.00	0.00%	5.00%
GAYLUSSACIA FRONDOSA (S)	444.44	444.44	0.00%	11.00%	0.00	0.00	0.00%	0.00%
GAYLUSSACIA SPP.	0.00	0.00	0.00%	0.00%	100.00	100.00	0.00%	5.00%
GAYLUSSACIA SPP. (S)	0.00	0.00	0.00%	0.00%	200.00	200.00	0.00%	5.00%
ILEX GLABRA	222.22	222.22	0.00%	11.00%	700.00	528.65	0.00%	10.00%
ILEX GLABRA (S)	666.67	666.67	0.00%	11.00%	0.00	0.00	0.00%	0.00%
JUNIPERUS VIRGINIANA	0.00	0.00	0.00%	0.00%	400.00	400.00	0.00%	5.00%
KALMIA ANGUSTIFOLIA	222.22	222.22	0.00%	11.00%	100.00	100.00	0.00%	5.00%
KALMIA ANGUSTIFOLIA (S)	444.44	444.44	0.00%	11.00%	200.00	200.00	0.00%	5.00%
LYONIA LIGUSTINA	1,777.78	1,222.22	7.41%	22.00%	100.00	100.00	0.00%	5.00%
LYONIA LIGUSTINA (S)	1,555.56	1,555.56	0.00%	11.00%	0.00	0.00	0.00%	0.00%
ONOCLEA SENSIBLIS	0.00	0.00	0.00%	0.00%	100.00	100.00	0.00%	5.00%
OSMUNDA CINNAMOMEA	0.00	0.00	0.00%	0.00%	400.00	400.00	0.00%	5.00%
PINE SPP.	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
PINUS RIGIDA	444.44	293.97	0.00%	22.00%	100.00	100.00	0.00%	5.00%
PRUNUS SEROTINA	0.00	0.00	0.00%	0.00%	100.00	100.00	0.00%	5.00%
RHEXIA VIRGINICA	8,444.44	6,580.93	0.00%	33.00%	0.00	0.00	0.00%	0.00%
RHODODENDRON VISCOSUM	0.00	0.00	0.00%	0.00%	500.00	500.00	0.00%	5.00%
RHODODENDRON VISCOSUM (S)	0.00	0.00	0.00%	0.00%	100.00	100.00	0.00%	5.00%
RUBUS ALLEGHENIENSIS	12,000.00	12,000.00	0.00%	11.00%	0.00	0.00	0.00%	0.00%
SASSAFRAS ALBIDUM	0.00	0.00	0.00%	0.00%	100.00	100.00	0.00%	5.00%
SMILAX ROTUNDIFOLIA	222.22	222.22	0.00%	11.00%	0.00	0.00	0.00%	0.00%
SOLIDAGO SPP.	0.00	0.00	0.00%	0.00%	100.00	100.00	0.00%	5.00%
VACCINIUM CORYMBOSUM	0.00	0.00	0.00%	0.00%	300.00	300.00	0.00%	5.00%
VACCINIUM CORYMBOSUM (S)	1,111.11	1,111.11	0.00%	11.00%	1,800.00	993.66	0.00%	15.00%
VITUS AESTIVALIS	0.00	0.00	0.00%	0.00%	200.00	200.00	0.00%	5.00%
WOODWARDIA VIRGINICA	24,888.89	22,681.64	0.00%	33.00%	30,900.00	21,349.95	0.00%	15.00%

Table 26 (continued).

BASS RIVER
.6 -1.3 M

SPECIES	FORESTER PLOT A				FORESTER PLOT B				FORESTER PLOT C			
	MEAN DENSITY (#/HA)	STANDARD ERROR	PERCENT BROWSE	FREQ.	MEAN DENSITY (#/HA)	STANDARD ERROR	PERCENT BROWSE	FREQ.	MEAN DENSITY (#/HA)	STANDARD ERROR	PERCENT BROWSE	FREQ.
ACER RUBRUM	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
ACER RUBRUM (S)	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
ARONIA SPP.	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
BETULA POPULIFOLIA	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
CHAMAECYPARIS THYOIDES	16,888.89	8,570.69	0.00%	67.00%	40,444.44	32,898.46	0.00%	44.00%	107,333.33	41,537.13	0.00%	56.00%
EPILOBIUM ANGUSTIFOLIUM	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
ILEX GLABRA	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
ILEX GLABRA (S)	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
ILEX VERTICILLATA (S)	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
LYONIA LIGUSTINA (S)	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
PINUS RIGIDA	0.00	0.00	0.00%	0.00%	222.22	222.22	0.00%	11.00%	0.00	0.00	0.00%	0.00%
RHODODENDRON VISCOSUM (S)	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
RUBUS ALLEGHENIENSIS	8,666.67	8,666.67	0.00%	11.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
SASSAFRAS ALBIDUM	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	222.22	222.22	0.00%	11.00%
SOLIDAGO SPP.	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
VITUS AESTIVALIS	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
WOODWARDIA VIRGINICA	26,222.22	9,845.72	0.00%	56.00%	10,666.67	5,088.11	0.00%	56.00%	0.00	0.00	0.00%	0.00%

Table 27 (continued on next page). Bass River site: all vegetation between .6 and 1.3 meters tall. Average number of stems per hectare, its standard error of the mean, percent of stems browsed and percent frequency are presented by treatment. Data were collected during the full survey in summer 1994. (n = 9 for each treatment A, B, C, and new control, n = 20 for new seeded treatment. A = original forester plot seeded 4/16/91, B = original forester plot control, C = forester plot seeded 1/23/91).

BASS RIVER
.6 - 1.3 M

SPECIES	NEW FORESTER CONTROL				NEW SEEDED PLOT			
	MEAN	STANDARD	PERCENT	FREQ.	MEAN	STANDARD	PERCENT	FREQ.
	DENSITY (#/HA)	ERROR	BROWSE		DENSITY (#/HA)	ERROR	BROWSE	
ACER RUBRUM	0.00	0.00	0.00%	0.00%	100.00	100.00	0.00%	5.00%
ACER RUBRUM (S)	222.22	222.22	0.00%	11.00%	500.00	500.00	0.00%	5.00%
ARONIA SPP.	222.22	222.22	0.00%	11.00%	100.00	100.00	0.00%	5.00%
BETULA POPULIFOLIA	0.00	0.00	0.00%	0.00%	100.00	100.00	0.00%	5.00%
CHAMAECYPARIS THYOIDES	666.67	471.40	0.00%	22.00%	30,700.00	16,569.01	0.00%	35.00%
EPILOBIUM ANGUSTIFOLIUM	0.00	0.00	0.00%	0.00%	3,100.00	3,100.00	0.00%	5.00%
ILEX GLABRA	0.00	0.00	0.00%	0.00%	100.00	100.00	0.00%	5.00%
ILEX GLABRA (S)	222.22	222.22	0.00%	11.00%	600.00	600.00	0.00%	5.00%
ILEX VERTICILLATA (S)	222.22	222.22	0.00%	11.00%	0.00	0.00	0.00%	0.00%
LYONIA LIGUSTINA (S)	222.22	222.22	0.00%	11.00%	0.00	0.00	0.00%	0.00%
PINUS RIGIDA	444.44	293.97	0.00%	22.00%	200.00	137.65	0.00%	10.00%
RHODODENDRON VISCOSUM (S)	0.00	0.00	0.00%	0.00%	100.00	100.00	0.00%	5.00%
RUBUS ALLEGHENIENSIS	9,777.78	9,777.78	0.00%	11.00%	0.00	0.00	0.00%	0.00%
SASSAFRAS ALBIDUM	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
SOLIDAGO SPP.	0.00	0.00	0.00%	0.00%	600.00	600.00	0.00%	5.00%
VITUS AESTIVALIS	0.00	0.00	0.00%	0.00%	200.00	200.00	0.00%	5.00%
WOODWARDIA VIRGINICA	10,222.22	9,732.22	0.00%	22.00%	10,000.00	6,979.67	0.00%	10.00%

Table 27 (continued).

**BASS RIVER
> 1.3 M**

FORESTER PLOT A				FORESTER PLOT B				FORESTER PLOT C			
SPECIES	MEAN DENSITY (#/HA)	STANDARD ERROR	FREQ.	MEAN DENSITY (#/HA)	STANDARD ERROR	FREQ.		MEAN DENSITY (#/HA)	STANDARD ERROR	FREQ.	
ACER RUBRUM (S)	0.00	0.00	0.00%	0.00	0.00	0.00%		0.00	0.00	0.00%	
BETULA POPULIFOLIA	0.00	0.00	0.00%	0.00	0.00	0.00%		0.00	0.00	0.00%	
CHAMAECYPARIS THYOIDES	666.67	471.40	22.00%	666.67	666.67	11.00%		3,777.78	3,063.12	33.00%	
SOLIDAGO SPP.	0.00	0.00	0.00%	0.00	0.00	0.00%		0.00	0.00	0.00%	
NEW FORESTER CONTROL				NEW SEEDED PLOT							
SPECIES	MEAN DENSITY (#/HA)	STANDARD ERROR	FREQ.					MEAN DENSITY (#/HA)	STANDARD ERROR	FREQ.	
ACER RUBRUM (S)	0.00	0.00	0.00%					400.00	275.30	10.00%	
BETULA POPULIFOLIA	222.22	222.22	11.00%					0.00	0.00	0.00%	
CHAMAECYPARIS THYOIDES	1,111.11	1,111.11	11.00%					1,700.00	1,038.98	20.00%	
SOLIDAGO SPP.	0.00	0.00	0.00%					100.00	100.00	5.00%	

Table 28. Bass River site: all vegetation greater than 1.3 meters tall. Average number of stems per hectare, its standard error of the mean and percent frequency are presented by treatment. Data were collected during the full survey in summer 1994. (n = 9 for each treatment A, B, C, and new control; n = 20 for new seeded treatment. A = original forester plot seeded 4/16/91, B = original forester control, C = forester plot seeded 1/23/91)

**BELLEPLAIN FOOD PATCH
DOWNED DEBRIS**

FENCE			CONTROL			SEED / HERBICIDE			SEED / HERBICIDE / HINDER		
LAYER	MEAN	STANDARD ERROR	LAYER	MEAN	STANDARD ERROR	LAYER	MEAN	STANDARD ERROR	LAYER	MEAN	STANDARD ERROR
FIRST LAYER	4.24%	1.69	FIRST LAYER	7.62%	3.09	FIRST LAYER	3.34%	1.11	FIRST LAYER	3.68%	0.99
SECOND LAYER	0.44%	0.27	SECOND LAYER	0.52%	0.18	SECOND LAYER	0.44%	0.25	SECOND LAYER	0.36%	0.24
THIRD LAYER	0.00%	0.00	THIRD LAYER	0.10%	0.07	THIRD LAYER	0.02%	0.02	THIRD LAYER	0.00%	0.00
FOURTH LAYER	0.00%	0.00	FOURTH LAYER	0.02%	0.02	FOURTH LAYER	0.00%	0.00	FOURTH LAYER	0.00%	0.00

Table 29. Belleplain Food Patch site downed debris. Average percent cover and standard error of the mean are presented by layer and treatment. The first layer is the closest debris to the ground. The second layer is debris (i.e. dead branches) found over the first layer. The third layer is found over the second layer which is found over the first layer and so forth. Data were collected during the full survey in summer 1994. (n = 10 for each treatment) fence = herbicide plus seed plus electric fence; control = herbicide only; seed / herbicide = herbicide plus seed; seed / herbicide / Hinder = herbicide plus seed plus Hinder (deer repellent).

**BELLEPLAIN FOOD PATCH
GROUND COVERAGES**

FENCE			CONTROL			SEED / HERBICIDE			SEED / HERBICIDE / HINDER		
LAYER	MEAN	STANDARD ERROR	LAYER	MEAN	STANDARD ERROR	LAYER	MEAN	STANDARD ERROR	LAYER	MEAN	STANDARD ERROR
GRASS	18.50%	5.58	GRASS	30.50%	11.19	GRASS	17.00%	6.63	GRASS	32.50%	6.16
LITTER	55.50%	7.94	LITTER	52.00%	10.73	LITTER	65.50%	9.20	LITTER	54.00%	5.86
LOG	2.00%	1.67	LOG	4.00%	2.04	LOG	4.50%	1.87	LOG	3.50%	2.50
MOSS	1.50%	0.76	MOSS	1.00%	0.67	MOSS	1.50%	1.07	MOSS	0.50%	0.50
SOIL	18.00%	5.59	SOIL	12.50%	7.43	SOIL	11.50%	4.95	SOIL	8.50%	5.33
STUMP	4.50%	3.02	STUMP	0.00%	0.00	STUMP	0.00%	0.00	STUMP	1.00%	1.00

Table 30. Belleplain Food Patch site percent ground coverages. Average percent ground cover and standard error of the mean are presented by layer category and treatment. Data were collected during the full survey in summer 1994. (n = 10 for each treatment) fence = herbicide plus seed plus electric fence; control = herbicide only; seed / herbicide = herbicide plus seed; seed / herbicide / Hinder = herbicide plus seed plus Hinder (deer repellent).

**BELLEPLAIN FOOD PATCH
< .3 M**

SPECIES	D	B	FENCE				CONTROL			
			MEAN DENSITY (#/HA)	STANDARD ERROR	PERCENT BROWSE	FREQ.	MEAN DENSITY (#/HA)	STANDARD ERROR	PERCENT BROWSE	FREQ.
ACER RUBRUM			1,000.00	1,000.00	0.00%	10.00%	2,000.00	1,333.33	0.00%	20.00%
ARONIA SPP.			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
CHAMAECYPARIS THYOIDES			0.00	0.00	0.00%	0.00%	14,000.00	9,451.83	8.33%	20.00%
CHAMAECYPARIS THYOIDES (PLANTING)	H		5,000.00	2,236.07	0.00%	40.00%	0.00	0.00	0.00%	0.00%
CLETHRA ALNIFOLIA			1,000.00	1,000.00	0.00%	10.00%	7,000.00	7,000.00	7.14%	10.00%
CLETHRA ALNIFOLIA (S)			14,000.00	8,459.05	1.25%	30.00%	6,000.00	4,988.88	18.00%	20.00%
EPILOBIUM ANGUSTIFOLIUM			1,000.00	1,000.00	0.00%	10.00%	0.00	0.00	0.00%	0.00%
GAULTHERIA PROCUMBENS			37,000.00	23,780.38	0.00%	30.00%	13,000.00	9,433.98	0.00%	20.00%
GAYLUSSACIA FRONDOSA			1,000.00	1,000.00	0.00%	10.00%	0.00	0.00	0.00%	0.00%
GNAPHALIUM OBTUSIFOLIUM			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
HYPOCHOERIS RADICATA			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
ILEX GLABRA (S)			2,000.00	2,000.00	0.00%	10.00%	0.00	0.00	0.00%	0.00%
ILEX OPACA			0.00	0.00	0.00%	0.00%	1,000.00	1,000.00	0.00%	10.00%
ILEX OPACA (S)			1,000.00	1,000.00	0.00%	10.00%	0.00	0.00	0.00%	0.00%
KALMIA ANGUSTIFOLIA			1,000.00	1,000.00	0.00%	10.00%	0.00	0.00	0.00%	0.00%
KALMIA ANGUSTIFOLIA (S)			10,000.00	10,000.00	0.00%	10.00%	0.00	0.00	0.00%	0.00%
KALMIA LATIFOLIA			1,000.00	1,000.00	0.00%	10.00%	2,000.00	1,333.33	0.00%	20.00%
LEUCOTHOE RACEMOSA			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
LYONIA LIGUSTINA			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
LYONIA LIGUSTINA (S)			1,000.00	1,000.00	0.00%	10.00%	0.00	0.00	0.00%	0.00%
MUSHROOM SPP.			0.00	0.00	0.00%	0.00%	9,000.00	9,000.00	0.00%	10.00%
PHYTOLACCA AMERICANA			1,000.00	1,000.00	0.00%	10.00%	0.00	0.00	0.00%	0.00%
PINE SPP.			0.00	0.00	0.00%	0.00%	1,000.00	1,000.00	0.00%	10.00%
PINUS RIGIDA			1,000.00	1,000.00	0.00%	10.00%	0.00	0.00	0.00%	0.00%
PINUS STROBUS			0.00	0.00	0.00%	0.00%	1,000.00	1,000.00	0.00%	10.00%
QUERCUS COCCINEA			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
QUERCUS ILICIFOLIA	S		0.00	0.00	0.00%	0.00%	1,000.00	1,000.00	0.00%	10.00%
RHODODENDRON VISCOSUM			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
RHODODENDRON VISCOSUM (S)			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
RUBIS SPP.			0.00	0.00	0.00%	0.00%	10,000.00	10,000.00	0.00%	10.00%
RUBUS ALLEGHENIENSIS			1,000.00	1,000.00	0.00%	10.00%	1,000.00	1,000.00	0.00%	10.00%
RUBUS HISPIDUS			1,000.00	1,000.00	0.00%	10.00%	0.00	0.00	0.00%	0.00%
SASSAFRAS ALBIDUM			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
SMILAX GLAUCA			0.00	0.00	0.00%	0.00%	8,000.00	8,110.10	0.00%	20.00%
SMILAX ROTUNDIFOLIA			1,000.00	1,000.00	0.00%	10.00%	0.00	0.00	0.00%	0.00%
SOLIDAGO SPP.	H		36,000.00	15,216.95	0.00%	60.00%	4,000.00	4,000.00	0.00%	10.00%
VACCINIUM CORYMBOSUM (S)			0.00	0.00	0.00%	0.00%	1,000.00	1,000.00	0.00%	10.00%
VERBASCUM THAPSUS			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
WOODWARDIA AREOLATA			0.00	0.00	0.00%	0.00%	1,000.00	1,000.00	0.00%	10.00%

Table 31. Belleplain Food Patch site: all vegetation less than .3 meters tall. Average number of stems per hectare, its standard error of the mean, percent of stems browsed and percent frequency are presented by treatment. Columns labeled D (stem density significant differences) and B (percent browse significant differences) when blank represent no statistical significance (alpha > .05) or not applicable (zero densities) across all treatments. The occurrence of an S in these columns signifies a statistically significant difference between treatments (alpha is between .05 and .005). An H in these columns means a highly significant difference among treatments (alpha less than .005). Data were collected during the full survey in summer 1994. (n = 10 for each treatment) fence = herbicide plus seed plus electric fence; control = herbicide only; seed / herbicide = herbicide plus seed; seed / herbicide / Hinder = herbicide plus seed plus Hinder (deer repellent).

**BELLEPLAIN FOOD PATCH
< .3 M**

SPECIES	D	B	SEED / HERBICIDE				SEED / HERBICIDE / HINDER			
			MEAN	STANDARD	PERCENT	FREQ.	MEAN	STANDARD	PERCENT	FREQ.
			DENSITY (#/HA)	ERROR	BROWSE		DENSITY (#/HA)	ERROR	BROWSE	
ACER RUBRUM			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
ARONIA SPP.			1,000.00	1,000.00	0.00%	10.00%	0.00	0.00	0.00%	0.00%
CHAMAECYPARIS THYOIDES			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
CHAMAECYPARIS THYOIDES (PLANTING)	H		0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
CLETHRA ALNIFOLIA			2,000.00	2,000.00	0.00%	10.00%	0.00	0.00	0.00%	0.00%
CLETHRA ALNIFOLIA (S)			3,000.00	2,134.37	5.00%	20.00%	0.00	0.00	0.00%	0.00%
EPILOBIUM ANGUSTIFOLIUM			3,000.00	3,000.00	0.00%	10.00%	0.00	0.00	0.00%	0.00%
GAULTHERIA PROCUMBENS			94,000.00	61,845.69	0.00%	30.00%	99,000.00	82,925.00	0.00%	30.00%
GAYLUSSACIA FRONDOSA			1,000.00	1,000.00	0.00%	10.00%	0.00	0.00	0.00%	0.00%
GNAPHALIUM OBTUSIFOLIUM			3,000.00	3,000.00	0.00%	10.00%	0.00	0.00	0.00%	0.00%
HYPOCHOERIS RADICATA			0.00	0.00	0.00%	0.00%	2,000.00	2,000.00	0.00%	10.00%
ILEX GLABRA (S)			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
ILEX OPACA			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
ILEX OPACA (S)			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
KALMIA ANGUSTIFOLIA			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
KALMIA ANGUSTIFOLIA (S)			16,000.00	16,000.00	0.00%	10.00%	0.00	0.00	0.00%	0.00%
KALMIA LATIFOLIA			1,000.00	1,000.00	10.00%	10.00%	0.00	0.00	0.00%	0.00%
LEUCOTHOE RACEMOSA			1,000.00	1,000.00	0.00%	10.00%	0.00	0.00	0.00%	0.00%
LYONIA LIGUSTINA			2,000.00	2,000.00	0.00%	10.00%	0.00	0.00	0.00%	0.00%
LYONIA LIGUSTINA (S)			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
MUSHROOM SPP.			3,000.00	3,000.00	0.00%	10.00%	0.00	0.00	0.00%	0.00%
PHYTOLACCA AMERICANA			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
PINE SPP.			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
PINUS RIGIDA			2,000.00	1,333.33	0.00%	20.00%	0.00	0.00	0.00%	0.00%
PINUS STROBUS			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
QUERCUS COCCINEA			1,000.00	1,000.00	0.00%	10.00%	0.00	0.00	0.00%	0.00%
QUERCUS ILICIFOLIA	S		0.00	0.00	0.00%	0.00%	5,000.00	2,236.07	0.00%	40.00%
RHODODENDRON VISCOSUM			37,000.00	37,000.00	0.00%	10.00%	0.00	0.00	0.00%	0.00%
RHODODENDRON VISCOSUM (S)			0.00	0.00	0.00%	0.00%	4,000.00	4,000.00	10.00%	10.00%
RUBIS SPP.			0.00	0.00	0.00%	0.00%	2,000.00	2,000.00	0.00%	10.00%
RUBUS ALLEGHENIENSIS			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
RUBUS HISPIDUS			1,000.00	1,000.00	0.00%	10.00%	20,000.00	20,000.00	0.00%	10.00%
SASSAFRAS ALBIDUM			0.00	0.00	0.00%	0.00%	1,000.00	1,000.00	0.00%	10.00%
SMILAX GLAUCA			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
SMILAX ROTUNDIFOLIA			5,000.00	4,013.86	15.00%	20.00%	0.00	0.00	0.00%	0.00%
SOLIDAGO SPP.	H		0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
VACCINIUM CORYMBOSUM (S)			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
VERBASCUM THAPSUS			4,000.00	4,000.00	0.00%	10.00%	4,000.00	2,211.08	0.00%	30.00%
WOODWARDIA AREOLATA			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%

Table 31 (continued).

BELLEPLAIN FOOD PATCH
.3 - .6 M

SPECIES	D	B	FENCE				CONTROL			
			MEAN DENSITY (#/HA)	STANDARD ERROR	PERCENT BROWSE	FREQ.	MEAN DENSITY (#/HA)	STANDARD ERROR	PERCENT BROWSE	FREQ.
ACER RUBRUM			200.00	200.00	0.00%	10.00%	200.00	200.00	0.00%	10.00%
ARONIA SPP.			200.00	200.00	0.00%	10.00%	0.00	0.00	0.00%	0.00%
ARONIA SPP. (S)			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
CHAMAECYPARIS THYOIDES			800.00	326.60	0.00%	40.00%	2,400.00	1,514.38	8.93%	30.00%
CHAMAECYPARIS THYOIDES (PLANTING)	H		400.00	266.67	0.00%	20.00%	0.00	0.00	0.00%	0.00%
CLETHRA ALNIFOLIA			400.00	266.67	0.00%	20.00%	800.00	611.01	6.67%	20.00%
CLETHRA ALNIFOLIA (S)			6,800.00	2,215.10	0.00%	60.00%	4,600.00	3,239.34	2.50%	20.00%
EPILOBIUM ANGUSTIFOLIUM			1,000.00	802.77	0.00%	20.00%	0.00	0.00	0.00%	0.00%
GAYLUSSACIA FRONDOSA			600.00	426.87	0.00%	20.00%	0.00	0.00	0.00%	0.00%
GAYLUSSACIA FRONDOSA (S)			800.00	800.00	0.00%	10.00%	0.00	0.00	0.00%	0.00%
GNAPHALIUM OBTUSIFOLIUM			400.00	266.67	0.00%	20.00%	200.00	200.00	0.00%	10.00%
ILEX OPACA			200.00	200.00	0.00%	10.00%	0.00	0.00	0.00%	0.00%
ILEX OPACA (S)			0.00	0.00	0.00%	0.00%	200.00	200.00	0.00%	10.00%
ILEX VERTICILLATA			0.00	0.00	0.00%	0.00%	200.00	200.00	10.00%	10.00%
KALMIA ANGUSTIFOLIA			800.00	533.33	0.00%	20.00%	0.00	0.00	0.00%	0.00%
KALMIA ANGUSTIFOLIA (S)			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
KALMIA LATIFOLIA			0.00	0.00	0.00%	0.00%	200.00	200.00	0.00%	10.00%
KALMIA LATIFOLIA (S)			600.00	600.00	0.00%	10.00%	1,000.00	602.77	0.00%	20.00%
LEUCOTHOE RACEMOSA			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
LEUCOTHOE RACEMOSA (S)			0.00	0.00	0.00%	0.00%	200.00	200.00	0.00%	10.00%
LYONIA LIGUSTINA			2,400.00	2,400.00	0.00%	10.00%	0.00	0.00	0.00%	0.00%
LYONIA LIGUSTINA (S)			4,400.00	4,182.50	0.00%	20.00%	0.00	0.00	0.00%	0.00%
MAGNOLIA VIRGINIANA			0.00	0.00	0.00%	0.00%	200.00	200.00	0.00%	10.00%
NYSSA SYLVATICA			0.00	0.00	0.00%	0.00%	200.00	200.00	0.00%	10.00%
PHYTOLACCA AMERICANA			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
PINUS RIGIDA			0.00	0.00	0.00%	0.00%	400.00	266.67	0.00%	20.00%
PINUS VIRGINIANA			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
QUERCUS COCCINEA			0.00	0.00	0.00%	0.00%	400.00	266.67	0.00%	20.00%
QUERCUS ILICIFOLIA			0.00	0.00	0.00%	0.00%	600.00	305.51	0.00%	30.00%
RHODODENDRON VISCOSUM			200.00	200.00	0.00%	10.00%	0.00	0.00	0.00%	0.00%
RHODODENDRON VISCOSUM (S)			0.00	0.00	0.00%	0.00%	1,800.00	1,209.22	0.00%	20.00%
RUBUS ALLEGHENIENSIS			9,000.00	4,208.46	2.88%	50.00%	200.00	200.00	0.00%	10.00%
SASSAFRAS ALBIDUM			400.00	266.67	0.00%	20.00%	200.00	200.00	10.00%	10.00%
SMILAX GLAUCA			0.00	0.00	0.00%	0.00%	2,000.00	1,605.55	0.00%	20.00%
SMILAX ROTUNDIFOLIA			1,400.00	845.91	5.00%	30.00%	600.00	426.87	0.00%	20.00%
SMILAX SPP.			400.00	400.00	0.00%	10.00%	0.00	0.00	0.00%	0.00%
SOLIDAGO SPP.	S		7,400.00	2,860.46	0.00%	60.00%	10,200.00	10,200.00	0.00%	10.00%
THELYPTERIS PALUSTRIS			0.00	0.00	0.00%	0.00%	200.00	200.00	0.00%	10.00%
VACCINIUM CORYMBOSUM (S)			0.00	0.00	0.00%	0.00%	600.00	600.00	0.00%	10.00%

Table 32 (continued on next page). Belleplain Food Patch site: all vegetation between .3 and .6 meters tall. Average number of stems per hectare, its standard error of the mean, percent of stems browsed and percent frequency are presented by treatment. The columns labeled D (stem density significant differences) and B (percent browse significant differences) when blank represent no statistical significance (alpha > .05) or not applicable (zero densities) across all treatments. The occurrence of an S in these columns signifies a statistically significant difference between treatments (alpha is between .05 and .005). An H in these columns means a highly significant difference among treatments (alpha less than .005). Data were collected during the full survey in summer 1994. (n = 10 for each treatment) fence = herbicide plus seed plus electric fence; control = herbicide only; seed / herbicide = herbicide plus seed; seed / herbicide / Hinder = herbicide plus seed plus Hinder (deer repellent).

**BELLEPLAIN FOOD PATCH
.3 - .6 M**

SPECIES	D	B	SEED / HERBICIDE				SEED / HERBICIDE / HINDER			
			MEAN	STANDARD	PERCENT	FREQ.	MEAN	STANDARD	PERCENT	FREQ.
			DENSITY (#/HA)	ERROR	BROWSE		DENSITY (#/HA)	ERROR	BROWSE	
ACER RUBRUM			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
ARONIA SPP.			600.00	426.87	10.00%	20.00%	0.00	0.00	0.00%	0.00%
ARONIA SPP. (S)			200.00	200.00	0.00%	10.00%	0.00	0.00	0.00%	0.00%
CHAMAECYPARIS THYOIDES			600.00	305.51	10.00%	30.00%	800.00	442.22	0.00%	30.00%
CHAMAECYPARIS THYOIDES (PLANTING)	H		0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
CLETHRA ALNIFOLIA			200.00	200.00	0.00%	10.00%	200.00	200.00	0.00%	10.00%
CLETHRA ALNIFOLIA (S)			7,400.00	5,300.31	0.00%	20.00%	1,000.00	802.77	0.00%	20.00%
EPILOBIUM ANGUSTIFOLIUM			2,000.00	1,032.80	0.00%	40.00%	2,200.00	1,209.22	0.00%	40.00%
GAYLUSSACIA FRONDOSA			400.00	400.00	0.00%	10.00%	200.00	200.00	0.00%	10.00%
GAYLUSSACIA FRONDOSA (S)			600.00	600.00	0.00%	10.00%	0.00	0.00	0.00%	0.00%
GNAPHALIUM OBTUSIFOLIUM			400.00	266.67	0.00%	20.00%	1,000.00	1,000.00	0.00%	10.00%
ILEX OPACA			200.00	200.00	0.00%	10.00%	0.00	0.00	0.00%	0.00%
ILEX OPACA (S)			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
ILEX VERTICILLATA			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
KALMIA ANGUSTIFOLIA			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
KALMIA ANGUSTIFOLIA (S)			7,000.00	5,619.41	0.00%	20.00%	400.00	400.00	0.00%	10.00%
KALMIA LATIFOLIA			200.00	200.00	0.00%	10.00%	0.00	0.00	0.00%	0.00%
KALMIA LATIFOLIA (S)			0.00	0.00	0.00%	0.00%	600.00	600.00	0.00%	10.00%
LEUCOTHOE RACEMOSA			400.00	400.00	0.00%	10.00%	0.00	0.00	0.00%	0.00%
LEUCOTHOE RACEMOSA (S)			1,200.00	1,200.00	0.00%	10.00%	200.00	200.00	0.00%	10.00%
LYONIA LIGUSTINA			1,600.00	1,600.00	0.00%	10.00%	0.00	0.00	0.00%	0.00%
LYONIA LIGUSTINA (S)			400.00	400.00	0.00%	10.00%	0.00	0.00	0.00%	0.00%
MAGNOLIA VIRGINIANA			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
NYSSA SYLVATICA			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
PHYTOLACCA AMERICANA			0.00	0.00	0.00%	0.00%	400.00	400.00	0.00%	10.00%
PINUS RIGIDA			400.00	400.00	0.00%	10.00%	400.00	266.67	0.00%	20.00%
PINUS VIRGINIANA			0.00	0.00	0.00%	0.00%	200.00	200.00	0.00%	10.00%
QUERCUS COCCINEA			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
QUERCUS ILICIFOLIA			0.00	0.00	0.00%	0.00%	200.00	200.00	0.00%	10.00%
RHODODENDRON VISCOSUM			200.00	200.00	0.00%	10.00%	200.00	200.00	0.00%	10.00%
RHODODENDRON VISCOSUM (S)			200.00	200.00	0.00%	10.00%	0.00	0.00	0.00%	0.00%
RUBUS ALLEGHENIENSIS			5,600.00	3,745.22	1.54%	20.00%	1,000.00	1,000.00	0.00%	10.00%
SASSAFRAS ALBIDUM			0.00	0.00	0.00%	0.00%	400.00	266.67	0.00%	20.00%
SMILAX GLAUCA			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
SMILAX ROTUNDIFOLIA			2,000.00	1,460.59	10.00%	20.00%	0.00	0.00	0.00%	0.00%
SMILAX SPP.			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
SOLIDAGO SPP.	S		0.00	0.00	0.00%	0.00%	600.00	426.87	0.00%	20.00%
THELYPTERIS PALUSTRIS			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
VACCINIUM CORYMBOSUM (S)			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%

Table 32 (continued).

**BELLEPLAIN FOOD PATCH
.6 - 1.3 M**

SPECIES	FENCE					CONTROL				
	D	B	MEAN	STANDARD	PERCENT	FREQ.	MEAN	STANDARD	PERCENT	FREQ.
			DENSITY (#/HA)	ERROR	BROWSE		DENSITY (#/HA)	ERROR	BROWSE	
ACER RUBRUM (S)			600.00	600.00	0.00%	10.00%	0.00	0.00	0.00%	0.00%
ARONIA SPP.			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
ARONIA SPP. (S)			200.00	200.00	0.00%	10.00%	0.00	0.00	0.00%	0.00%
CHAMAECYPARIS THYOIDES			200.00	200.00	0.00%	10.00%	4,800.00	4,154.78	1.43%	30.00%
CLETHRA ALNIFOLIA			200.00	200.00	0.00%	10.00%	0.00	0.00	0.00%	0.00%
CLETHRA ALNIFOLIA (S)			6,200.00	4,114.47	0.00%	50.00%	3,000.00	3,000.00	0.00%	10.00%
EPILOBIUM ANGUSTIFOLIUM			2,400.00	1,627.54	0.00%	30.00%	0.00	0.00	0.00%	0.00%
EUPATORIUM PERFOOLIATUM			0.00	0.00	0.00%	0.00%	600.00	600.00	0.00%	10.00%
GAYLUSSACIA FRONDOSA (S)			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
ILEX OPACA			200.00	200.00	0.00%	10.00%	0.00	0.00	0.00%	0.00%
KALMIA ANGUSTIFOLIA			200.00	200.00	0.00%	10.00%	0.00	0.00	0.00%	0.00%
KALMIA ANGUSTIFOLIA (S)			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
KALMIA LATIFOLIA			200.00	200.00	0.00%	10.00%	0.00	0.00	0.00%	0.00%
KALMIA LATIFOLIA (S)			0.00	0.00	0.00%	0.00%	600.00	426.87	0.00%	20.00%
LEUCOTHOE RACEMOSA (S)			400.00	400.00	0.00%	10.00%	0.00	0.00	0.00%	0.00%
LYONIA LIGUSTINA			600.00	600.00	0.00%	10.00%	0.00	0.00	0.00%	0.00%
LYONIA LIGUSTINA (S)			1,200.00	997.78	0.00%	20.00%	0.00	0.00	0.00%	0.00%
NYSSA SYLVATICA			400.00	400.00	0.00%	10.00%	200.00	200.00	0.00%	10.00%
OSMUNDA CINNAMOMEA			0.00	0.00	0.00%	0.00%	200.00	200.00	0.00%	10.00%
PHYTOLACCA AMERICANA	H		2,400.00	1,024.15	0.00%	60.00%	0.00	0.00	0.00%	0.00%
PINUS RIGIDA			0.00	0.00	0.00%	0.00%	600.00	426.87	0.00%	20.00%
PINUS VIRGINIANA			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
RHODODENDRON VISCOSUM (S)			0.00	0.00	0.00%	0.00%	1,800.00	1,412.64	0.00%	20.00%
RUBUS ALLEGHENIENSIS	S		18,200.00	9,254.19	0.00%	50.00%	0.00	0.00	0.00%	0.00%
SASSAFRAS ALBIDUM			200.00	200.00	0.00%	10.00%	200.00	200.00	10.00%	10.00%
SASSAFRAS ALBIDUM (S)			1,200.00	1,200.00	0.00%	10.00%	0.00	0.00	0.00%	0.00%
SMILAX GLAUCA			0.00	0.00	0.00%	0.00%	200.00	200.00	0.00%	10.00%
SMILAX ROTUNDIFOLIA			1,200.00	1,200.00	0.00%	10.00%	400.00	266.67	0.00%	20.00%
SOLIDAGO SPP.	H		11,800.00	4,103.66	0.00%	70.00%	7,600.00	7,600.00	0.00%	10.00%
THELYPTERIS PALUSTRIS			0.00	0.00	0.00%	0.00%	400.00	400.00	0.00%	10.00%
VACCINIUM CORYMBOSUM (S)			0.00	0.00	0.00%	0.00%	1,000.00	802.77	0.00%	20.00%

Table 33 (continued on next page). Belleplain Food Patch site: all vegetation between .6 and 1.3 meters tall. Average number of stems per hectare, its standard error of the mean, percent of stems browsed and percent frequency are presented by treatment. The columns labeled D (stem density significant differences) and B (percent browse significant differences) when blank represent no statistical significance (alpha > .05) or not applicable (zero densities) across all treatments. The occurrence of an S in these columns signifies a statistically significant difference between treatments (alpha is between .05 and .005). An H in these columns means a highly significant difference among treatments (alpha less than .005). Data were collected during the full survey in summer 1994. (n = 10 for each treatment) fence = herbicide plus seed plus electric fence; control = herbicide only; seed / herbicide = herbicide plus seed; seed / herbicide / Hinder = herbicide plus seed plus Hinder (deer repellent).

BELLEPLAIN FOOD PATCH
.6 - 1.3 M

		SEED / HERBICIDE				SEED / HERBICIDE / HINDER			
SPECIES		MEAN DENSITY (#/HA)	STANDARD ERROR	PERCENT BROWSE	FREQ.	MEAN DENSITY (#/HA)	STANDARD ERROR	PERCENT BROWSE	FREQ.
	D B								
ACER RUBRUM (S)		0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
ARONIA SPP.		200.00	200.00	0.00%	10.00%	0.00	0.00	0.00%	0.00%
ARONIA SPP. (S)		0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
CHAMAECYPARIS THYOIDES		600.00	600.00	0.00%	10.00%	800.00	326.60	0.00%	40.00%
CLETHRA ALNIFOLIA		200.00	200.00	0.00%	10.00%	0.00	0.00	0.00%	0.00%
CLETHRA ALNIFOLIA (S)		3,600.00	2,400.00	0.00%	30.00%	0.00	0.00	0.00%	0.00%
EPILOBIUM ANGUSTIFOLIUM		4,400.00	4,182.50	0.00%	20.00%	5,000.00	2,816.62	0.00%	30.00%
EUPATORIUM PERFORIATUM		0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
GAYLUSSACIA FRONDOSA (S)		800.00	800.00	0.00%	10.00%	0.00	0.00	0.00%	0.00%
ILEX OPACA		0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
KALMIA ANGUSTIFOLIA		0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
KALMIA ANGUSTIFOLIA (S)		200.00	200.00	0.00%	10.00%	0.00	0.00	0.00%	0.00%
KALMIA LATIFOLIA		0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
KALMIA LATIFOLIA (S)		0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
LEUCOTHOE RACEMOSA (S)		1,600.00	1,600.00	0.00%	10.00%	400.00	400.00	0.00%	10.00%
LYONIA LIGUSTINA		200.00	200.00	0.00%	10.00%	200.00	200.00	0.00%	10.00%
LYONIA LIGUSTINA (S)		1,000.00	1,000.00	0.00%	10.00%	0.00	0.00	0.00%	0.00%
NYSSA SYLVATICA		0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
OSMUNDA CINNAMOMEA		600.00	600.00	0.00%	10.00%	0.00	0.00	0.00%	0.00%
PHYTOLACCA AMERICANA	H	0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
PINUS RIGIDA		0.00	0.00	0.00%	0.00%	200.00	200.00	0.00%	10.00%
PINUS VIRGINIANA		0.00	0.00	0.00%	0.00%	200.00	200.00	0.00%	10.00%
RHODODENDRON VISCOSUM (S)		0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
RUBUS ALLEGHENIENSIS	S	6,600.00	4,807.86	0.00%	20.00%	1,200.00	1,200.00	0.00%	10.00%
SASSAFRAS ALBIDUM		0.00	0.00	0.00%	0.00%	200.00	200.00	0.00%	10.00%
SASSAFRAS ALBIDUM (S)		0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
SMILAX GLAUCA		0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
SMILAX ROTUNDIFOLIA		4,800.00	3,322.65	3.33%	20.00%	1,200.00	679.87	5.00%	30.00%
SOLIDAGO SPP.	H	0.00	0.00	0.00%	0.00%	400.00	400.00	0.00%	10.00%
THELYPTERIS PALUSTRIS		0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
VACCINIUM CORYMBOSUM (S)		0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%

Table 33 (continued).

**BELLEPLAIN FOOD PATCH
> 1.3 M**

SPECIES	FENCE			CONTROL		
	MEAN	STANDARD	FREQ.	MEAN	STANDARD	FREQ.
	DENSITY	ERROR		DENSITY	ERROR	
	D	(#/HA)		(#/HA)		
ACER RUBRUM (S)		200.00	10.00%	0.00	0.00	0.00%
ARONIA SPP. (S)		200.00	10.00%	0.00	0.00	0.00%
CHAMAECYPARIS THYOIDES	H	0.00	0.00%	4,400.00	1,758.79	50.00%
CLETHERA ALNIFOLIA (S)		200.00	10.00%	1,400.00	1,400.00	10.00%
MAGNOLIA VIRGINIANA		0.00	0.00%	0.00	0.00	0.00%
OSMUNDA CINNAMOMEA		0.00	0.00%	200.00	200.00	10.00%
PHYTOLACCA AMERICANA		400.00	10.00%	0.00	0.00	0.00%
PINUS RIGIDA		0.00	0.00%	800.00	533.33	20.00%
PINUS VIRGINIANA		200.00	10.00%	400.00	400.00	10.00%
QUERCUS COCCINEA (S)		0.00	0.00%	0.00	0.00	0.00%
RUBUS ALLEGHENIENSIS		1,000.00	20.00%	0.00	0.00	0.00%
SASSAFRAS ALBIDUM		400.00	10.00%	0.00	0.00	0.00%
SMILAX ROTUNDIFOLIA		200.00	10.00%	0.00	0.00	0.00%
SOLIDAGO SPP.		200.00	10.00%	0.00	0.00	0.00%
SEED / HERBICIDE						
SPECIES	SEED / HERBICIDE			SEED / HERBICIDE / HINDER		
	MEAN	STANDARD	FREQ.	MEAN	STANDARD	FREQ.
	DENSITY	ERROR		DENSITY	ERROR	
	D	(#/HA)		(#/HA)		
ACER RUBRUM (S)		0.00	0.00%	0.00	0.00	0.00%
ARONIA SPP. (S)		0.00	0.00%	0.00	0.00	0.00%
CHAMAECYPARIS THYOIDES	H	0.00	0.00%	0.00	0.00	0.00%
CLETHERA ALNIFOLIA (S)		0.00	0.00%	0.00	0.00	0.00%
MAGNOLIA VIRGINIANA		0.00	0.00%	200.00	200.00	10.00%
OSMUNDA CINNAMOMEA		0.00	0.00%	0.00	0.00	0.00%
PHYTOLACCA AMERICANA		0.00	0.00%	0.00	0.00	0.00%
PINUS RIGIDA		200.00	10.00%	200.00	200.00	10.00%
PINUS VIRGINIANA		0.00	0.00%	0.00	0.00	0.00%
QUERCUS COCCINEA (S)		0.00	0.00%	200.00	200.00	10.00%
RUBUS ALLEGHENIENSIS		400.00	10.00%	0.00	0.00	0.00%
SASSAFRAS ALBIDUM		0.00	0.00%	0.00	0.00	0.00%
SMILAX ROTUNDIFOLIA		1,000.00	20.00%	800.00	442.22	30.00%
SOLIDAGO SPP.		0.00	0.00%	0.00	0.00	0.00%

Table 34. Belleplain Food Patch site: all vegetation greater than 1.3 meters tall. Average number of stems per hectare, its standard error of the mean, and percent frequency are presented by treatment. The column labeled D (stem density significant differences) when blank represents no statistical significance (alpha > .05) or not applicable (zero densities) across all treatments. The occurrence of an S in this column signifies a statistically significant difference between treatments (alpha is between .05 and .005). An H in this column means a highly significant difference among treatments (alpha less than .005). Data were collected during the full survey in summer 1994. (n = 10 for each treatment) fence = fence plus seed plus electric fence; control = herbicide only; seed / herbicide = herbicide plus seed; seed / herbicide / Hinder = herbicide plus seed plus Hinder (deer repellent).

**BELLEPLAIN NON-FOOD PATCH
DOWNED DEBRIS**

FENCE			CONTROL			SEED / HERBICIDE			SEED / HERBICIDE / HINDER		
LAYER	MEAN	STANDARD ERROR	LAYER	MEAN	STANDARD ERROR	LAYER	MEAN	STANDARD ERROR	LAYER	MEAN	STANDARD ERROR
FIRST LAYER	5.49%	1.51	FIRST LAYER	5.30%	1.88	FIRST LAYER	4.33%	1.00	FIRST LAYER	4.07%	1.65
SECOND LAYER	0.08%	0.07	SECOND LAYER	0.67%	0.42	SECOND LAYER	2.88%	2.37	SECOND LAYER	0.05%	0.05
THIRD LAYER	0.00%	0.00	THIRD LAYER	0.00%	0.00	THIRD LAYER	0.52%	0.38	THIRD LAYER	0.00%	0.00

Table 35. Belleplain Non-Food Patch site downed debris. Average percent cover and standard error of the mean are presented by layer and treatment. The first layer is the closest debris to the ground. The second layer (i.e. dead branches) is found over the first layer. The third layer is found over the second layer which is found over the first layer and so forth. Data were collected during the full survey in summer 1994. (n = 12 for each treatment) fence = herbicide plus seed plus electric fence; control = herbicide only; seed / herbicide = herbicide plus seed; seed / herbicide / Hinder = herbicide plus seed plus Hinder (deer repellent).

**BELLEPLAIN NON-FOOD PATCH
GROUND COVERAGES**

FENCE			CONTROL			SEED / HERBICIDE			SEED / HERBICIDE / HINDER		
LAYER	MEAN	STANDARD ERROR	LAYER	MEAN	STANDARD ERROR	LAYER	MEAN	STANDARD ERROR	LAYER	MEAN	STANDARD ERROR
GRASS	2.50%	1.31	GRASS	23.75%	6.75	GRASS	28.33%	8.54	GRASS	22.50%	6.81
LITTER	70.83%	9.63	LITTER	44.17%	10.41	LITTER	46.25%	9.07	LITTER	63.75%	10.15
LOG	1.25%	0.90	LOG	1.67%	0.94	LOG	4.17%	2.53	LOG	0.42%	0.42
MOSS	0.83%	0.83	MOSS	2.50%	1.79	MOSS	1.67%	0.94	MOSS	1.67%	0.94
SOIL	24.17%	8.77	SOIL	26.67%	8.90	SOIL	19.58%	5.62	SOIL	11.67%	4.74
STUMP	0.42%	0.42	STUMP	0.83%	0.83	STUMP	0.00%	0.00	STUMP	0.00%	0.00

Table 36. Belleplain Non-Food patch site percent ground coverages. Average percent cover and standard error of the mean are presented by layer category and treatment. Data were collected during the full survey in late summer 1994. (n = 12 for each treatment) fence = herbicide plus seed plus electric fence; control = herbicide only; seed / herbicide = herbicide plus seed; seed / herbicide / Hinder = herbicide plus seed plus Hinder (deer repellent).

**BELLEPLAIN NON-FOOD PATCH
< .3 M**

SPECIES	FENCE					CONTROL				
	D	B	MEAN DENSITY (#/HA)	STANDARD ERROR	PERCENT BROWSE	FREQ.	MEAN DENSITY (#/HA)	STANDARD ERROR	PERCENT BROWSE	FREQ.
ACER RUBRUM			19,166.67	11,445.41	0.00%	25.00%	833.33	833.33	8.33%	8.00%
ACER RUBRUM (S)			0.00	0.00	0.00%	0.00%	833.33	833.33	8.33%	8.00%
AMELANCHIER ARBOREA			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
AMELANCHIER ARBOREA (S)			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
ARONIA SPP.			833.33	833.33	0.00%	8.00%	0.00	0.00	0.00%	0.00%
ARONIA SPP. (S)			833.33	833.33	0.00%	8.00%	0.00	0.00	0.00%	0.00%
CHAMAECYPARIS THYOIDES	H		5,000.00	2,886.75	0.00%	25.00%	0.00	0.00	0.00%	0.00%
CHAMAECYPARIS THYOIDES (PLANTING)	H		3,333.33	1,421.34	16.67%	33.00%	0.00	0.00	0.00%	0.00%
CLETHRA ALNIFOLIA			833.33	833.33	0.00%	8.00%	0.00	0.00	0.00%	0.00%
CLETHRA ALNIFOLIA (S)	S		0.00	0.00	0.00%	0.00%	833.33	833.33	0.00%	8.00%
EPLIOBIUM ANGUSTIFOLIUM			3,333.33	2,562.35	0.00%	17.00%	11,666.67	4,234.30	0.00%	50.00%
GAULTHERIA PROCUMBENS			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
GAYLUSSACIA BACCATA			4,166.67	4,166.67	0.00%	8.00%	1,666.67	1,123.67	0.00%	17.00%
GAYLUSSACIA BACCATA (S)			8,333.33	4,740.75	0.00%	25.00%	3,333.33	2,247.33	0.00%	17.00%
GAYLUSSACIA FRONDOSA			0.00	0.00	0.00%	0.00%	1,666.67	1,666.67	0.00%	8.00%
GAYLUSSACIA FRONDOSA (S)			19,166.67	8,114.55	0.00%	50.00%	1,666.67	1,123.67	0.00%	17.00%
GNAPHALIUM OBTUSIFOLIUM			0.00	0.00	0.00%	0.00%	2,500.00	1,794.35	0.00%	17.00%
HYPOCHOERIS RADICATA			0.00	0.00	0.00%	0.00%	833.00	633.00	0.00%	8.30%
ILEX OPACA			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
KALMIA ANGUSTIFOLIA			0.00	0.00	0.00%	0.00%	2,500.00	2,500.00	0.00%	8.00%
KALMIA ANGUSTIFOLIA (S)			5,833.33	5,833.33	0.00%	8.00%	8,333.33	7,470.48	0.00%	17.00%
KALMIA LATIFOLIA			0.00	0.00	0.00%	0.00%	833.33	833.33	0.00%	6.00%
LEUCOTHOE RACEMOSA (S)			2,500.00	1,794.35	0.00%	17.00%	5,000.00	3,371.00	8.33%	25.00%
LIQUIDAMBAR STYRACIFLUA			2,500.00	1,794.35	0.00%	17.00%	0.00	0.00	0.00%	0.00%
LYONIA LIGUSTINA			833.33	833.33	0.00%	8.00%	0.00	0.00	0.00%	0.00%
LYONIA LIGUSTINA (S)			4,166.67	4,166.67	0.00%	8.00%	0.00	0.00	0.00%	0.00%
MUSHROOM SPP.			833.33	833.33	0.00%	8.00%	6,666.67	6,666.67	0.00%	8.00%
NYSSA SYLVATICA			1,666.67	1,123.67	0.00%	17.00%	0.00	0.00	0.00%	0.00%
PINUS RIGIDA			5,833.33	2,289.08	0.00%	42.00%	833.33	833.33	0.00%	8.00%
PTERIDIUM AQUILINUM			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
QUERCUS ALBA			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
QUERCUS ILICIFOLIA			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
RHODODENDRON VISCOSUM			833.33	833.33	0.00%	8.00%	0.00	0.00	0.00%	0.00%
RHODODENDRON VISCOSUM (S)	S		21,666.67	10,719.09	0.00%	50.00%	0.00	0.00	0.00%	0.00%
RUBUS HISPIDUS			16,666.67	16,666.67	0.00%	8.00%	0.00	0.00	0.00%	0.00%
SASSAPARILLA ALBIDUM (S)			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
SMILAX GLAUCA			15,000.00	6,454.97	4.17%	42.00%	3,333.33	3,333.33	0.00%	8.00%
SMILAX ROTUNDIFOLIA			0.00	0.00	0.00%	0.00%	1,666.67	1,123.67	8.33%	17.00%
SOLIDAGO SPP.			1,666.67	1,123.67	0.00%	17.00%	21,666.67	17,443.99	0.00%	25.00%
VACCINIUM CORYMBOSUM (S)			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
VERBASCUM THAPSUS			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%

Table 37 (continued on the next page). Belleplain Non-Food Patch site: All vegetation less than .3 meters tall. Average number of stems per hectare, its standard error of the mean, percent of stems browsed and percent frequency are presented by treatment. The columns labeled D (stem density significant differences) and B (percent browse significant differences) when blank represent no statistical significance (alpha > .05) or not applicable (zero densities) across all treatments. The occurrence of an S in these columns represents a statistically significant difference between treatments (alpha is between .05 and .005). An H in these columns means a highly significant difference among treatments (alpha less than .005). Data were collected during the full survey in summer 1994. (n = 12 for each treatment) fence = herbicide plus seed plus electric fence; control = herbicide only; seed / herbicide = herbicide plus seed; seed / herbicide / Hinder = herbicide plus seed plus Hinder (deer repellent).

**BELLEPLAIN NON-FOOD PATCH
< .3 M**

SPECIES	D	B	SEED / HERBICIDE				SEED / HERBICIDE / HINDER			
			MEAN	STANDARD	PERCENT	FREQ.	MEAN	STANDARD	PERCENT	FREQ.
			DENSITY (#/HA)	ERROR	BROWSE		DENSITY (#/HA)	ERROR	BROWSE	
ACER RUBRUM			0.00	0.00	0.00%	0.00%	833.33	833.33	0.00%	8.00%
ACER RUBRUM (S)			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
AMELANCHIER ARBOREA			1,666.67	1,123.67	0.00%	17.00%	0.00	0.00	0.00%	0.00%
AMELANCHIER ARBOREA (S)			0.00	0.00	0.00%	0.00%	833.33	833.33	0.00%	8.00%
ARONIA SPP.			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
ARONIA SPP. (S)			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
CHAMAECYPARIS THYOIDES	H		1,666.67	1,123.67	0.00%	17.00%	0.00	0.00	0.00%	0.00%
CHAMAECYPARIS THYOIDES (PLANTING)	H		0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
CLETHRA ALNIFOLIA			833.33	833.33	0.00%	8.00%	833.33	833.33	0.00%	8.00%
CLETHRA ALNIFOLIA (S)	S		9,166.67	4,344.68	0.00%	42.00%	0.00	0.00	0.00%	0.00%
EPLIOBIUM ANGUSTIFOLIUM			5,833.33	5,833.33	1.19%	8.00%	3,333.33	3,333.33	0.00%	8.00%
GAULTHERIA PROCUMBENS			0.00	0.00	0.00%	0.00%	5,833.33	5,833.33	0.00%	8.00%
GAYLUSSACIA BACCATA			0.00	0.00	0.00%	0.00%	8,333.33	8,333.33	0.00%	8.00%
GAYLUSSACIA BACCATA (S)			5,833.33	3,128.15	0.00%	25.00%	3,333.33	3,333.33	0.00%	8.00%
GAYLUSSACIA FRONDOSA			0.00	0.00	0.00%	0.00%	833.33	833.33	0.00%	8.00%
GAYLUSSACIA FRONDOSA (S)			7,500.00	3,718.30	0.00%	33.00%	6,666.67	4,974.68	0.00%	25.00%
GNAPHALIUM OBTUSIFOLIUM			6,666.67	4,974.68	0.00%	25.00%	0.00	0.00	0.00%	0.00%
HYPOCHOERIS RADICATA			833.33	833.33	0.00%	8.00%	0.00	0.00	0.00%	0.00%
ILEX OPACA			0.00	0.00	0.00%	0.00%	833.33	833.33	0.00%	8.00%
KALMIA ANGUSTIFOLIA			0.00	0.00	0.00%	0.00%	833.33	833.33	0.00%	8.00%
KALMIA ANGUSTIFOLIA (S)			14,166.67	10,034.66	0.00%	17.00%	15,833.33	14,947.30	0.00%	17.00%
KALMIA LATIFOLIA			0.00	0.00	0.00%	0.00%	833.33	833.33	0.00%	8.00%
LEUCOTHOE RACEMOSA (S)			14,166.67	5,567.54	0.00%	50.00%	833.33	833.33	0.00%	8.00%
LIQUIDAMBAR STYRACIFLUA			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
LYONIA LIGUSTINA			3,333.33	3,333.33	0.00%	8.00%	0.00	0.00	0.00%	0.00%
LYONIA LIGUSTINA (S)			2,500.00	2,500.00	0.00%	8.00%	2,500.00	2,500.00	0.00%	8.00%
MUSHROOM SPP.			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
NYSSA SYLVATICA			0.00	0.00	0.00%	0.00%	833.33	833.33	0.00%	8.00%
PINUS RIGIDA			833.33	833.33	0.00%	8.00%	833.33	833.33	0.00%	8.00%
PTERIDIUM AQUILINUM			0.00	0.00	0.00%	0.00%	3,333.33	3,333.33	0.00%	8.00%
QUERCUS ALBA			0.00	0.00	0.00%	0.00%	833.33	833.33	0.00%	8.00%
QUERCUS ILICIFOLIA			833.33	833.33	0.00%	8.00%	0.00	0.00	0.00%	0.00%
RHODODENDRON VISCOSUM			0.00	0.00	0.00%	0.00%	833.33	833.33	0.00%	8.00%
RHODODENDRON VISCOSUM (S)	S		5,833.33	5,833.33	0.00%	8.00%	7,500.00	5,919.28	0.00%	17.00%
RUBUS HISPIDUS			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
SASSAFRAS ALBIDUM (S)			0.00	0.00	0.00%	0.00%	2,500.00	2,499.00	5.50%	8.30%
SMILAX GLAUCA			12,500.00	4,626.18	0.00%	50.00%	2,500.00	1,794.35	0.00%	17.00%
SMILAX ROTUNDIFOLIA			833.33	833.33	8.33%	8.00%	0.00	0.00	0.00%	0.00%
SOLIDAGO SPP.			1,666.67	1,666.67	0.00%	8.00%	9,166.67	8,299.17	0.00%	17.00%
VACCINIUM CORYMBOSUM (S)			833.33	833.33	0.00%	8.00%	0.00	0.00	0.00%	0.00%
VERBASCUM THAPSUS			81,666.67	79,856.00	0.00%	25.00%	3,333.00	1,880.00	0.00%	25.00%

Table 37 (continued).

BELLEPLAIN NON-FOOD PATCH
3 - 6 M

SPECIES	D	B	FENCE				CONTROL			
			MEAN DENSITY (#/HA)	STANDARD ERROR	PERCENT BROWSE	FREQ.	MEAN DENSITY (#/HA)	STANDARD ERROR	PERCENT BROWSE	FREQ.
ACER RUBRUM			0.00	0.00	0.00%	0.00%	166.67	166.67	8.33%	8.00%
ACER RUBRUM (S)			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
AMELANCHIER ARBOREA (S)			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
ARONIA SPP			166.67	166.67	0.00%	8.00%	0.00	0.00	0.00%	0.00%
ARONIA SPP (S)			666.67	666.67	0.00%	8.00%	0.00	0.00	0.00%	0.00%
CHAMAECYPARIS THYOIDES	S		500.00	358.87	0.00%	17.00%	0.00	0.00	0.00%	0.00%
CHAMAECYPARIS THYOIDES (PLANTING)	H		2,666.67	619.55	8.33%	67.00%	0.00	0.00	0.00%	0.00%
CIRSIIUM HORRIDULUM			166.67	166.67	0.00%	8.00%	0.00	0.00	0.00%	0.00%
CLETHRA ALNIFOLIA			166.67	166.67	0.00%	8.00%	0.00	0.00	0.00%	0.00%
CLETHRA ALNIFOLIA (S)			500.00	358.87	0.00%	17.00%	1,166.67	998.74	0.00%	17.00%
COMPTONIA PEREGRINA			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
EPILOBIUM ANGUSTIFOLIUM	S		27,500.00	12,685.29	0.00%	75.00%	22,833.33	5,786.39	0.49%	92.00%
GALINSOGA CILIATA			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
GAYLUSSACIA BACCATA			2,333.33	1,855.92	0.00%	17.00%	166.67	166.67	0.00%	8.00%
GAYLUSSACIA BACCATA (S)			166.67	166.67	0.00%	8.00%	1,833.33	1,833.33	0.00%	8.00%
GAYLUSSACIA FRONDOSA			166.67	166.67	0.00%	8.00%	166.67	166.67	0.00%	8.00%
GAYLUSSACIA FRONDOSA (S)			6,166.67	2,811.86	0.00%	50.00%	166.67	166.67	0.00%	8.00%
GAYLUSSACIA SPP. (S)			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
GNAPHALIUM OSTUSIFOLIUM			333.33	333.33	0.00%	8.00%	5,166.67	4,448.97	0.00%	42.00%
ILEX GLABRA (S)			500.00	500.00	0.00%	8.00%	0.00	0.00	0.00%	0.00%
ILEX OPACA			0.00	0.00	0.00%	0.00%	166.67	166.67	0.00%	8.00%
KALMIA ANGUSTIFOLIA (S)			4,833.33	4,302.63	0.00%	25.00%	7,000.00	4,239.97	0.00%	33.00%
KALMIA LATIFOLIA			0.00	0.00	0.00%	0.00%	166.67	166.67	0.00%	8.00%
KALMIA LATIFOLIA (S)			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
LEIOPHYLLUM BUXIFOLIUM			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
LEUCOTHOE RACEMOSA			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
LEUCOTHOE RACEMOSA (S)			4,666.67	1,563.47	0.00%	67.00%	1,500.00	1,018.78	0.00%	25.00%
LIQUIDAMBAR STYRACIFLUA			0.00	0.00	0.00%	0.00%	166.67	166.67	0.00%	8.00%
LYONIA LIGUSTINA (S)			4,333.33	3,122.09	0.00%	33.00%	166.67	166.67	0.00%	8.00%
LYONIA MARIANA			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
MYRICA HETEROPHYLLA (S)			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
NYSSA SYLVATICA			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
OSMUNDA CINNAMOMEA			3,166.67	1,833.33	0.00%	25.00%	166.67	166.67	0.00%	8.00%
PHYTOLACCA AMERICANA			166.67	166.67	0.00%	8.00%	0.00	0.00	0.00%	0.00%
PINUS RIGIDA			333.33	224.73	0.00%	17.00%	166.67	166.67	0.00%	8.00%
PTERIDIUM AQUILINUM			1,000.00	1,000.00	0.00%	8.00%	0.00	0.00	0.00%	0.00%
QUERCUS ALBA			166.67	166.67	0.00%	8.00%	0.00	0.00	0.00%	0.00%
QUERCUS COCCINEA			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
QUERCUS ILICIFOLIA			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
RHODODENDRON VISCOSUM			166.67	166.67	0.00%	8.00%	0.00	0.00	0.00%	0.00%
RHODODENDRON VISCOSUM (S)	S		1,833.33	998.74	0.00%	42.00%	0.00	0.00	0.00%	0.00%
RUBUS ALLEGHENIENSIS			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
SASSAFRAS ALBIDUM			333.33	224.73	8.33%	17.00%	0.00	0.00	0.00%	0.00%
SASSAFRAS ALBIDUM (S)			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
SMILAX GLAUCA	S		2,666.67	1,378.04	0.00%	42.00%	166.67	166.67	0.00%	8.00%
SMILAX ROTUNDIFOLIA	S		0.00	0.00	0.00%	0.00%	1,000.00	874.20	12.50%	25.00%
SOLIDAGO SPP.			8,166.67	4,115.44	0.00%	42.00%	2,333.33	1,829.90	0.00%	42.00%
VACCINIUM CORYMBOSUM			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
VACCINIUM CORYMBOSUM (S)			166.67	166.67	0.00%	8.00%	0.00	0.00	0.00%	0.00%
VACCINIUM VACILLANS (S)			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%

Table 3B (continued on next page). Belleplain Non-Food Patch site: all vegetation between .3 and .6 meters tall. Average number of stems per hectare, its standard error of the mean and percent of stems browsed are presented by treatment. The columns labeled D (stem density significant differences) and B (percent browse significant differences) when blank represent no statistical significance (alpha > .05) or not applicable (zero densities) across all treatments. The occurrence of an S in these columns represents a statistical significance between treatments (alpha is between .05 and .005). An H in these columns means highly significant difference among treatments (alpha less than .005). Data were collected during the full survey in summer 1994. (n = 12 for each treatment) fence = herbicide plus seed plus electric fence; control = herbicide only; seed / herbicide = herbicide plus seed; seed / herbicide / Hinder = herbicide plus seed plus Hinder (deer repellent).

BELLEPLAIN NON-FOOD PATCH
.3 - .6 M

SPECIES	D	B	SEED / HERBICIDE				SEED / HERBICIDE / HINDER			
			MEAN DENSITY (#/HA)	STANDARD ERROR	PERCENT BROWSE	FREQ.	MEAN DENSITY (#/HA)	STANDARD ERROR	PERCENT BROWSE	FREQ.
ACER RUBRUM			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
ACER RUBRUM (S)			0.00	0.00	0.00%	0.00%	166.67	166.67	0.00%	8.00%
AMELANCHIER ARBOREA (S)			0.00	0.00	0.00%	0.00%	500.00	358.67	0.00%	17.00%
ARONIA SPP.			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
ARONIA SPP. (S)			333.33	333.33	0.00%	8.00%	0.00	0.00	0.00%	0.00%
CHAMAECYPARIS THYOIDES	S		500.00	358.67	0.00%	17.00%	0.00	0.00	0.00%	0.00%
CHAMAECYPARIS THYOIDES (PLANTING)	H		0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
CIRSIIUM HORRIDULUM			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
CLETHRA ALNIFOLIA			166.67	166.67	0.00%	8.00%	0.00	0.00	0.00%	0.00%
CLETHRA ALNIFOLIA (S)			1,633.33	1,166.67	0.00%	33.00%	3,666.67	2,027.59	12.50%	42.00%
COMPTONIA PEREGRINA			0.00	0.00	0.00%	0.00%	166.67	166.67	0.00%	8.00%
EPILOBIUM ANGUSTIFOLIUM	S		8,000.00	5,515.82	0.00%	50.00%	3,000.00	1,547.24	0.00%	42.00%
GALINSOGA CILIATA			0.00	0.00	0.00%	0.00%	166.67	166.67	0.00%	8.00%
GAYLUSSACIA BACCATA			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
GAYLUSSACIA BACCATA (S)			166.67	166.67	0.00%	8.00%	0.00	0.00	0.00%	0.00%
GAYLUSSACIA FRONDOSA			0.00	0.00	0.00%	0.00%	166.67	166.67	0.00%	8.00%
GAYLUSSACIA FRONDOSA (S)			7,333.33	3,396.37	0.00%	58.00%	4,000.00	1,614.33	0.00%	50.00%
GAYLUSSACIA SPP. (S)			0.00	0.00	0.00%	0.00%	12,166.67	11,807.70	0.00%	17.00%
GNAPHALIUM OBTUSIFOLIUM			3,333.33	1,657.55	0.00%	42.00%	333.33	224.73	0.00%	17.00%
ILEX GLABRA (S)			0.00	0.00	0.00%	0.00%	1,166.67	1,166.67	0.00%	8.00%
ILEX OPACA			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
KALMIA ANGUSTIFOLIA (S)			5,333.33	3,501.80	0.00%	25.00%	4,666.67	4,666.67	0.00%	8.00%
KALMIA LATIFOLIA			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
KALMIA LATIFOLIA (S)			0.00	0.00	0.00%	0.00%	500.00	500.00	0.00%	8.00%
LEIOPHYLLUM BUXIFOLIUM			0.00	0.00	0.00%	0.00%	166.67	166.67	0.00%	8.00%
LEUCOTHOE RACEMOSA			166.67	166.67	0.00%	8.00%	0.00	0.00	0.00%	0.00%
LEUCOTHOE RACEMOSA (S)			21,166.67	13,071.96	0.00%	56.00%	4,333.33	1,935.84	0.00%	50.00%
LIQUIDAMBAR STYRACIFLUA			333.33	224.73	0.00%	17.00%	0.00	0.00	0.00%	0.00%
LYONIA MARIANA			1,166.67	833.33	0.00%	25.00%	3,500.00	2,217.36	0.64%	33.00%
MYRICA HETEROPHYLLA (S)			166.67	166.67	0.00%	8.00%	0.00	0.00	0.00%	0.00%
NYSSA SYLVATICA			166.67	166.67	0.00%	6.00%	0.00	0.00	0.00%	0.00%
OSMUNDA CINNAMOMEA			333.33	333.33	0.00%	8.00%	0.00	0.00	0.00%	0.00%
PHYTOLACCA AMERICANA			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
PINUS RIGIDA			333.33	224.73	0.00%	17.00%	0.00	0.00	0.00%	0.00%
PTERIDIUM AQUILINUM			1,500.00	743.66	0.00%	33.00%	6,666.67	4,378.55	0.00%	25.00%
QUERCUS ALBA			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
QUERCUS COCCINEA			166.67	166.67	0.00%	8.00%	166.67	166.67	0.00%	8.00%
QUERCUS ILICIFOLIA			333.33	224.73	0.00%	17.00%	0.00	0.00	0.00%	0.00%
RHODODENDRON VISCOSUM			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
RHODODENDRON VISCOSUM (S)	S		333.33	333.33	0.00%	8.00%	833.33	672.32	0.00%	17.00%
RUBUS ALLEGHENIENSIS			0.00	0.00	0.00%	0.00%	1,166.67	1,166.67	0.00%	8.00%
SASSAFRAS ALBIDUM			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
SASSAFRAS ALBIDUM (S)			0.00	0.00	0.00%	0.00%	166.67	166.67	0.00%	8.00%
SMILAX GLAUCA	S		2,166.67	715.98	0.00%	58.00%	833.33	519.81	0.00%	25.00%
SMILAX ROTUNDIFOLIA	S		0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
SOLIDAGO SPP.			1,333.33	828.78	0.00%	33.00%	2,666.67	1,974.59	0.00%	33.00%
VACCINIUM CORYMBOSUM			333.33	224.73	0.00%	17.00%	166.67	166.67	0.00%	8.00%
VACCINIUM CORYMBOSUM (S)			166.67	166.67	0.00%	8.00%	0.00	0.00	0.00%	0.00%
VACCINIUM VACILLANS (S)			0.00	0.00	0.00%	0.00%	333.33	333.33	0.00%	8.00%

Table 38 (continued).

**BELLEPLAIN NON-FOOD PATCH
.6 - 1.3 M**

SPECIES	FENCE					CONTROL				
	D	B	MEAN	STANDARD	PERCENT	FREQ.	MEAN	STANDARD	PERCENT	FREQ.
			DENSITY (#/HA)	ERROR	BROWSE		DENSITY (#/HA)	ERROR	BROWSE	
ACER RUBRUM			166.67	166.67	0.00%	8.00%	0.00	0.00	0.00%	0.00%
AMELANCHIER ARBOREA			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
ARONIA SPP. (S)			166.67	166.67	0.00%	8.00%	0.00	0.00	0.00%	0.00%
CLETHERA ALNIFOLIA (S)			333.33	333.33	0.00%	8.00%	3,333.33	3,333.33	0.00%	8.00%
EPILOBIUM ANGUSTIFOLIUM	S		30,000.00	13,332.58	0.00%	67.00%	22,333.33	5,877.54	0.60%	83.00%
GAYLUSSACIA BACCATA (S)			166.67	166.67	0.00%	8.00%	0.00	0.00	0.00%	0.00%
GAYLUSSACIA FRONDOSA (S)			333.33	224.73	0.00%	17.00%	0.00	0.00	0.00%	0.00%
GAYLUSSACIA SPP. (S)			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
GNAPHALIUM OBTUSIFOLIUM			0.00	0.00	0.00%	0.00%	833.33	833.33	0.00%	8.00%
ILEX GLABRA (S)			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
KALMIA ANGUSTIFOLIA (S)			0.00	0.00	0.00%	0.00%	166.67	166.67	0.00%	8.00%
LEUCOTHOE RACEMOSA (S)			1,000.00	522.23	0.00%	33.00%	666.67	666.67	0.00%	8.00%
LYONIA LIGUSTINA (S)			1,833.33	1,833.33	0.00%	8.00%	0.00	0.00	0.00%	0.00%
MYRICA HETEROPHYLLA (S)			0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
NYSSA SYLVATICA (S)			500.00	500.00	0.00%	8.00%	0.00	0.00	0.00%	0.00%
OSMUNDA CINNAMOMEA			166.67	166.67	0.00%	8.00%	500.00	358.87	0.00%	17.00%
PHYTOLACCA AMERICANA			333.33	224.73	0.00%	17.00%	0.00	0.00	0.00%	0.00%
PINUS RIGIDA			333.33	224.73	0.00%	17.00%	166.67	166.67	0.00%	8.00%
PTERIDUM AQUILINUM			1,833.33	1,833.33	0.00%	8.00%	0.00	0.00	0.00%	0.00%
QUERCUS ALBA			166.67	166.67	0.00%	8.00%	0.00	0.00	0.00%	0.00%
QUERCUS COCCINEA			166.67	166.67	0.00%	8.00%	0.00	0.00	0.00%	0.00%
RHODODENDRON VISCOSUM (S)			333.33	333.33	0.00%	8.00%	333.33	333.33	0.00%	8.00%
SMILAX GLAUCA			833.33	457.82	0.00%	25.00%	0.00	0.00	0.00%	0.00%
SMILAX ROTUNDIFOLIA			0.00	0.00	0.00%	0.00%	666.67	512.47	0.00%	17.00%
SOLIDAGO SPP.			5,166.67	3,769.56	0.00%	25.00%	166.67	166.67	0.00%	8.00%
VACCINIUM CORYMBOSUM (S)			500.00	500.00	0.00%	8.00%	500.00	500.00	2.78%	8.00%

Table 39 (continued on next page). Belleplain Non-Food Patch site: all vegetation between .6 and 1.3 meters tall. Average number of stems per hectare and, its standard error of the mean and percent of stems browsed are presented by treatment. The columns labeled D (stem density significant differences) and B (percent browse significant differences) when blank represent no statistical significance (alpha > .05) or not applicable (zero densities) across all treatments. The occurrence of an S in these columns represents a statistical significance between treatments (alpha is between .05 and .005). An H in these columns means highly significant difference among treatments (alpha less than .005). Data were collected during the full survey in summer 1994. (n = 12 for each treatment) fence = herbicide plus seed plus electric fence; control = herbicide only; seed / herbicide = herbicide plus seed; seed / herbicide / Hinder = herbicide plus seed plus Hinder (deer repellent).

**BELLEPLAIN NON-FOOD PATCH
.6 - 1.3 M**

		SEED / HERBICIDE				SEED / HERBICIDE / HINDER			
SPECIES		MEAN DENSITY (#/HA)	STANDARD ERROR	PERCENT BROWSE	FREQ.	MEAN DENSITY (#/HA)	STANDARD ERROR	PERCENT BROWSE	FREQ.
	D B								
ACER RUBRUM		0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
AMELANCHIER ARBOREA		166.67	166.67	0.00%	8.00%	166.67	166.67	0.00%	8.00%
ARONIA SPP. (S)		0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
CLETHERA ALNIFOLIA (S)		333.33	224.73	0.00%	17.00%	4,166.67	3,325.37	2.08%	25.00%
EPILOBIUM ANGUSTIFOLIUM	S	11,833.33	9,046.88	0.00%	25.00%	1,666.67	1,287.08	0.00%	50.00%
GAYLUSSACIA BACCATA (S)		0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
GAYLUSSACIA FRONDOSA (S)		1,166.67	715.98	0.00%	25.00%	666.67	512.47	0.00%	17.00%
GAYLUSSACIA SPP. (S)		0.00	0.00	0.00%	0.00%	166.67	166.67	0.00%	8.00%
GNAPHALIUM OBTUSIFOLIUM		1,666.67	1,494.10	0.00%	17.00%	0.00	0.00	0.00%	0.00%
ILEX GLABRA (S)		0.00	0.00	0.00%	0.00%	333.33	333.33	0.00%	8.00%
KALMIA ANGUSTIFOLIA (S)		0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
LEUCOTHOE RACEMOSA (S)		2,500.00	1,986.70	0.00%	25.00%	666.67	385.99	0.00%	33.00%
LYONIA LIGUSTINA (S)		0.00	0.00	0.00%	0.00%	1,833.33	1,085.95	0.00%	25.00%
MYRICA HETEROPHYLLA (S)		166.67	166.67	0.00%	8.00%	0.00	0.00	0.00%	0.00%
NYSSA SYLVATICA (S)		0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
OSMUNDA CINNAMOMEA		500.00	500.00	0.00%	8.00%	0.00	0.00	0.00%	0.00%
PHYTOLACCA AMERICANA		0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
PINUS RIGIDA		1,166.67	715.98	0.00%	25.00%	0.00	0.00	0.00%	0.00%
PTERIDUM AQUILINUM		1,666.67	1,068.37	0.00%	25.00%	2,333.33	2,157.91	0.00%	17.00%
QUERCUS ALBA		166.67	166.67	0.00%	8.00%	0.00	0.00	0.00%	0.00%
QUERCUS COCCINEA		0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
RHODODENDRON VISCOSUM (S)		0.00	0.00	0.00%	0.00%	333.33	333.33	0.00%	8.00%
SMILAX GLAUCA		0.00	0.00	0.00%	0.00%	333.33	333.33	0.00%	8.00%
SMILAX ROTUNDIFOLIA		0.00	0.00	0.00%	0.00%	0.00	0.00	0.00%	0.00%
SOLIDAGO SPP.		166.67	166.67	0.00%	8.00%	0.00	0.00	0.00%	0.00%
VACCINIUM CORYMBOSUM (S)		166.67	166.67	0.00%	8.00%	0.00	0.00	0.00%	0.00%

Table 39 (continued).

**THREE FOOT
DOWNED DEBRIS**

CONTROL / ELECTRIC				HERB / ELECTRIC		
LAYER	PERCENT COVER	STANDARD ERROR		LAYER	PERCENT COVER	STANDARD ERROR
FIRST LAYER	6.27%	1.52%		FIRST LAYER	4.58%	1.34%
SECOND LAYER	2.67%	1.27%		SECOND LAYER	2.22%	0.90%
THIRD LAYER	0.31%	0.31%		THIRD LAYER	0.13%	0.13%

Table 41. Three Foot downed debris. Average percent cover and standard error of the mean are presented by treatment. The first layer is the debris closest to the ground, the second layer is found over the first layer (i.e. dead branches), the third layer is found over the second layer and so forth. Data were collected during the full survey in summer 1994. (n = 9 for each treatment). Control / electric = inside electric fence with no herbicide, herb / electric = inside electric fence with herbicide.

**THREE FOOT
PERCENT GROUND COVERS**

CONTROL / ELECTRIC				HERB / ELECTRIC		
LAYER	PERCENT	STANDARD		LAYER	PERCENT	STANDARD
	COVER	ERROR			COVER	ERROR
GRASS	13.33%	3.12%		GRASS	0.89%	0.42%
LITTER	38.89%	11.54%		LITTER	22.44%	6.19%
MOSS	0.22%	0.22%		MOSS	0.56%	0.56%
SPHAGNUM	47.56%	9.67%		SPHAGNUM	76.11%	6.59%

Table 42. Three Foot site percent ground coverages. Average percent ground cover and standard error of the mean are presented by layer category and treatment. Data were collected during the full survey in summer 1994. (n = 9 for each treatment) Control / electric = inside fence with no herbicide, herb / electric = inside electric fence with herbicide.

THREE FOOT
< .3 M

SPECIES	CONTROL / ELECTRIC					HERB / ELECTRIC				
	D	B	MEAN	STANDARD	PERCENT	FREQ.	MEAN	STANDARD	PERCENT	FREQ.
			DENSITY (#/HA)	ERROR	BROWSE		DENSITY (#/HA)	ERROR	BROWSE	
ACER RUBRUM	S		34,444.44	15,733.11	0.00%	67.00%	4,444.44	1,756.82	0.00%	44.00%
ACER RUBRUM (S)	S		22,222.22	7,597.11	0.00%	67.00%	0.00	0.00	0.00%	0.00%
ARONIA SPP.			2,222.22	1,469.86	0.00%	22.00%	0.00	0.00	0.00%	0.00%
ARONIA SPP. (S)			1,111.11	1,111.11	0.00%	11.00%	0.00	0.00	0.00%	0.00%
CHAMAECYPARIS THYOIDES			368,888.89	153,165.17	0.00%	78.00%	877,777.78	338,246.20	0.52%	100.00%
CLETHRA ALNIFOLIA			2,222.22	2,222.22	0.00%	11.00%	0.00	0.00	0.00%	0.00%
CLETHRA ALNIFOLIA (S)	S		41,111.11	19,539.45	0.74%	44.00%	0.00	0.00	0.00%	0.00%
DROSER A ROTUNDIFOLIA			20,000.00	13,642.25	0.00%	33.00%	20,000.00	10,137.94	0.00%	44.00%
GAULTHERIA PROCUMBENS			2,222.22	2,222.22	0.00%	11.00%	4,444.44	3,379.31	0.00%	22.00%
GAYLUSSACIA FRONDOSA			4,444.44	4,444.44	0.00%	11.00%	0.00	0.00	0.00%	0.00%
GAYLUSSACIA FRONDOSA (S)			5,555.56	4,444.44	0.00%	22.00%	0.00	0.00	0.00%	0.00%
ILEX GLABRA			1,111.11	1,111.11	0.00%	11.00%	0.00	0.00	0.00%	0.00%
ILEX GLABRA (S)			2,222.22	1,469.86	0.00%	22.00%	0.00	0.00	0.00%	0.00%
ILEX VERTICILLATA			2,222.22	1,469.86	0.00%	22.00%	0.00	0.00	0.00%	0.00%
KALMIA ANGUSTIFOLIA (S)			10,000.00	10,000.00	0.00%	11.00%	2,222.22	2,222.22	0.00%	11.00%
KALMIA LATIFOLIA			0.00	0.00	0.00%	0.00%	7,777.78	5,719.79	0.00%	22.00%
KALMIA LATIFOLIA (S)			2,222.22	2,222.22	0.00%	11.00%	2,222.22	2,222.22	0.00%	11.00%
LEUCOTHOE RACEMOSA (S)	S		15,555.56	7,837.08	0.00%	44.00%	0.00	0.00	0.00%	0.00%
LYONIA LIGUSTINA			3,333.33	3,333.33	0.00%	11.00%	0.00	0.00	0.00%	0.00%
LYONIA LIGUSTINA (S)			2,222.22	2,222.22	0.00%	11.00%	0.00	0.00	0.00%	0.00%
MAGNOLIA VIRGINIANA			1,111.11	1,111.11	0.00%	11.00%	1,111.11	1,111.11	0.00%	11.00%
MITCHELLA REPENS			8,888.89	8,888.89	0.00%	11.00%	0.00	0.00	0.00%	0.00%
MYRICA HETEROPHYLLA (S)			11,111.11	7,535.92	0.00%	22.00%	0.00	0.00	0.00%	0.00%
NYSSA SYLVATICA (S)			1,111.11	1,111.11	0.00%	11.00%	0.00	0.00	0.00%	0.00%
PINUS RIGIDA			1,111.11	1,111.11	0.00%	11.00%	0.00	0.00	0.00%	0.00%
RHODODENDRON VISCOSUM			1,111.11	1,111.11	0.00%	11.00%	0.00	0.00	0.00%	0.00%
RHODODENDRON VISCOSUM (S)	S		27,777.78	13,822.06	3.87%	44.00%	0.00	0.00	0.00%	0.00%
RHUS RADICANS			13,333.33	13,333.33	0.00%	11.00%	0.00	0.00	0.00%	0.00%
RUBUS HISPIDUS			32,222.22	17,541.84	0.00%	44.00%	36,666.67	18,856.18	0.00%	56.00%
SASSAFRAS ALBIDUM			1,111.11	1,111.11	0.00%	11.00%	0.00	0.00	0.00%	0.00%
VACCINIUM CORYMBOSUM			13,333.33	11,055.42	0.00%	22.00%	0.00	0.00	0.00%	0.00%
VACCINIUM CORYMBOSUM (S)			24,444.44	14,540.28	0.00%	33.00%	0.00	0.00	0.00%	0.00%
WOODWARDIA AREOLATA			4,444.44	4,444.44	0.00%	11.00%	0.00	0.00	0.00%	0.00%

Table 43. Three Foot site: all vegetation less than .3 meters tall. Average number of stems per hectare, its standard error of the mean, percent of stems browsed, and percent frequency are presented by treatment. The columns labeled D (stem density significant differences) and B (percent browse significant differences) when blank represent no statistical significance (alpha > .05) or not applicable (zero densities) across all treatments. The occurrence of an S in these columns represents a statistically significant difference between treatments (alpha is between .05 and .005). An H in these columns means a highly significant difference among treatments (alpha less than 005). Data were collected during the full survey in summer 1994. (n = 9 for each treatment) Control / electric = inside electric fence with no herbicide, herb / electric = inside electric fence with herbicide.

THREE FOOT
.3 - .6 M

SPECIES	CONTROL / ELECTRIC					HERB / ELECTRIC				
	D	B	MEAN	STANDARD	PERCENT	FREQ.	MEAN	STANDARD	PERCENT	FREQ.
			DENSITY (#/HA)	ERROR	BROWSE		DENSITY (#/HA)	ERROR	BROWSE	
ACER RUBRUM			888.89	675.86	0.00%	22.00%	0.00	0.00	0.00%	0.00%
ACER RUBRUM (S)			2,444.44	1,324.04	5.56%	33.00%	0.00	0.00	0.00%	0.00%
AMELANCHIER ARBOREA			222.22	222.22	0.00%	11.00%	0.00	0.00	0.00%	0.00%
ARONIA SPP. (S)			222.22	222.22	0.00%	11.00%	0.00	0.00	0.00%	0.00%
CHAMAECYPARIS THYOIDES			9,111.11	4,785.52	0.00%	56.00%	21,777.78	10,731.29	0.00%	89.00%
CLETHRA ALNIFOLIA			222.22	222.22	0.00%	11.00%	0.00	0.00	0.00%	0.00%
CLETHRA ALNIFOLIA (S)	S		7,333.33	2,728.45	0.00%	67.00%	0.00	0.00	0.00%	0.00%
GAYLUSSACIA FRONDOSA			222.22	222.22	0.00%	11.00%	0.00	0.00	0.00%	0.00%
GAYLUSSACIA FRONDOSA (S)	S		3,555.56	1,659.24	0.00%	67.00%	0.00	0.00	0.00%	0.00%
ILEX GLABRA			666.67	666.67	0.00%	11.00%	0.00	0.00	0.00%	0.00%
KALMIA ANGUSTIFOLIA (S)			0.00	0.00	0.00%	0.00%	666.67	666.67	0.00%	11.00%
KALMIA LATIFOLIA			0.00	0.00	0.00%	0.00%	222.22	222.22	0.00%	11.00%
KALMIA LATIFOLIA (S)			888.89	675.86	0.00%	22.00%	1,333.33	881.92	0.00%	33.00%
LEUCOTHOE RACEMOSA			2,000.00	1,763.83	0.00%	22.00%	0.00	0.00	0.00%	0.00%
LEUCOTHOE RACEMOSA (S)	S		2,000.00	1,000.00	0.00%	44.00%	0.00	0.00	0.00%	0.00%
LYONIA LIGUSTINA			1,111.11	888.89	0.00%	22.00%	0.00	0.00	0.00%	0.00%
LYONIA LIGUSTINA (S)			2,000.00	2,000.00	0.00%	11.00%	0.00	0.00	0.00%	0.00%
MYRICA HETEROPHYLLA			1,333.33	881.92	0.00%	33.00%	0.00	0.00	0.00%	0.00%
MYRICA HETEROPHYLLA (S)			888.89	888.89	0.00%	11.00%	0.00	0.00	0.00%	0.00%
RHODODENDRON VISCOSUM			444.44	293.97	0.00%	22.00%	0.00	0.00	0.00%	0.00%
RHODODENDRON VISCOSUM (S)	S		1,777.78	777.78	0.00%	44.00%	0.00	0.00	0.00%	0.00%
RHUS VERNIX			222.22	222.22	0.00%	11.00%	0.00	0.00	0.00%	0.00%
SASSAFRAS ALBIDUM			222.22	222.22	0.00%	11.00%	0.00	0.00	0.00%	0.00%
VACCINIUM CORYMBOSUM (S)	S		5,777.78	3,487.19	0.00%	44.00%	0.00	0.00	0.00%	0.00%

Table 44. Three Foot site: all vegetation between .3 and .6 meters tall. Average number of stems per hectare, its standard error of the mean and percent frequency are presented by treatment. The columns labeled D (stem density significant differences) and B (percent browse significant differences) when blank represent no statistical significance (alpha > .05) or not applicable (zero densities) across all treatments. The occurrence of an S in these columns represents a statistically significant difference between treatments (alpha is between .05 and .005). An H in these columns means a highly significant difference among treatments (alpha less than .005). Data were collected during the full survey in summer 1994. (n = 9 for each treatment) Control / electric = inside electric fence with no herbicide; herb / electric = inside electric fence with herbicide.

**THREE FOOT
.6 -1.3 M**

SPECIES	CONTROL / ELECTRIC					HERB / ELECTRIC				
	D	B	MEAN	STANDARD	PERCENT	FREQ.	MEAN	STANDARD	PERCENT	FREQ.
			DENSITY (#/HA)	ERROR	BROWSE		DENSITY (#/HA)	ERROR	BROWSE	
ACER RUBRUM (S)			888.89	484.32	0.00%	33.00%	0.00	0.00	0.00%	0.00%
ARONIA SPP. (S)			222.22	222.22	0.00%	11.00%	0.00	0.00	0.00%	0.00%
CHAMAECYPARIS THYOIDES			2,222.22	1,746.25	0.00%	33.00%	5,333.33	4,853.41	0.00%	22.00%
CLETHRA ALNIFOLIA (S)	S		4,666.67	2,426.70	0.00%	56.00%	0.00	0.00	0.00%	0.00%
GAYLUSSACIA FRONDOSA (S)	S		10,000.00	4,307.62	0.00%	56.00%	0.00	0.00	0.00%	0.00%
KALMIA LATIFOLIA			1,333.33	1,333.33	0.00%	11.00%	0.00	0.00	0.00%	0.00%
KALMIA LATIFOLIA (S)			1,111.11	753.59	0.00%	22.00%	1,777.78	1,127.65	0.00%	33.00%
LEUCOTHOE RACEMOSA	S		222.22	222.22	0.00%	11.00%	0.00	0.00	0.00%	0.00%
LEUCOTHOE RACEMOSA (S)			3,111.11	1,006.15	0.00%	67.00%	0.00	0.00	0.00%	0.00%
LYONIA LIGUSTINA (S)			222.22	222.22	0.00%	11.00%	0.00	0.00	0.00%	0.00%
MYRICA HETEROPHYLLA			1,333.33	1,333.33	0.00%	11.00%	0.00	0.00	0.00%	0.00%
MYRICA HETEROPHYLLA (S)			444.44	444.44	0.00%	11.00%	0.00	0.00	0.00%	0.00%
NYSSA SYLVATICA (S)			444.44	444.44	0.00%	11.00%	0.00	0.00	0.00%	0.00%
RHODODENDRON VISCOSUM (S)			666.67	471.40	0.00%	22.00%	0.00	0.00	0.00%	0.00%
SASSAFRAS ALBIDUM			222.22	222.22	0.00%	11.00%	0.00	0.00	0.00%	0.00%
VACCINIUM CORYMBOSUM (S)			7,333.33	5,897.27	0.00%	33.00%	0.00	0.00	0.00%	0.00%

Table 45. Three Foot site: all vegetation between .6 and 1.3 meters tall. Average number of stems per hectare, its standard error of the mean, percent of stems browsed and percent frequency are presented by treatment. The columns labeled D (stem density significant differences) and B (percent browse significant differences) when blank represent no statistical significance (alpha > .05) or not applicable (zero densities) across all treatments. The occurrence of an S in these columns represents a statistically significant difference between treatments (alpha is between .05 and .005). An H in these columns means a highly significant difference among treatments (alpha less than .005). Data were collected in during the full survey in summer 1994. (n = 9 for each treatment) Control / herbicide = inside electric fence with no herbicide, herb / electric = inside electric fence with herbicide.

**THREE FOOT
> 1.3 M**

		CONTROL / ELECTRIC					HERB / ELECTRIC			
SPECIES		MEAN		STANDARD	FREQ.		MEAN		STANDARD	FREQ.
	D	DENSITY		ERROR			DENSITY		ERROR	
		(#/HA)					(#/HA)			
CHAMAECYPARIS THYOIDES		222.22		222.22	0.11		222.22		222.22	0.11
CLETHERA ALNIFOLIA (S)		222.22		222.22	0.11		0		0	0
GAYLUSSACIA FRONDOSA (S)		1333.33		1105.54	0.22		0		0	0
KALMIA LATIFOLIA (S)		222.22		222.22	0.11		444.44		444.44	0.11
LEUCOTHOE RACEMOSA (S)		666.67		471.4	0.22		0		0	0
RHODODENDRON VISCOSUM (S)		444.44		444.44	0.11		0		0	0
VACCINIUM CORYMBOSUM (S)		2888.89		1767.33	0.33		0		0	0

Table 46. Three Foot site: all vegetation greater than 1.3 meters tall. Average number of stems per hectare, its standard error of the mean and percent frequency are presented by treatment. The column labeled D (stem density significant differences) when blank represents no statistical significance (alpha > .05) or not applicable (zero densities) across all treatments. The occurrence of an S in this column represents a statistically significant difference between treatments (alpha is between .05 and .005). An H in this column means a highly significant difference among treatments (alpha less than .005). Data were collected during the full survey in summer 1994. (n = 9 for each treatment) Control / electric = inside electric fence with no herbicide, herb / electric = inside fence with herbicide.

APPENDIX 3

DEP Cedar Project
Instructions for using the plot cards

I. POINT SAMPLING

- A. For each plot, have the sample point located in the southwest corner of the 5m² plot (which is on the transect line) and use an angle gauge with a BAF of 10 (for predominantly hardwood stands, 25 for predominately cedar stands) to count the number of "in" trees.
- B. For each "in" tree, record the species name, the diameter at breast height (DBH) to the nearest .1 inch, and the crown classification (D = Dominant, CD = Co-dominant, I = Intermediate, S = Suppressed).
- C. For each plot, record the total height (to the nearest foot) of one live D or CD "in" tree.
- D. For every fourth plot, record the total age (core age plus 5) and the length in millimeters of the last 10 year's growth of one live D or CD "in" tree. Store cores in labelled straws for later detailed analysis.

II. 5meter squared plots (2.5m x 2m) woody vegetation >.1.3m tall

- A. For each 5m² plot, have the 2.5 meter line starting at the sample point and running true north along the transect line.
- B. For each 5m² plot, record the species name, DBH (nearest .1 inch) and number of stems for each live tree or shrub within the plot that is ≥ 1.3 meters tall.

III. 5meter squared plots (2.5m x 2m) woody vegetation >.3m and <1.3m tall

- A. For each 5m² plot, record the species name and the number of stems for each live tree or shrub within the plot that is ≥ .3 meters and <.6 meters tall or ≥.6 meters and <1.3 meters tall (2 height classes)
- B. Record the number of stems browsed by deer (15% or more of edible branches eaten) by species in A.

IV. 1meter squared plots (1.25m x 2m) woody and herbaceous vegetation <.3m tall

- A. Use the northeast corner of the $5m^2$ plot and from there measure along the two plot boundaries a distance of 1 meter in both directions to form a one square meter plot..
- B. For the quadrat, record the species name, number of stems, and number of new Atlantic white cedar germinants.
- C. Record number browsed by species in B.

V. 1 meter squared plots Percent (%) ground cover

- A. For the $1m^2$ quadrat, record the percent cover of Sphagnum spp., ground cover (bare soil and leaf litter) and others, to total 100%.

VI. 2.5 meter transect (west) intersection of downed material

- A. For each plot, record the length (in centimeters) of the downed, dead debris that is intersecting the 2.5 meter transect line.
- B. Specify the layer of intersection: 1st layer = closest to meter tape, 2nd layer = under the 1st layer, 3rd layer = under the 2nd layer, etc...

DEP Cedar Project Plot Card

DATE:

Cruisers: _____

Area: _____

Transect # : _____ Plot # : _____

Distance from Transect: _____

Cut: _____ Uncut: _____ To be Cut: _____

General Comments:

L. Point Sampling **BAF =** _____

[illegible]

[illegible][illegible]

[illegible][illegible][illegible][illegible]

ACTIVITY LOG

SITE: JACKSON

DATE	ACTIVITY	PERSON HOURS
1/6/92	Inspected fence, changed battery	0.2
1/30/92	Inspected fence, changed battery	0.2
3/5/92	Inspected fence, changed battery	0.2
5/8/92	Inspected fence	0.1
5/26/92	Inspected fence, changed battery	0.2
6/2/92	Inspected fence	0.1
6/18/92	Inspected fence, changed battery	0.2
7/4/92	Inspected fence, changed battery	0.2
7/10/92	Inspected fence, changed battery	0.2
7/21/92	Inspected fence, changed battery	0.2
8/7/92	Inspected fence, changed battery	0.2
8/18/92	Inspected fence, changed battery	0.2
9/19/92	Inspected fence, changed battery	0.2
10/10/92	Inspected fence, changed battery	0.2
10/17/92	Inspected fence, changed battery	0.2
10/24/92	Inspected fence, changed battery	0.2
11/14/92	Inspected fence, changed battery	0.2
12/7/92	Inspected fence, changed battery	0.2
12/21/92	Inspected fence, changed battery	0.2
1/5/93	Inspected fence, changed battery	0.2
1/19/93	Inspected fence, changed battery	0.2
1/23/93	Inspected fence, changed battery	0.2
2/1/93	Inspected fence, changed battery	0.2
2/16/93	Inspected fence, changed battery	0.2
2/27/93	Inspected fence, changed battery	0.2
3/19/93	Inspected fence, changed battery	0.2
4/3/93	Inspected fence, changed battery	0.2
4/17/93	Inspected fence, changed battery	0.2
5/6/93	Inspected fence, changed battery	0.2
5/12/93	Inspected fence, changed battery	0.2
5/17/93	Inspected fence, changed battery	0.2
6/9/93	Inspected fence, changed battery	0.2
6/21/93	Inspected fence, changed battery	0.2
7/6/93	Inspected fence, changed battery	0.2
7/21/93	Inspected fence, changed battery	0.2
8/2/93	Inspected fence, changed battery	0.2
9/1/93	Inspected fence	0.1
9/2/93	Inspected fence, changed battery	0.2
9/3/93	Inspected fence, changed battery	0.2
9/18/93	Inspected fence, changed battery	0.2
10/24/93	Inspected fence, changed battery	0.2
11/20/93	Inspected fence	0.1
12/5/93	Inspected fence, changed battery	0.2
1/11/94	Inspected fence, changed battery	0.2

1/22/94	Inspected fence, changed battery	0.2
2/4/94	Inspected fence, changed battery	0.2
2/19/94	Inspected fence, changed battery	0.2
3/4/94	Inspected fence, changed battery	0.2
3/18/94	Inspected fence, changed battery	0.2
4/1/94	Inspected fence, changed battery	0.2
4/15/94	Inspected fence, changed battery	0.2
4/29/94	Inspected fence, changed battery	0.2
5/10/94	Inspected fence, changed battery	0.2
5/17/94	Inspected fence	0.1
5/24/94	Replaced battery box	1
6/20/94	Inspected fence	0.1
6/28/94	Inspected fence	0.1
7/6/94	Inspected fence	0.1
7/27/94	Inspected fence, changed battery	0.2
8/1/94	Herbicides fence perimeter with foresters	(.4) State Contract
8/23/94	Inspected fence, changed battery	0.2
10/14/94	Inspected fence	0.1
11/4/94	Inspected fence, removed downed tree	0.2
11/18/94	Inspected fence, repaired vandalism damage	0.3
12/9/94	Inspected fence, changed battery	0.2
12/23/94	Inspected fence, changed battery	0.2
1/6/95	Inspected fence	0.1
1/10/95	Inspected fence	0.1
1/20/95	Inspected fence	0.1
2/3/95	Inspected fence, changed battery	0.2
2/24/95	Inspected fence	0.1
3/10/95	Inspected fence, changed battery, repaired fence	0.5
4/21/95	Inspected fence	0.1
5/5/95	Inspected fence, changed battery	0.2
5/17/95	Inspected fence	0.1
5/22/95	Inspected fence	0.1

SITE: COLLETTI

1/6/92	Inspected fence, hindered	1.2
1/27/92	Inspected fence, hindered	1.2
2/20/92	Inspected fence, hindered	1.2
2/28/92	Inspected fence, hindered	1.2
3/13/92	Inspected fence, hindered	1.2
4/17/92	Inspected fence	0.2
5/22/92	Inspected fence, hindered	1.2
5/27/92	Inspected fence	0.2
5/29/92	Inspected fence, hindered	1.2
6/3/92	Inspected fence	0.2
6/17/92	Inspected fence	0.2
6/26/92	Inspected fence, hindered	1.2
7/3/92	Inspected fence	0.2
7/17/92	Inspected fence, hindered	1.2
7/22/92	Inspected fence, hindered	1.2
8/5/92	Inspected fence	0.2
9/4/92	Inspected fence	0.2
9/19/92	Inspected fence	0.2
10/2/92	Inspected fence	0.2
10/25/92	Inspected fence	0.2
10/30/92	Inspected fence	0.2
11/6/92	Inspected fence	0.2
11/29/92	Inspected fence, repaired fence posts, hindered	2.5
1/14/93	Inspected fence, hindered	1.2
2/1/93	Inspected fence	0.2
2/20/93	Inspected fence, hindered	1.2
3/20/93	Inspected fence and removed tree limbs	1.5
3/27/93	Inspected fence, hindered	1.2
4/17/93	Inspected fence, hindered	1.2
4/24/93	Inspected fence	0.2
5/12/93	Inspected fence	0.2
5/20/93	Inspected fence	0.2
5/26/93	Inspected fence, hindered	1.2
6/9/93	Inspected fence	0.2
6/17/93	Inspected fence, trimmed brush around fence, hindered	2
6/22/93	Inspected fence, removed tree, hindered	2
7/29/93	Inspected fence	0.2
8/19/93	Inspected fence	0.2
9/18/93	Inspected fence	0.3
9/25/93	Inspected fence, hindered	1
10/16/93	Inspected fence, removed downed tree, changed battery	1.5
11/13/93	Inspected fence, changed battery and charger	0.6
11/20/93	Inspected fence	0.3
11/21/93	Inspected fence, repaired fence	0.8
12/4/93	Inspected fence	0.3
1/11/94	Inspected fence, removed logs from fence	0.7
1/22/94	Inspected fence, hindered	1
1/28/94	Inspected fence, changed battery	0.6

2/4/94	Inspected fence	0.3
2/14/94	Inspected fence	0.3
2/19/94	Inspected fence	0.3
3/4/94	Inspected fence	0.3
3/18/94	Inspected fence	0.3
4/1/94	Inspected fence, hindered, removed downed tree	1.3
4/2/94	Inspected fence, removed downed tree	0.8
4/9/94	Inspected fence	0.3
4/22/94	Inspected fence, removed downed tree	0.8
4/29/94	Inspected fence	0.3
5/9/94	Inspected fence	0.3
5/10/94	Inspected fence	0.3
5/11/94	Inspected fence	0.6
6/20/94	Inspected fence, hindered	1
6/28/94	Inspected fence	0.3
7/6/94	Inspected fence	0.3
7/11/94	Inspected fence, hindered	1
7/27/94	Inspected fence, hindered	1
8/1/94	Herbicides fence perimeter with foresters	.5 State Contract
9/18/94	Inspected fence	0.3
9/24/94	Inspected fence	0.3
10/1/94	Inspected fence	0.3
10/21/94	Inspected fence, hindered	1
11/4/94	Inspected fence, tightened wires, peanut oiled fence	1
11/8/94	Hindered	1
11/18/94	Inspected fence	0.3
12/3/94	Inspected fence, hindered	1
12/18/94	Inspected fence	0.3
1/9/95	Inspected fence	0.3
1/10/95	Repaired fence damage	0.8
1/20/95	Inspected fence	0.3
2/3/95	Inspected fence, hindered	1
2/11/95	Changed charger	0.5
2/24/95	Inspected fence	0.3
3/3/95	Inspected fence	0.3
3/10/95	Inspected fence, hindered	1
3/24/95	Inspected fence, hindered	1
4/5/95	Foresters changed battery and fixed solar panel	State Contract
4/7/95	Inspected fence, hindered	1
5/5/95	Inspected fence	0.3
5/23/95	Inspected fence	0.3
5/24/95	Inspected fence	0.3

SITE: PENN SWAMP

1/12/92	Inspected fence damage reported by rangers, began repair	8
1/31/92	Repaired fence	17
2/1/92	Inspected fence	9
2/7/92	Repaired fence	0.5
2/21/92	Inspected fence	0.5
2/27/92	Inspected fence	0.5
3/5/92	Inspected fence	0.5
3/27/92	Inspected fence	0.5
4/16/92	Inspected fence	0.5
4/23/92	Inspected fence	0.5
4/30/92	Inspected fence	0.5
5/15/92	Inspected fence	0.5
5/26/92	Inspected fence	0.5
6/1/92	Inspected fence	0.5
6/8/92	Inspected fence	0.5
6/26/92	Inspected fence	0.5
7/8/92	Inspected fence	0.5
7/29/92	Inspected fence	0.5
8/6/92	Inspected fence	0.5
8/18/92	Inspected fence	0.5
8/24/92	Inspected fence	0.5
8/31/92	Inspected fence	0.5
9/4/92	Inspected fence	0.5
10/9/92	Inspected fence	0.5
12/28/92	Inspected fence	0.5
1/4/93	Inspected fence	0.5
1/8/93	Cut trees off of fence	30
1/14/93	Inspected fence	0.5
2/1/93	Inspected fence, found damage	1
2/2/93	Repaired fence	48
2/9/93	Repaired top wires of fence	12
2/13/93	Inspected fence, repaired top wires	12
2/20/93	Inspected fence	0.5
2/27/93	Inspected fence, repairs made	1
3/6/93	Inspected fence	0.5
3/19/93	Inspected fence	0.5
4/3/93	Inspected fence	0.5
4/17/93	Inspected fence	0.5
5/1/93	Inspected fence, repairs made	1
5/6/93	Inspected fence, repairs made	6
5/12/93	Inspected fence	0.5
6/9/93	Inspected fence	0.5
7/6/93	Inspected fence	0.5
7/21/93	Inspected fence	0.5
7/29/93	Inspected fence	0.5
8/16/93	Inspected fence	0.5
8/17/93	Inspected fence	0.3
8/18/93	Inspected fence	0.3

8/19/93	Inspected fence	0.3
9/4/93	Inspected fence	0.3
9/5/93	Inspected fence	0.3
9/11/93	Inspected fence	0.3
9/12/93	Inspected fence	0.3
9/19/93	Inspected fence	0.3
10/2/93	Inspected fence	0.3
10/24/93	Inspected fence	0.3
11/7/93	Inspected fence	0.3
11/14/93	Inspected fence	0.3
12/11/93	Inspected fence	0.3
12/12/93	Inspected fence	0.3
12/29/93	Inspected fence	0.3
1/5/94	Inspected fence	0.3
1/8/94	Inspected fence	0.3
1/12/94	Inspected fence	0.3
1/22/94	Inspected fence	0.3
1/28/94	Inspected fence	0.3
1/29/94	Inspected fence	0.3
1/30/94	Inspected fence	0.3
2/4/94	Inspected fence	0.3
2/14/94	Inspected fence	0.3
2/19/94	Inspected fence	0.3
3/4/94	Inspected fence	0.3
3/11/94	Inspected fence	0.3
3/18/94	Inspected fence	0.3
3/26/94	Inspected fence	0.3
4/1/94	Inspected fence	0.3
4/9/94	Inspected fence	0.3
4/16/94	Inspected fence	0.3
4/22/94	Inspected fence	0.3
4/29/94	Inspected fence	0.3
5/16/94	Inspected fence	0.3
5/24/94	Inspected fence	0.3
5/25/95	Inspected fence	0.3
5/31/94	Repaired fence damage	0.5
6/7/94	Inspected fence	0.3
6/21/94	Inspected fence	0.3
6/28/94	Inspected fence	0.3
7/11/94	Inspected fence	0.3
8/18/94	Inspected fence	0.3
8/19/94	Inspected fence	0.3
8/25/94	Inspected fence	0.3
8/26/94	Inspected fence	0.3
8/30/94	Inspected fence	0.3
8/31/94	Inspected fence	0.3
9/1/94	Inspected fence	0.3
9/2/94	Inspected fence	0.3
9/10/94	Inspected fence	0.3
9/23/94	Inspected fence	0.3

10/28/94	Inspected fence	0.3
11/23/94	Repaired broken fence pole	0.5
1/3/95	Inspected fence	0.3
1/6/95	Inspected fence	0.3
1/27/95	Inspected fence	0.3
2/1/95	Inspected fence	3
2/3/95	Inspected fence	0.3
2/10/95	Inspected fence	0.3
2/17/95	Inspected fence, hindered perimeter, fence vandalized	0.5
2/18/95	Hindered	0.5
2/19/95	Hindered	0.5
2/21/95	Repaired fence from vandalism cuts	(8) State Contract
2/24/95	Inspected fence	0.3
3/3/95	Inspected fence	0.3
3/10/95	Inspected fence	0.3
3/17/95	Inspected fence	0.3
3/24/95	Inspected fence	0.3
3/31/95	Inspected fence	0.3
4/7/95	Inspected fence	0.3
4/14/95	Inspected fence	0.3
4/21/95	Inspected fence	0.3
5/5/95	Inspected fence	0.3
5/18/95	Inspected fence	0.3
5/22/95	Inspected fence	0.3

SITE: BASS RIVER

1/6/92	Inspected fence, changed battery, hindered	1.05
1/25/92	Inspected fence	0.2
1/27/92	Inspected fence, hindered	1
2/1/92	Inspected fence, changed battery	0.25
2/20/92	Hindered	0.25
2/28/92	Inspected fence, hindered	1
3/5/92	Inspected fence, changed battery	0.25
3/13/92	Inspected fence, hindered	1
4/16/92	Inspected fence, changed battery	0.25
5/8/92	Inspected fence, changed battery	0.25
5/22/92	Inspected fence, changed battery, hindered	1.05
5/27/92	Inspected fence	0.2
6/1/92	Inspected fence	0.2
6/4/92	Inspected fence, changed battery	0.25
6/12/92	Inspected fence, changed battery	0.25
6/18/92	Inspected fence	0.2
6/26/92	Inspected fence, changed battery, hindered	1.05
7/1/92	Inspected fence, hindered	1
7/2/92	Seeded hinder and control plots	1
7/4/92	Inspected fence	0.2
7/6/92	Inspected fence, changed battery	0.25
7/15/92	Inspected fence	0.2
7/22/92	Inspected fence, hindered	1
7/30/92	Inspected fence, changed battery	0.25
8/18/92	Inspected fence	0.2
8/19/92	Inspected fence, changed battery	0.25
9/4/92	Inspected fence	0.2
9/11/92	Inspected fence	0.2
9/18/92	Inspected fence, changed battery	0.25
9/26/92	Inspected fence	0.2
10/25/92	Inspected fence, changed battery	0.25
11/14/92	Inspected fence, changed battery	0.25
12/28/92	Inspected fence, changed battery	0.25
1/12/93	Inspected fence, changed battery	0.25
1/30/93	Inspected fence, changed battery	0.25
2/13/93	Inspected fence, changed battery	0.25
2/27/93	Inspected fence, changed battery	0.25
3/6/93	Inspected fence	0.2
3/15/93	Inspected fence, drained flooded battery box, changed batte	0.4
3/27/93	Inspected fence, changed battery	0.25
4/10/93	Inspected fence, changed battery	0.25
4/24/93	Inspected fence, changed battery	0.25
5/6/93	Inspected fence, changed battery	0.25
5/12/93	Inspected fence	0.2
5/13/93	Inspected fence	0.25
5/14/93	Repaired wires, fixed signs	0.3
5/20/93	Inspected fence, changed battery	0.25
5/26/93	Inspected fence, changed battery	0.25

6/9/93	Inspected fence, changed battery	0.25
6/19/93	Inspected fence	0.2
7/6/93	Inspected fence	0.2
7/21/93	Inspected fence	0.2
8/12/93	Inspected fence	0.2
8/13/93	Inspected fence	0.2
8/14/93	Inspected fence	0.2
9/18/93	Inspected fence	0.2
9/25/93	Inspected fence	0.2
10/2/93	Inspected fence	0.2
10/24/93	Inspected fence	0.2
11/7/93	Inspected fence	0.2
11/20/93	Inspected fence	0.2
12/11/93	Inspected fence	0.2
12/18/93	Inspected fence	0.2
1/22/94	Inspected fence	0.2
2/4/94	Inspected fence	0.2
2/19/94	Inspected fence	0.2
3/26/94	Inspected fence	0.2
4/1/94	Inspected fence	0.2
4/9/94	Inspected fence	0.2
4/22/94	Inspected fence	0.2
4/29/94	Inspected fence	0.2
5/11/94	Inspected fence	0.2
5/16/94	Inspected fence	0.2
5/25/94	Inspected fence	0.2
6/21/94	Inspected fence	0.2
6/28/94	Inspected fence	0.2
7/6/94	Foresters changed battery	State contract
7/11/94	Inspected fence	0.2
8/1/94	Herbicide fence perimeter with foresters	State contract
8/11/94	Inspected fence	0.2
8/12/94	Inspected fence	0.2
8/16/94	Inspected fence	0.2
8/23/94	Inspected fence, changed battery	0.3
10/28/94	Inspected fence	0.2
11/18/94	Inspected fence	0.2
12/9/94	Inspected fence, penut oiled fence	0.5
12/16/94	Inspected fence	0.2
1/12/95	Inspected fence	0.2
1/13/95	Inspected fence	0.2
4/24/95	Flagged plot borders for forester planting	0.5
5/15/95	Inspected fence	0.2
5/16/95	Inspected fence	0.2

SITE: BELLEPLAIN FOOD PATCH

1/25/92	Inspected fence	0.1
1/27/92	Inspected fence, hindered	0.75
2/6/92	Inspected fence, changed battery	0.2
2/21/92	Inspected fence, changed battery, hindered	0.85
2/27/92	Inspected fence, hindered	0.75
3/9/92	Inspected fence, changed battery, hindered	0.85
3/13/92	Inspected fence, changed battery, hindered	0.85
3/20/92	Inspected fence, changed battery	0.2
4/4/92	Inspected fence, hindered	0.75
5/8/92	Inspected fence, planted 160 cuttings	8
5/22/92	Inspected fence, hindered	0.75
5/26/92	Inspected fence, repaired fence clip	0.15
5/29/92	Inspected fence, hindered	0.75
6/1/92	Inspected fence	0.1
6/22/92	Inspected fence, changed battery	0.2
7/1/92	Inspected fence, changed battery	0.2
7/3/92	Inspected fence	0.1
7/13/92	Inspected fence, changed battery	0.2
7/14/92	Hindered	0.65
7/18/92	Inspected fence	0.1
7/24/92	Inspected fence	0.1
8/8/92	Inspected fence, changed battery	0.2
8/26/92	Inspected fence, changed battery	0.2
9/12/92	Inspected fence, changed battery	0.2
9/25/92	Inspected fence, changed battery	0.2
10/2/92	Inspected fence, changed battery	0.2
11/14/92	Inspected fence, changed battery	0.2
12/4/92	Inspected fence, changed battery	0.2
12/12/92	Inspected fence, changed battery, removed fallen tree	1
12/19/92	Inspected fence, changed battery	0.2
1/14/93	Inspected fence, changed battery, hindered, penut oiled fenc	1.25
2/4/93	Inspected fence, changed battery, hindered	0.85
2/12/93	Inspected fence, changed battery	0.2
3/15/93	Inspected fence, changed battery	0.2
3/27/93	Inspected fence, changed battery, hindered, removed fallen	1.5
4/10/93	Inspected fence, changed battery	0.2
5/13/93	Inspected fence	0.1
5/18/93	Inspected fence, changed battery	0.2
5/25/93	Inspected fence, hindered	0.75
5/27-6/14	Planted 1,319 cuttings and seedlings inside electric fence	70
5/28/93	Inspected fence, changed battery	0.2
6/14/93	Inspected fence, changed battery, hindered, trimmed brush	1.5
6/22/93	Inspected fence, hindered, marked cutting outcrops with st	2
6/23/93	Inspected fence, changed battery	0.2
7/6/93	Inspected fence	0.1
7/21/93	Inspected fence	0.15
7/29/93	Inspected fence, changed battery	0.2
8/3/93	Inspected fence	0.1

8/4/93	Inspected fence	0.1
8/10/93	Inspected fence	0.1
8/30/93	Inspected fence, changed battery, herbicided fence	0.5
9/18/93	Inspected fence, changed battery	0.2
9/25/93	Inspected fence, changed battery, hindered	0.6
10/2/93	Inspected fence	0.1
10/16/93	Inspected fence	0.1
10/24/93	Inspected fence	0.1
11/6/93	Inspected fence	0.1
11/13/93	Inspected fence	0.1
11/21/93	Inspected fence, changed battery	0.2
12/18/93	Inspected fence, changed battery	0.2
1/8/94	Inspected fence, changed battery	0.2
1/22/94	Inspected fence, hindered	0.6
1/28/94	Inspected fence, changed battery	0.2
2/5/94	Inspected fence	0.1
2/14/94	Inspected fence, changed battery	0.2
2/26/94	Inspected fence	0.1
3/4/94	Inspected fence, changed battery	0.2
3/11/94	Inspected fence, changed battery, cleared debris from road	0.5
3/26/94	Inspected fence	0.1
4/2/94	Inspected fence, changed battery	0.2
4/8/94	Inspected fence	0.1
4/9/94	Inspected fence	0.1
4/16/94	Inspected fence, changed battery	0.2
4/30/94	Inspected fence	0.1
5/6/94	Inspected fence, changed battery, planted 1000 seedlings	9
5/31/94	Inspected fence, changed battery	0.2
6/7/94	Inspected fence, changed battery, hindered	0.6
6/20/94	Inspected fence, hindered	0.6
6/28/94	Inspected fence	0.1
7/11/94	Inspected fence, hindered	0.6
7/29/94	Inspected fence, hindered	0.6
8/17/94	Inspected fence	0.1
9/9/94	Inspected fence, changed battery, hindered	0.6
10/22/94	Inspected fence	0.1
11/12/94	Inspected fence, hindered,	0.6
12/2/94	Inspected fence, changed battery, hindered	0.6
12/16/94	Inspected fence	0.1
12/23/94	Inspected fence	0.1
1/5/95	Inspected fence, changed battery	0.2
1/27/95	Inspected fence, changed battery, hindered	0.6
2/10/95	Inspected fence, adjusted wire guards, changed battery	0.2
3/3/95	Inspected fence, hindered	0.6
3/17/95	Inspected fence, changed battery, hindered	0.6
3/31/95	Inspected fence, changed battery, hindered	0.6
4/14/95	Inspected fence, changed battery	0.2
4/28/95	Inspected fence, changed battery	0.2

SITE: BELLEPLAIN NON-FOOD PATCH

1/25/92	Inspected fence	0.1
1/27/92	Inspected fence, hindered	0.5
2/6/92	Inspected fence	0.1
2/21/92	Inspected fence, changed battery, hindered	0.6
2/27/92	Inspected fence, changed battery, hindered	0.6
3/9/92	Inspected fence, hindered	0.5
3/13/92	Inspected fence, hindered	0.5
3/20/92	Inspected fence, changed battery	0.2
4/4/92	Inspected fence, changed battery, hindered	0.6
4/10/92	Inspected fence, changed battery	0.2
5/9/92	Inspected fence, changed battery, planted 300 cuttings	1.2
5/22/92	Inspected fence, hindered	0.5
5/26/92	Inspected fence, changed battery	0.2
5/29/92	Inspected fence, hindered	0.5
6/1/92	Inspected fence	0.1
6/22/92	Inspected fence, changed battery	0.2
7/1/92	Inspected fence, changed battery, hindered	0.6
7/4/92	Inspected fence, changed battery	0.2
7/14/92	Inspected fence, changed battery, hindered	0.6
7/24/92	Inspected fence, changed battery	0.2
7/28/92	Inspected fence, changed battery	0.2
8/8/92	Inspected fence, changed battery	0.2
8/26/92	Inspected fence	0.1
8/28/92	Inspected fence, changed battery	0.2
9/2/92	Inspected fence	0.1
9/11/92	Inspected fence, changed battery	0.2
9/25/92	Inspected fence, changed battery	0.2
10/14/92	Inspected fence, changed battery	0.2
10/25/92	Inspected fence, changed battery	0.2
11/29/92	Inspected fence, changed battery	0.2
12/12/92	Inspected fence, changed battery	0.2
12/21/92	Inspected fence, changed battery	0.2
12/28/92	Inspected fence, changed battery	0.2
1/5/93	Inspected fence, changed battery	0.2
1/12/93	Inspected fence	0.1
1/14/93	Inspected fence, hindered, repaired post, peanut oiled fence	1.1
2/4/93	Inspected fence, changed battery, hindered	0.6
2/12/93	Inspected fence, changed battery	0.2
3/14/93	Inspected fence, changed battery	0.2
3/27/93	Inspected fence, changed battery, hindered	0.6
4/10/93	Inspected fence, changed battery	0.2
4/28/93	Inspected fence, changed battery, hindered	0.6
5/14/93	Inspected fence	0.1
5/18/93	Inspected fence, replacement battery was not charged	0.2
5/19/93	Replaced battery charger, changed battery	0.25
5/25/93	Inspected fence, changed battery, hindered	0.6
5/28-6/8	Planted 908 seedlings and cuttings inside electric fence	4.3
6/14/93	Inspected fence, changed battery	0.2

6/17/93	Inspected fence, hindered, trimmed brush	1.4
6/22/93	Inspected fence, changed battery, hindered, marked outcrop	2.2
7/6/93	Inspected fence, changed battery	0.2
7/21/93	Inspected fence, changed battery	0.2
7/29/93	Inspected fence	0.1
8/3/93	Inspected fence	0.1
8/12/93	Inspected fence	0.1
8/31/93	Inspected fence, changed battery	0.2
9/18/93	Inspected fence, changed battery	0.2
9/25/93	Inspected fence, changed battery	0.2
10/2/93	Inspected fence	0.1
10/16/93	Inspected fence	0.1
10/24/93	Inspected fence	0.1
11/6/93	Inspected fence	0.1
11/13/93	Inspected fence, changed battery and charger	0.3
11/21/93	Inspected fence, dug up battery box	0.3
11/23/93	Inspected fence, replaced battery box	0.3
12/18/93	Inspected fence, changed battery	0.2
1/8/94	Inspected fence, changed battery	0.2
1/22/94	Inspected fence	0.1
1/28/94	Inspected fence, changed battery	0.2
2/5/94	Inspected fence	0.1
2/14/94	Inspected fence, changed battery	0.2
2/26/94	Inspected fence, changed battery	0.2
3/4/94	Inspected fence	0.1
3/11/94	Inspected fence, changed battery	0.2
3/26/94	Inspected fence	0.1
4/2/94	Inspected fence, changed battery	0.2
4/8/94	Inspected fence	0.1
4/9/94	Inspected fence	0.1
4/16/94	Inspected fence	0.1
4/22/94	Inspected fence, changed battery	0.2
4/30/94	Inspected fence	0.1
5/6/94	Inspected fence, changed battery	0.2
5/18/94	Planted 1000 seedlings inside fence	12
5/31/94	Inspected fence, changed battery	0.2
6/7/94	Inspected fence, changed battery	0.2
6/20/94	Inspected fence	0.1
6/28/94	Inspected fence	0.1
7/11/94	Inspected fence	0.1
7/29/94	Inspected fence, changed battery	0.2
8/17/94	Inspected fence	0.1
9/9/94	Inspected fence, changed battery	0.2
11/5/94	Inspected fence, changed battery	0.2
11/11/94	Inspected fence	0.1
11/12/94	Inspected fence	0.1
11/19/94	Inspected fence, peanut oiled fence	0.2
12/2/94	Inspected fence, changed battery	0.2
12/16/94	Inspected fence	0.1
12/23/94	Inspected fence, changed battery	0.2

1/5/95	Inspected fence	0.1
1/12/95	Inspected fence, changed battery	0.2
1/27/95	Inspected fence, changed battery	0.2
3/3/95	Inspected fence, changed battery	0.2
3/17/95	Inspected fence, changed battery	0.2
3/31/95	Inspected fence, changed battery	0.2
4/28/95	Inspected fence, changed battery	0.2

SITE: THREE FOOT

6/27-29/93	Clear and prepare to intall electric fence and solar charger	27	
6/30/93	Set up 5 transects and 15 plots for new site	16	
12/18/93	Inspected fence	0.2	
2/19/94	Inspected fence	0.2	
4/9/94	Inspected fence	0.2	
5/16/94	Inspected fence	0.2	
5/23/94	Inspected fence	0.2	
5/24/94	Inspected fence	0.2	
6/21/94	Inspected fence	0.2	
7/27/94	Inspected fence	0.2	
7/29/94	Inspected fence	0.2	
8/1/94	Herbicided fence perimeter with foresters, replaced charge	State	Contract
9/23/94	Inspected fence	0.2	
12/1/94	Inspected fence	0.2	
12/11/94	Inspected fence	0.2	
2/3/95	Inspected fence	0.2	
5/24/95	Inspected fence	0.2	

APPENDIX 4

Penn Swamp Cedar Experiment Clear Cut Area

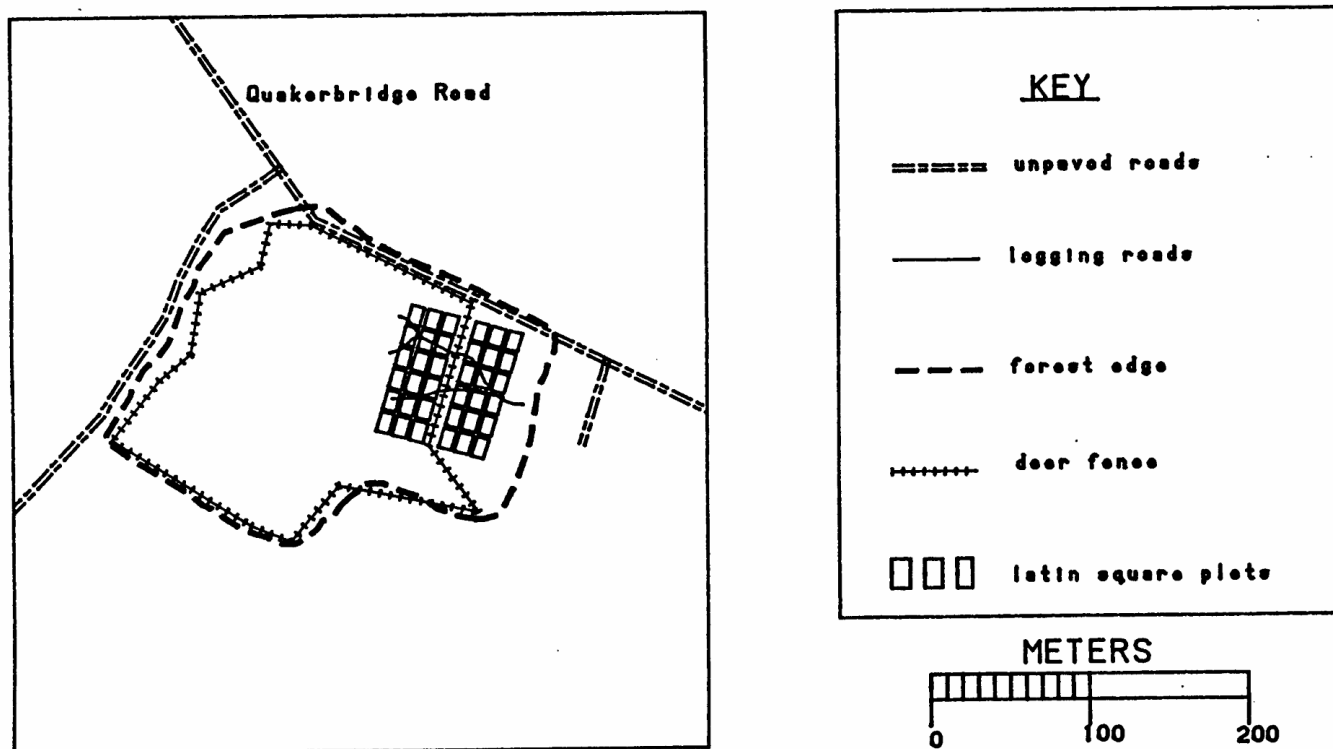


Figure 1. Penn swamp research site: overview.

Penn Swamp Latin Square

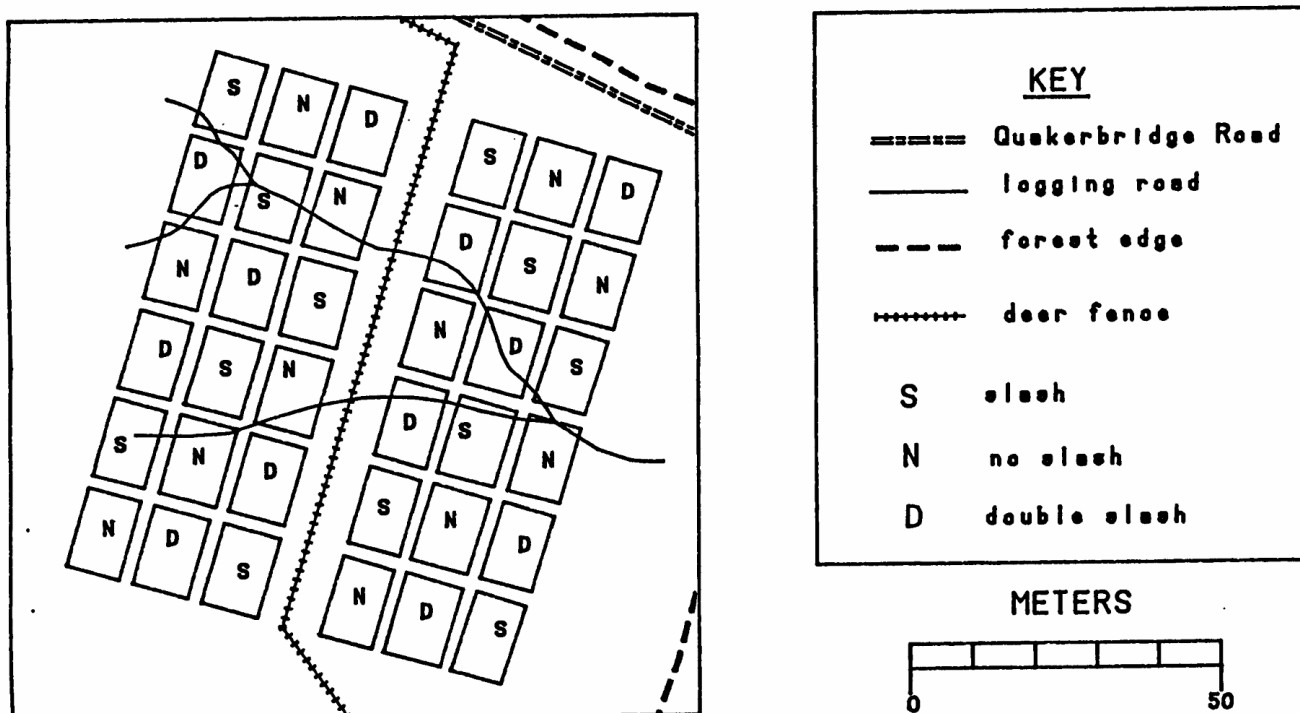


Figure 2. Penn swamp research site: Latin square detail.

Colletti Site

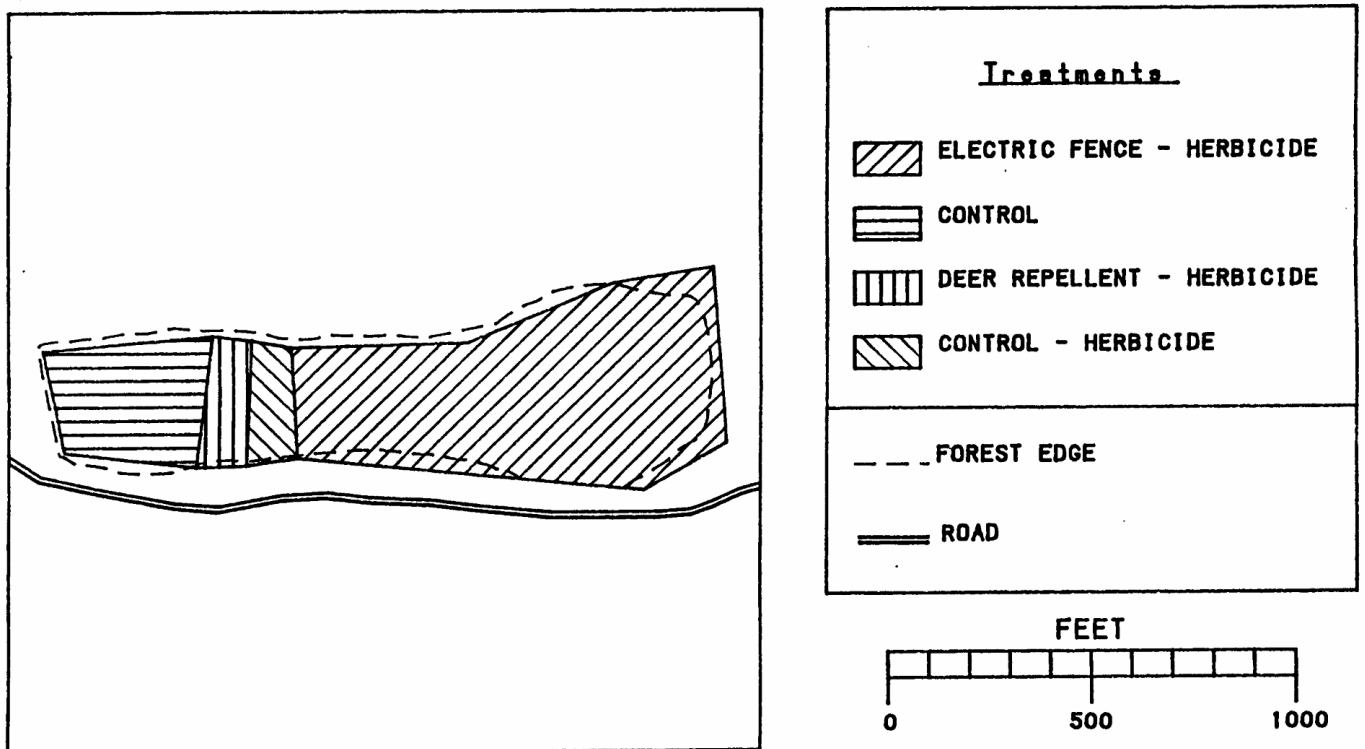
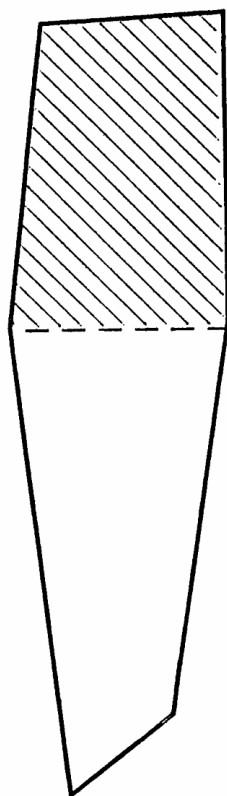




Figure 3. Colletti research site.

Three-Foot Site



Legend

-  Electric Fence
-  Herbicide Treatment

1 25
- meters

Figure 4. Three-foot research site.

Scale 1:814

Jackson Site

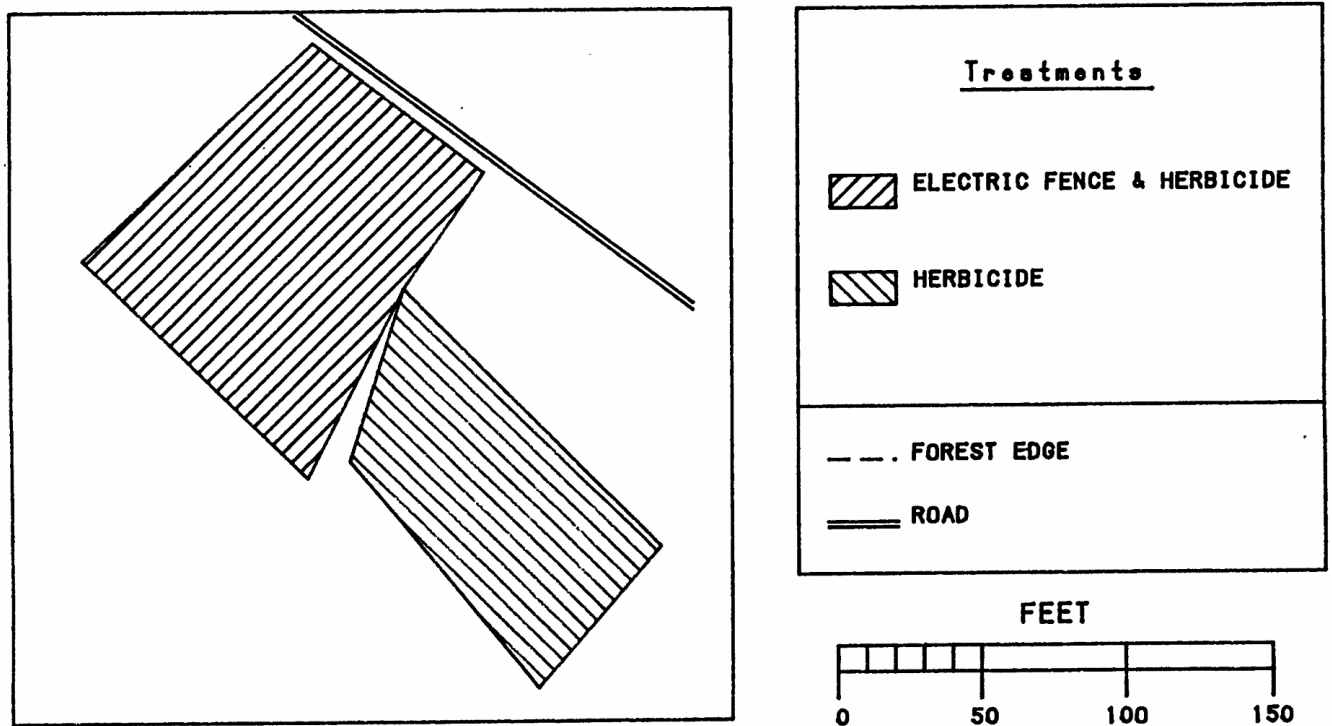


Figure 5. Jackson research site.

Belleplain Foodpatch Site

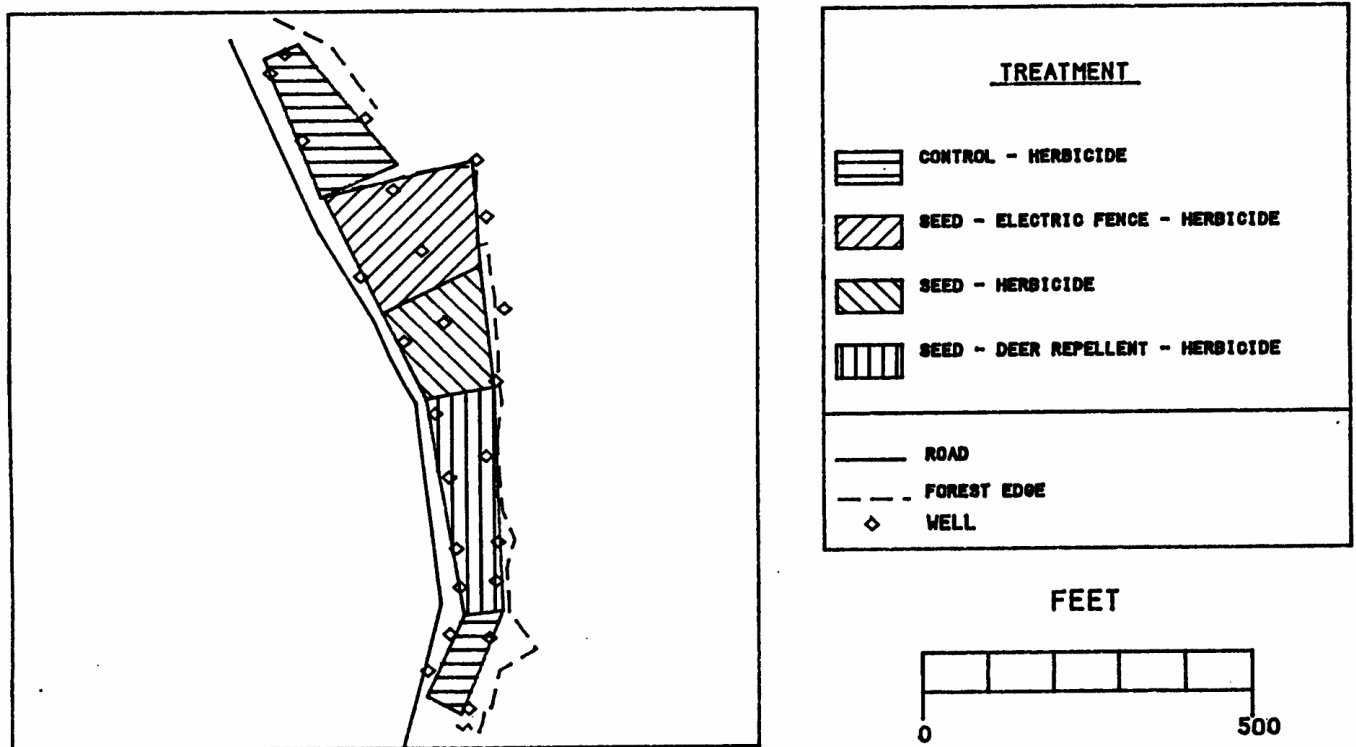


Figure 6. Belleplain Food Patch research site.

Belleplain Non-foodpatch Site

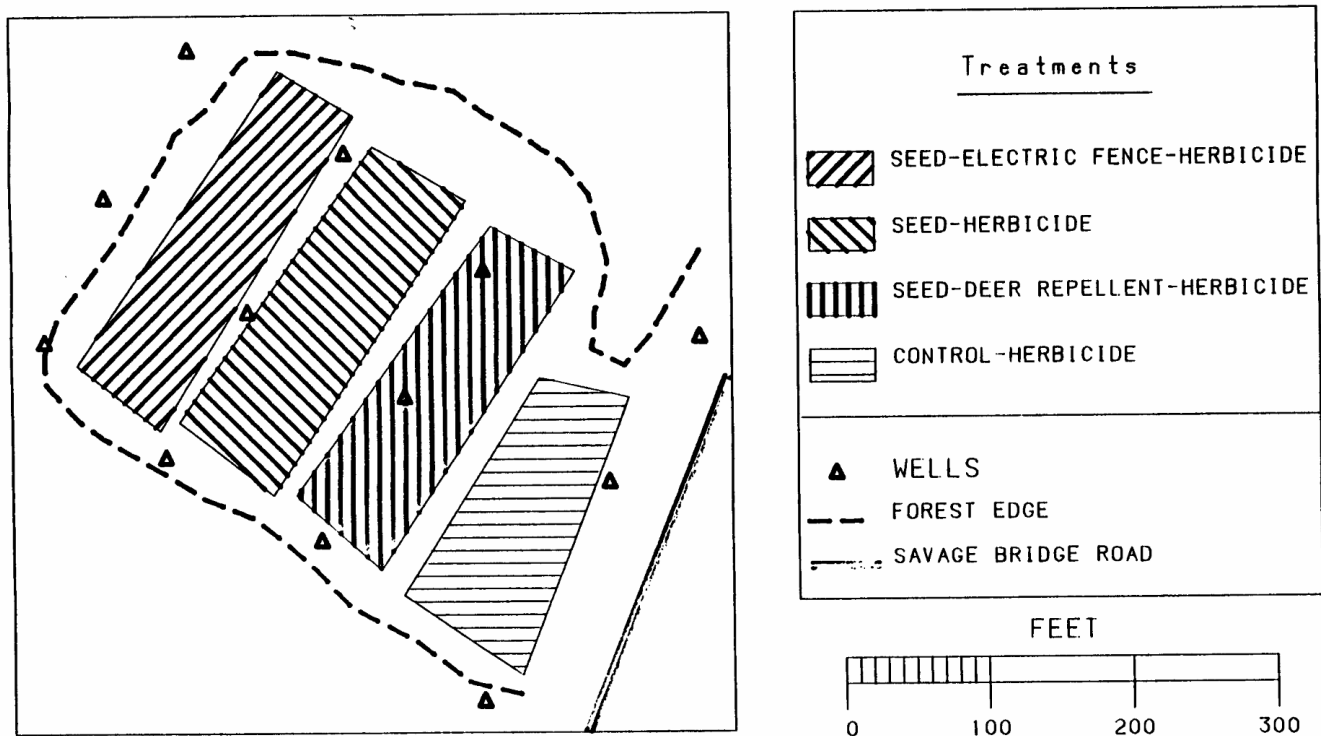


Figure 7. Belleplain non-food patch site.

Bass River

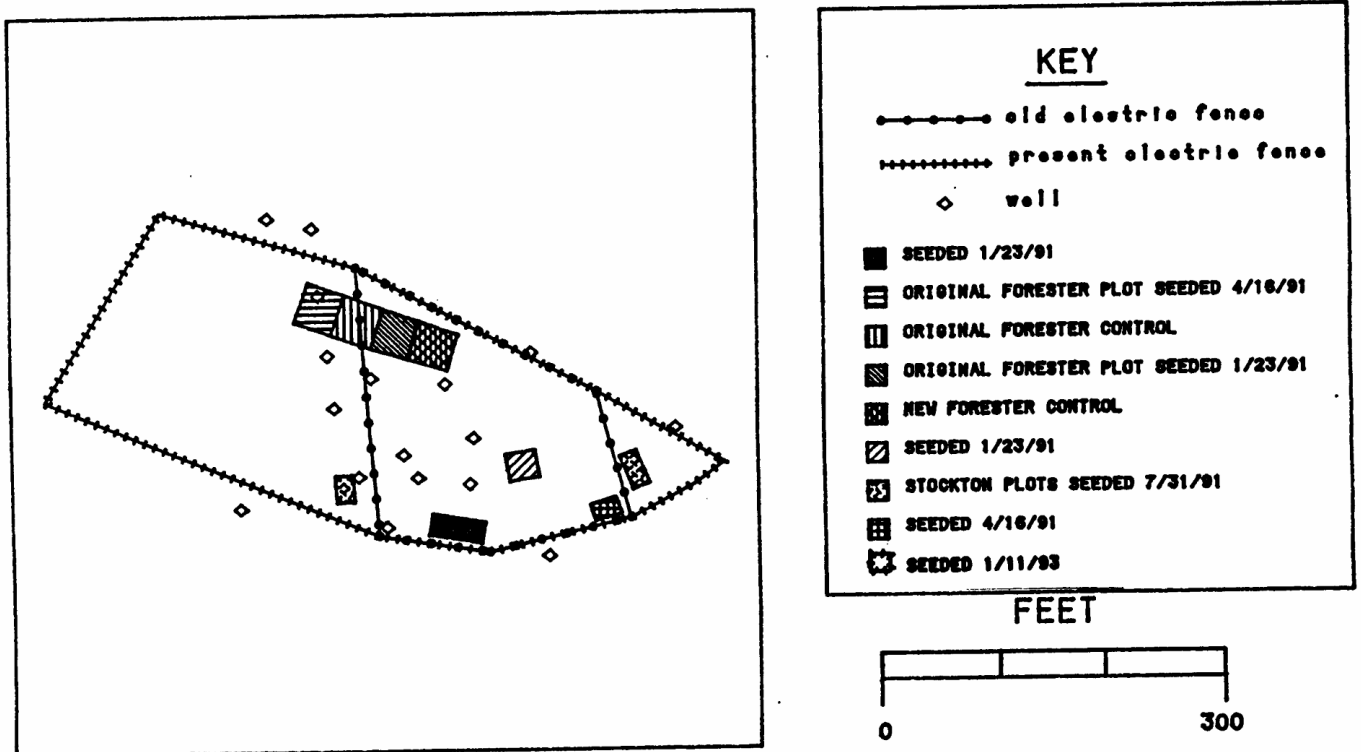
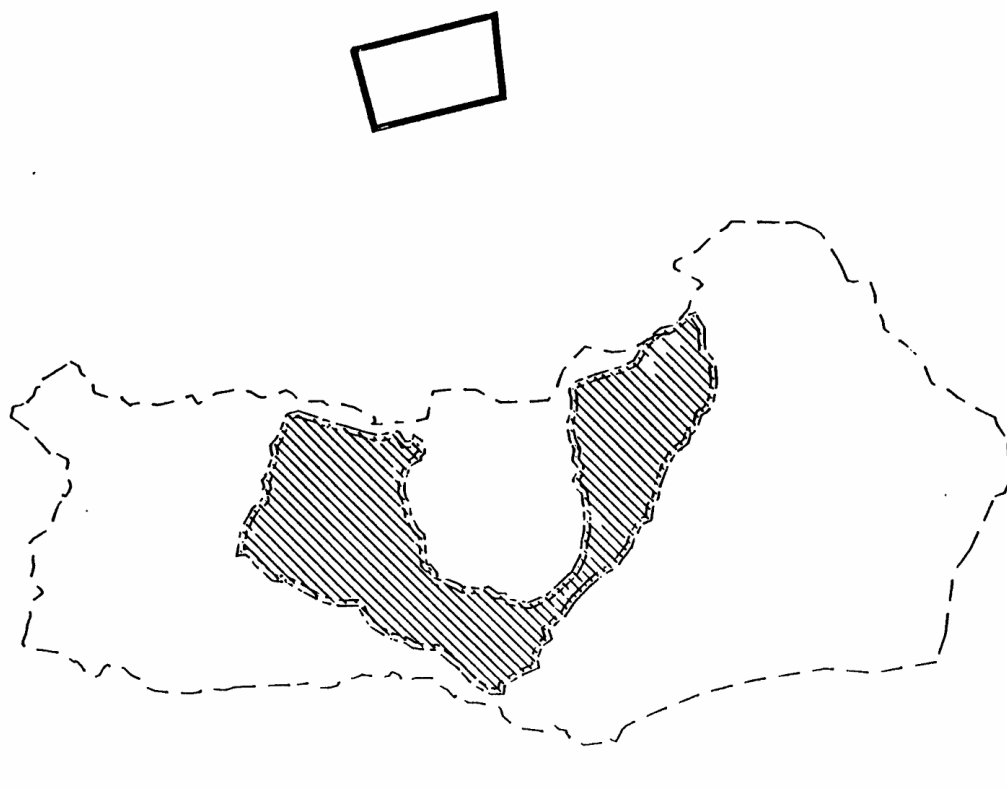


Figure 8. Bass River research site.

Sorrentino Site



Legend




-  HOUSE
-  BOG PERIMETER
-  CEDAR PLANTING AREA

Figure 9. Sorrentino site.

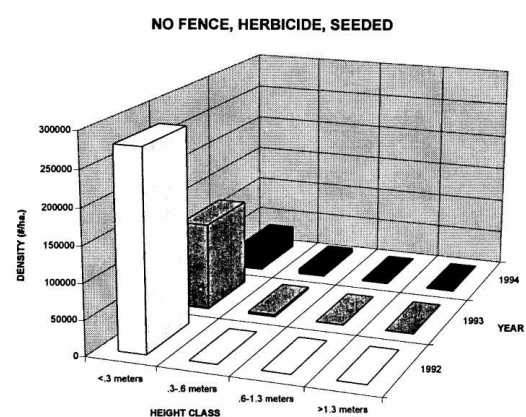
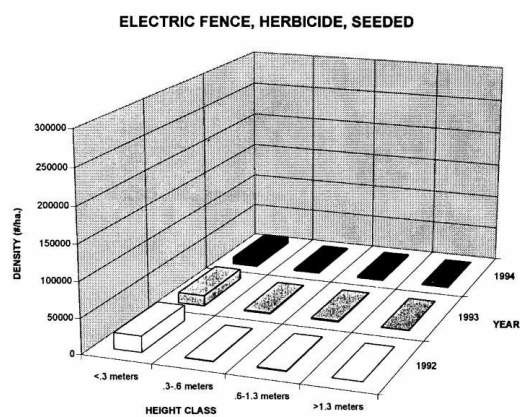


Figure 10. The densities of Atlantic white-cedar at the Jackson site during the current study (1992 through 1994) versus height class. The two treatments are delineated as separate charts.

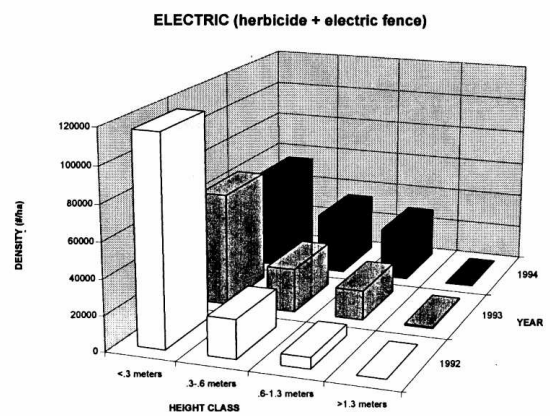
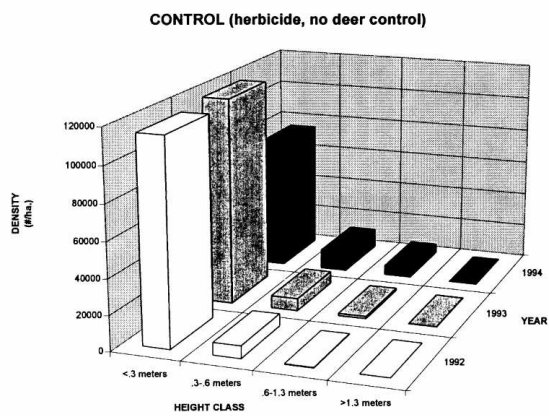


Figure 11. The densities of Atlantic white-cedar at the Colletti site during the current study years (1992 through 1994) versus height class. Two of the four treatments are shown on this page.

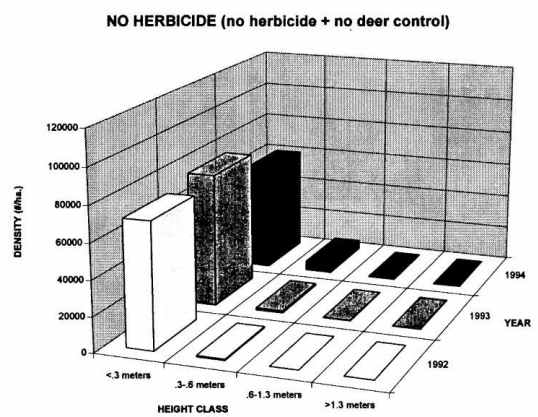
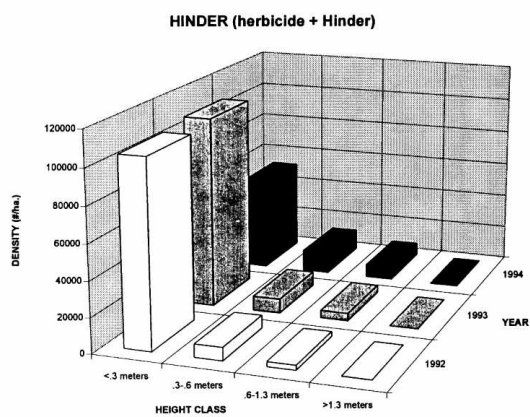


Figure 12. The densities of Atlantic white-cedar at the Colletti site during the current study years (1992 through 1994) versus height class. The other two (of four) treatments are shown on this page.

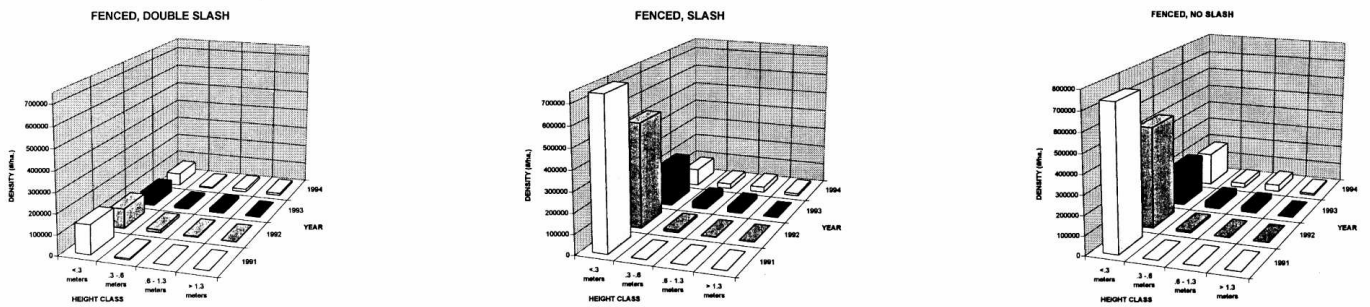


Figure 13. The densities of Atlantic white-cedar at Penn Swamp during the current study (years 1991 through 1994) versus height class. These charts show data taken from the fenced area for the three slash treatments.

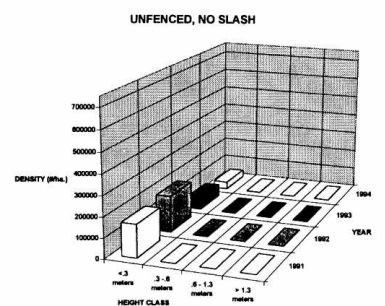
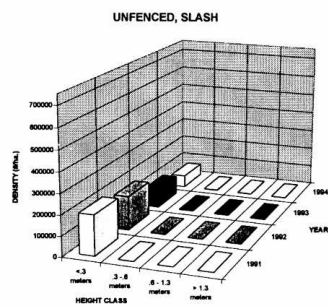
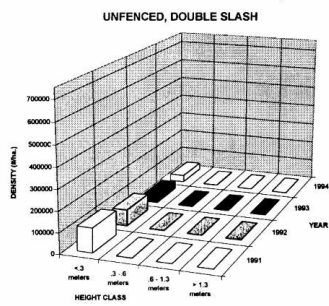


Figure 14. The densities of Atlantic white-cedar at Penn Swamp during the current study (years 1991 through 1994) versus height class. These charts show data taken from the unfenced area for the three slash treatments.

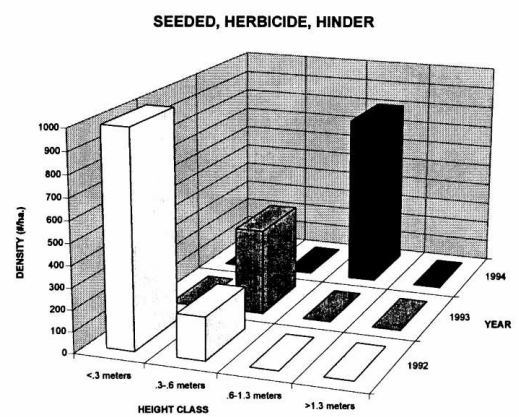
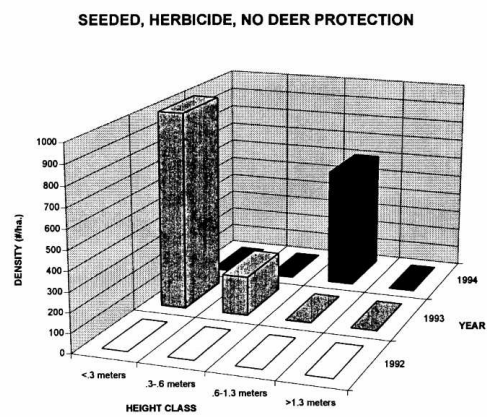


Figure 16. The densities of Atlantic white-cedar at the Belleplain Food Patch site during the current study (1992-1994) versus height class. Two of the four treatments are shown as separate charts on this page.

APPENDIX 5

SURVIVORSHIP SURVEY
 SITE: BELLEPLAIN FOOD PATCH
 DATE: 11/22/94
 DATA COLLECTION BY : MARY ANN SWEIKART

ABBREVIATIONS:

A - ALIVE	HBR - HEAVY RABBIT BROWSE
D - DYING (MORE THAN 50% DEAD)	BR - RABBIT BROWSE
X - DEAD	B - BROWSE UNKNOWN ORIGIN
	HB - HEAVY BROWSE UNKNOWN ORIGIN
	CS - CONES PRESENT

SURVEY OF 100 OUT OF 1000 PLANTINGS, RANDOMLY TAKEN

OBS #	HEALTH	HEIGHT (cm)	NOTES	OBS #	HEALTH	HEIGHT (cm)	NOTES
1	A	47		51	A	21	
2	A	23		52	A	28	
3	A	23	HBR	53	A	42	B
4	A	76	BR	54	A	43	
5	X	17		55	A	42	
6	X	23		56	X	13	
7	X	10		57	A	38	
8	D	15	BR	58	A	10	
9	D	33		59	X	18	HBR
10	A	18		60	A	40	
11	A	43		61	A	72	BR
12	X	21		62	A	35	
13	A	51		63	A	70	BR
14	X	21		64	A	60	BR
15	A	46		65	D	29	
16	A	34		66	A	51	
17	A	32		67	A	6	
18	X	39		68	A	34	HBR
19	A	63		69	A	22	B
20	X	22		70	X	23	
21	A	29		71	D	20	
22	X	27		72	A	43	
23	D	31		73	A	54	
24	A	27		74	X	11	
25	A	48		75	A	16	HBR
26	A	24		76	A	6	
27	D	14		77	A	6	HB
28	A	88		78	A	34	HBR
29	A	22		79	X	19	B
30	D	20	CS	80	X	12	
31	X	26		81	A	44	
32	D	41		82	X	14	CS
33	A	25		83	A	71	
34	X	16		84	A	32	
35	D	33	BR, CS	85	A	29	
36	A	44		86	X	21	
37	X	27		87	A	13	
38	D	22		88	X	28	
39	A	35		89	D	18	
40	A	8	HB	90	X	32	B
41	A	21		91	X	18	
42	A	20		92	A	33	
43	D	10		93	X	14	
44	A	34	BR	94	A	15	
45	X	12		95	A	42	B
46	A	62	B	96	X	18	
47	A	16		97	A	15	
48	A	16	HB	98	A	9	B
49	A	59		99	A	17	
50	X	15		100	A	29	HBR

DATA SUMMERY:

62% alive, 26% dead, 12% dying

Average height of living trees without browse:
37.70 cm.

Average height of living trees with browse:
28.16 cm. 31% of all living trees surveyed were browsed, none of the browse
appeared to be the result of deer.

Average height of all living trees regardless of browse:
34.77 cm.

Average height of dead trees:
19.88 cm.

Average height of dying trees:
23.83 cm.

SURVIVORSHIP SURVEY
 SITE: BELLEPLAIN NON-FOOD PATCH
 DATE: 10/29/94
 DATA COLLECTED BY: TODD KLAWSKI

ABBREVIATIONS: A - ALIVE, D - DYING (MORE THAN 50% DEAD), X - DEAD

OBS. #	HEALTH	HEIGHT (cm)	OBS. #	HEALTH	HEIGHT (cm)
1	A	56	51	A	36
2	A	41	52	A	41
3	A	36	53	A	38
4	A	59	54	A	46
5	A	42	55	A	60
6	A	6	56	A	30
7	A	31	57	A	36
8	X	16	58	A	31
9	A	16	59	A	28
10	A	39	60	A	47
11	A	54	61	A	28
12	A	45	62	A	42
13	A	46	63	A	47
14	A	23	64	A	45
15	A	34	65	X	16
16	X	21	66	X	20
17	A	28	67	A	17
18	A	25	68	X	9
19	A	54	69	A	28
20	A	48	70	A	23
21	A	24	71	A	45
22	A	32	72	A	44
23	X	5	73	A	41
24	A	40	74	A	20
25	X	26	75	A	26
26	A	29	76	X	0
27	A	51	77	A	25
28	A	45	78	A	26
29	A	42	79	A	52
30	A	15	80	A	37
31	A	28	81	A	59
32	X	20	82	A	44
33	A	50	83	A	32
34	A	19	84	A	33
35	A	18	85	A	31
36	X	24	86	A	30
37	A	41	87	D	6
38	A	71	88	A	31
39	A	41	89	A	21
40	A	46	90	A	26
41	A	60	91	A	39
42	A	54	92	X	5
43	A	36	93	X	26
44	A	43	94	A	46
45	A	34	95	A	26
46	A	39	96	A	32
47	A	47	97	X	16
48	A	44	98	D	13
49	A	21	99	X	24
50	A	39	100	A	25

DATA SUMMERY:

84% alive, 14% dead, 2% dying

Average height of living trees:

36.98 cm

Average height of dead trees:

16.29 cm

Average height of dying trees:

9.5 cm

