Report 026511-7-T

Structure, Composition, and Above-ground Biomass of SIR-C/X-SAR and ERS-1 Forest Test Stands 1991-1994, Raco Michigan Site

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Report 026511-7-F

Abstract

This report presents the final analysis of the structure, composition, and above-ground biomass of the SIR-C/X-SAR and ERS-1 forest test stands at Raco Michigan. Between 1991 and 1994, sixty-six forest test stands representing the distribution of forest communities, ages, and densities found at the Raco site have been sampled. Additionally, 20 of the stands sampled in earlier years were resampled in 1994 to assess growth.

Included in the introduction to this report are discussions of the sampling design, locations and descriptions of the stands, sampling techniques, and data processing and analysis techniques.

Included in the appendices are detailed stand descriptions, relevant programs, and tables of data including height and diameter distributions, stand summary statistics, stand structure statistics, height results, and biomass results.

Electronic versions of the summary data tables and appendices are available on request. Requests may be sent to:
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1 Introduction

1.1 BIOMETRIC SURVEY OBJECTIVES

In 1990 a region in northern Michigan largely within the Hiawatha National Forest was designated as the NASA Raco Supersite with the intention of becoming a long-term study site. The purpose of the research associated with this site is to investigate the use SAR image data in deriving and analyzing forest ecological/biophysical parameters related to global change issues. Since that time this site has been imaged by ERS-1, JERS-1, SIR-C/X-SAR, and has received frequent JPL AIRSAR overflights. Analysis of the image data resulting in extraction of biophysical parameters has proceeded in step with image acquisition. This research has concentrated on development of SAR landcover classifications and in the construction of algorithms to predict forest biophysical parameters including basal area, density, height, and biomass from the SAR imagery. Ultimately it is desired to couple these algorithms with ecological models to predict such ecological processes as carbon flux and NPP.

To both train and validate any image processing algorithms in this early research stage, it is necessary to have at hand sufficient "ground-truth" data. Therefore, central to the overall research plan has been the establishment of a number of forest test stands on the ground which would meet the requirements of rigorous quantitative and statistical analysis. To achieve this goal, 70 four-hectare stands were established in the region. These stands are representative of the range of north-temperate and boreal forest communities found at the test site. They are also distributed over the range of ages and densities found in the region. Each stand has been intensively sampled according to a defined sampling scheme to arrive at a statistical interpretation of stand structure, species composition, and above-ground biomass. An explanation of the methodology and presentation of results for the ground truth sampling, or biometric survey, of the forest test stands is the purpose of this report. Following is a table presenting the overall objectives of the Raco Supersite biometric survey:

Table 1. Biometric Survey Objectives: Raco Supersite

Objectives
1. Estimation of stand structure by stand, stratum, and species: species composition, diameter, height, crown depth, basal area, and density
2. Development of species height prediction equations and estimation of heights
3. Estimation of total and component biomass by stand, stratum, and species
4. GPS derived GIS overlay of precise stand locations

The first half of the report consists of text including 1) a brief introduction to the site, 2) a discussion of the sampling design and techniques, and 3) a description of the data processing and statistical analyses. Included in these sections are relevant maps and tables. The second half of the report consists of a series of appendices, and here are presented more detailed information relating to the sampling methodology and analysis, plus the final statistical results of the biometric survey. Electronic versions of the appendices are available on request. Requests may be sent to: dobson@eecs.umich.edu

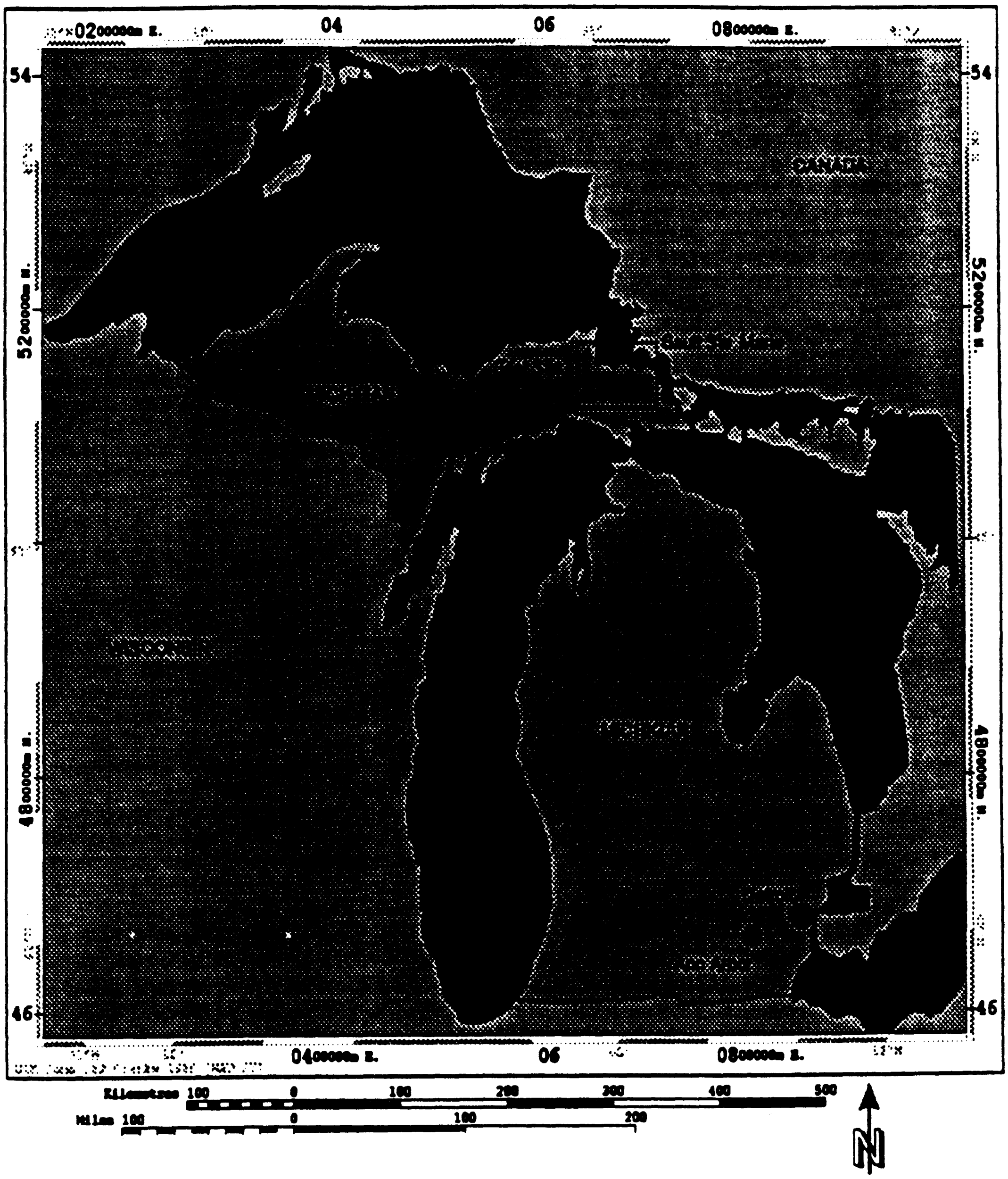
1.2 THE SITE;

The Raco supersite, centered on 46.392° N. Latitude and 84.885° W. Longitude, is located in Chippewa County in the eastern part of Michigan's Upper Peninsula. The area under study is approximately 20 km E-W and 20 km N-S. Much of the study site, and all of the forest test stands used for ground truth data, are within the boundaries of the Eastern Division of the Hiawatha National Forest. The map *SIR-C/X-SAR Supersite: Raco, Michigan* shows the location of the SIR-C/X-SAR test site in Michigan.

1.2.1 Physiography;

The site contains several distinct physiographic regions. A large area of excessively drained glacial outwash sands (the Raco Plains) dominates the

SIR-C/X-SAR Supersite: Raco, Michigan



northeast quadrant. The southeast quadrant contains an extensive poorly drained wetland area. Moderately well drained morainal features interspersed map with low-lying somewhat poorly drained areas comprise the western half. The northern edge of the site borders Lake Superior. Agricultural areas on lake plain border the northeast, and the Delirium Wilderness wetlands border the south and southeast. Forested areas on morainal till continue to the west.

1.2.2 Climate;

Regional climate is characterized by a mean annual temperature of 5°C, July average temperature of 24.5°C, January average temperature of -14°C, growing season of approximately 130 days, and mean annual precipitation of 79 cm.

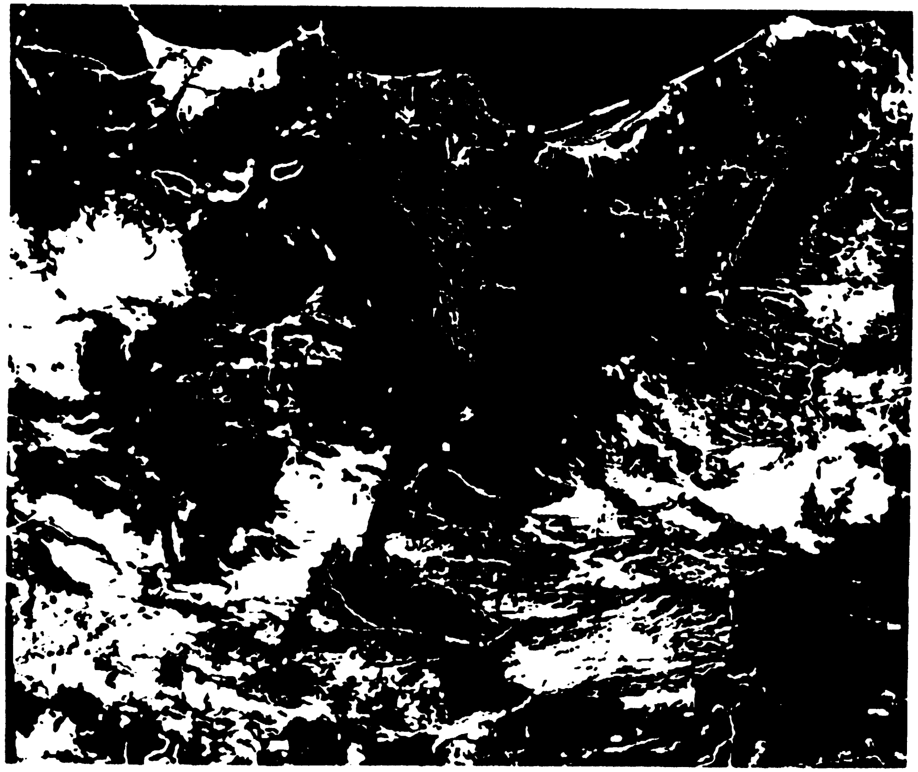
1.2.3 Forest Composition;

The Raco site's situation on the ecotone between the north-temperate and boreal forest biomes, its diversity of forest communities of varying ages and densities, and its forest stands of large geographical extent made it an ideal NASA supersite.

Present on the drier outwash are upland conifer communities; on the low sites lowland conifer or forested wetlands communities; on the richer sites either late successional northern hardwoods or early successional aspen communities. The map *Detail of Land Cover* depicts the generalized land cover distribution for the test region. Table 2: *Forest Communities and Dominant Species Studied During the SIR-C/X-SAR Project,* lists the forest communities and dominant species which have been studied throughout the duration of the SIR-C/X-SAR project.

A comprehensive list of the species found in the Raco Supersite forest test stands and encountered during the Biometric Survey is provided in Table 3: *Comprehensive List of Species at the SIR-C/X-SAR Raco Supersite.* This table gives the species common name, the binomial scientific name (genus, species), and the six letter code used to designate the species in the field.

Detail of Land Cover
Centered on the Raco Supersite
SIR-C/X-SAR Cross-Over Region



Source: manually interpreted from 1979 aerial photography by the Michigan Department of Natural Resources

- Upland Conifer
- Lowland Conifer
- Northern Hardwoods
- Aspen / Birch
- Agriculture
- Wetland
- Water / Airport
- Urban

Table 2: Forest Communities and Dominant Species Studied During the SIR-C/X-SAR Project

Upland Conifer
Jack Pine (*Pinus banksiana*)
Red Pine (*Pinus resinosa*)
White Pine (*Pinus strobus*)
Lowland Conifer
Black Spruce (*Picea mariana*)
White Spruce (*Picea glauca*)
Northern White Cedar (*Thuja occidentalis*)
Balsam Fir (*Abies balsemea*)
Larch (*Larix laricina*)
Northern Hardwoods - late successional species
Sugar Maple (*Acer saccharum*)
Red Maple (*Acer rubrum*)
Beech (*Fagus grandifolia*)
Yellow Birch (*Betula alleghaniensis*)
Paper Birch (*Betula papyrifera*)
Hemlock (*Tsuga canadensis*)
Aspen - early successional species
Trembling Aspen (*Populus tremuloides*)
Bigtooth Aspen (*Populus grandidentata*)
Pin Cherry (*Prunus Pensylvanica*)

Table 3: Comprehensive List of Species at the SIR-C/X-SAR Raco Supersite

Acronym	Scientific name	Common name
ABIBAL	*Abies balsamea* (L.) Mill.	Balsam Fir
ACEPEN	*Acer pensylvanicum* L.	Striped Maple
ACERUB	*Acer rubrum* L.	Red Maple
ACESAC	*Acer saccharum* Marsh.	Sugar Maple
ACESPI	*Acer spicatum* Lam.	Mountain Maple
AROMEL	*Aronia melanocarpa* (Michx.) Ell.	Chokeberry
ALNRUG	*Alnus rugosa* (Du Roi) Spreng.	Speckled Alder
AMESPP	*Amelanchier* Medic.	Serviceberry
BETALL	*Betula alleghaniensis* Britton	Yellow Birch
BETPAP	*Betula papyrifera* Marsh.	Paper Birch
CHACAL	*Chamaedaphne calyculata* (L.)	Leather-leaf
CORALT	*Cornus alternifolia* L. f.	Alternate-leaf Dogwood
CORCOR	*Corylus cornuta* Marsh.	Beaked Hazel
CRASPP	*Crataegus* L.	Hawthorn
FAGGRA	*Fagus grandifolia* Ehrh.	American Beech
FRAAME	*Fraxinus americana* L.	White Ash
FRANIG	*Fraxinus nigra* Marsh.	Black Ash
ILEVER	*Ilex verticillata* (L.) A. Gray	Winterberry
LARLAR	*Larix laricina* (Du Roi) K. Koch.	Tamarack
LEDGRO	*Ledum groenlandicum* Oeder	Labrador-tea
LONCAN	*Lonicera canadensis* Marshall	Fly-honeysuckle
NEMMUC	*Nemopanthus mucronata* Raf.	Mountain-holly
OSTVIR	*Ostrya virginiana* (Mill.) K. Koch	Eastern Hop-hornbeam
PICGLA	*Picea glauca* (Moench) Voss	White Spruce
PICMAR	*Picea mariana* (Mill.) B.S.P.	Black Spruce
PINBAN	*Pinus banksiana* Lamb.	Jack Pine
PINRES	*Pinus resinosa* Ait.	Red Pine
PINSTR	*Pinus strobus* L.	Eastern White Pine
POPGRA	*Populus grandidentata* Michx.	Bigtooth Aspen
POPTRE	*Populus tremuloides* Michx.	Trembling Aspen
PRUPEN	*Prunus pensylvanica* L. f.	Pin Cherry
PRUSER	*Prunus serotina* Ehrh.	Black Cherry
PRUVIR	*Prunus virginiana* L.	Chokecherry
QUEELL	*Quercus ellipsoidalis* E. J. Hill	Northern Pin Oak
QUERUB	*Quercus rubra* L.	Northern Red Oak
SALSPP	*Salix* L.	Willow
SAMRAC	*Sambucus racemosa* L.	Red-berried Elder
SORAME	*Sorbus americana* Marsh.	Mountain-ash
THUOCC	*Thuja occidentalis* L.	Northern White-cedar
TILAME	*Tilia americana* L.	American Basswood
TSUCAN	*Tsuga canadensis* (L.) Carr	Eastern Hemlock
ULMAME	*Ulmus americana* L.	American Elm
VIBACE	*Viburnum acerifolium* L.	Arrowwood
VIBCAS	*Viburnum cassinoides* L.	Withe-rod

1.3 SAMPLING DESIGN AND TECHNIQUES

1.3.1 Stand Selection and Planning

The first task was to identify and establish the forest test stands which would be used for the biometric survey. The criteria used were those presented in the following table.

Table 4: Criteria for Selection of Forest Test Stands

1) Stands selected should fill the distribution of forest communities present at the site.
2) Stands selected should fill the distribution of ages and densities present at the site within each forest community.
3) An individual stand selected should be uniform in regard to its community (species composition), age, and density.
4) Stands selected should be on level, or nearly level, terrain.
5) Stands selected should be jurisdictionally within the bounds of the Hiawatha National Forest and accessible by automobile.

Identification of potential stands was done by consulting the U.S. Forest Service Compartment and Stand Maps for the Hiawatha National Forest in conjunction with the above criteria. All potential stands were visited in the field to assure that they did in fact meet the criteria before making the final selection. As a result, 70 four-hectare stands were established and 66 were measured at the Raco Supersite, beginning in 1991. Each of the stands is designated by a number, and using these numbers, the stands may be located on the overview map *Raco Site Forest Test Stands.* More detailed locations and descriptions of the stands are provided in two appendices. Appendix A consists of detailed stand descriptions including information on how to locate the stand plus its layout (the latter discussed in section 1.3.3). Appendix B contains the U.S. Forest Service Compartment and Stand Maps showing the forest test stands drawn in at their approximate locations.

Table 5: *Percent of Stands in Each Forest Community* gives the percent of forest test stands represented in each of the forest communities under study. This is displayed graphically in the pie charts in Figure 1: *Stand Distributions by Community and Age Group.* A more detailed listing giving the species and size class of each stand is presented in Table 6: *Forest Test Stands by Community Type and Age Group.*

Raco Site Forest Test Stands

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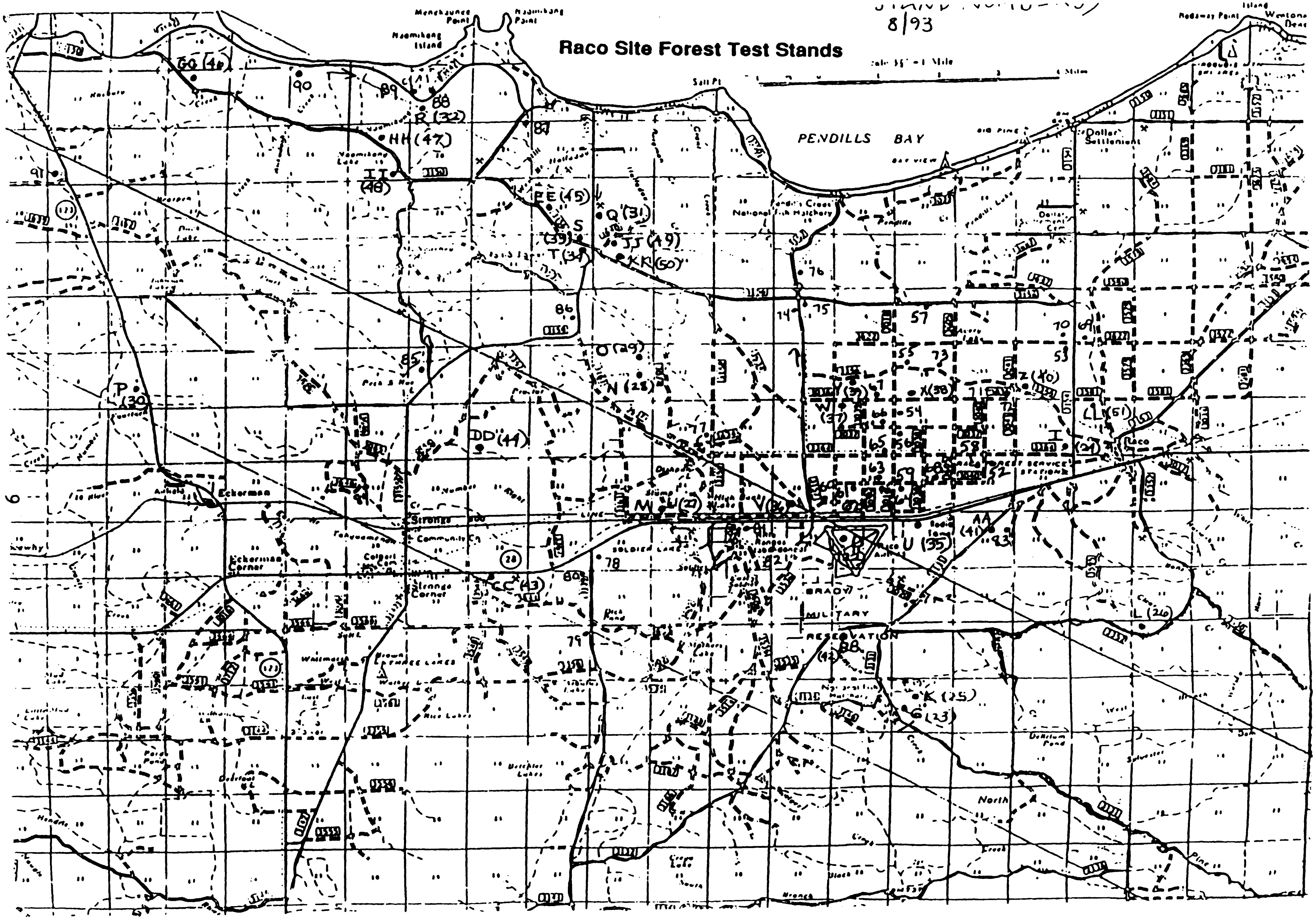


Figure 1: Stand Distributions by Community and Age Group

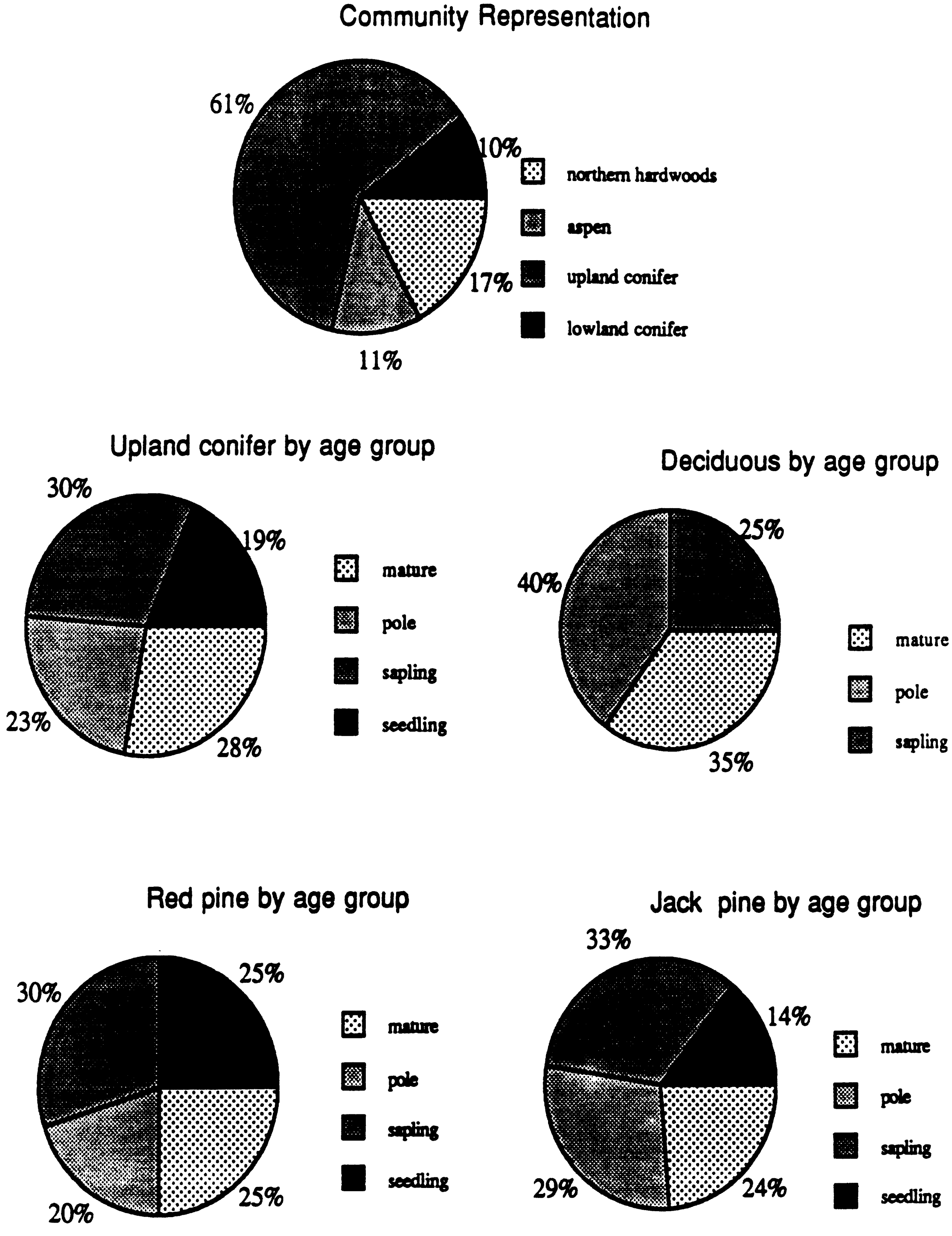


Table 5: Percent of Stands in Each Forest Community

Forest Community	Percent of Stands
Aspen	11%
Northern hardwoods	17%
Red pine	29%
Jack pine	30%
White pine	3%
Lowland conifer	10%

In actual practice, identification and measurement of the forest test stands occurred over a time frame of several years. The first year of measurement at the Raco Supersite occurred in 1991, when 13 stands were identified and measured. In 1992 an additional 15 stands were identified and measured. During the summer 1993, the remaining 42 stands were identified and 38 were measured. Because forest trees, especially younger trees, exhibit significant growth over a span of several years, 24 stands were re-measured in 1994 to arrive at current measurements and to assess growth rate. The stands re-measured included young sapling jack pine, red pine, and aspen stands. Older stands continue to grow as well, but the percent change because of growth is much less significant than in younger stands. The re-measure of younger stands was especially important in using the data with SIR-C/X-SAR imagery which was acquired for the first time in 1994. Table 6: *Forest Test Stands by Community Type and Age Group* provides community information for each stand, gives its identification number (including superseded identification letter), and also gives the year the stand was measured and re-measured.

<u>1.3.2 GPS Survey of Test Stands</u>

In order to better locate forest test stands, and to construct a geographic information system (GIS) layer containing the stands, a survey of the stands was required. This was accomplished using the global positioning system (GPS) and Trimble GPS receivers. The first 28 stands were surveyed in August 1992, and the remaining 38 in November of 1993. GPS coordinates were taken at two points in each stand: meter 0.0 and meter 200.0 on the baseline. Coordinates were taken in the WGS-94 datum and were output as Universal Transverse Mercator (UTM) coordinates based on the NAD-27 datum to correspond to the other layers of the GIS which were always NAD-27. At least 180 sample coordinates were taken at each point. Coordinates were differentially post-processed against reference data supplied by the U.S.

Table 6: Forest Test Stands by Community Type and Age Group

Community / Age Group	Stand Number	N of Stands
Aspen, upland		
pole	84	1
sapling	33(S), 45(EE), 49(JJ), 69, 70	5
Aspen, lowland		
pole	47(HH), 87	2
Northern hardwoods		
mature	28(N), 29(0), 34(T), 46(GG), 48, 53, 57	7
pole	31(Q), 76, 85, 86, 91	5
Red pine		
mature	23(G), 25(K), 43(CC), 50(KK), 52	5
pole	68, 71, 72, 73	4
sapling	22(D), 51(LL), 77, 81, 82, 83	6
seedling	40(Z), 41(AA), 78, 79, 80	5
Jack pine		
mature	24(I), 27(M), 35(U), 61, 67	5
pole	56, 60, 62, 63, 64, 65	6
sapling	36(V), 38(X), 42(BB), 54, 55, 58, 59	7
seedling	37(W), 39(Y), 66	3
White pine		
mature	74, 75, (also 23(G), 25(K))	2
Black spruce		
mature	26(L), 44(DD)	2
N. white cedar		
mature	32(R)	1
Hemlock		
mature	90	1
Lowland mixed conifer		
mature	30(P), 88, 89	3

Stand Number	Community	Age Group	Year Measured	Year Re-measured
22 (D)	red pine	sapling	1991	1994
23 (G)	red & white pine	mature	1991	
24 (I)	jack pine	mature	1991	
25 (K)	red & white pine	mature	1991	
26 (L)	black spruce, lowland	mature	1991	
27 (M)	jack pine	mature	1991	
28 (N)	northern hardwoods	mature	1991	
29 (O)	northern hardwoods	mature	1991	
30 (P) *	mixed conifer, lowland	mature	1992	
31 (Q)	northern hardwoods	pole	1991	
32 (R)	cedar, lowland	mature	1991	
33 (S)	aspen, upland	sapling	1991	1994
34 (T)	norther hardwoods	mature	1991	
35 (U)	jack pine	mature	1991	
36 (V)	jack pine	sapling	1992	1994
37 (W)	jack pine	seedling	1992	1994
38 (X)	jack pine	sapling	1992	1994
39 (Y)	jack pine	seedling	1992	1994
40 (Z)	red pine	sapling	1992	1994
41 (AA)	red pine	sapling	1992	1994
42 (BB)	jack pine	sapling	1992	1994
43 (CC)	red pine	mature	1992	
44 (DD)	black spruce, lowland	mature	1992	
45 (EE)	aspen, upland	sapling	1992	1994
46 (GG)	northern hardwoods	mature	1993	
47 (HH)	aspen, lowland	pole	1992	
48 (II)	northern hardwoods	mature	1992	
49 (JJ)	aspen, upland	sapling	1992	1994
50 (KK)	red pine	mature	1992	
51 (LL)	red pine	sapling	1992	1994
52	red pine	mature	1993	
53	northern hardwoods	mature	1993	
54	jack pine	sapling	1993	1994
55	jack pine	sapling	1993	1994
56	jack pine	pole	1993	
57	northern hardwoods	mature	1993	
58	jack pine	sapling	1993	1994
59	jack pine	sapling	1993	1994
60	jack pine	pole	1993	
61	jack pine	mature	1993	
62	jack pine	pole	1993	
63	jack pine	pole	1993	

Stand Number	Community	Age Group	Year Measured	Year Re-measured
64	jack pine	pole	1993	
65	jack pine	pole	1993	
66	jack pine	seedling	1993	1994
67	jack pine	mature	1993	
68	red pine	pole	1993	
69	aspen, upland	sapling	1993	
70	aspen, upland	sapling	1993	
71	red pine	pole	1993	
72	red pine	pole	1993	
73	red pine	pole	1993	
74	white pine	mature	1993	
75	white pine	mature	1993	
76	sugar maple	pole	1993	
77	red pine	sapling	1993	1994
78	red pine	seedling	1993	1994
79	red pine	seedling	1993	1994
80	red pine	seedling	1993	1994
81	red pine	sapling	1993	1994
82	red pine	sapling	1993	1994
83	red pine	sapling	1993	1994
84 **	aspen, upland	pole		
85	northern hardwoods	pole	1993	
86	northern hardwoods	pole	1993	
87	aspen, lowland	pole	1993	
88	mixed conifer, lowland	mature	1993	
89 **	mixed conifer, lowland	mature		
90 **	hemlock, lowland	mature		
91	northern hardwoods	pole	1993	

* Measured only by point sampling

** Established, but not yet measured

Forest Service GPS base station in Escanaba, MI, and then averaged for each point, to yield the most accurate position possible. The two differentially processed and averaged coordinates for each stand were combined with other stand information including n of transects, n of plots per transect, all offsets, and azimuths, in a program which output stand polygons, both regular-shaped and irregular shaped in a GIS format (ERDAS .dig). GPS coordinates in UTM of the lower left and upper right corners of each stand are provided in Appendix D: *Stand Summary Statistics* following measurement data in the table.

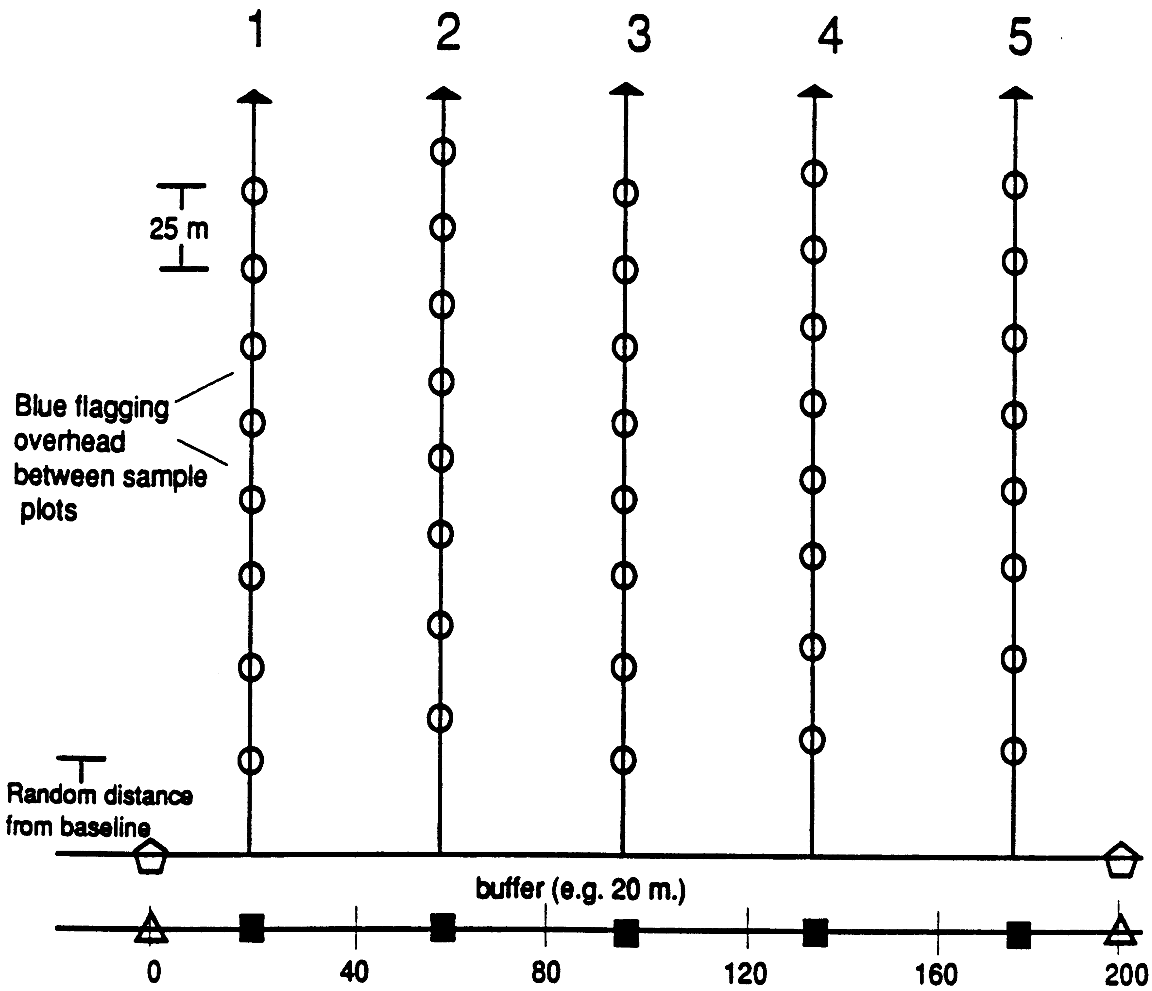
1.3.3 Sampling Design

Before any measurements were made in a test stand the dimensions of the stand were established by laying out a baseline and transects. Most stands were 200-m by 200-m. Some stands were laid out slightly differently, e.g. longer baselines and shorter transects, when the stand configuration or landscape made this necessary. The following description is for a typical 200m X 200 m stand.

A 200-m baseline was established in each stand at a minimum distance from the forest edge of twice the height of the tallest trees. The left end of the baseline when facing into the stand was designated meter mark 0.0 and the right end meter mark 200.0. The baseline was divided into five equal (40-m) segments. Starting at 0.0 m, a meter mark was randomly chosen in the first segment as the point of departure of the first transect, typically running orthogonal to the baseline. Four additional transects were established at 40-m intervals. Eight points were located along each transect at 25-m intervals, the first point being randomly chosen as a meter mark between 1 and 25. The 40 sample points thus generated served as the basis for a 10% sample of the upper stratum. The ends of the baseline were marked by metal rods in the ground and flagging overhead. The transect starting points and upper stratum sample points were marked with labeled wire flags.

A nested set of circular plots of area 100 m^2, 16 m^2 and 1 m^2 was established at each sample point to characterize the upper stratum (>5 m), middle stratum (1-5 m) and lower stratum (<1 m), respectively. The radii of circular plots for the upper and middle strata were 5.64 m and 2.26 m, respectively. A 1-m x 1-m sampling frame was used to sample the lower stratum. Two middle stratum plots and three lower stratum plots were located

Figure 2 : Diagram of Stand Layout



O	Red wire flag (8 per transect), marking upper stratum plot center; 2 yellow wire flags (16 per transect) mark middle stratum plot centers
→	Transect (5 spaced 40 m apart per stand, location of T1 on the baseline is random between 0-40); blue flagging overhead
■	White flag on ground; red flag overhead marking location of transect
△	Orange rebar, plus blue and red flagging
⬠	Beginning of baseline

Figure 3: Diagram of Plot layout

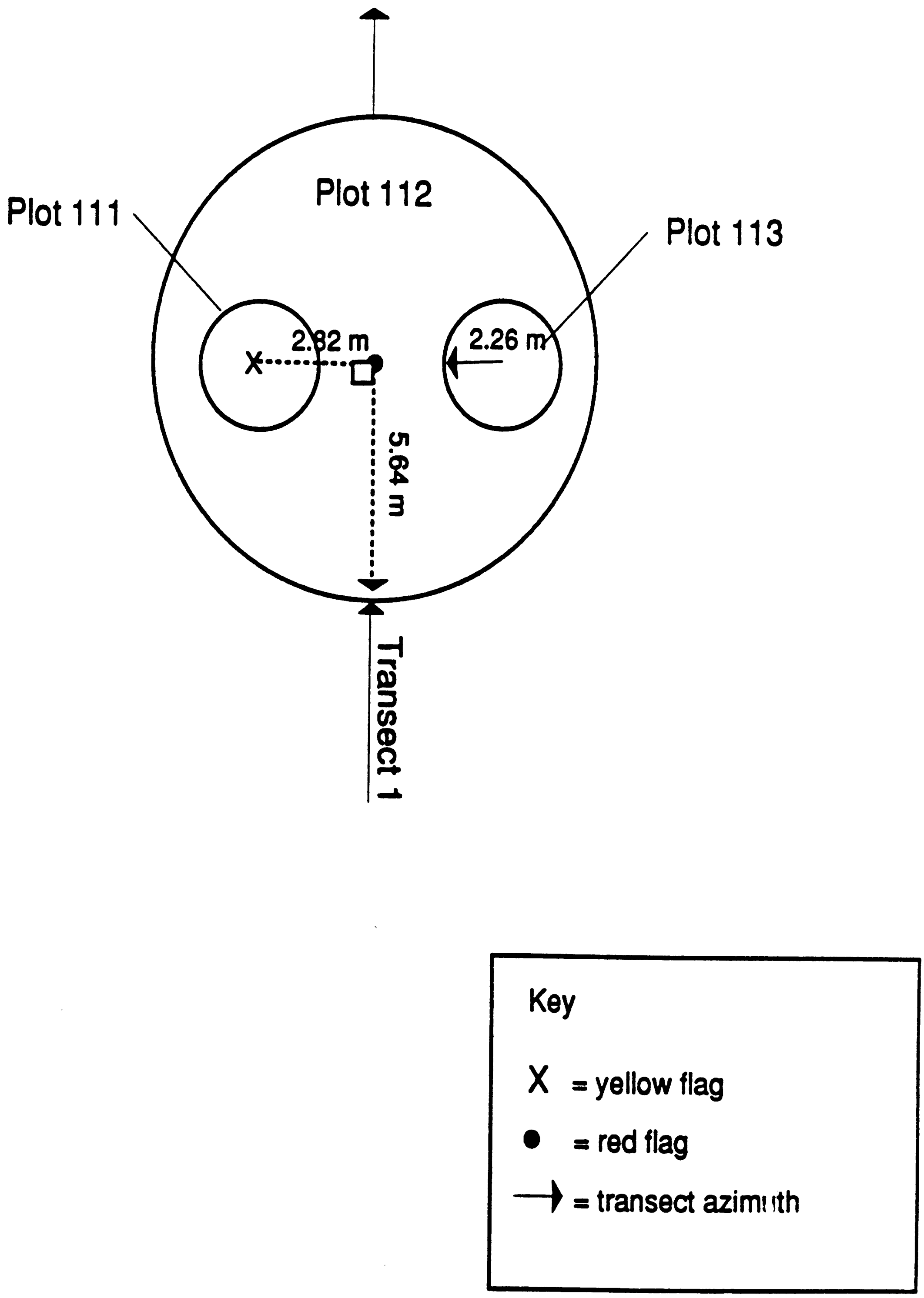


Table 7: Stand Layouts

Stand number	Stand type	USFS compartment and stand number	Baseline azimuth	Transect azimuth	Location of transect #1 on baseline	Minimum distance to 1st point on transect (m)	N of transects	Location of 1st plot on each transect (m)	N of Plots measured (1st year)
22	Red Pine--sapling	55--35	155	110	30	20*	5	19, 23, 4, 6, 9 *(Min for T5=30 m)	40
23	Red & White Pine--mature	88--2	120	30	5	0	5	6, 4, 6, 5, 2	40
24	Jack Pine--mature	29--6	90	0	15	0	5	8, 7, 24, 8, 5	40
25	Red & White Pine--mature	88--2	300	180	12	0	5	1, 4, 22, 18, 23	40
26	Black Spruce--mature	82--18	60	0	37	30	5	16, 8, 3, 23, 22	40
27	Jack Pine--mature	27--15	90	10	32	30	5	10, 11, 22, 9, 22	40
28	Northern Hdwd--mature	35--11	270	180	14	30	5	23, 12, 15, 11, 4	40
29	Northern Hdwd--mature	35--11	0	270	31	30	5	22, 23, 1, 6, 3	40
30	N. White-cedar--mature	42--42	355	270	10	30	5	13, 23, 7, 11, 14	40
31	Northern Hdwd--pole	20--8	180	90	19	30	5	1, 24, 3, 22, 21	40
32	N. White-cedar--mature	12--21	270	180	26	0	5	4, 1, 3, 9, 4	40
33	Aspen--sapling	20--10	115	0	14	20	10	22, 15, 18, 13, 20, 19, 10, 16, 17, 1	11
34	Northern Hdwd--mature	19--24	295	205	39	30	5	7, 13, 8, 16, 6	37
35	Jack Pine--mature	55--20	260	180	11	30, 20	5	offsets not recorded	40
36	Jack Pine--sapling	47--36, 48--24	355	270	16	20	5	22, 9, 19, 15, 16	40
37	Jack Pine--seedling	32--17	270	180	23	20	5	19, 20, 13, 18, 15	40
38	Jack Pine--sapling	31--50	90	20	5	10	5	5, 16, 8, 13, 7	40
39	Jack Pine--seedling	32--78	270	195	14	20	5	22, 3, 24, 1, 3	40
40	Red Pine--sapling	29--18	120	30	38	10	11	22,11,10,21,23,1,23,6,22,9,22	40
41	Red Pine--sapling	54--10,15	228	90	11	20	7	4, 1, 3, 8, 16,7,5	41
42	Jack Pine--sapling	80--45	240	170	36	20	5	5, 14, 5, 24, 8	40
43	Red Pine--mature	58--9	270	160	7	30	5	6, 12, 18, 7, 20,	36
44	Black Spruce--mature	60--67	98	38	71	20	5	8, 6, 17, 7, 3 (T2-T6)	40
45	Aspen--sapling	20--30	152	36	9	30	5	15, 8, 7, 10, 17	23
46	Northern Hdwd--mature	13--33	144	57	11	20	4	5, 5, 1, 17 (T2-T5)	40
47	Aspen--pole	12--(near 29)	130	40	15	30	8	6,14,8,11,10,1,2,7	29
48	Northern Hdwd--mature	18--22	324	270	31	30	5	19, 20, 18, 13, 17	40
49	Aspen--sapling	21--9, 10	230	100	36	20	5	10, 4, 7 (17?), 3, 9	22
50	Red Pine--mature	21--8	118	360	9	20	5	11, 1, 12, 16, 3	40
51	Red Pine--sapling	50--17	270	200	31	30	5	24, 4, 9, 15, 11	40
52	Red Pine--mature	49--25	180	95	15	30	5	10, 25, 10, 3, 13	40
53	Northern Hdwd--mature	29--34, 35	270	180	13	30	8	9, 10, 16, 14, 15, 16, 8, 3	40
54	Jack Pine--sapling	31--38	180	87	7	20	5	9, 15, 12, 15, 6	40
55	Jack Pine--sapling	31--52	18	288	36	0	5	6, 25, 11, 3, 5	40
56	Jack Pine--pole	31--62	180	90	18	20	5	3, 6, 22, 2, 6	40

Table 7: Stand Layouts

Stand number	Stand type	USFS compartment and stand number	Baseline azimuth	Transect azimuth	Location of transect #1 on baseline	Minimum distance to 1st point on transect (m)	N of transects	Location of 1st plot on each transect (m)	N of Plots measured (1st year)
57	Northern Hdwd--mature	31--4	270	180	54	30	4	3, 3, 19, 22 (T2-T5)	40
58	Jack Pine--sapling	49--33	0	270	11	20	5	19, 24, 18, 9, 18	40
59	Jack Pine--sapling	48--5	269	180	30	20	5	6, 20, 6, 17, 22	40
60	Jack Pine--pole	48--24	68 (58?)	354	7	20	4	4, 8, 7, 5	40
61	Jack Pine--mature	43--13	88	180	24	30	5	15, 6, 6, 22, 2	40
62	Jack Pine--pole	48--11	180	95	26	20	5	5, 14, 23, 23, 12	40
63	Jack Pine--pole	48--15	89	0	15	20	5	10, 22, 3, 9, 13	40
64	Jack Pine--pole	49--4	267	180	26	20	5	14, 24, 20, 17, 7	40
65	Jack Pine--pole	32--33	90	0	32	30	5	11, 9, 0, 29, 16	40
66	Jack Pine--seedling	32--21	270	36	29	80	4	13, 14, 2, 25	36
67	Jack Pine--mature	32--22	90	0	24	30	5	4, 8, 14, 8, 22	40
68	Red Pine--pole	49--9	90	355	29	50	5	19, 14, 17, 15, 22	40
69	Aspen--sapling	23--23	180	90	23	20	5	18, 11, 21, 5, 12 **	15
70	Aspen--sapling	22--49	150	60	?	0	5	10, 15, 24, 25, 23	8
71	Red Pine--pole	30--52	90	0	3	30	5	12, 21, 9, 19, 11	40
72	Red Pine--pole	30--52	90	0	9	30	5	13, 15, 30, 4, 2	40
73	Red Pine--pole	31--33	112	33	29	20	5	23, 13, 16, 6, 25	40
74	White Pine--mature	33--16	354	280	20	30	5	24, 2, 9, 19, 4	40
75	White Pine--mature	32--66	180	95	?	30	10	14, 1, 1, 6, 5, 12, 1, 1, 9, 1	27
76	Sugar Maple--pole	8--46	180	90	28	30	5	3, 24, 5, 13, 16	40
77	Red Pine--sapling	34--5	4	280	22	20	5	12, 21, 9, 19, 11	40
78	Red Pine--seedling	57--13	228	148	17	0	4	9, 9, 15 (5?), 12	34
79	Red Pine--seedling	58--16	0	260	22	65	5	11, 21, 20, 11, 4	40
80	Red Pine--seedling	58--39	0	260	28	65	4	3, 25, 24, 5	40
81	Red Pine--sapling	56--30	270	165	14	40	5	13, 8, 20, 10, 15	40
82	Red Pine--sapling	56--4	0	290	19	40	5	3, 13, 18, 11, 21	40
83	Red Pine--sapling	54--10	6	280	33	20	5	8, 14, 21, 11, 21	40
84	Aspen--pole	61--30	180	90	12	0	5	3, 0, 10, 6, 5	not done
85	Northern Hdwd--pole	44--19	360	270	31	20	5	14, 5, 12, 1, 8	40
86	Northern Hdwd--pole	36--23	360	270	27	20	8	5, 3, 13, 4, 2, 9, 1, 4	35
87	Lowland Aspen--pole	11--25	230	140	21	30	8	4, 1, 12, 5, 8, 0, 16, 0	30
88	N. White-cedar--mature	12--20	90	360	30	0	5	17, 7, 19, 10, 19	not done
89	N. White-cedar--mature	12--62	130	40	24	0	5	9, 12, 16, 15, 13	not done
90	Hemlock--mature	Mead paper	270	180	37	0			40
91	Northern Hdwd--pole	15	350	310	18 (8?)	30	5	14, 1, 23, 5, 16	40

** stand 69 was later reconfigured to be 8 transects with 5 plots ea.

100 m upper stratum plot. The axis of the plot centers was orthogonal to the transect. The centers of the middle stratum plots were at the centers of the two radii of the upper stratum plot, i.e., 2.82 m from the center of the upper stratum plot. The centers of the lower stratum plot were at the same two locations plus the center of the upper stratum plot. A red or orange flag was used to mark the central point. The other points were marked by yellow flags. Flags were identified according to a three-digit description. The first digit corresponded to the transect number, the second to the sample plot, and the third to the subplot. Subplots were sequentially numbered from left to right when facing away from the baseline. Table 7 *Stand Layouts* provides a concise listing of the azimuths, number of transects, number of plots, random offsets, etc. for each test stand. Appendix A: *Stand Descriptions* provides detailed documentation of stand locations, plus stand, transect, and plot dimensions, offsets, etc. for each test stand. Figure 2: *Diagram of Stand Layout* depicts the layout of a typical 200-m by 200-m test stand. Figure 3: *Diagram of Plot Layout* shows the arrangement of an individual plot on a transect containing sampling subplots for all three strata.

1.3.4 Sampling Methodology

Measurements were to be used to 1) estimate stand structure in terms of species composition, height, diameter, crown depth, basal area (BA) and density, and 2) estimate biomass. Therefore, measurements which would either provide direct estimates of these parameters, or could be used in regression equations to estimate the above parameters were identified. These were 1) species, 2) diameter, 3) total height, and 4) clear bole height. Note that species and diameter measurements followed the same protocol for each measurement year. Heights, however, were sampled more intensively in the first two seasons than the last two. Diameter and species are quick and easy measurements to make. Height , on the other hand is more time intensive. Therefore, only a subsample of heights were taken in all years, and these were used in development of species-specific diameter to height equations from which to estimate the remaining heights.

More specific measurement methodology follows. For the **upper stratum**, the diameter at breast height (dbh) and species of all living and dead stems in the upper stratum plot originating at or below 1.37 m above ground level was recorded (to 0.1 cm) using a diameter tape or calipers. Species were recorded using the six letter code given in Table 3 which consisted of the first three letters each of the genus and species (e.g. PINRES for red pine). If a stem was dead, an "X" was added to the end of the code (e.g. PINRESX). For the first 28 stands (1991 and 1992), five trees in each 5-cm diameter class for each species in a stand were measured by clinometer for total height and clear bole height (to 0.5 m). A random direction from which to commence measuring heights was chosen at each plot. Sampling continued until all diameter classes were completely represented, or until all plots had been inventoried. The total height of all dead individuals was recorded. For the other 38 stands measured in 1993 and 1994, total height and clear bole height of the nearest living individual to the plot center was measured, resulting in 40 stratum one measured heights per stand.

Basal stem diameter (15 cm above the ground) was measured (to 0.1 cm) for each individual in the **middle stratum** by species using vernier calipers. Total height (to 0.1m) of all individuals was measured using a height pole for the first 28 stands to develop diameter-height regressions for the middle story. For the remaining 38 stands measured in 1993 and 1994, only the nearest individual to the middle stratum plot centers were measured resulting in 80 stratum two measured heights per stand.

Percent cover of the **lower stratum** was derived from ocular estimates using a 1m X 1m square grid. In stands containing stratum 2 and/or stratum 1 individuals, percent cover only was recorded. In seedling stands, both percent cover and number of seedling stems by species were recorded.

1.4 DATA PROCESSING AND ANALYSIS

Over 64,000 trees (stems) were measured during the four measurement seasons. Thus the task of data processing and analysis was a large one consisting of several steps as listed in the table below.

Table 8: Data Processing and Analysis Steps

1. Data Recording and Preparation
2. Stand Structure Analysis
3. Calculated Heights Analysis
4. Stand Biomass Analysis

Most of the desired statistics had been identified early on in the project, and drove the sampling methodology. However, the data processing was designed so that additional, yet-undefined, statistics could be generated from the sample data in the future. One example of this might be within-stand spatial analysis. Assuring that the data were error-free and ready for analysis was a most time-consuming part of the analysis. Efficiency and consistency was achieved by using software (EXCEL and SAS) that was appropriate for the task, and by writing programs that would act on all the data at once, and output multiple statistics at once. These steps are documented in the following sections

1.4.1 Data Recording and Preparation

Data recording and preparation consisted of five general steps summarized in the following table. These steps are further elaborated below.

Table 9: Data Recording and Preparation Steps

1. Data recording
2. Data input from paper or transfer from dataloggers
3. Creation of EXCEL stand data files
4. Error checking and correction
5. Transfer of files from EXCEL to SAS

Data Recording: Data were recorded in the field by either of two methods. The first method involved writing measurements on paper data sheets. In the second, operators used hand-held dataloggers to record data in an electronic spreadsheet, analogous to the paper data sheets. In both cases, a defined set of data were always recorded. Header information was entered once at the top of each data sheet (or data file) and included the number of the stand, the date, and the measurement crew . Stratum 1 and stratum 2 were recorded on the same data sheets/file. Stratum 3 (ground cover) was recorded separately and will be discussed separately in section 1.4.5. A sample data sheet for the stratum 1 and 2 measurements is included as Figure 4. For each stem measured in stratum 1 and stratum 2, the following were recorded:

1. **Location**: location had to account for which transect, plot, and sublplot a tree was in, and therefore a three-character code was used. For example 322 denotes transect 3, plot 2, subplot 2 (upper stratum plot).
2. **Stratum**: coded 1 for upper stratum or 2 for middle stratum.

Figure 4

SIR-C VEGETATION SAMPLING

STAND ID.: 177 (#74)
OBSERVERS: BW + DF

DATE: 6-23-93
PAGE 1 OF 11

A = 280°
: = 30m
24
2
9
3
4

	PLOT	STRATUM	SPECIES	DIAMETER	TOTALHT	BOLEHT
	S-1-2	1	PINSTR	18.8		
				16.6		
			PINSTRX	12.0		
			PINSTR	27.6		
				21.6		
				19.7		
			PINSTRX	6.4		
			PINSTR	15.1		
				20.6		
				22.2		
				21.5		
				27.3		
				17.9		
X				17.5	16	12
				15.0		
			PINSTRX	20.0		
	S-1-1	2	ACEPEN	1.3	1.5	
	S-1-3	2	N/A			
	S-2-2	1	PINSTR	32.4		
			PINSTRX	10.6		
			PINSTR	21.9		
				21.6		
X				18.2	15	8.5
				20.7		
			PINSTR X	7.8		
			PINSTR	23.8		
			PINSTRX	10.3		
			PINSTR	17.8		
				18.6		
			PINSTR X	11.9		
			PINSTR X	6.9		
			PINSTRX	7.6		
			PINSTRX	23.0		
			PINSTR	13.7		
	S-2-1	2	N/A			
	S-2-3	2	N/A			
	S-3-2	1	PINSTRX	8.2		
			PINSTR	23.8		
				26.2		
			PINSTR X	6.4		
			PINSTR	17.6		
			FAGGRA	8.0		
				11.5		
X				9.3	13.5	1.5
			PINSTR	21.8		
			PINSTR X	6.9		
			PINSTR	10.6		

4. **Diameter**: dbh (1.37 m) for stratum one trees, and basal diameter (15 cm) for stratum 2 trees (to 0.1 cm)
5. **Total Height**: for selected trees according to the sampling methodology as stated in section 1.3.4
6. **Bole Height**: measured for same trees as Total Height

Data Input or Transfer and Creation of EXCEL Stand Data Files: In the case of data collected on paper, data needed to be input at the computer upon return from the field. The data were entered into EXCEL spreadsheets, one stand per spreadsheet. Each of the above 1-6 fields became an EXCEL column and all data were then entered in their appropriate cells. Data collected on dataloggers was exported in its native LOTUS format and simply read into EXCEL. Files were stripped of their headers. Files were then named for the number of the stand and the year they were measured, e.g. the filename for stand 22 re-measured in 1994 is R22.94 (R for Raco Site).

At the same time, three more columns in addition to 1-6 above were added which would make future data processing more convenient. EXCEL functions were used to automatically create columns to code:

7. **Stand Number**: This number was filled in on each line so that each measured tree was associated with a stand number .
8. **Year**: Year the tree was measured
8. **Type:** being either conifer (coded 1) or deciduous (coded 2). This was determined from the species name.
9. **Status:** being either dead (0), living (1), or diseased (2). This was determined from the species name where a name code such as PINRESX denoted dead, and PINBAND denoted diseased (diseased was coded for jack pine only and only in 1993. This information has not been used to date and diseased trees have always been considered live in all analyses).

Error Checking and Correction: After all data were assembled into EXCEL files by stand, error checking was begun. This was done in two stages. First a manual check was done by proof-reading the file against the paper data sheet if that was the original recording medium or by visually checking the output of the datalogger file which had been converted into EXCEL. Experience with these procedures had shown that this was unlikely to clear up all errors. Therefore a logical error-checker was written as an EXCEL program and run on each file. This error checker looked for logical errors such as heights which were outside of a recorded stratum class, plot numbers which did not correspond to stratum numbers, or diameters which were too large or small to be logical, etc. The logical error-checker proved to be extremely useful and located many errors understandably not found by visual proof-reading. Lastly a spelling dictionary was constructed consisting of all possible species codes and each file was checked against this. In all cases where errors were found they could be corrected either on sight by the author, or by consulting original paper data sheets.

Transfer of Files from EXCEL to SAS: After files were considered "clean" they were sorted to be in plot number order, stripped of their column headers, and exported as plain comma-delimited ASCII text files (csv format). Each case (tree) had the following variables and variable names:

stand (2-digit stand number)
year (2-digit year)
plot (3-digit plot number)
stratum (coded 1 or 2)
species (6 or 7 letter code)
diam (diameter in cm)
mht (measured total height in cm)
bht (measured bole height in cm)
status (coded 0=dead, 1=live, 2=diseased)
type (coded 1=conifer, 2=deciduous)

The files were then transferred to the UNIX environment where several new variables were added to the stand text files. These variables were to be used specifically for the calculated heights estimation and were:

tba (total basal area of stand)
uba (upper stratum basal area of stand)
mba (middle stratum basal area of stand)
td (density [stems/ha] of stand)
ud (density of upper stratum)
md (density of middle stratum)
nplots (number of plots sampled for the stand)

All of these numbers were repeated for each tree, or each line, of a stand file They were included so that, for example, total basal area of stand could be used in addition to diameter or diameter squared to predict the height of an individual tree.

Next the stand files were concatenated in to one file of 64,433 cases by 17 variables. This file was sorted by stand number and year. It was then imported into SAS and became the master file from which any number of SAS analyses could be generated. Because all analyses acted the same on the entire file, consistency was assured over all stands.

At the same time that the existing 17 variables were read into SAS using a **Proc Data procedure**, a number of new variables were also created that would be needed for structural, height, and/or biomass analysis. New variables created were:

logdiam (natural log of the diameter)
logdiam2 (natural log of the diameter squared)
logmht (natural log of the measured height)
diam2 (diameter **2)
invdiam (1/diam)
invba (1/BA)
tba2 (stand total basal area**2)
diamtba (diameter * stand total basal area)
logtba (natural log of stand total basal area)
ba (basal area of an individual tree = 0.00007854*diam2)
mba1 (conversion of the BA of a stratum 2 stem to what it represents per ha)
uba1 (conversion of the BA of a stratum 1 stem to what it represents per ha)
crat (crown ratio = (mht-bht)/mht)
cdep (crown depth = mht-bht)
stem2 (conversion of a stratum 2 stem to what it represents per ha)
stem1 (conversion of a stratum 1 stem to what it represents per ha)

These and several other necessary calculations can be seen in Appendix C: no. 1, the SAS program which created the master data file. This master file contains data for 40 variables by 64,433 cases (trees), the total of all stems measured from 1991 through 1994 (57,040 live and 7,394 dead).

1.4.2 Stand Structure Analysis

The most basic statistics describing stand structure were generated at three levels: 1) stand, 2) stratum by stand, and 3) species by stand and stratum. The statistics generated at each of these levels include those listed in the following table (note that some statistics were only generated for stratum one. This was because measurements were taken for stratum one only):

Table 10: Basic Stand Structure Statistics

1. Diameter (mean and std. deviation)
2. Total Measured Height (mean and std. deviation)
3. Crown Depth (mean and std. deviation, stratum 1 only)
4. Basal Area (totals)
5. Density (stems/ha - totals)

Before analyzing the data, plots were made to get an idea of what the distributions looked like. Final versions of these plots were created by a **SAS Proc Gchart** (Appendix C, no. 3) procedure and the results are presented in two appendices. Appendix H contains diameter and height histograms by species across all stands. Appendix I contains diameter and height histograms by stand across all species in the stand.

Results of stand structure statistical analyses are available in two Appendices. Stand level means and/or totals for the above variables are included as part of Appendix D: *Stand Summary*. Statistics for Basal Area and Density are further broken down in this table into statistics giving information on status or type such as total live stems/ha, BA conifer percent, etc. Means and totals of the above variables by stand, stratum, and further by individual species for live trees only, were created by the SAS **Proc Tabulate** procedure (Appendix C, no. 2) and are presented in Appendix E: *Stand Structure by Stratum and Species.*

1.4.3 Calculated Heights Analysis

Because derivation of the biophysical parameter height is an image analysis goal, reliable estimates of tree heights was a biometric survey objective. Height is also an important variable because height and diameter are the two most important predictor variables for biomass, another image analysis goal. Most allometric biomass equations used some combination of the two variables. While diameter was measured for all trees, height was only measured on a subset of those because it is more time-consuming to measure.

Because there is a strong positive relationship between diameter and height, species-specific equations could be built using the subset of trees for which both variables were measured, and these equations could then used to predict the height of the remaining trees.

As mentioned, some form of diameter is the most common predictor of height, and if species height equations were being built for each species in each stand separately, likely some form of diameter would be the sole predictor variable. However, in this analysis, it was desired to develop one set of species height equations which would work across all test stands. This introduces the problem of between-stand variability in the relationship between diameter and height for any given species. To address this issue, it was necessary to introduce a variable(s)in to the predicted height equations which would account for this variability between stands. The variables used were chosen on the hypothesis that two biological reasons for a varying relationship between diameter and height are site index and stem crowding or density. For example, in general it would be expected that given two red pine plantations with trees with approximately equal mean diameters, but one had a higher BA, that the stand with the higher BA would likely have taller trees. This is likely due to a higher site quality for the taller trees plus a taller, less branchy form for closely grown trees. For this reason, the following additional variables were used in developing species height equations:

1. stand total BA (TBA)
2. stand total BA^2 (TBA2)
3. stand total BA X diameter (DiamTBA)

Similar variables based on stand density were also created. These proved less useful in most cases early in the development of the species height equations and so were dropped.

An additional concern was the number of cases used to build each height predictior equation. Many species were represented by a large number of measurements. However, a number of species occurred very infrequently in the dataset and too infrequently to construct a valid height prediction equation for that species. Therefore, the infrequently occurring species were temporarily recoded to the most similar frequently occurring species. For example Fraxinus Nigra was recoded to be the same as Fraxinus Americana for the purposes of height predictor equation development only. The recode script is included in Appendix C, no. 4.

Having prepared the data, the next step was to hypothesize the most likely predictor equations. After several "dry runs" of creating different variable combinations, it appeared that the two most consistently best forms of equations were either a log-log type or a polynomial type. These in fact are two of the most widely applied forms for the diameter-height relationship and can be summed as:

1. Log-log (natural log): log *Height* = *a* + *b*log*Diam*
2. Polynomial: *Height* = *a* + *b*Diam + *c*Diam^2

The SAS program **Proc Reg** was used in a stepwise regression mode to suggest the best predictor equation by species for both types of equations. In both cases the appropriate (either untransformed or log-transformed) diam, diam2, tba, tba2, and diamtba were given as possible variables, and then the best set of variables at the 0.05 level of significance was chosen for each species for each of the two types. The initial output results from this procedure suggested that in some cases the polynomial form was better and in other cases the log form was better, based on the adjusted R2 and the MSE. However, after transforming the resultant log heights and regressing the predicted measured heights on the known measured heights, for all species the log model had adjusted R2 and MSE's which were equivalent or lower than the polynomial model. Therefore, a polynomial regression was used to develop equations for all species (Appendix C, no. 5). The resultant final equations are given in Table: 11: *Height Prediction Equations.*

This procedure resulted in a calculated height for every live tree in the SAS datafile. However, in a number of cases, true measured heights existed. Therefore a step was taken to create a new, final, height variable called bioht which was the measured height for a tree if it existed, else it was the calculated height (Appendix C, no. 6). This height (bioht) was subsequently used for producing tables of height statistics and in the biomass equations. Appendix F: *Heights*, provides detailed height data including bioht means and standard deviations by stand, year, stratum, and species.

One additional summary height variable was created which would be preferred for use with SAR image processing. A basal area weighted average height was calculated for each stand. This was done to counteract the effect that a significant number of smaller subdominant trees could have in lowering the

Table 11: Height Prediction Equations

SPECIES	MODEL		ADJ R2
abibal			.8875
	INTERCEP	-0.312317	
	DIAM	0.810917	
	DIAM2	-0.008355	
	DIAMTBA	0.002640	
acerub			.9205
acespi	INTERCEP	-0.053945	
tilame	DIAM	0.985245	
	DIAM2	-0.019003	
	TBA	0.006302	
	DIAMTBA	0.009784	
acesac			.9418
	INTERCEP	-0.472167	
	DIAM	1.177551	
	DIAM2	-0.025605	
	TBA	0.065797	
	TBA2	-0.001620	
	DIAMTBA	0.009196	
alnrug			.8161
	INTERCEP	0.377733	
	DIAM	1.102191	
	DIAMTBA	-0.004568	
amespp			.7928
ostvir	INTERCEP	0.852765	
	DIAM	0.296181	
	DIAM2	0.015870	
	TBA2	-0.000566	
	DIAMTBA	0.031192	
aromel			.7219
	INTERCEP	1.196736	
	DIAM2	0.437723	
betall			.8609
	INTERCEP	0.656460	
	DIAM	0.947649	
	DIAM2	-0.009799	
betpap			.9443
	INTERCEP	0.548349	
	DIAM	0.859468	
	DIAM2	-0.010753	
	DIAMTBA	0.007314	
corcor			.3372
coralt	INTERCEP	0.649879	
corsto	DIAM	0.684856	
	TBA	0.005883	

Table 11 Cont'd

SPECIES	MODEL		ADJ R2
faggra			.9409
	INTERCEP	0.176495	
	DIAM	0.974520	
	DIAM2	-0.011538	
	DIAMTBA	0.002528	
fraame			.9233
franig	INTERCEP	-0.149437	
	DIAM	2.155701	
	DIAM2	-0.044145	
	DIAMTBA	-0.009090	
larlar			.9710
	INTERCEP	-0.930448	
	DIAM	1.337746	
	DIAM2	-0.020541	
	TBA2	0.001539	
	DIAMTBA	-0.004876	
picgla			.9361
	INTERCEP	-2.014485	
	DIAM	0.965499	
	DIAM2	-0.011677	
	TBA2	0.001340	
picmar			.9183
	INTERCEP	-4.212692	
	DIAM	1.245605	
	DIAM2	-0.019224	
	TBA	0.150598	
	TBA2	-0.001285	
pinban			.8574
	INTERCEP	0.152655	
	DIAM	0.532980	
	DIAM2	-0.009915	
	DIAMTBA	0.017242	
pinres			.9184
	INTERCEP	-0.657224	
	DIAM	0.669415	
	DIAM2	-0.004735	
	TBA	-0.126088	
	TBA2	0.008188	
pinstr			.9098
pinsyl	INTERCEP	-7.116103	
	DIAM	0.931696	
	DIAM2	-0.008313	
	TBA	0.415283	
	TBA2	-0.005499	
popgra			.9004
popbal	INTERCEP	0.038512	
popdel	DIAM	0.914963	
	DIAM2	-0.022723	
	DIAMTBA	0.016074	

Table 11 Cont'd

SPECIES	MODEL		ADJ R2
poptre			.9364
	INTERCEP	-0.868723	
	DIAM	1.284616	
	DIAM2	-0.017115	
	TBA	0.069598	
	TBA2	-0.000564	
	DIAMTBA	-0.001625	
prupen			.8910
pruser	INTERCEP	0.075151	
pruvir	DIAM	0.441082	
pruspp	DIAM2	-0.044792	
	TBA	0.081080	
	TBA2	-0.003192	
	DIAMTBA	0.047054	
querub			.9672
queell	INTERCEP	0.476589	
	DIAM	0.397380	
	DIAM2	-0.005962	
	TBA2	0.000371	
	DIAMTBA	0.012646	
salspp			.4787
	INTERCEP	0.336147	
	DIAM	0.800008	
	DIAM2	-0.075952	
	TBA	0.034101	
	TBA2	-0.000737	
	DIAMTBA	0.006947	
ilever			.3549
ledgro	INTERCEP	0.973919	
loncan	DIAM	0.344983	
lonspp			
nemmuc			
samcan			
sampub			
sorame			
thuocc			.8714
	INTERCEP	0.013757	
	DIAM	0.831188	
	DIAM2	-0.010600	
tsucan			.8958
	INTERCEP	0.507701	
	DIAM2	-0.007108	
	DIAMTBA	0.017833	
vibcas			.4921
vibspp	INTERCEP	0.779214	
	DIAM	0.597172	

apparent mean height of the stand, including the dominant overstory trees. The calculation was as follows:

$$(1) \quad \frac{\sum n_{ij}\left(d_i^2 \frac{\pi}{4}\right)(h_j)}{\sum n_i * d_i^2 * \frac{\pi}{4}}$$

Where n_{ij} = the number of stems/ha of diam *i* and ht *j*, d = diameter (in m), and h = height (in m).

This statistic, as well as those in Table 11 are summarized by stand in Appendix D: *Stand Summary Statistics.*

1.4.4 Stand Biomass Analysis

Once heights were calculated for all files, all variables needed for the biomass estimation were available. The following tables lists general steps necessary in producing valid results for a number of biomass statistics.

Table 12: Biomass analysis steps

1. Locate potential allometric biomass component equations for all species
2. Determine "best" biomass component equations for each species
3. Write SAS biomass estimation program to estimate biomass for each component of each individual tree
4. Write SAS programs to produce summary statistics by stand, stratum, and species, for each component and to produce stand totals such as summer total, winter total, conifer total etc.

Potential stratum 1 (trees > 5 m) allometric biomass equations were assembled from those used in an initial analysis done at Michigan Technological University (MTU) and presented in reports of this analysis (References 1-3, and 4-12). Additionally, potential stratum 2 (1 m ≤ trees < 5 m). equations were gathered from any of the above equations which might also be suitable for (e.g. were developed on) trees of the size found in our stratum 2 and from a recent publication (Perala and Alban) which reported biomass equations specifically developed for shrub and sapling trees (13).

Curves for all of these species specific equations were plotted using a distribution of diameters from 0 to 50 cm and heights predicted from our height equation for that species. With this, any regression equations which were clearly "unusual" were found and dropped from further consideration. For stratum 1 some biomass equations used in the MTU analysis were retained and others were adopted from Perala and Alban. This process also confirmed that for stratum 2, the regression equations developed by Perala and Alban performed the best for all species. All equations used and their provenance, are reported in the following table 13. *Biomass, Equations.*

The SAS program **Biometric** (Appendix C, no. 7) was written to calculate dry biomass in kg by biomass component (stem, branch, and foliage) for each tree in the SAS data file. Futher, the program calculates all the variables needed for additional programs to produce summary statistics by stand, including summer total, winter total, summer crown, and winter crown. Finally, the program also converts all of these to their per hectare bases.

1.4.5 Ground Cover Analysis

As mentioned in sections in 1.3, Ground Cover Analysis proceeded differently from the Stratum 1 and 2 analysis. The main objective for the ground cover measurement was to quantify the percent of substrate which was covered with living, green vegetation for each stand. This statistic was easily arrived at by calculating an average and standard deviation of ground cover percent based on the 120 measurements per stand. Gound cover percent by stand is given in Appendix D: *Stand Summary Statistics.*

Table 13: Biomass Equations

SPECIES	BIOMASS COMPONENT EQUATION
ABIBAL	**STRATUM 1** (Perala, 1994)
	Bole y=0.005751*(d^2.082)*(h^0.3834)*1.331+0.02348*(d^1.926) *(h^0.76)*1.097
	Branches y=0.02403*(d^3.501)*(h^-1.2)*0.7111+0.001216* (d^2.306)*6.059
	Foliage y=0.03583*(d^3.12)*(h^-1.099)*0.6333
	STRATUM 2 (Perala, 1994)
	Bole y=0.08088*((10*sd)^2.662)/1000
	Foliage y=0.1193*((10*sd)^2.23)/1000
ACERUB	**STRATUM 1** (Perala, 1994)
ACESAC	Bole y=0.02102*(d^2.191)*1.461+0.02347*(d^1.888)*(h^0.9912)
ACEPEN	Branches y=0.1072*(d^2.841)*(h^-1.04)+0.0038*(d^2.337)
ACESPI	Foliage y=0.01913*(d^1.867)*0.4962
TILAME	**STRATUM 2** (Perala, 1994)
	Bole y=0.06242*((10*sd)^2.486)*(5^0.3991)/1000
	Foliage y=0.09901*((10*sd)^2.113)/1000
ALNRUG	**STRATUM 1** (Perala, 1994)
	Bole y=0.02025*(d^2.246)*1.271+0.02198*(d^1.865)*(h^1.046)
	Branches y=0.08248*(d^3.753)*(h^-1.847)+0.0009194* (d^2.487)*0.1909
	Foliage y=0.07611*(d^2.763)*(h^-1.483)
	STRATUM 2 (Perala, 1994)
	Bole y=0.0298*((10*sd)^2.666)*(5^0.4243)/1000
	Foliage y=0.08227*((10*sd)^2.058)/1000
AMESPP	**STRATUM 1** (Crow and Erdmann, 1983)
AROMEL	Bole y=EXP(-2.943+0.878*LN((d^2)*h));
OSTVIR	Branches y=EXP(-6.128+1.087*LN((d^2)*h));
SORAME	Foliage y=EXP(-3.648+0.556*LN((d^2)*h));
	STRATUM 2 (Perala, 1994)
	Bole y=0.163*((10*sd)^2.494)/1000
	Foliage y=0.107*((10*sd)^1.925)/1000
BETALL	**STRATUM 1** (Perala, 1994)
	Bole y=0.01445*(d^2.451)+0.05481*(d^2.619)
	Branches y=0.01748*(d^2.55)+0.0009194*(d^2.487)
	Foliage y=0.00696*(d^2.003)
	STRATUM 2 (Perala, 1994)
	Bole y=0.0298*((10*sd)^2.666)*(5^0.4243)/1000
	Foliage y=0.08227*((10*sd)^2.058)/1000
BETPAP	**STRATUM 1** (Perala, 1994)
	Bole y=0.02198*(d^2.215)*1.265+0.02214*(d^1.857)*(h^1.048)
	Branches y=0.08908*(d^3.772)*(h^-1.893)+0.0008746 *(d^2.496)*0.1971
	Foliage y=0.0852*(d^2.744)*(h^-1.51)
	STRATUM 2 (Perala, 1994)
	Bole y=0.02373*((10*sd)^2.687)*(5^0.4838)/1000
	Foliage y=0.06132*((10*sd)^2.174)/1000

Table 13 Con'td

SPECIES	BIOMASS COMPONENT EQUATION
CORCOR	**STRATUM 1** (Ker, 1980) Bole y=EXP(-3.0782+1.8482*LN(d)+0.8715*LN(h)); Branches y=EXP(-2.0235+3.4366*LN(d)-1.643*LN(h)); Foliage y=EXP(-4.1049+1.7241*LN(d)); **STRATUM 2** (Perala, 1994) Bole y=0.04544*((10*sd)^2.848)*(5^0.1594)/1000 Foliage y=0.07188*((10*sd)^2.244)/1000
CORSTO CORALT ILEVER NEMMUC	**STRATUM 2** (Perala, 1994) Bole y=0.05237*((10*sd)^2.663)*(5^0.2258)/1000 Foliage y=0.1615*((10*sd)^1.985)*(5^-0.1682)/1000
FAGGRA	**STRATUM 1** (Ker, 1980) Bole= EXP(-2.9936+1.8565*LN(d)+0.8336*LN(h)); Branches=EXP(-3.5982+2.3708*LN(d)); Foliage=EXP(-3.7607+1.6303*LN(d)); **STRATUM 2** (Perala, 1994) Bole y=0.05237*((10*sd)^2.663)*(5^0.2258)/1000 Foliage y=0.1615*((10*sd)^1.985)*(5^-0.1682)/1000
FRAAME FRANIG	**STRATUM 1** (Ker, 1980) Bole y=EXP(-2.75+2.0199*LN(d)+0.5412*LN(h)); Branches y=EXP(-1.3458+3.4031*LN(d)-1.9487*LN(h)); Foliage y=EXP(-3.043+2.3071*LN(d)-0.9888*LN(h)); **STRATUM 2** (Perala, 1994) Bole y=0.05041*((10*sd)^2.545)*(5^0.34)/1000 Foliage y=0.07334*((10*sd)^2.088)/1000
LONSPP LONCAN LEDGRO SAMCAN SAMPUB VIBCAS VIBSPP	**STRATUM 2** (Perala, 1994) Bole y=0.115*(sd^2.749) Foliage y=0.1176*(sd^1.891)
PICGLA	**STRATUM 1** (Perala, 1994) Bole y=0.01014*(d^1.509)*(h^0.783)*1.177+0.03123*(d^1.783) *(h^0.926)*0.8345 Branches y=.07316*(d^3.53)*(h^-1.784)*0.6615+0.03095 *(d^1.002)*(h^1.103)*0.6338 Foliage y=0.03064*(d^2.787)*(h^-0.7147) **STRATUM 2** (Perala, 1994) ABIBAL equations used
PICMAR LARLAR	**STRATUM 1** (Grigal and Kernick, 1984) Bole y=0.1183*(d^2.26); Branches y=(0.0251*(d^2))+(0.0004*(d^3.324)); Foliage y=0.061*(d^1.411); **STRATUM 2** (Perala, 1994) ABIBAL equations used

Table 13 Cont'd

SPECIES	BIOMASS COMPONENT EQUATION
PINBAN	**STRATUM 1** (Perala, 1994) Bole y=0.0157*(d^1.775)*(h^0.3952)*1.294+0.01395*(d^1.709) *(h^1.327) Branches y=0.002956*(d^2.83)+0.2391*(d^2.943)*(h^-1.769)*0.3556 Foliage y=0.0008988*(d^2.903)*1.569 **STRATUM 2** (Perala, 1994) ABIBAL equations used
PINRES	**STRATUM 1** (Perala, 1994) Bole y=0.01408*(d^2.09)+0.02137*(d^1.809)*(h^1.037)*0.8823 Branches y=0.03118*(d^4.098)*(h^-2.271)*0.6497+0.0005819 *(d^2.714)*4.199 Foliage y=0.0006622*(d^3.122)*1.313 **STRATUM 2** (Perala, 1994) ABIBAL equations used
PINSTR	**STRATUM 1** (Ker, 1980) Bole y=EXP(-3.202+1.899*LN(d)+0.724*LN(h)) Branches y=EXP(-2.6466+1.7086*LN(d)) Foliage y=EXP(-2.6925+1.4653*LN(d)) **STRATUM 2** (Perala, 1994) ABIBAL equations used
POPGRA	**STRATUM 1** (Koerper and Richardson, 1980) Bole y=0.001*(EXP(3.5894+2.6544*(LN(d))) +EXP(3.4255+2.2034*(LN(d)))) Branches y=0.001*(EXP(0.5799+2.9459*(LN(d))) +EXP(-0.4643+2.938*(LN(d)))) Foliage y=0.001*(EXP(1.2846+2.1483*(LN(d))) +EXP(-1.6095+2.3834*(LN(d)))) **STRATUM 2** (Perala, 1994) Bole y=0.1671*((10*sd)^2.329)/1000 Foliage y=0.2266*((10*sd)^2.068)*(3^-0.5506)/1000
POPTRE	**STRATUM 1** (Koerper and Richardson, 1980) Bole y=0.001*(EXP(3.5894+2.6544*(LN(d))) +EXP(3.4255+2.2034*(LN(d)))) Branches y=0.001*(EXP(0.5799+2.9459*(LN(d))) +EXP(-0.4643+2.938*(LN(d)))) Foliage y=0.001*(EXP(1.2846+2.1483*(LN(d))) +EXP(-1.6095+2.3834*(LN(d)))) **STRATUM 2** (Perala, 1994) Bole y=0.07789*((10*sd)^2.563)*(3^0.1107)/1000 Foliage y=0.08338*((10*sd)^2.248)*(3^-0.4375)/1000
PRUSER PRUPEN PRUVIR PRUSPP	**STRATUM 1** (Crow and Erdman, 1983) Bole y=EXP(-2.943+0.878*LN((d^2)*h)); Branches y=EXP(-6.128+1.087*LN((d^2)*h)); Foliage y=EXP(-3.648+0.556*LN((d^2)*h)); **STRATUM 2** (Perala, 1994) Bole y=0.1263*((10*sd)^2.496)/1000 Foliage y=0.03475*((10*sd)^2.512)/1000

Table 13 Con'td

SPECIES	BIOMASS COMPONENT EQUATION
QUERUB QUEELL	**STRATUM 1** (Perala, 1994) Bole y=0.004408*(d^2.047)*(h^0.8264)+0.02635*(d^1.88)*(h^0.979) Branches y=0.01684*(d^2.514)+0.000478*(d^3.125) Foliage y=0.04801*(d^1.455) **STRATUM 2** (Perala, 1994) Bole y=0.06487*((10*sd)^2.836)/1000 Foliage y=0.1018*((10*sd)^2.152)/1000
SALSPP	**STRATUM 1** (Koerper and Richardson, 1980) Bole y=0.001*(EXP(3.5894+2.6544*(LN(d))) +EXP(3.4255+2.2034*(LN(d)))) Branches y=0.001*(EXP(0.5799+2.9459*(LN(d))) +EXP(-0.4643+2.938*(LN(d)))) Foliage y=0.001*(EXP(1.2846+2.1483*(LN(d))) +EXP(-1.6095+2.3834*(LN(d)))) **STRATUM 2** (Perala, 1994) Bole y=0.04262*((10*sd)^2.705)*(5^0.2872)/1000 Foliage y=0.07912*((10*sd)^2.14)/1000
THUOCC	**STRATUM 1** (Perala, 1994) Bole y=0.009025*(d^1.896)*(h^0.39)+0.04475*(d^1.851)*(h^0.5099) Branches y=0.006964*(d^2.599)+0.03812*(d^1.472) Foliage y=0.01001*(d^2.303) **STRATUM 2** (Perala, 1994) ABIBAL equations used
TSUCAN	**STRATUM 1** (Ker, 1980) Bole y=EXP(-3.0535+1.8174*LN(d)+0.7576*LN(h)); Branches y=EXP(-2.1353+2.9165*LN(d)-1.4459*LN(h)); Foliage y=EXP(-2.5014+2.5251*LN(d)-1.2168+LN(h)); **STRATUM 2** (Perala, 1994) ABIBAL equations used

In the above equations, y is defined as biomass on a dry-weight basis (kg), d is diameter at breast height (cm), sd is diameter at 15 cm. (cm), h is total height (m).

In the cases where several species are listed beside one biomass equation, it can be assumed that the equation was developed for the first species listed. The same equation was used to estimate biomass for other species which follow because no published equations were available.

2 References

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APPENDIX A:
RACO SITE DETAILED STAND DESCRIPTIONS

Stand 22 (D)--Red pine--sapling (C55-S35)

Raco Airfield, NW corner. Entrance to airport is south off M-28, 0.1 mi. west of Rt. 3157. Baseline starts 30 m. down from NW corner of airfield and runs along stand edge on azimuth of 155 deg. Transect #1 begins at m. 30 on the baseline and runs on 110 deg. azimuth. Sample points begin a minimum of 20 m. from the baseline (plantation edge), except for transect #5 where the minimum was 30 m. Location of the first sample point on the transects is 19, 23, 4, 6, and 9 m. beyond the minimum distance, respectively.

Stand 23 (G)--Mature red and white pine (C88-S2)

Rt. 3131, 4.7 mi. south of M-28 and 0.3 mi. S of fish hatchery (Rt. 3134) at 2 red pine boundary trees (marked in red) on east side of road, then left onto Rt. 3131J for 100 m. to start of transect. Baseline runs of azimuth of 120 deg., 25 m. in from forest trail 3131J. Transect #1 starts at m. 5.0 on the baseline and runs on az. of 30 deg. Location of the first sample point on the transects is 6, 4, 6, 5, and 2 m. beyond the baseline, respectively.

Stand 24 (I)--Jack pine--mature (C29-S6)

Take M-28 1 mi. W of Raco, then right (N) for 0.5 mi. on Rt. 3154 to intersection of Rt. 3364. Stand is to the NW. Baseline runs on az. of 90 deg, 30 m. in from edge, starting 250 m. W of Rt. 3364. First transect starts at m. 15 on the baseline and runs on az. of 0 deg. Location of the first sample point on the transects is 8, 7, 24, 8, and 5 m. beyond the baseline, respectively.

Stand 25 (K)--Red and white pine--mature (C88-S2)

Just north of Stand G, on Rt. 3131I, which leaves Rt. 3131 less than 0.1 mi. S of Fish Hatchery Rd. (#3134); proceed E on Rt. 3131I for 0.17 mi. Baseline runs 300 deg az, ca. 15 m. in from edge of forest trail. Transect #1 starts at m. 12 on baseline and runs on an az. of 180 deg. Location of the first sample point on the transects is 1, 4, 22, 18, and 23 m. beyond the baseline, respectively.

Stand 26 (L)--Black spruce--mature (C82-S18)

Rt. 3352, N side of road, 4.7 mi. E of Rt. 3131; 0.2 mi. W of Cedar Creek and 0.8 mi. W of Rt 3130. Baseline runs along road on az. of 60 deg.; transect #1 starts at m. 37 and runs on az. of 0 deg., with first point a min. of 30 m. in from edge. Location of the first sample point on the transects is 16, 8, 3, 23, and 22 m. beyond the minimum distance, respectively.

Stand 27 (M)--Jack pine--mature (C27-S15)

Along N side of M-28, 2.6 mi. W of Rt. 3157 and 0.45 mi. E of Rt 3161. Baseline runs of az of 90 deg, along stand edge. Transect #1 starts at m. 32 along baseline and runs of az of 10 deg with first point a min. of 30 m. in from stand edge. Location of the first sample point on the transects is 10, 11, 22, 9, and 22 m. beyond the minimum distance, respectively.

Stand 28 (N)--Northern hardwoods--mature (C35-S11)

Take Rt. 3161 2.6 mi. N of M-28 to Rt. 3161B, turn E (right) and go 0.35 mi., S side of road. Baseline runs along forest edge on 270 deg az. Transect #1 starts at m. 14 on baseline and runs on180 deg az.; first sample point starts at minimum distance of 30 m. from forest edge. Location of the first sample point on the transects is 23, 12, 15, 11, and 4 m. beyond the minimum distance, respectively.

Stand 29 (O)--Northern hardwoods--mature (C35-S11)

0.1 mi. N and E of Stand N, on E side of trail. Baseline runs along forest edge on 0 deg az. Transect #1 starts at m. 31 along baseline and runs on az of 270 deg.; min. distance to first plot is 30m. Location of the first sample point on the transects is 22, 23, 1, 6, and 3 m. beyond the minimum distance respectively.

Stand 30 (P)--N. white-cedar + Mixed conifer--mature (C42-S42)**

Rt. 123, W side of road, 4.0 mi. N of m. 28, 1.8 mi. N of E Branch of Tahquamenon R. crossing, 0.35 mi. N of Number 14 Creek Crossing. Baseline runs along stand edge on az. of 355 deg. Transects are ordered 6, 5, 1, 2, and 3 along the baseline. Transect # 6 starts at m. 10 along baseline and runs of an azimuth of 270 deg., with first sample point a min. of 30 m. from the edge. Location of the first sample point on the transects is 13, 23, 7, 11, and 14 m. beyond the minimum distance, respectively.

Stand 31 (Q)--Northern hardwoods--pole (C20-S8)

W side of Rt. 3159, 0.2 mi. N of Rt. 3156. Baseline runs along stand edge on az of 180 deg. Transect #1 starts at m. 19 along the baseline and runs on az of 90 deg, with first sample point a min. of 30 m. from the edge. Location of the first sample point on the transects is 1, 24, 3, 22, and 21 m. beyond the minimum distance, respectively.

Stand 32 (R)--N. white-cedar--mature (C12-S21)

Along S side of Rt. FH42, 3.4 mi. W of intersection with Rt, 3159. Baseline starts 40 m. in from edge of forest and runs on az of 270 deg. Transect #1 begins at m. 26 on the baseline and runs on az of 180 deg. Location of the first sample point on the transects is 4, 1, 3, 9, and 4 m. beyond the baseline, respectively.

Stand 33 (S)--Aspen--sapling (C20-S10)**

On Rt. 3156, 0.15 mi. W of intersection with Rt. 3159. Original baseline ran along stand edge on az. of 115 deg for a distance of 320 m. Transect #1 started at m. 14 along baseline on an az. of 0 deg.; first sample point was a min. of 20 m. from the edge. There were 8 transects with 5 sample points per transect. Due to stand irregularities, transects 9 and 10 were added (with 4 points per transect) to the west of transect #1 to compensate for missing plots on Transects 6, 7, and 8, which now contain 1, 2, and 4 points, respectively. Transect #9 starts 33 m. W of a logging trail which runs on an az of 20 deg. Location of the first sample point is 22, 15, 18, 13, 20, 19, 10, 16, 17, and 1 m. beyond the minimum distance for transects 1-10 respectively.

Stand 34 (T)--Aspen--mature (C19-S24)**

On N side of Rd. opposite Stand S, starting 75 m. W of intersection with Rt. 3161. Baseline runs along stand edge on az. of 295 deg. Transect #1 starts at m. 39 on the baseline and runs on an az of 205 deg; first sample point is a minimum of 30 m. from the edge. Transect #5 has only 5 points because of space constraints. Location of the first sample point on the transects is 7, 13, 8, 16, and 6 m. beyond the minimum distance, respectively.

Stand 35 (U)--Jack pine--mature (C55-S20)

S side of M-28, 0.7 mi. E of Raco airfield (main entrance). Baseline runs along stand edge, on az. of 260 deg. Transect #1 begins at m. 11 and runs on az of 180 deg.; first sample point is min. of 30 m. from stand edge, except for transects 3 and 4 where the minimum is 20 m. On transect #3, sample point 5 was moved to m. 183 to avoid a road, with points 6-8 located at 25 m. intervals thereafter. Transect #5 was destroyed in 1991 and thus was moved 40 m. to the left of transect #1. Offset distances of sample points on the transects were not recorded.

Stand 36 (V)--Jack pine--sapling (C47-S36, C48-S24)

Junction of Routes M-28 and 3157, NW sector. Baseline runs along W side of Rt. 3157, on az of 355 deg. Transect #1 starts at m. 16 along baseline and runs of an az. of 270 deg.; first sample point is min. of 20 m. from stand edge. Location of the first sample point on the transects is 22, 9, 19, 15, and 16 m. beyond the minimum distance, respectively.

Stand 37(W)--Jack pine--seedling (C32-S17)**

On USFS Rt. 3036, 0.53 mi. W of junction with Rt. 3018 and 0.03 mi. W of junction with Rt, 3039. Baseline runs along S side of Rt. 3036, on az. of 270 deg.; m. 200 on baseline is 33 m. E of W edge of stand. Transect #1 starts at m. 23 along the baseline and runs of an az. of 180 deg.; first sample point is min. of 20 m. from the baseline. Location of first sample point on the transects is 19, 20, 13, 18, and 15 m. beyond the minimum distance, respectively. Back quarter of area has somewhat undulating topography. Scattered residuals in the overstory were removed on July 29, 1992, five days following sampling of vegetation.

Stand 38 (X)--Jack pine--sapling (C31-S50)

On Rt. 3036, 0.25 mi. E of junction with Rt. 3018. Baseline runs along the N side of Rt. 3036, on az. of 90 deg.; m. 200 on the baseline is 61.8 m. W of the E edge of the stand. Transect #1 starts at m. 5 along the baseline and runs on an az. of 20 deg.; first sample point is min. of 10 m. from the baseline. Location of first sample point on the transects is 5, 16, 3, 13, and 7 m. beyond the minimum distance, respectively.

Stand 39 (Y)--Jack pine--seedling (C32-S78)**

On Rt. 3366, 0.5 mi. E of junction with Rt. 3018. Baseline runs along the S side of Rt. 3366, on az. of 270 deg.; baseline starts 105 m. W of E edge of stand. Transect #1 starts at m. 14 along the baseline and runs on an az. of 195 deg.; first sample point is a min. of 20 m. from the baseline. Location of first sample point on the transects is 22, 8, 24, 1, and 3 m. beyond the minimum distance, respectively. Used blue flags (instead of yellow) to mark middle-stratum plot centers, starting at point 6 on Transect #4. On Transect #5, starts dropping off into a lower area at about m. 160. Scattered residuals in the overstory were removed on July 29, 1992, two days following sampling of vegetation.

Stand 40 (Z)--Red pine--sapling (C29-R18)**

On Rt. 3366, 0.25 mi. E of junction with Rt. 3041. Baseline runs along the N side of Rt. 3366 for a distance of 440 m, on az. of 120 deg.; baseline starts 38 m. E of W edge of stand, while m. 440 on baseline is 42 m. W of E end of stand. There are 9 transects along the baseline, with a variable number of sample points per transect to accommodate the irregular shape of the stand. The number of points are 3, 2, 3, 3, 6, 7, 7, 6, and 3 respectively. Transect #1 starts at m. 38 along the baseline and runs on an az. of 30 deg.; first sample point is a min. of 10 m. from the baseline. Location of first sample point on the transects is 22, 11, 10, 21, 23, 1, 23, 6, and 22 m. beyond the minimum distance, respectively.

Stand 41 (AA)--Red pine--sapling (C54-S10 & 15)**

On Rt. 3131, 0.85 mi. SW of junction with M-28. Baseline starts 200 m. from the NW corner of the stand and runs along the S edge of Rt. 3131 on az. of 228 deg. for a distance of 300 m. Transect #1 starts at m. 11 on the baseline and runs on an az. of 90 deg.; first sample point is a min. of 20 m. from the baseline. There are a total of 7 transects. Transects 1 and 2 contain 3 sample points each (because of open vegetation toward the back), while Transect 7 contains 2 sample points to bring the total number of points in the area to 40. Location of first sample point on the transects is 4, 1, 3, 8, 16, 7 (?), and 5 (?), m. beyond the minimum distance, respectively . Blue flags (instead of yellow) were used to mark middle-stratum plot centers.

Stand 42 (BB)--Jack pine--sapling (C80-S45)

Take Rt. 3132 0.6 mi. W of junction with Rt. 3131, then turn left (south) on spur road and go 90 m. Baseline begins 20 m. to the right (W) of the spur road and runs along the edge of the stand on an az. of 240 deg. Transect #1 starts at m. 36 on the baseline and runs on an az. of 170 deg.; first sample point is a min. of 20 m. from the baseline. Location of the first sample point on the transects is 5, 14, 5, 24, and 8 m. beyond the minimum distance, respectively.

Stand 43 (CC)--Red pine--mature (C58-S9)**

SE of junction of M-28 and Rt. 3548. Baseline starts 230 m. from the NW corner of the stand (at road junction) and runs along the north edge of the stand on an az. of 270 deg. Transect #1 begins at m. 7 on the baseline and runs on an az. of 160 deg.; first sample point is a min. of 30 m. from the baseline. Location of first sample point on the transects is 6, 12, 18, 7, and 20 m. beyond the minimum distance, respectively. There is some slightly undulating topography throughout the area. Old N-S and E-W logging roads bisect the transects. The last approximately 50 m. of the transects are inclined upwards. The last half of transect #1 has thick hazel growth in the understory, suggesting a change in ecosystem conditions.

Stand 44 (DD)--Black spruce--mature (C60-S67)**

Take Rt. 3025 1 mi. NE of junction with Rt. 3159 and turn right (E) on Rt. 3025B; take Rt. 3025B ESE for 0.25 mi. and then walk another 175 m. on this road to the edge of the stand. Baseline starts 30 m. in from the W edge of the stand and runs along the N edge of the road on an az. of 98 deg. A sixth transect was added beyond transect #5 to replace transect #1. Transect #2 begins at m. 71 on the baseline and runs on an az. of 38 deg.; first sample point is a minimum of 20 m. from the baseline. Location of first sample point on the transects is 8, 6, 17, 7, and 3 m. beyond the minimum distance, respectively.

Stand 45 (EE)--Aspen--sapling (C20-R30)

Take Rt. 3156 0.9 mi. NW of junction with Rt. 3159, turn right (NE) onto spur road for 75 m. to W-central edge of stand. Baseline starts 20 m. in from spur road and runs along the edge of the stand on an az. of 152 deg. Transect #1 begins at m. 9 on the baseline and runs on an az. of 36 deg.; first sample point is a minimum of 30 m. from the baseline. Location of first sample point on the transects is 15, 8, 7, 10, and 17 m. beyond the minimum distance, respectively. Wire flags marking sample points are reversed, with yellow at the upper stratum plot center and red at the middle stratum plot centers. Rebars may be absent at the ends of the baseline. There are scattered individuals in the overstory which have not been removed as of 10-19-92 (ditto for 7/94).

Stand 46 (GG)--Northern hardwoods--mature (C13-S33)

On Rt. 3150, 4.35 mi. W. of junction with Rt. 3160 and 1.0 mi. W of Roxbury Creek. Baseline runs along the NE side of Rt. 3150, on an az. of 144 deg. Transect #1 begins at m. 11 on the baseline and runs on an az. of 54 deg.; first sample point is a min. of 20 m. from the baseline. Because of flanking ravines, only transects 2-5 were used, with 8, 11, 11, and 10 sampling points, respectively. Location of first sample point on the transects is 5, 5, 1, and 17 m. beyond the minimum distance, respectively.

Stand 47 (HH)--Aspen--pole (C12, near S 29)**

On private land owned by the Naomikong Hunt Club (T47N, R5W, Sect. 19). On Rt. 3150, 0.825 mi. NW of junction with Rt. 3160. Baseline runs along the NE edge of Rt. 3150, on an az. of 130 deg. There were a total of 8 transects, with 4, 4, 4, 3, 3, 3, 4, and 3 sample points, respectively, necessitated by the floodplain of the Naomikong River traversing the back of the area. Transect #1 begins at m. 15 on the baseline and runs on an az. of 40 deg.; first sample point is a min. of 30 m. from the baseline. Location of first sample point on the transects is 6, 14, 8, 11, 10, 1, 2, and 7 m. beyond the minimum distance, respectively.

Stand 48 (II)--Aspen--mature (C18-S22)**

On Rt. 3150, immediately NW of junction with Rt. 3160. Baseline runs along the NW edge of Rt. 3150, 20 m. from the SE corner of the stand, on an az. of 324 deg. Transect #1 begin at m. 31 on the baseline and runs on an az. of 270 deg.; first sample point is a min. of 30 m. from the baseline. Location of first sample point on the transects is 19, 20, 18, 13, and 17 m. beyond the minimum distance, respectively. Transects traverse or parallel several small elliptical mounds in the area. These mounds are about 20 m. wide and of variable length and orientation.

Stand 49 (JJ)--Aspen--sapling (C21-S9 & 10)**

On Rt 3640, 0.3 mi. NE of junction with Rt. 3156. Baseline starts 40 m. from the NE corner of the stand and runs on an az. of approx. 230 deg. along the NW edge of the stand. Transect #1 begins at m. 36 on the baseline and runs on an az. of 100 deg.; first sample point is a minimum of 20 m. from the baseline. Due to size limitations, only 38 sample points were established along 5 transects, with 5, 6, 8, 10, and 9 sample points, respectively. Location of first sample point of the transects is 10, 4, 7 (17?), 3, and 9 m. beyond the minimum distance, respectively. On transect #5 a truck trail passes between sample points 3 and 4, thus moved point #4 20 m. down the transect.

Stand 50 (KK)--Red pine--mature (C21-S8)**

On Rt. 3156, 0.33 mi. SE of junction with Rt. 3159. Baseline starts 40 m. from W edge of stand and runs along N side of Rt. 3156, on an az. of 118 deg. Transect #1 begins at m. 9 on the baseline and runs on an az. of 360 deg.; first sample point is a min. of 20 m. from the baseline. Because of stand irregularities, transect #5 was skipped and a sixth transect added. The number of sample points per transect is 6, 8, 8, 9, and 9, respectively. Location of first sample point on the transects is 11, 1, 12, 16, and 3, respectively.

Stand 51 (LL)--Red pine--sapling (C50-S17)

Immediately SW of junction of Rts. 3581 and 3578. Baseline starts 30 m. from NW corner of stand and runs on an az. of 270 deg. along its N border (S edge of Rt. 3581). Transect #1 begins at m. 31 on the baseline and runs on an az. of 200 deg.; first sample point is a min. of 30 m. from the baseline. Location of first sample point on the transects is 24, 4, 9, 15, and 11 m. beyond the minimum distance, respectively. A rebar is missing on one end of the baseline.

Stand 52--Red pine--mature (C49-S25)

On FS 3040, m. 0.0 is 200 m. south of junction with FS 3364. Baseline runs along the east side of 3040, on an az. of 180 deg. Transect #1 begins at m. 15 on the baseline and runs on an az. of 95 deg. First sample point is a minimum of 30 m. from the baseline. Location of first sample point on the transects is 10, 25, 10, 3, and 13, m. beyond the minimum distance, respectively.

Stand 53--Aspen (upland)--mature (C29-S34&35)

On FS 3622, m. 0.0 is 30 m. west of junction with FS 3154. Baseline runs along the south side of 3622, on an az. of 270 deg. Transect #1 begins at m. 13 on the baseline and runs on an az. of 180 deg. First sample point is a minimum of 30 m. from the baseline. Location of first sample point on the transects is 9, 10, 16, 14, 15, 16, 8, and 3 m. beyond the minimum distance, respectively. The stand shape is irregular with 8 transects having 5 plots each.

Stand 54--Jack pine--sapling (C31-S38)

On FS 3018, m. 0.0 is 0.3 mi. south of junction with FS 3036. Baseline runs along the east side of 3018, on an az. of 180 deg. Transect #1 begins at m. 7 on the baseline and runs on an az. of 87 deg. First sample point is a minimum of 20 m. from the baseline. Location of first sample point on the transects is 9, 15, 12, 15, and 6 m. beyond the minimum distance, respectively.

Stand 55--Jack pine--sapling (C31-S52)

On north side of FS 3366, a reference point is 0.3 mi. east of junction with FS 3018. From reference point, baseline m. 0.0 is 62.5 m. into the forest at an az. of 18 deg. Transect #1 begins at m. 36 on the baseline and runs on an az. of 288 deg. First sample point is a minimum of 0 m. from the baseline. Location of first sample point on the transects is 6, 25, 11, 3, and 5 m, respectively.

Stand 56--Jack Pine--pole (C31-S62)

On FS 3018, m. 0.0 is 40 m. south of junction with FS 3037. Baseline runs along the east side of FS 3018, on and az. of 180 deg. Transect #1 begins at m. 18 on the baseline and runs on an az. of 90 deg. First sample point is a minimum of 20 m. from the baseline. Location of first sample point on the transects is 3, 6, 22, 2, and 6 m. beyond the minimum distance, respectively.

Stand 57--Aspen (upland)--mature (C31-S4)

On FS 3156, m. 200 is 0.40 mi. east of junction with 3018. Baseline runs along the south side of 3156, on and az. of 270 deg. Transect #2 begins at m. 54 on the baseline and runs on an az. of 180 deg. First sample point is a minimum of 30 m. from the baseline. Location of first sample point on the transects is 3, 3, 19, and 22 m. beyond the minimum distance, respectively. The stand shape is irregular with 4 transects (T2-T5) having 10 plots each.

Stand 58--Jack pine--sapling (C49-S33)

On FS 3040, m. 200 is 20 m. south of junction with FS 3364. Baseline runs along the west side of FS 3040, on an az. of 0 deg. Transect #1 begins at m. 11 on the baseline and runs on an az. of 270 deg. First sample point is a minimum of 20 m. from the baseline. Location of first sample point on the transects is 19, 24, 18, 9, and 18 m. beyond the minimum distance, respectively.

Stand 59--Jack pine--sapling (C48-S5)

On FS 3040, m. 200 is 0.2 mi. west of junction with FS 3018. Baseline runs along the south side of FS 3040, on an az. of 269 deg. Transect #1 begins at m. 30 on the baseline and runs on an az. of 180 deg. First sample point is a minimum of 20 m. from the baseline. Location of first sample point on the transects is 6, 20, 6, 17, and 22 m. beyond the minimum distance, respectively.

Stand 60--Jack pine--pole (C48-S24)

On FS unmarked road, stand is bordered, on the west, by FS 3157. Baseline runs along the north side of FS unnamed road, on an az. of 68 (or 58?) deg. Transect #1 begins at m. 7 on the baseline and runs on an az. of 354 deg. First sample point is a minimum of 20 m. from the baseline. Location of first sample point on the transects is 4, 8, 7, and 5 m. beyond the minimum distance, respectively. The stand shape is irregular, with four transects having 10 plots each.

Stand 61--Jack pine--mature (C48-S13)

On FS 3040, m. 0.0 is 50 m. west of junction with FS 3039. Baseline runs along the south side of FS 3040, on an az. of 88 deg. Transect #1 begins at m. 24 on the baseline and runs on an az. of 180 deg. First sample point is a minimum of 30 m. from the baseline. Location of first sample point on the transects is 15, 6, 6, 22, and 2 m. beyond the minimum distance, respectively.

Stand 62--Jack pine--pole (C48-S11)

On FS 3039, m. 200 is 30 m. north of junction with unmarked road, 0.25 mi. south of FS 3040. Baseline runs along the east side of FS 3039, on an az. of 180 deg. Transect #1 begins at m. 26 on the baseline and runs on an az. of 95 deg. First sample point is a minimum of 20 m. from the baseline. Location of first sample point on the transects is 5, 14, 23, 23, and 12 m. beyond the minimum distance, respectively.

Stand 63--Jack pine--pole (C48-S15)

On FS 3040, m. 200 is 20 m. west of m. 200 of Stand 141. Baseline runs along the north side of FS 3040, on an az. of 89 deg. Transect #1 begins at m. 15 on the baseline and runs on an az. of 0 deg. First sample point is a minimum of 20 m. from the baseline. Location of first sample point on the transects is 10, 22, 3, 9, and 13 m. beyond the minimum distance, respectively.

<u>Stand 64--Jack pine--pole</u> (C49-S4)

On FS 3040, m. 200 is 0.1 mi. east of junction with FS 3018. Baseline runs along the south side of FS 3040, on an az. of 267 deg. Transect #1 begins at m. 26 on the baseline and runs on an az. of 180 deg. First sample point is a minimum of 20 m. from the baseline. Location of first sample point on the transects is 14, 24, 20, 17, and 7 m. beyond the minimum distance, respectively.

<u>Stand 65--Jack pine--pole</u> (C32-S33)

On FS 3364, m. 200 is 0.1 mi. west of junction with FS 3018. Baseline runs along the north side of FS 3364, on an az. of 90 deg. Transect #1 begins at m. 32 on the baseline and runs on an az. of 0 deg. First sample point is a minimum of 30 m. from the baseline. Location of first sample point on the transects is 11, 9, 0, 29, and 16 m. beyond the minimum distance, respectively.

<u>Stand 66--Jack pine--seedling</u> (C32-S21)

On FS 3037, m. 160 is 0.2 mi. west of junction with FS 3018. Baseline runs along the north side of FS 3037, on an az. of 270 deg. Transect #1 begins at m. 29 on the baseline and runs on an az. of 36 deg. (Road crosses baseline at 50 m. mark.) First sample point is a minimum of 80 m. from the baseline. Location of first sample point on the transects is 13, 14, 2, and 25 m. beyond the minimum distance, respectively. The stand shape is irregular with 4 transects having 10 plots each.

<u>Stand 67--Jack pine--mature</u> (C32-S22)

On FS 3036, m. 200 is 0.3 mi. west of junction with FS 3018. Baseline runs along the north side of FS 3036, on an az. of 90 deg. Transect #1 begins at m. 24 on the baseline and runs on an az. of 0 deg. First sample point is a minimum of 30 m. from the baseline. Location of first sample point on the transects is 4, 8, 14, 8, and 22 m. beyond the minimum distance, respectively.

<u>Stand 68--Red pine--pole</u> (C49-S9)

On FS 3040, m. 0.0 is 0.8 mi. east of junction with FS 3018. Baseline runs along the north side of FS 3040, on an az. of 90 deg. Transect #1 begins at m. 29 on the baseline and runs on an az. of 355 deg. First sample point is a minimum of 50 m. from the baseline. Location of first sample point on the transects is 19, 14, 17, 15, and 22 m. beyond the minimum distance, respectively. A jack pine inclusion occurs at 125 m. on the baseline and goes in approx. 60 m.

<u>Stand 69--Aspen (upland)--sapling</u> (C23-S23)

On FS 3154, m. 200 is 0.1 mi. north of junction with FS 3622. Baseline runs along the east side of FS 3154, on an az. of 180 deg. Transect #1 begins at m. 23 on the baseline and runs on an az. of 90 deg. First sample point is a minimum of 20 m. from the baseline. Location of first sample point on the transects is 18, 11, 21, 5, and 12 m. beyond the minimum distance, respectively. 15 plots were measured in 1993. (T1 plots 1-5, T2 plots 1-4, T3 plots 1-3, T4 plots 4 & 6, T5 plot 5). Later reconfigured for GPS survey to be 8 transects (320 m.) by 5 plots ea. deep.

Stand 70--Aspen (upland)--sapling (C22-S49)

From junction of FS 3154 and FS 3622, follow FS 3622 65 m. west to ski trail and follow ski trail northwest for 250 m. to m. 200. Baseline runs on an az. of 150 deg. Transect #1 begins at m. (?) on the baseline and runs on an az. of 60 deg. First sample point is a minimum of 0 m. from the baseline. Location of first sample point on the transects is 10, 15, 24, 25, and 23 m. beyond the minimum distance, respectively. Ski trail bends through part of transects. 8 plots were measured in 1993. (T1 plots 1, 3, &5, T2 plots 1, 7, & 8, T3 plots 2 & 6).

Stand 71--Red pine--pole (C30-S52)

On FS 3036, m. 200 is 220 m. west of junction with FS 3041. Baseline runs along the north side of FS 3036, on an az. of 90 deg. Transect #1 begins at m. 3 on the baseline and runs on an az. of 0 deg. First sample point is a minimum of 30 m. from the baseline. Location of first sample point on the transects is 12, 21, 9, 19, and 11 m. beyond the minimum distance, respectively.

Stand 72--Red pine--pole (C30-S52)

On FS 3036, m. 200 is 17.5 m. west of junction with FS 3041. Baseline runs along the north side of FS 3036, on an az. of 90 deg. Transect #1 begins at m. 9 on the baseline and runs on an az. of 0 deg. First sample point is a minimum of 30 m. from the baseline. Location of first sample point on the transects is 13, 15, 30, 4, and 2 m. beyond the minimum distance, respectively.

Stand 73--Red pine--pole (C31-S33)

On FS 3366, m. 0.0 is 0.7 mi. east of junction with FS 3018. Baseline runs along the north side of FS 3366, on an az. of 112 deg. Transect #1 begins at m. 29 on the baseline and runs on an az. of 33 deg. First sample point is a minimum of 20 m. from the baseline. Location of first sample point on the transects is 23, 13, 16, 6, and 25 m. beyond the minimum distance, respectively.

Stand 74--White pine--mature (C33-S16)

On FS 3157, m. 200 is 275 m. south of junction with FS 3156. Baseline runs along the west side of FS 3157, on an az. of 354 deg. Transect #1 begins at m. 20 on the baseline and runs on an az. of 280 deg. First sample point is a minimum of 30 m. from the baseline. Location of first sample point on the transects is 24, 2, 9, 19, and 4 m. beyond the minimum distance, respectively. Hardwood pocket occurs on the far west edge where White Pine failed.

Stand 75--White pine--mature (C32-S66)

On FS 3157, m. 0.0 is 150 m. south of junction with FS 3156. Baseline runs along the east side of FS 3157, on an az. of 180 deg. Transect #1 begins at m. (?) on the baseline and runs on an az. of 95 deg. First sample point is a minimum of 30 m. from the baseline. Location of first sample point on the transects is 14 (?), 1, 1, 6, 5, 12, 1, 1, 9, and 1 m. beyond the minimum distance, respectively. The stand shape is irregular with 10 transects. T1, T9, and T10 have 2 plots each. T2-T8 have 3 plots each. 27 plots were measured in 1993.

Stand 76--Sugar maple--pole (C8-S46)

On FS 3157, m. 0.0 is 0.5 mi. north of junction with FS 3156. Baseline runs along the east side of FS 3157, on an az. of 180 deg. Transect #1 begins at m. 28 on the baseline and runs on an az. of 90 deg. First sample point is a minimum of 30 m. from the baseline. Location of first sample point on the transects is 3, 24, 5, 13, and 16 m. beyond the minimum distance, respectively. There is a 4% north facing slope.

Stand 77--Red Pine--sapling (C34-S5)

On FS 3158, m. 0.0 is 1.325 (?) mi. north of junction with M-28. Baseline runs along the west side of FS 3158, on an az. of 4 deg. Transect #1 begins at m. 22 on the baseline and runs on an az. of 280 deg. First sample point is a minimum of 20 m. from the baseline. Location of first sample point on the transects is 12, 21, 9, 19, and 11 m. beyond the minimum distance, respectively. There is a 30 x 30 gap at the north end of the stand.

Stand 78--Red pine--seedling (C57-S13)

On M-28 at corner of intersection with FS 3139, m. 200 can be found 0.1 mi. south of junction with M-28. Baseline runs E-W along M-28 on an az. of 228 deg. Transect #1 begins at m. 17 on the baseline and runs on an az. of 148 deg. First sample point is a minimum of 0 m. from the baseline. Location of first sample point on the transects is 9, 9, 5 (15?), and 12 m. beyond the minimum distance, respectively. The stand shape is irregular. T1 has 9 plots, T2 has 13 plots, T3 has 9 plots, and T4 has 4 plots. 34 plots were measured in 1993.

Stand 79--Red pine--seedling (C58-S16)

On FS 3139, m. 0.0 is 1.75 mi. south of junction with M-28. Baseline runs along the west side of FS 3139, on an az. of 0 deg. Transect #1 begins at m. 22 on the baseline and runs on an az. of 260 deg. First sample point is a minimum of 65 m. from the baseline. Location of first sample point on the transects is 11, 21, 20, 11, and 4 m. beyond the minimum distance, respectively.

Stand 80--Red pine--seedling (C58-S39)

On FS 3139, m. 160 is 0.4 mi. south of junction with M-28. Baseline runs along the west side of FS 3139, on an az. of 0 deg. Transect #1 begins at m. 28 on the baseline and runs on an az. of 260 deg. First sample point is a minimum of 65 m. from the baseline. Location of first sample point on the transects is 3, 25, 24, and 5 m. beyond the minimum distance, respectively. The stand shape is irregular having 4 transects with 10 plots each.

Stand 81--Red pine--sapling (C56-S30)

On M-28, m. 200 is 35 m. east of junction with FS 3608. Baseline runs along the south side of M-28, on an az. of 270 deg. Transect #1 begins at m. 14 on the baseline and runs on an az. of 165 deg. First sample point is a minimum of 40 m. from the baseline. Location of first sample point on the transects is 13, 8, 20, 10, and 15 m. beyond the minimum distance, respectively.

Stand 82--Red pine--sapling (C56-S4)

On unmarked FS road separating sections 30 and 29, m. 200 is 0.5 mi. south of M-28. Baseline runs along the west side of the unmarked FS road, on an az. of 0 deg. Transect #1 begins at m. 19 on the baseline and runs on an az. of 290 deg. First sample point is a minimum of 40 m. from the baseline. Location of first sample point on the transects is 3, 13, 18, 11, and 21 m. beyond the minimum distance, respectively. Stand includes a large jack pine component.

Stand 83--Red pine--sapling (C54-S10)

On unmarked FS road, m. 200 is 0.9 mi. south of junction between unmarked FS road and FS 3131 which occurs 200 m. south of M-28. Baseline runs along the west side of the unmarked FS road, on an az. of 6 deg. Transect #1 begins at m. 33 on the baseline and runs on an az. of 280 deg. First sample point is a minimum of 20 m. from the baseline. Location of first sample point on the transects is 8, 14, 21, 11, and 21 m. beyond the minimum distance, respectively.

Stand 84--Aspen (upland)--pole (C61-S30)

On the east side of FS 3646, a reference point is 0.5 mi. south of junction with FS 3065 where FS 3646 starts to bend to the southwest. From a reference point, baseline m. 0.0 is 50 m. into the forest at an az. of 180 deg. The baseline would continue to run straight on an az. of 180 deg. Transect #1 would begin at m. 12 on the baseline and run on an azimuth of 90 deg. First sample point is a minimum of 0 m. from the baseline. Location of the first sample point on the transects is 3, 0, 10, 6, and 5, respectively.

Stand 85--Northern hardwoods--pole (C44-S19)

On trail to Peck and Rye Lake,.m. 0.0 is 0.3 mi. north of junction with FS 3162. Baseline runs along the west side of the trail to Peck and Rye lake, on an az. of 360 deg. Transect #1 begins at m. 31 on the baseline and runs on an az. of 270 deg. First sample point is a minimum of 20 m. from the baseline. Location of first sample point on the transects is 14, 5, 12, 1, and 8 m. beyond the minimum distance, respectively.

Stand 86--Northern hardwoods-pole (C36-S23)

On FS 3159, m. 0.0 is 0.2 mi. north of junction with FS 3161. Baseline runs along the west side of FS 3159, on an az. of 360 deg. Transect #1 begins at m. 27 on the baseline and runs on an az. of 270 deg. First sample point is a minimum of 20 m. from the baseline. Location of first sample point of the transects is 5, 3, 13, 4, 2, 9, 1, and 4 m. beyond the minimum distance respectively. The stand shape is irregular with 8 transects having 5 plots each.

Stand 87--Aspen (lowland)--pole (C11-S25)

On FS 3150, m. 0.0 is 0.2 mi. southeast of junction with FH 42. Baseline runs along the east side of FS 3150, on an az. of 230 deg. Transect #1 begins at m. 21 on the baseline and runs on an az. of 140 deg. First sample point is a minimum of 30 m. from the baseline. Location of first sample point on the transects is 4, 1, 12, 5, 8, 0, 16, and 0 m. beyond the minimum distance respectively. The stand shape is irregular with 8 transects having 5 plots each. 30 plots were measured in 1993. (T1 plots 1, 2, 4, & 5, T2 plots 1, 2, 3, & 5, T3 plots 1, 2, 4, & 5, T4 plots 2, 3, 4, & 5, T5 plots 1, 3, & 5, T6 plots 1, 2, 3, & 4, T7 plots 1, 3, & 5, T8 plots 1, 2, 4, & 5).

Stand 88--N. white-cedar--mature (C12-S20)

On the north side of FH 42, a reference point is 0.3 mi. west of scenic turnout looking to Naomikong Point. From reference point, m. 200 is 60 m. into the forest at an az. of approximately 360 deg. Baseline runs on an az. of 90 deg. Transect #1 begins at m. 30 on the baseline and runs on an az. of 360 deg. First sample point is a minimum of 0 m. from the baseline. Location of first sample point of the transects is 17, 7, 19, 10, and 19 m. beyond the minimum distance respectively.

Stand 89--N. white-cedar and mixed conifer--mature (C12-S62)

On the north side of FH 42, a reference point is 0.7 mi. west of scenic turnout looking to Naomikong Point. From reference point, baseline m. 0.0 is 51.5 m. into the forest at an az. of (130?). The baseline would run on an az. of 130 deg. Transect #1 would begin at m. 24 on the baseline and run on an az. of 40 deg. First sample point would be a minimum of 0 m. from the baseline. Location of first sample point on the transects would be 9, 12, 16, 15, and 13 m. beyond the minimum distance respectively. Note that the stand was not measured in 1993. (Has not been measured as of 7/95)

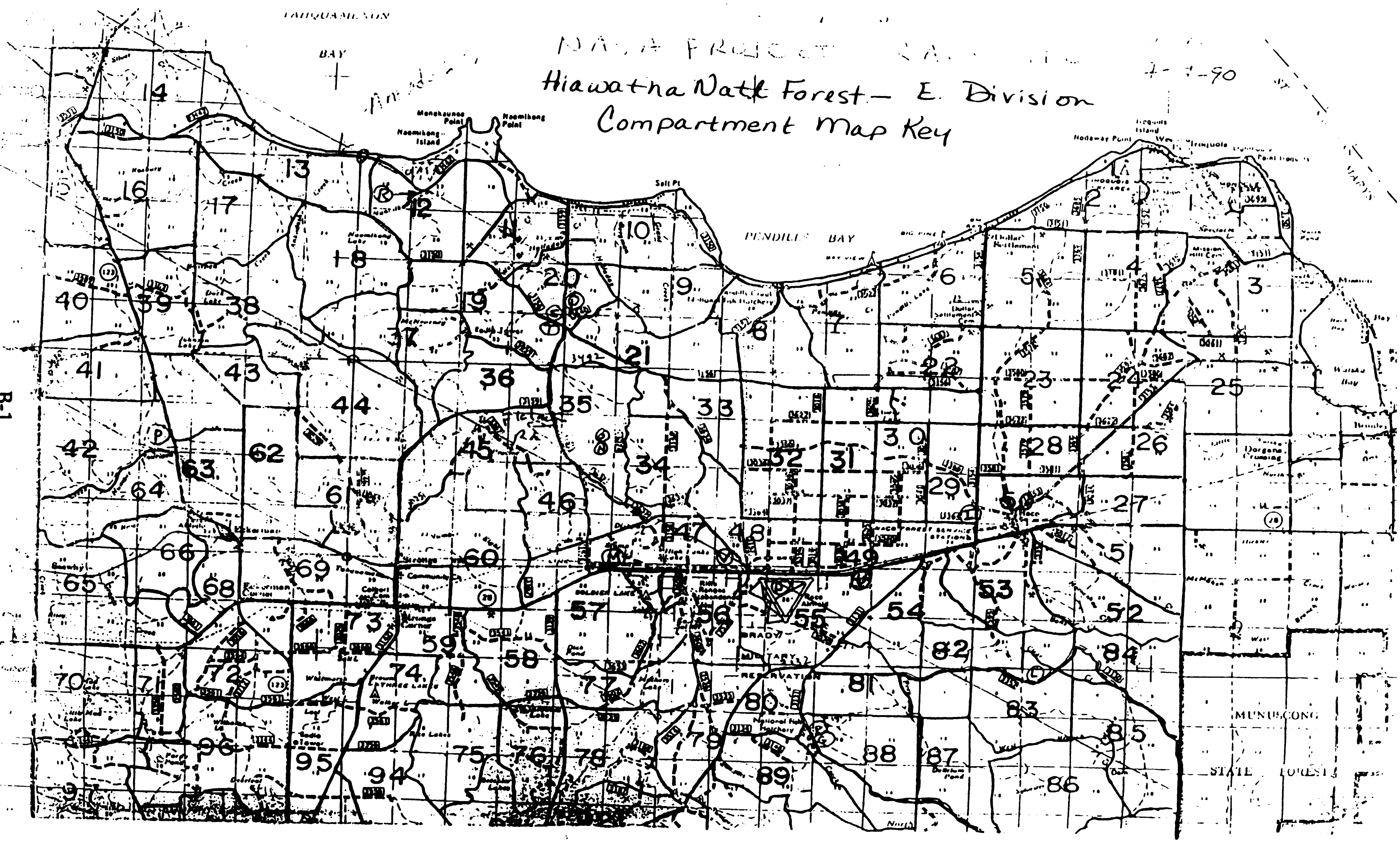
Stand 90--Hemlock--mature (Mead)

On the south side of FH 42, a reference point is 50 m. west of parking lot at Ankodosh Creek. From reference point, baseline m. 0.0 is 50 m. into the forest at an az. of 180 deg. The baseline would run on an az. of 270 deg. Transect #1 would begin at m. 37 on the baseline and runs on an az. of 180 deg. First sample point would be a minimum of 0 m. from the baseline. Location of first sample point on the transects, beyond the minimum distance, is yet to be determined. This stand may not be able to be used because of cutover areas in it. Note that the stand was not measured in 1993 (or 94 or 95).

Stand 91--Northern hardwoods--pole (C15-S?)

On truck rail running just west of and parallel to M-123, m. 0.0 is 50 m. north of junction with unmarked E-W road separating sections 19 and 30. Baseline runs along the west side of the truck trail, on an az. of 350 deg. Transect #1 begins at m. 8 (18?) on the baseline and runs on an az. of 310 deg. First sample point is a minimum of 30 m. from the baseline. Location of first sample point on the transects is 14, 1, 23, 5, and 16 m. beyond the minimum distance, respectively.

APPENDIX B:
U.S. FOREST SERVICE COMPARTMENT AND STAND MAPS


Hiawatha Natl Forest – E. Division
Compartment Map Key
BAY
PENDILLS BAY
Salt Pt
RESERVATION
MUNUSCONG
STATE FOREST

Compartment Map Key

Forest types

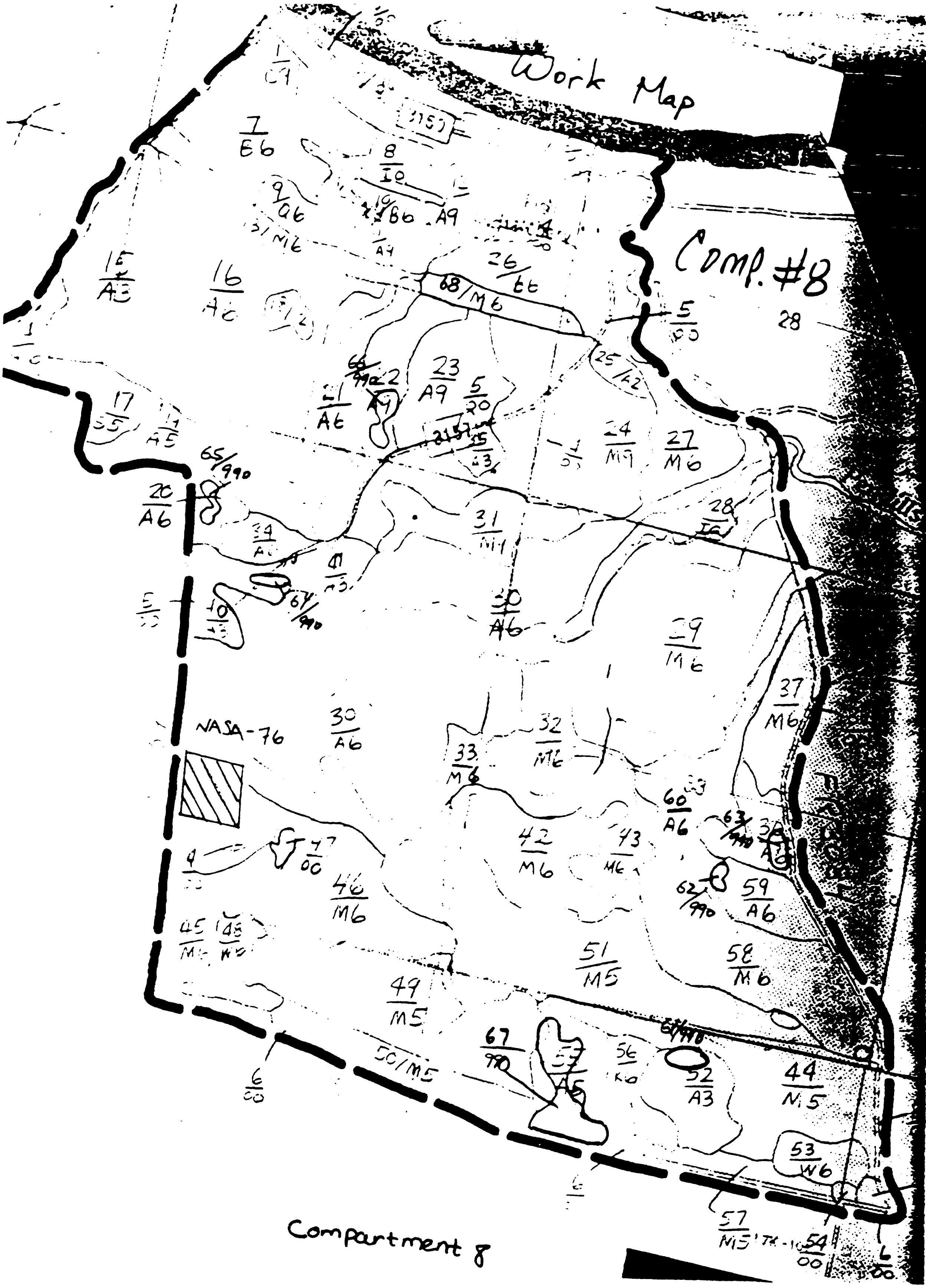
FS Type	Description
01 (J)	Jack pine
02 (R)	Red pine
03 (W)	White pine
04	White pine--hemlock
05	Hemlock
11 (F)	Balsam fir--aspen--paper birch
12	Black spruce
14	Northern white cedar
15	Tamarack
16	White spruce--balsam fir--norway spruce
17	Upland black spruce
18	Mixed swamp conifer
19	Cedar--aspen--paper birch
41	White pine--northern red oak--white ash
48	Jack pine--oak
49 (K)	Red pine--oak
55	Northern red oak
71	Black ash
76 (M)	Red maple (wet site)
79 (M)	Mixed lowland hardwoods
81 (M)	Sugar maple--beech--yellow birch
82 (M)	Sugar maple--basswood
83	Black cherry--white ash--yellow poplar
84 (M)	Red maple (dry site)
85	Sugar maple
86	Beech
87 (M)	Sugar maple--beech--yellow birch--red spruce
89	Mixed hardwoods (maple, basswood, white ash, and paper birch)
91 (A)	Quaking aspen
92	Paper birch
93 (A)	Bigtooth aspen
94	Balsam poplar
95	Aspen--white spruce--balsam fir
97	Lowland brush
98	Upland brush
99	Open

Size densities

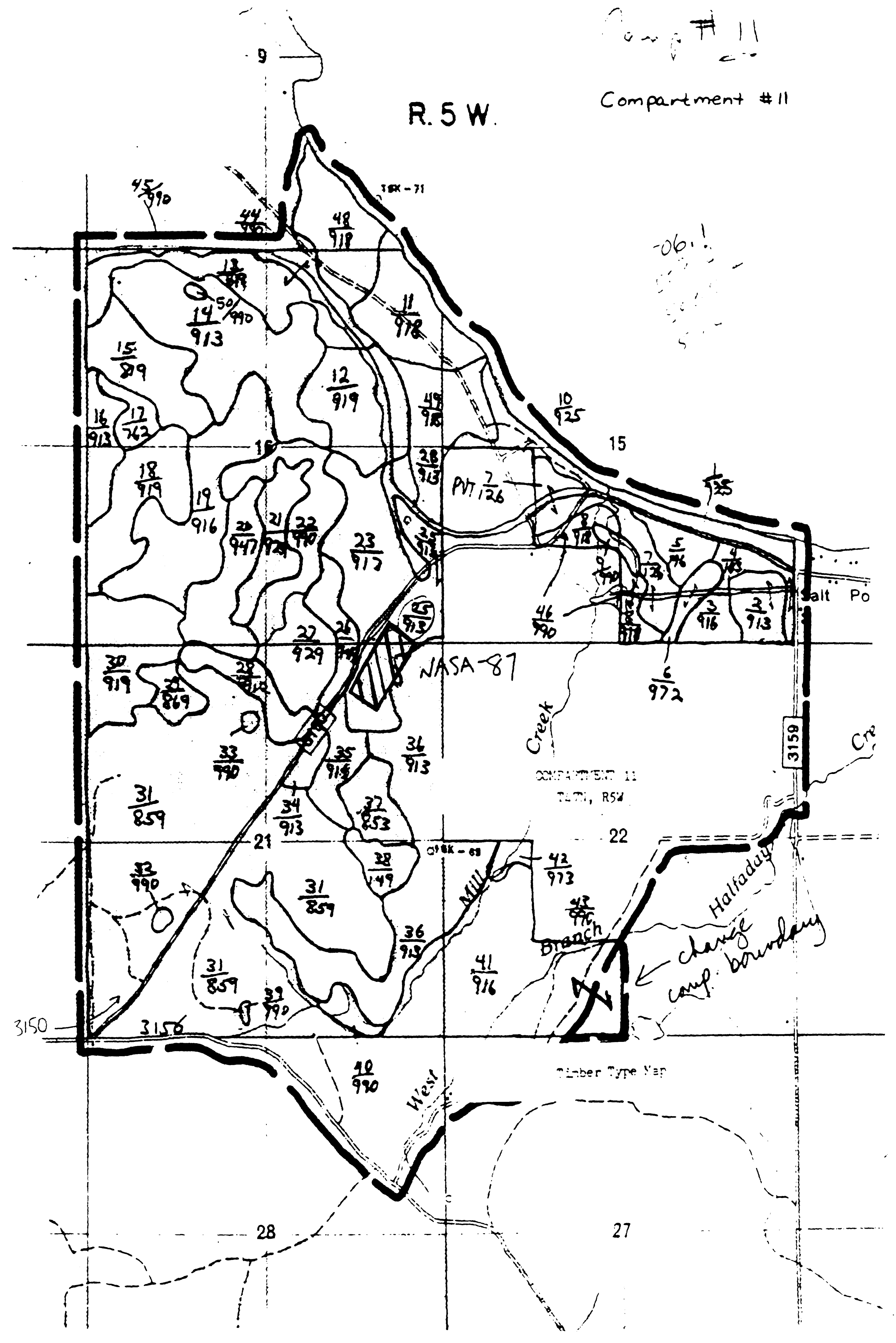
Code	Description
0	Nonstocked (less than 16%)
1	Seedling--sapling (16%-39% stocked)
2	Seedling--sapling (40%-69% stocked)
3	Seedling--sapling (over 70% stocked)
4	Poletimber stand (16%-39% stocked)
5	Poletimber stand (40%-69% stocked)
6	Poletimber stand (over 70% stocked)
7	Sawtimber stand (16%-39% stocked)
8	Sawtimber stand (40%-69% stocked)
9	Sawtimber stand (over 70% stocked)

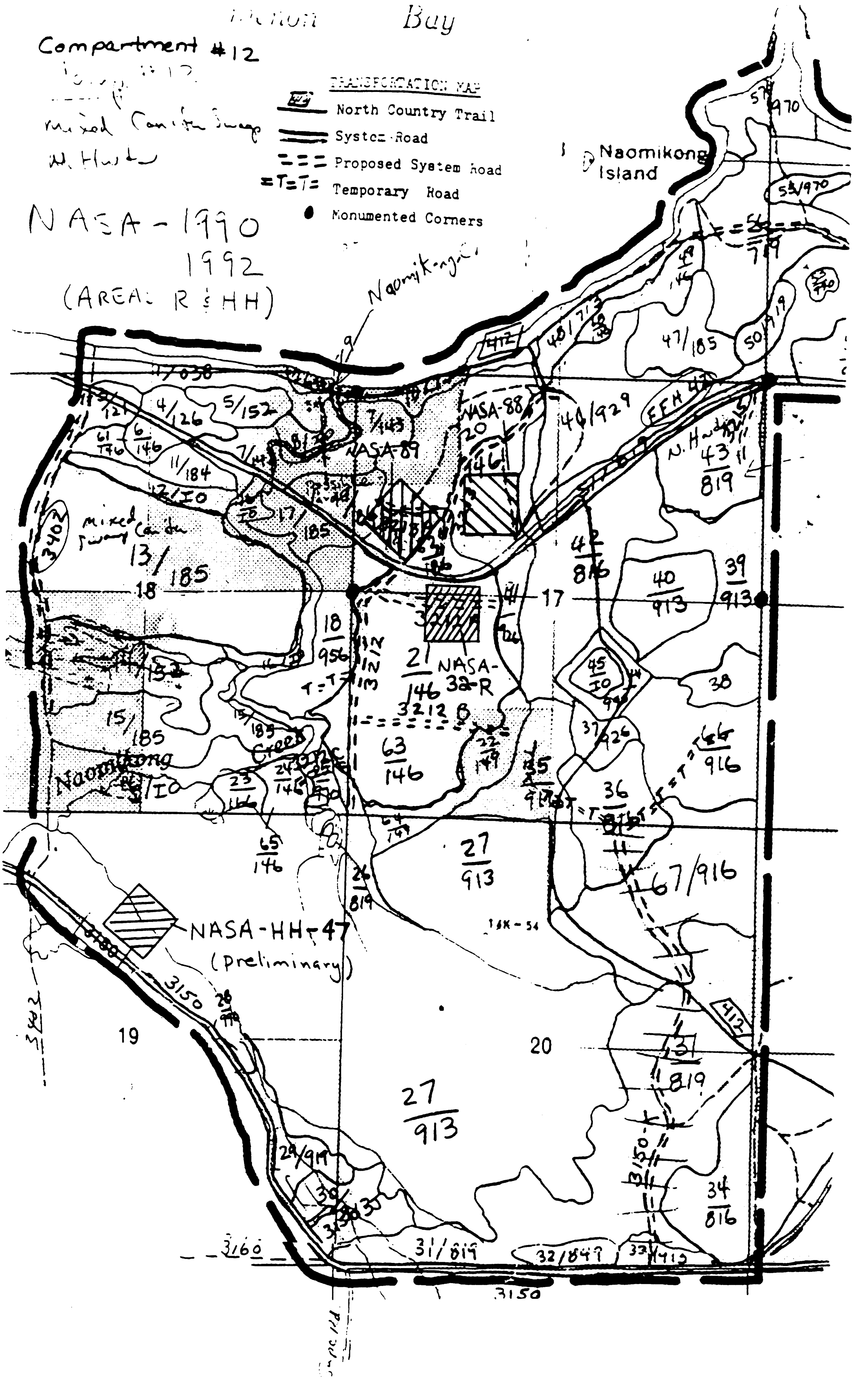
Size-density is the classification of forest land based on the size class and density of live trees on the area. The size classes are: sawtimber, poletimber, and seedling-sapling.

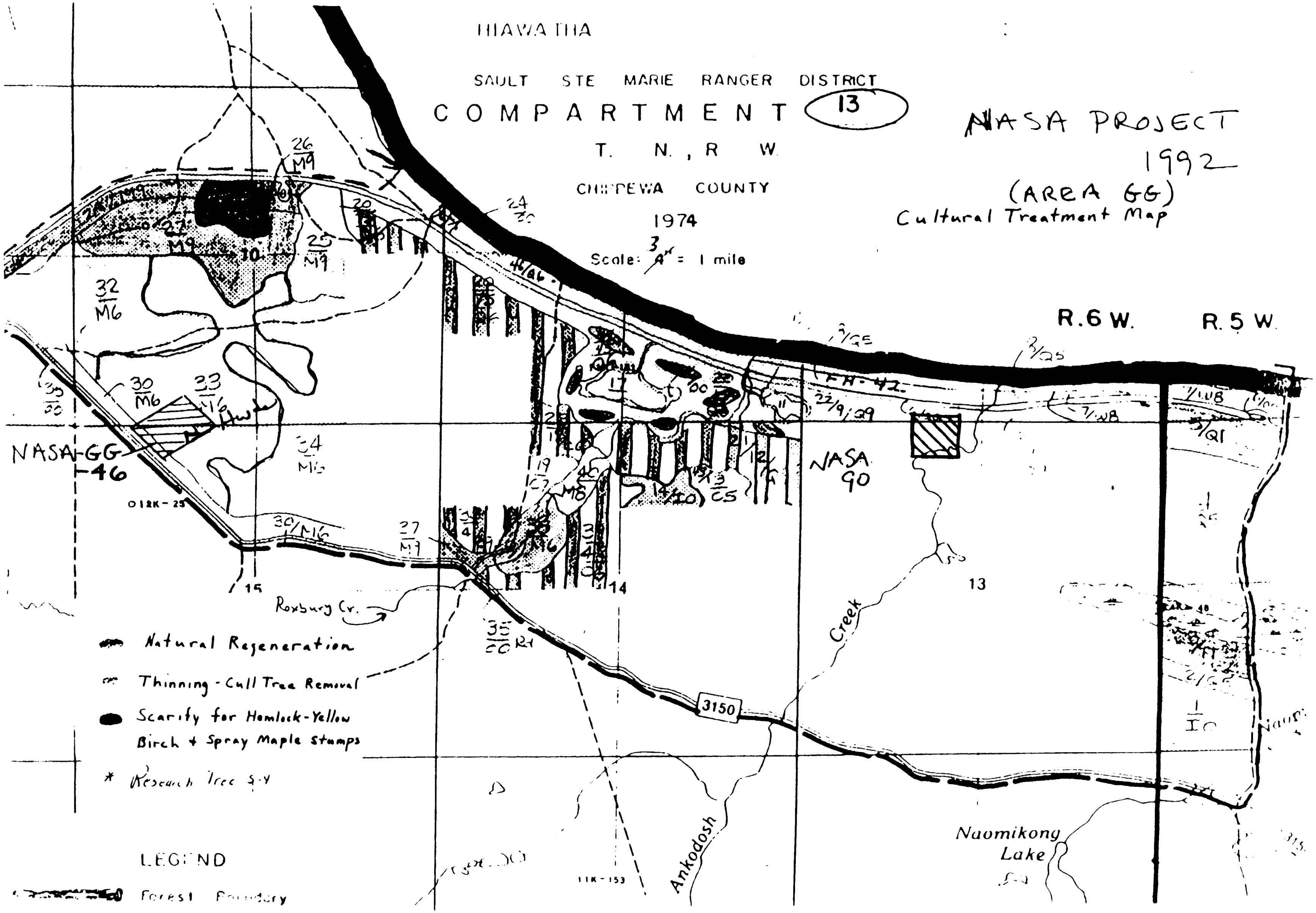
> Sawtimber stands--Stands stocked (basal area) with live trees of which half or more of total stocking is in sawtimber, or sawtimber and poletimber trees, with sawtimber stocking at least equal to poletimber stocking.
>
> Poletimber stands--Stands stocked (basal area) with live trees of which half or more of total stocking is in poletimber, or sawtimber and poletimber trees, with poletimber stocking exceeding that of sawtimber stocking.
>
> Seedling-sapling stands--Stands stocked with live trees which seedling and sapling trees predominate.
>
> Nonstocked stands--Stands less than 16% stocked with growing stock trees.

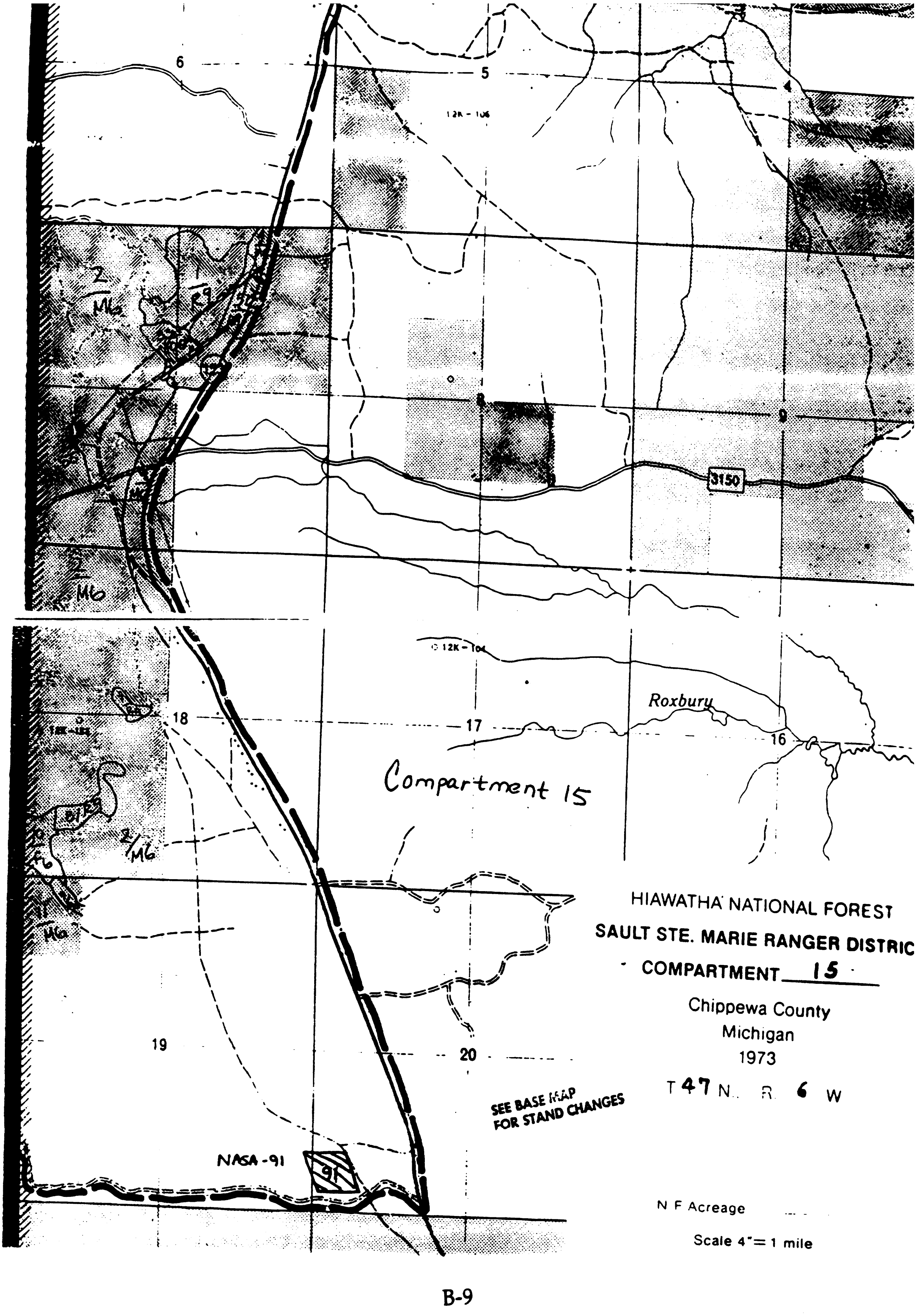


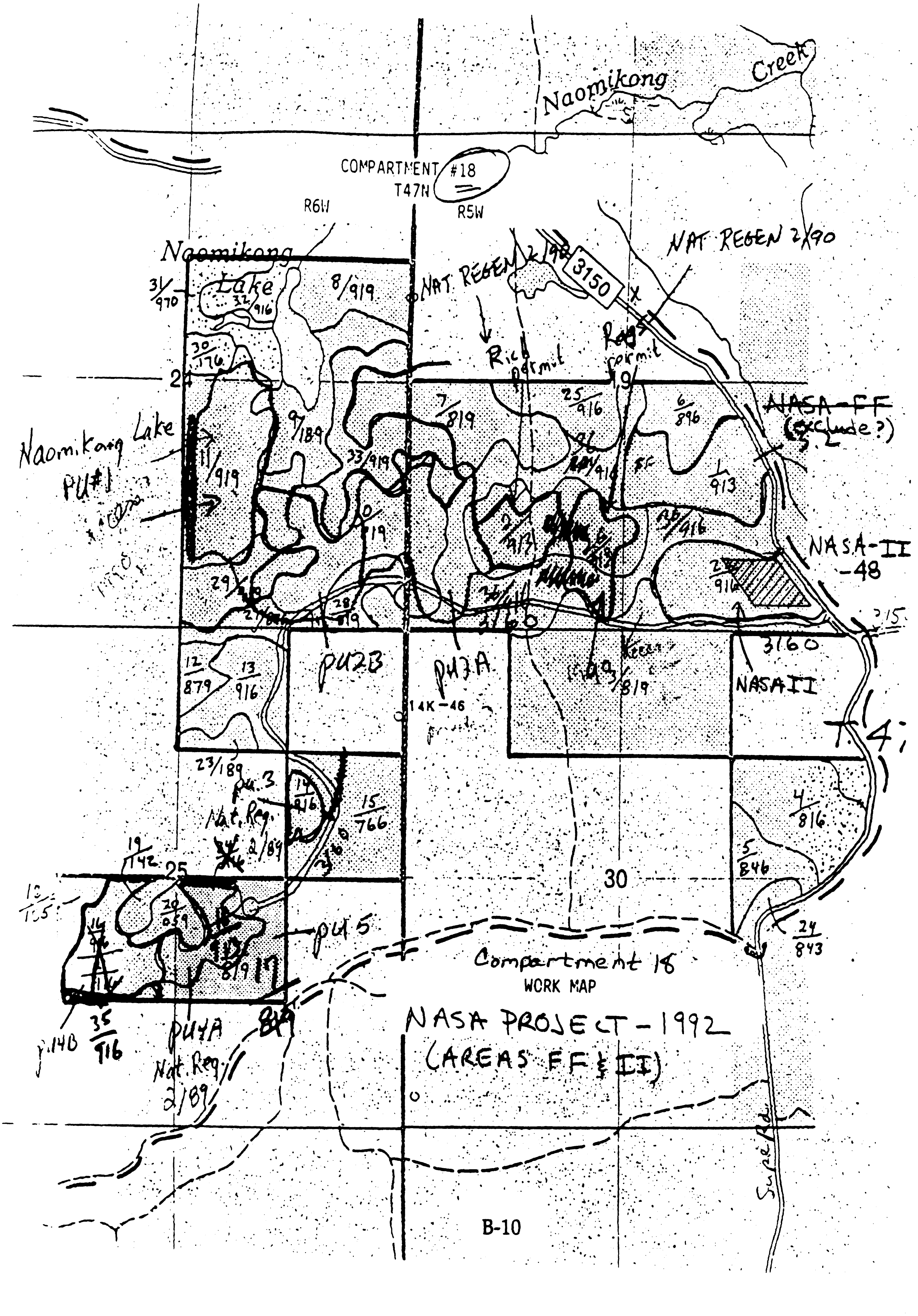
Compartment 8


Compartment #11
R. 5 W.
NASA-87
change comp. boundary
COMPARTMENT 11
Timber Type Map
Creek
Mill
Halfaday
Branch
West
3150
3159
Salt Po

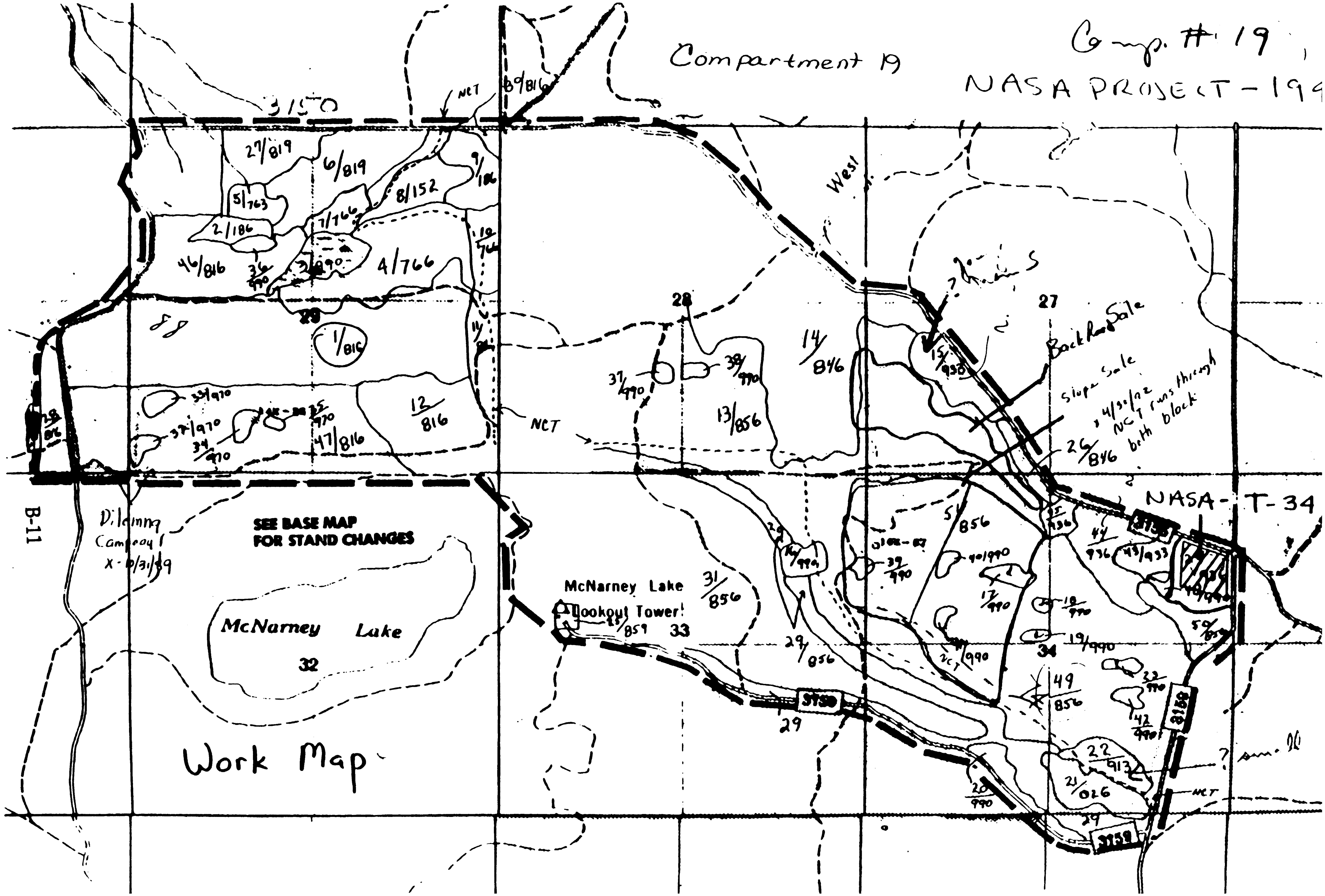

Bay
Compartment #12
TRANSPORTATION MAP
North Country Trail
System Road
Proposed System Road
Temporary Road
Monumented Corners
NASA-1990
1992
(AREA: R & HH)
Naomikong Island
NASA-88
NASA-89
NASA-32-R
NASA-HH-47
(Preliminary)
Naomikong Creek
18
17
19
20
3150
3160
412

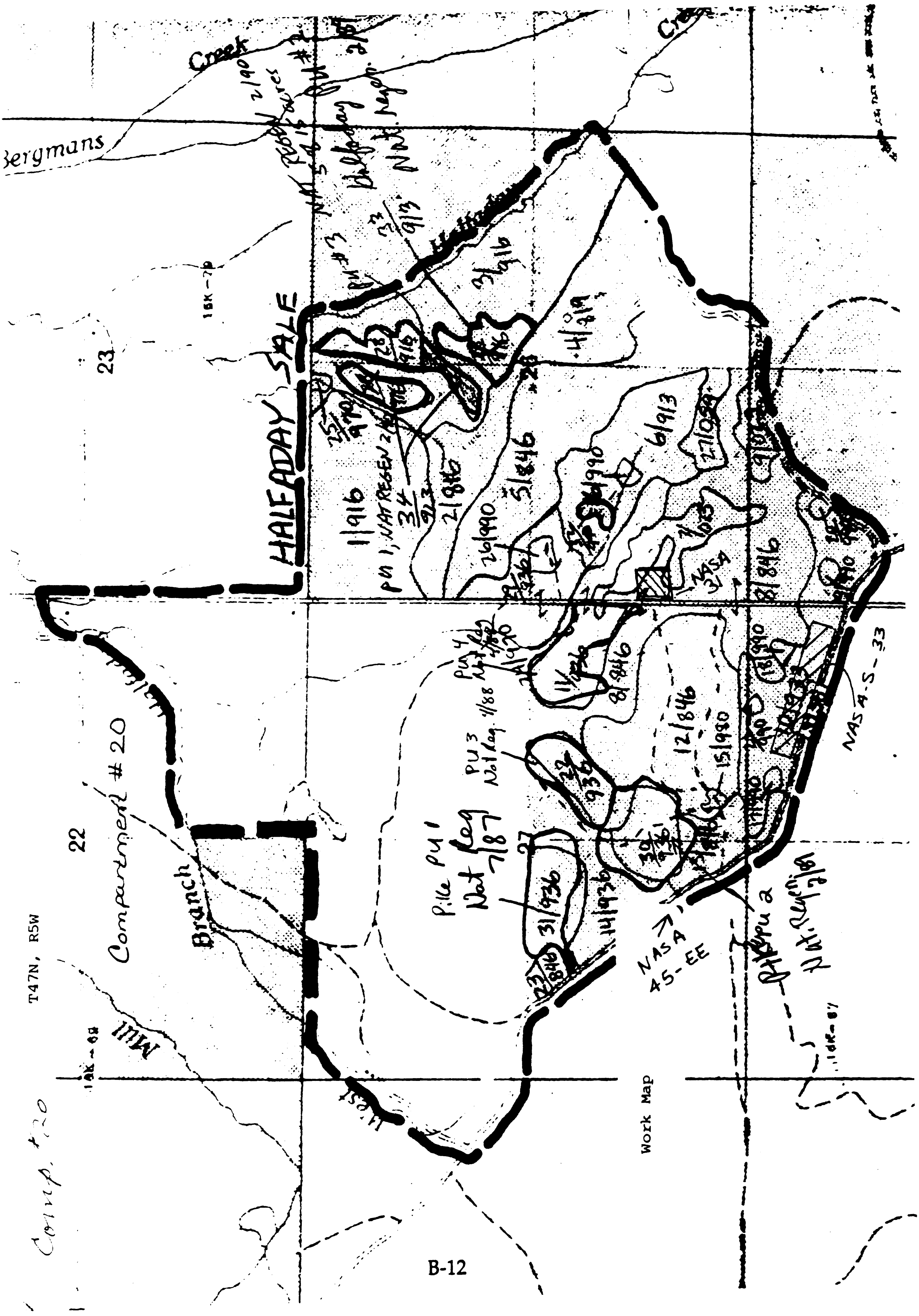

HIAWATHA
SAULT STE MARIE RANGER DISTRICT
COMPARTMENT 13
T. N., R W.
CHIPPEWA COUNTY
1974
Scale: 3/4" = 1 mile
NASA PROJECT
1992
(AREA GG)
Cultural Treatment Map
R.6 W.
R.5 W.
NASA-GG-46
NASA 90
FH-42
3150
Roxbury Cr.
Creek
Ankodosh
Naomikong Lake
Natural Regeneration
Thinning - Cull Tree Removal
Scarify for Hemlock-Yellow Birch + Spray Maple Stumps
LEGEND
Forest Boundary

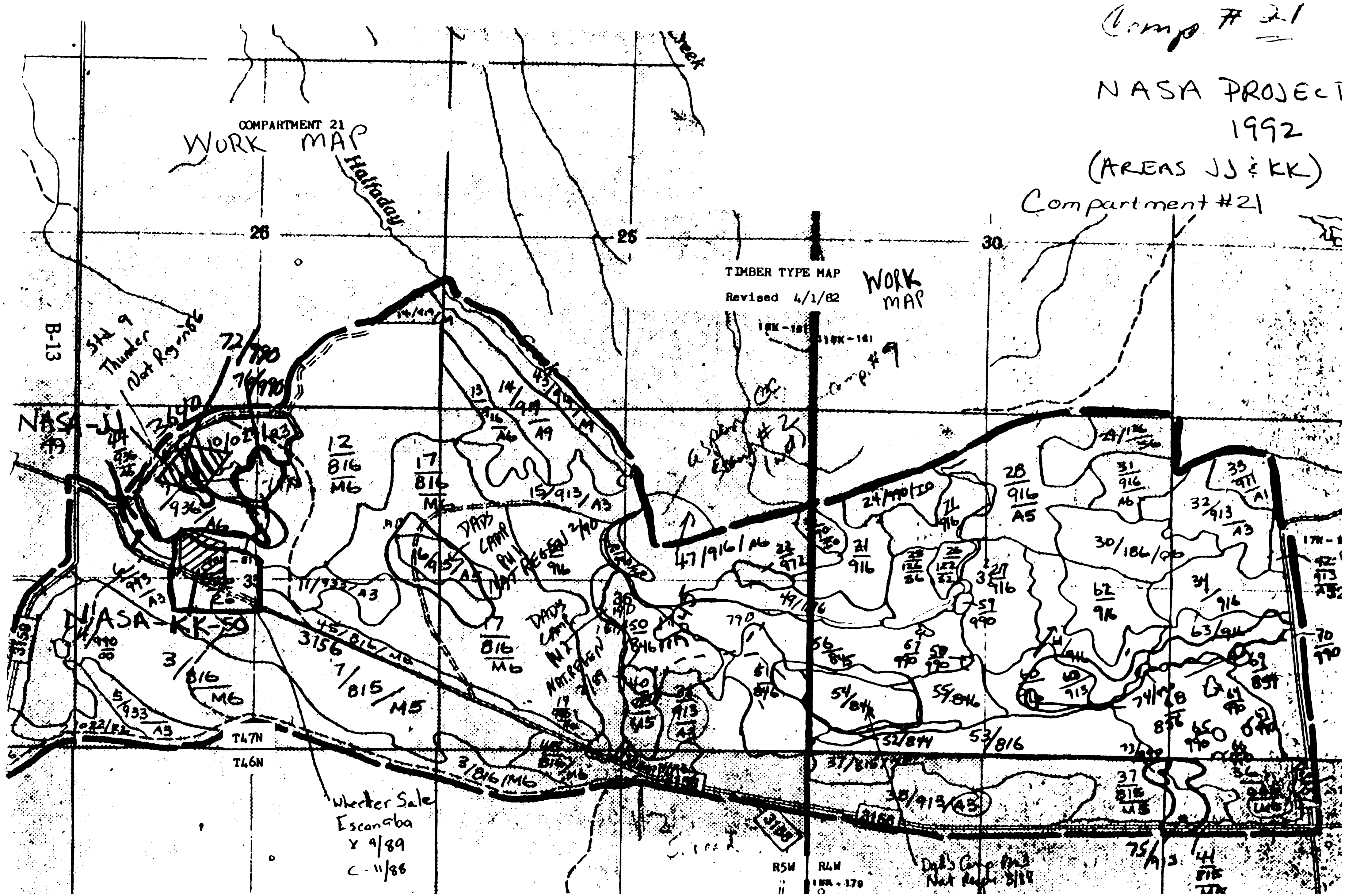

6
5
4
2
M6
3150
8
9
18
17
16
Roxbury
Compartment 15
2/M6
19
20
NASA-91
91
HIAWATHA NATIONAL FOREST
SAULT STE. MARIE RANGER DISTRIC
COMPARTMENT 15
Chippewa County
Michigan
1973
T 47 N. R. 6 W
SEE BASE MAP
FOR STAND CHANGES
N F Acreage
Scale 4" = 1 mile

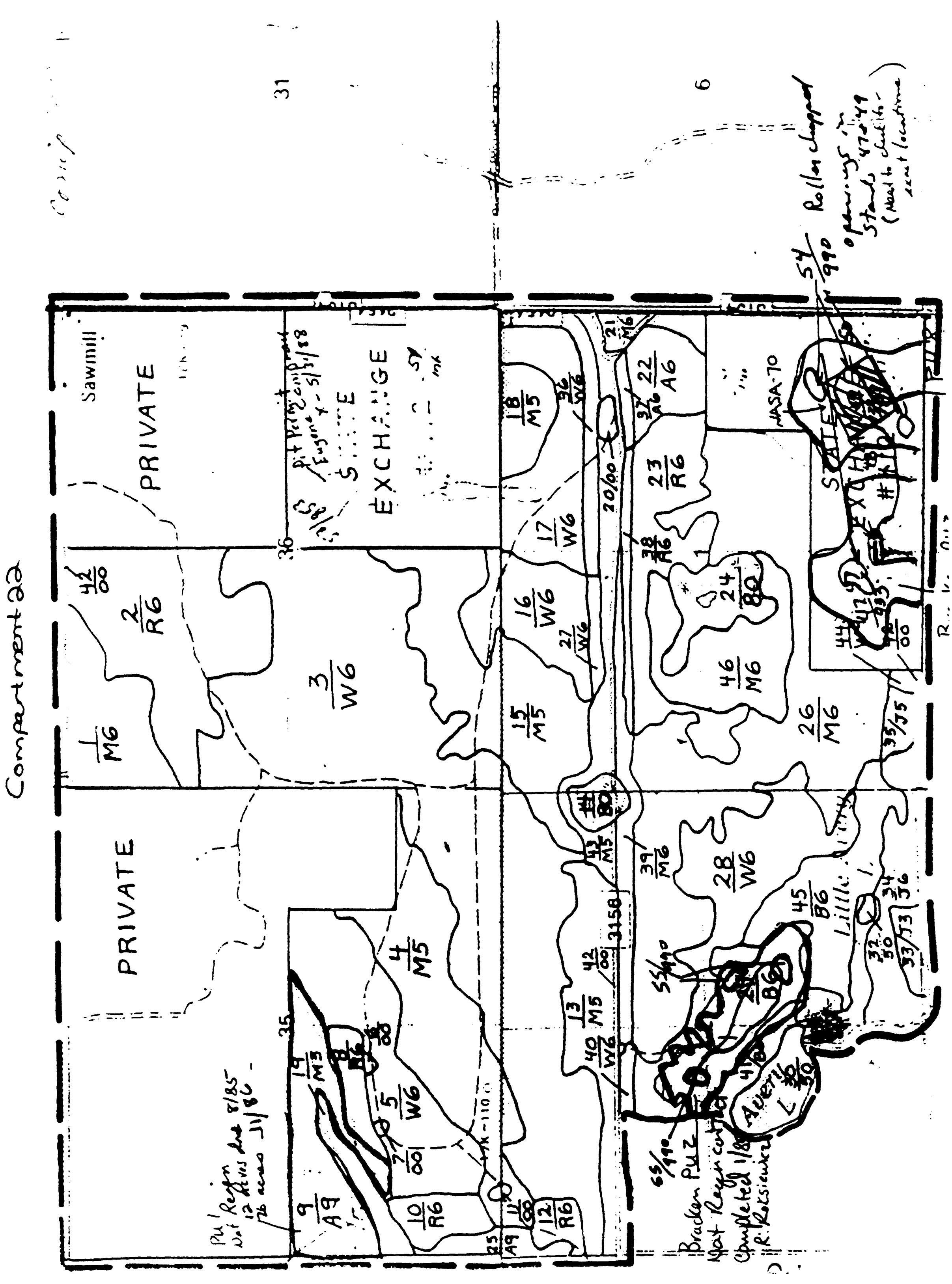


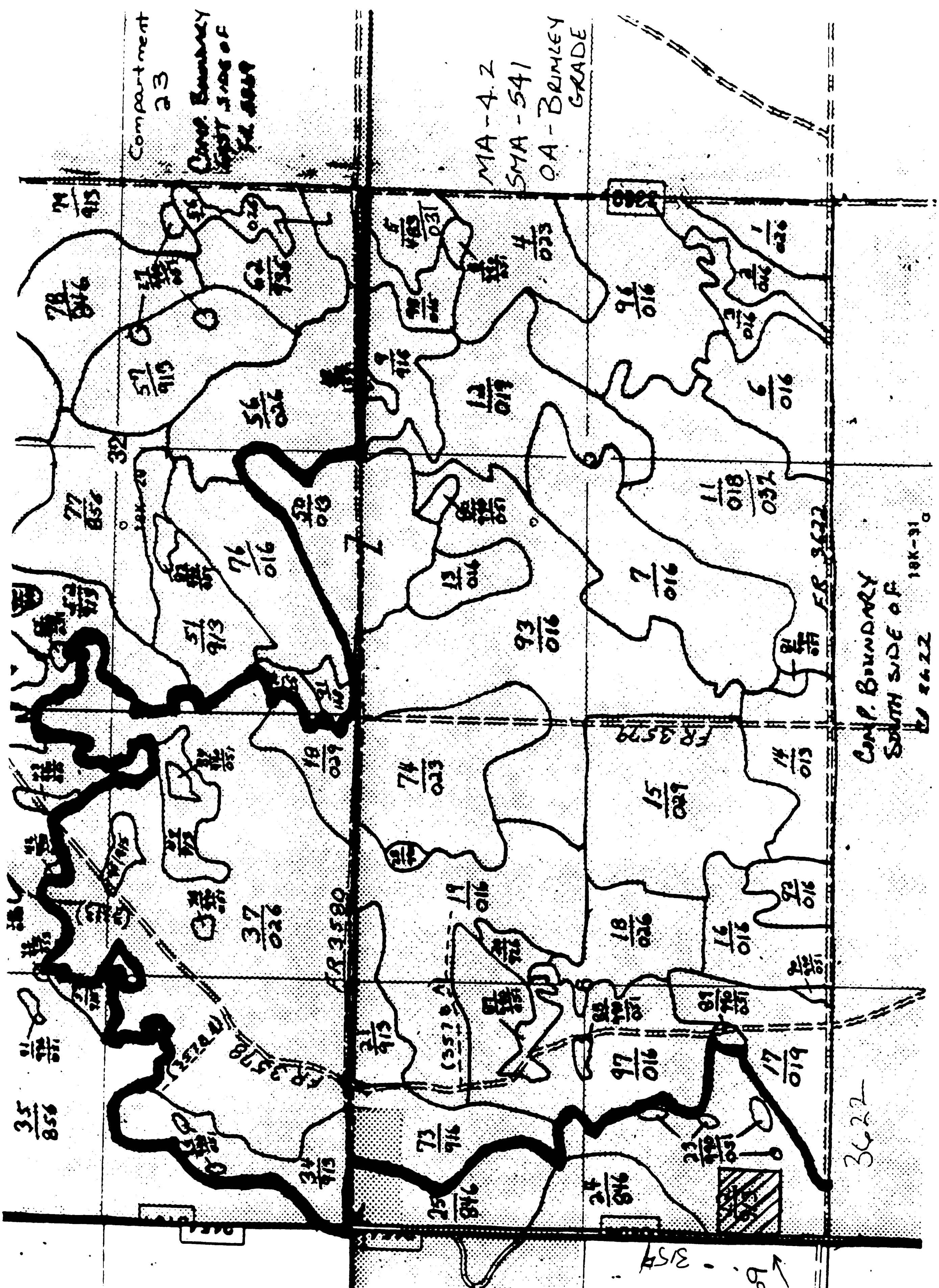
Naomikong Creek
COMPARTMENT #18
T47N
R6W
R5W
Naomikong Lake
NAT REGEN 2/90
NAT REGEN 2/98
3150
Rich permit
Rags permit
NASA-FF
(exclude?)
Naomikong Lake PU#1
NASA-II
-48
3160
NASA II
PU2B
PU1A
14K-46
pu 3
Nat. Reg.
2/89
pu 5
PU4A
Nat. Reg.
2/89
30
Compartment 18
WORK MAP
NASA PROJECT - 1992
(AREAS FF & II)


Comp. # 19
NASA PROJECT - 19
Compartment 19
West
NASA - T - 34
Back Road Sale
Slope Sale
NCT
SEE BASE MAP
FOR STAND CHANGES
McNarney Lake
Lookout Tower
McNarney Lake
32
33
34
27
28
29
Work Map
Dilemma
Campway
x - 10/31/89
27/819
6/819
8/152
5/763
2/186
46/816
4/766
7/766
1/816
12/816
13/856
14/846
47/816
31/856
29/856
49/856
22/913
21/026
26/846
51/856
15/938

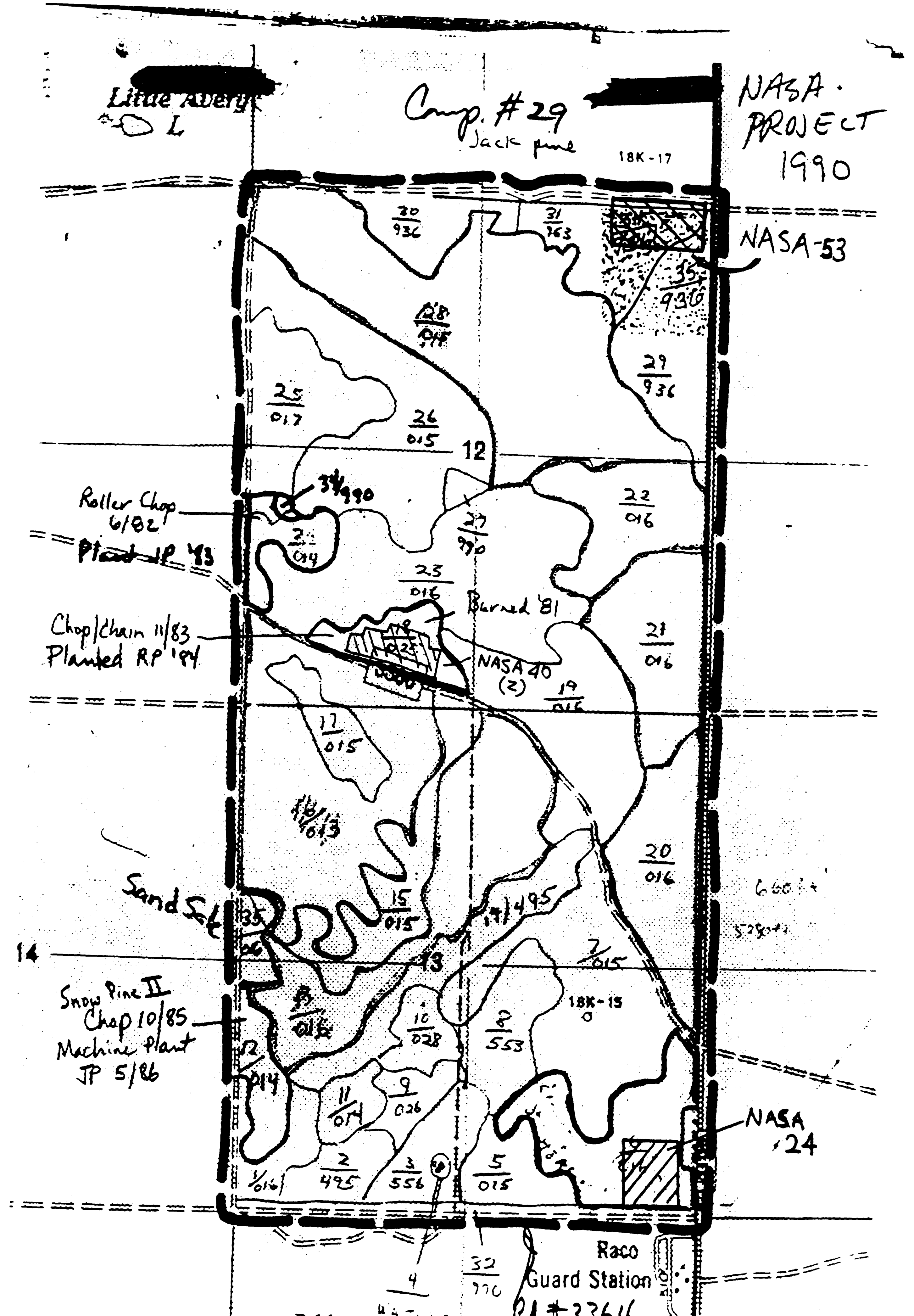

Bergmans
Creek
23
HALFADAY SALE
22
Compartment #20
T47N, R5W
Branch
Mill
West
Work Map
NASA 45-EE
NASA-S-33
Comp. #20

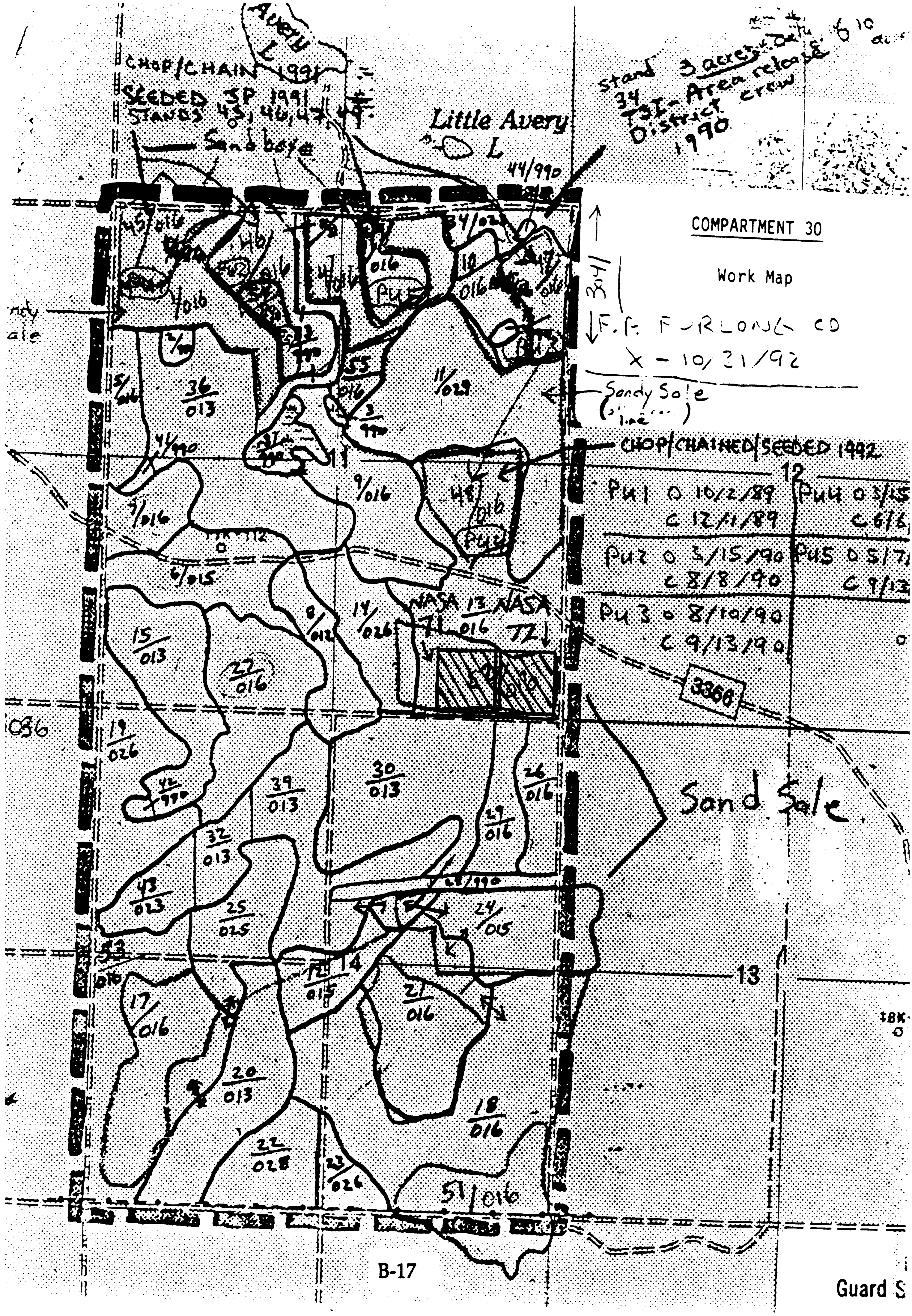

Comp # 21
NASA PROJECT
1992
(AREAS JJ & KK)
Compartment #21
COMPARTMENT 21
WORK MAP
TIMBER TYPE MAP
Revised 4/1/82
WORK MAP
Halfaday
Creek
NASA-JJ
NASA-KK-50
Wheeler Sale
Escanaba
X 4/89
C - 11/88
Dad's Camp Pn3
Nat Regen 3/88
T47N
T46N
R5W
R4W
26
25
30

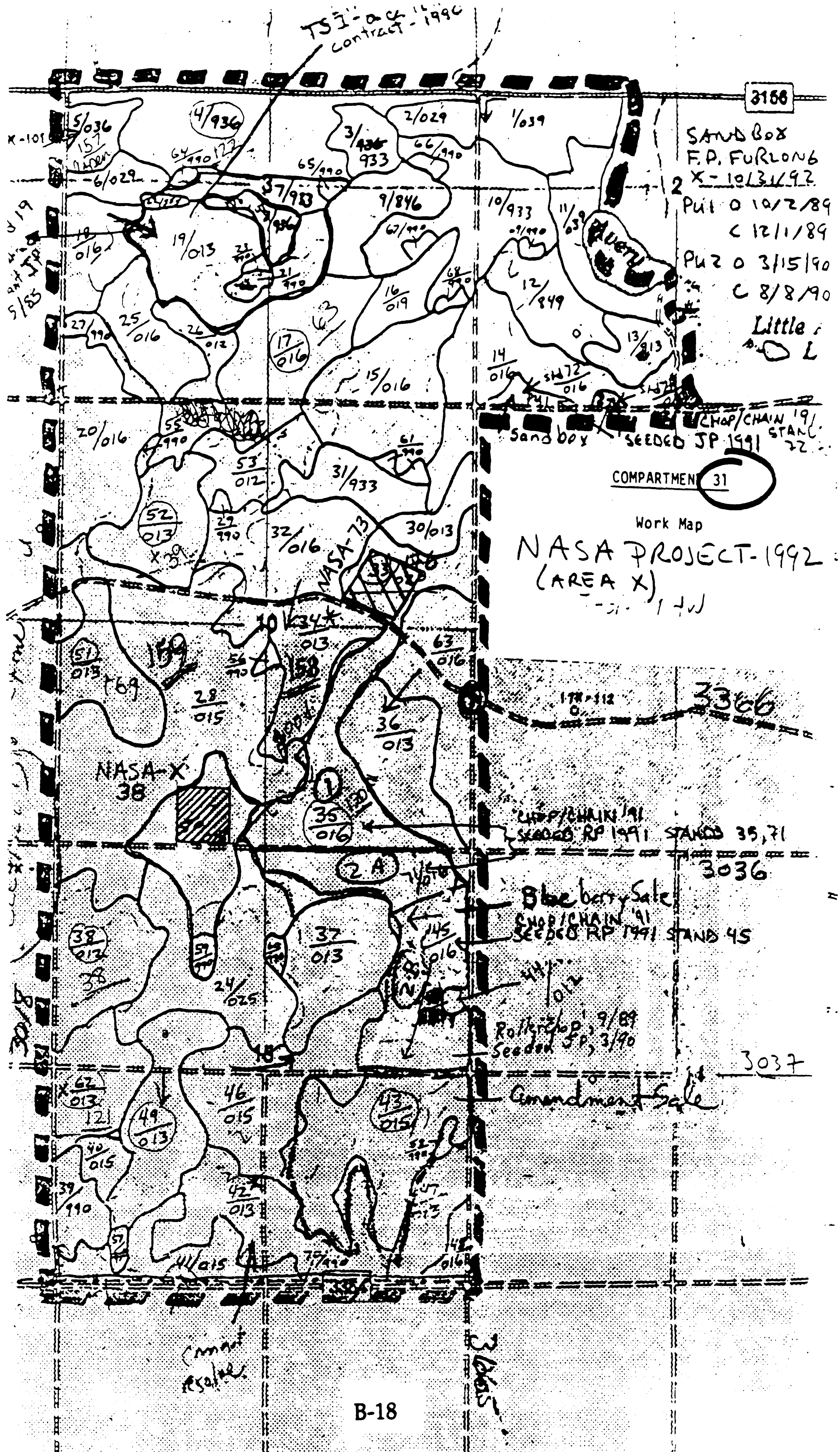

Compartment 22
PRIVATE
PRIVATE
Sawmill
EXCHANGE
31
6
36
25
1/M6
2/R6
3/W6
4/M5
5/W6
9/A9
10/R6
12/R6
13/M5
15/M5
16/W6
17/W6
18/M5
22/A6
23/R6
24/BO
26/M6
28/W6
39/M6
40/W6
42/00
45/B6
46/M6
JASA-70
Rollers chopped
Bracken PUZ
Completed

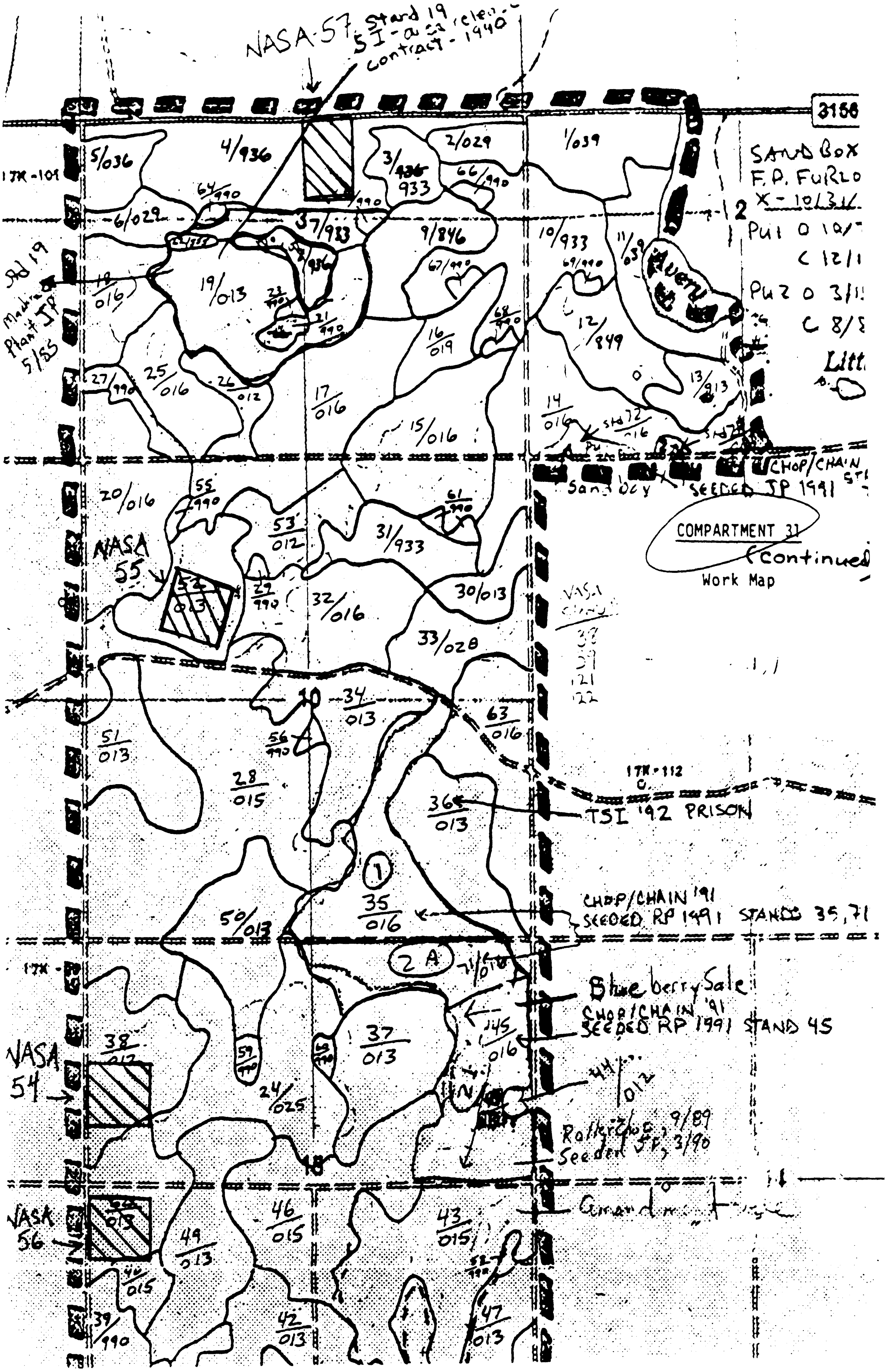


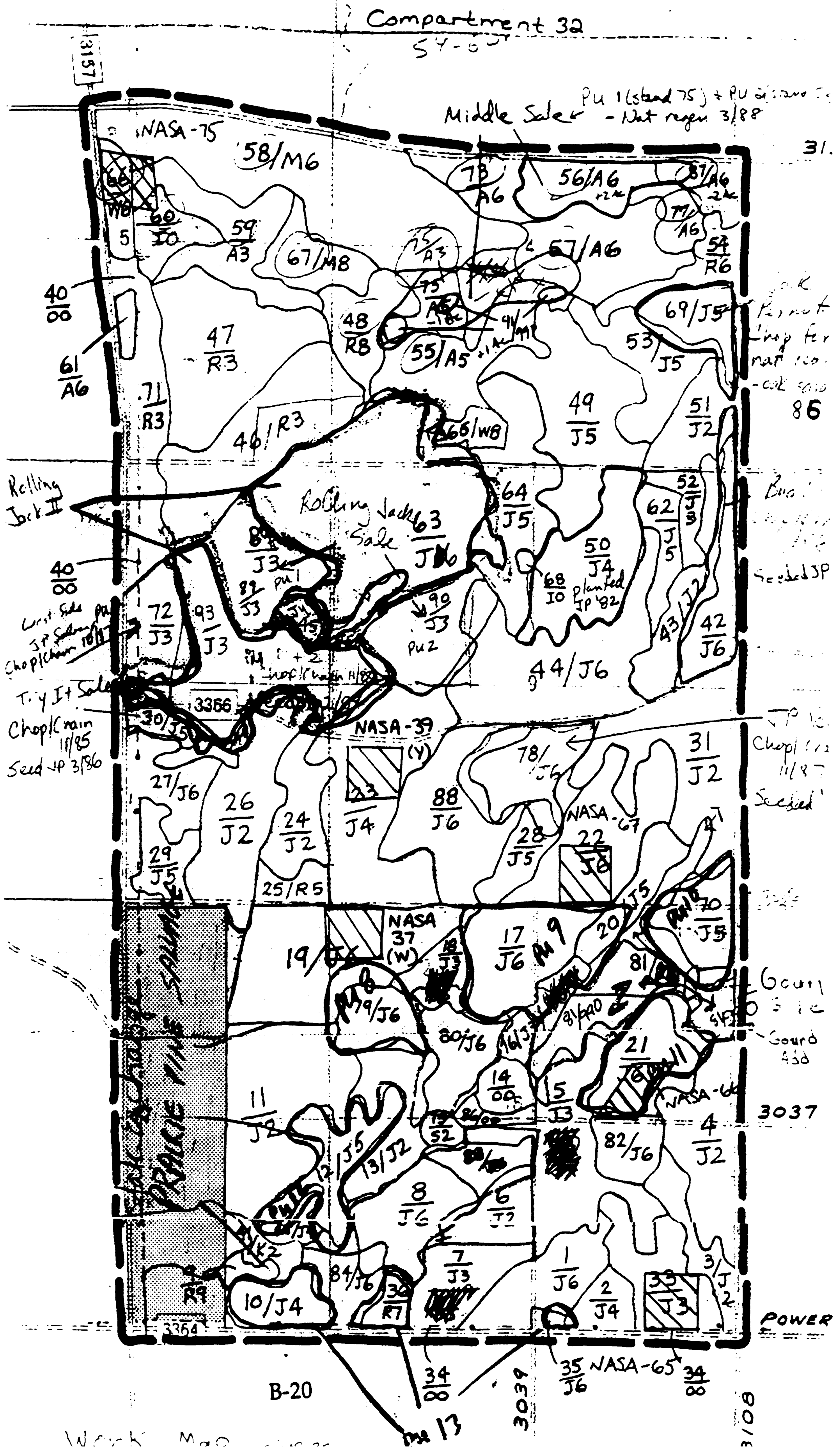
Compartment 23
MA-4.2
SMA-541
OA-BRINLEY GRADE
COMP. BOUNDARY SOUTH SIDE OF FR 3622
FR 3622
FR 3579
FR 3580
3622
VASA-69
18K-17
18K-31


[redacted]
Little Avery L
[redacted]
Cmp. #29
Jack pine
NASA PROJECT 1990
18K-17
NASA-53
12
Roller Chop 6/82
~~Plant JP '83~~
Chop/Chain 11/83
Planted RP '84
Burned '81
NASA 40 (2)
Sand Sct
14
13
Snow Pine II
Chop 10/85
Machine Plant
JP 5/86
18K-15
NASA 24
Raco
Guard Station
Rd #3364

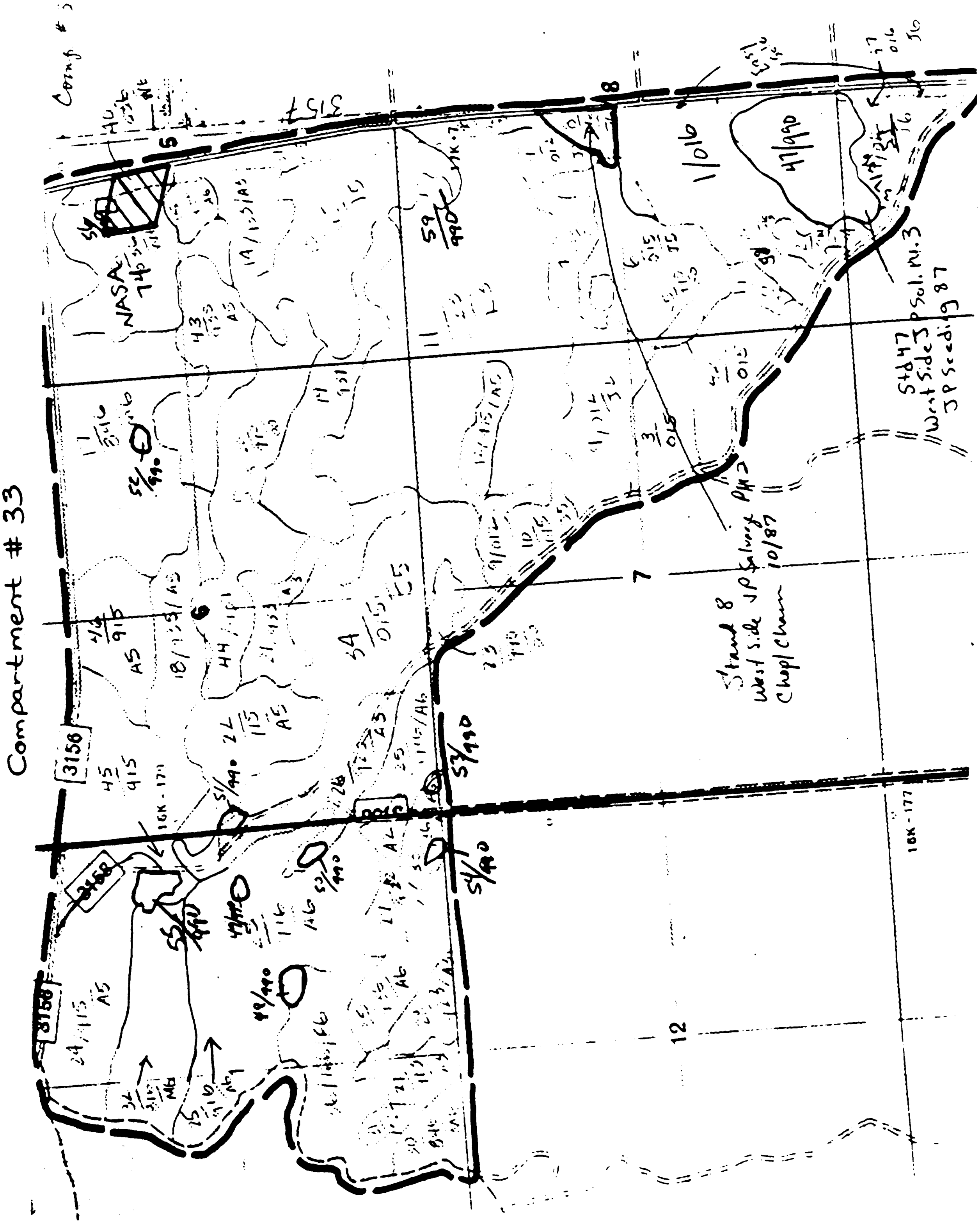

COMPARTMENT 30
Work Map
F.F. FURLONG CD
X - 10/21/92
Little Avery
CHOP/CHAIN 1991
SEEDED SP 1991
STANDS 45, 46, 47, 49
Stand 34 - 3 acres TSI - Area release District crew 1990
Sandy Sale
CHOP/CHAINED/SEEDED 1992
PU1 O 10/2/89 C 12/1/89
PU2 O 3/15/90 C 8/8/90
PU3 O 8/10/90 C 9/13/90
Sand Sale
3366
NASA
Guard S

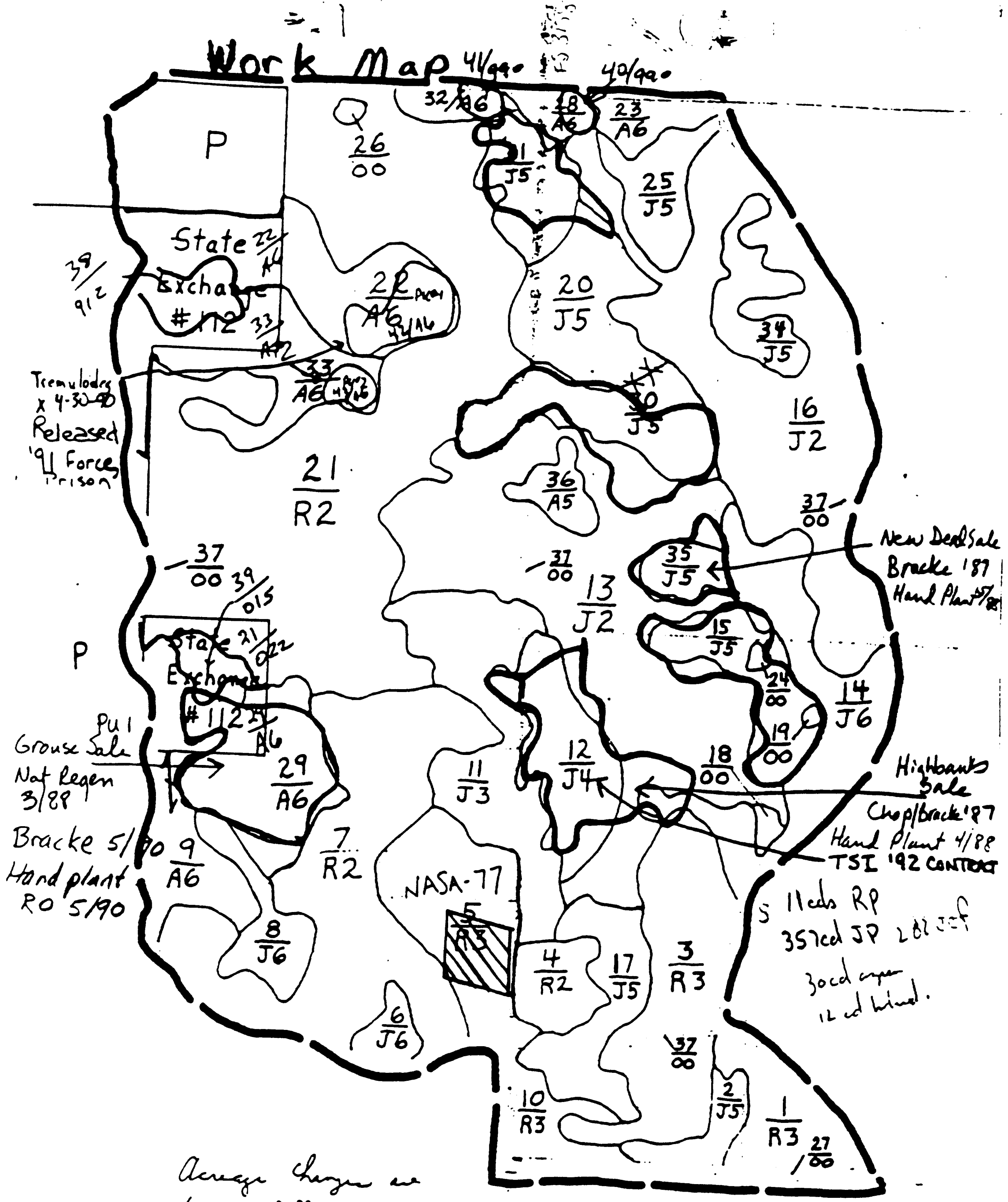

TSI - contract - 1990
3158
SANDBOX
F.P. FURLONG
COMPARTMENT 31
Work Map
NASA PROJECT-1992
(AREA X)
CHOP/CHAIN '91
SEEDED JP 1991
NASA-73
NASA-X
3366
CHOP/CHAIN '91
SEEDED RP 1991 STANDS 35,71
3036
Blueberry Sale
CHOP/CHAIN '91
SEEDED RP 1991 STAND 45
3037
Amendment Sale


NASA-57
3156
SAND BOX
2/029
1/039
5/036
4/936
3/933
6/029
37/933
9/846
10/933
19/013
12/849
16/019
13/913
27/990
25/016
17/016
15/016
14/016
CHOP/CHAIN
SEEDED JP 1991
COMPARTMENT 31
(Continued
Work Map
20/016
NASA 55
53/012
31/933
29/990
32/016
30/013
33/028
51/013
28/015
34/013
63/016
36/013
TSI '92 PRISON
35/016
CHOP/CHAIN '91
SEEDED RP 1991
50/013
2 A
Blueberry Sale
CHOP/CHAIN '91
SEEDED RP 1991 STAND 45
NASA 54
38
37/013
45/016
24/025
NASA 56
46/015
43/015
49/013
42/013
47/013
39/990



Compartment 32
Middle Sale
NASA-75
58/M6
56/A6
47/R3
46/R3
Rolling Jack II
Rolling Jack Sale
44/J6
NASA-39
NASA-67
NASA 37 (W)
25/R5
19
17/J6
21
NASA-64
82/J6
10/J4
3364
3366
3037
3039
3108
3157
POWER
NASA-65
Chop/Chain 11/85
Seed JP 3/86
Tiny It Sale
Prairie Fire Salvage


Compartment # 33
3158
3157
NASA
5
6
7
8
12

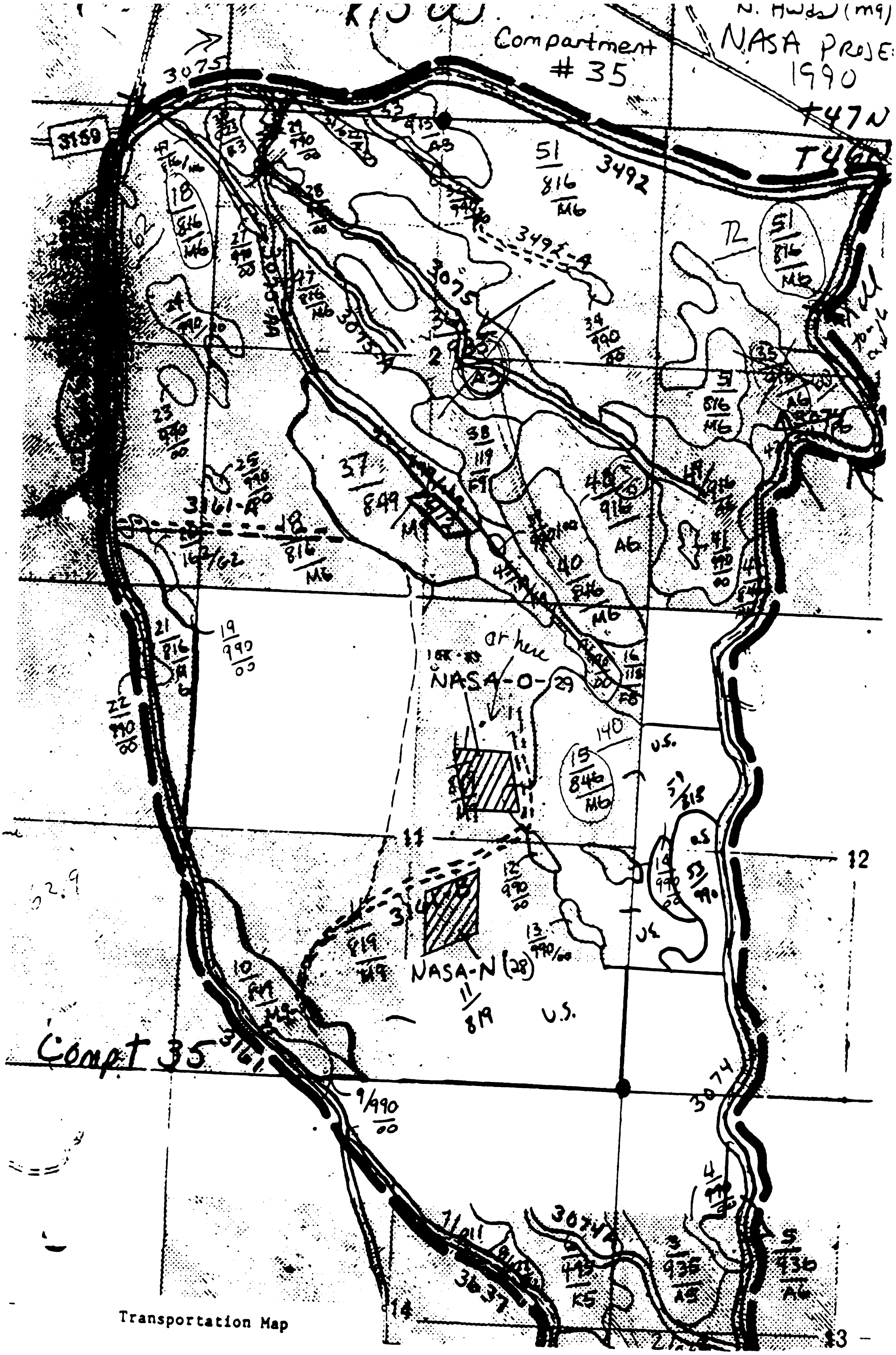


Acreage changes are from Ruff Grouse Aspen data.

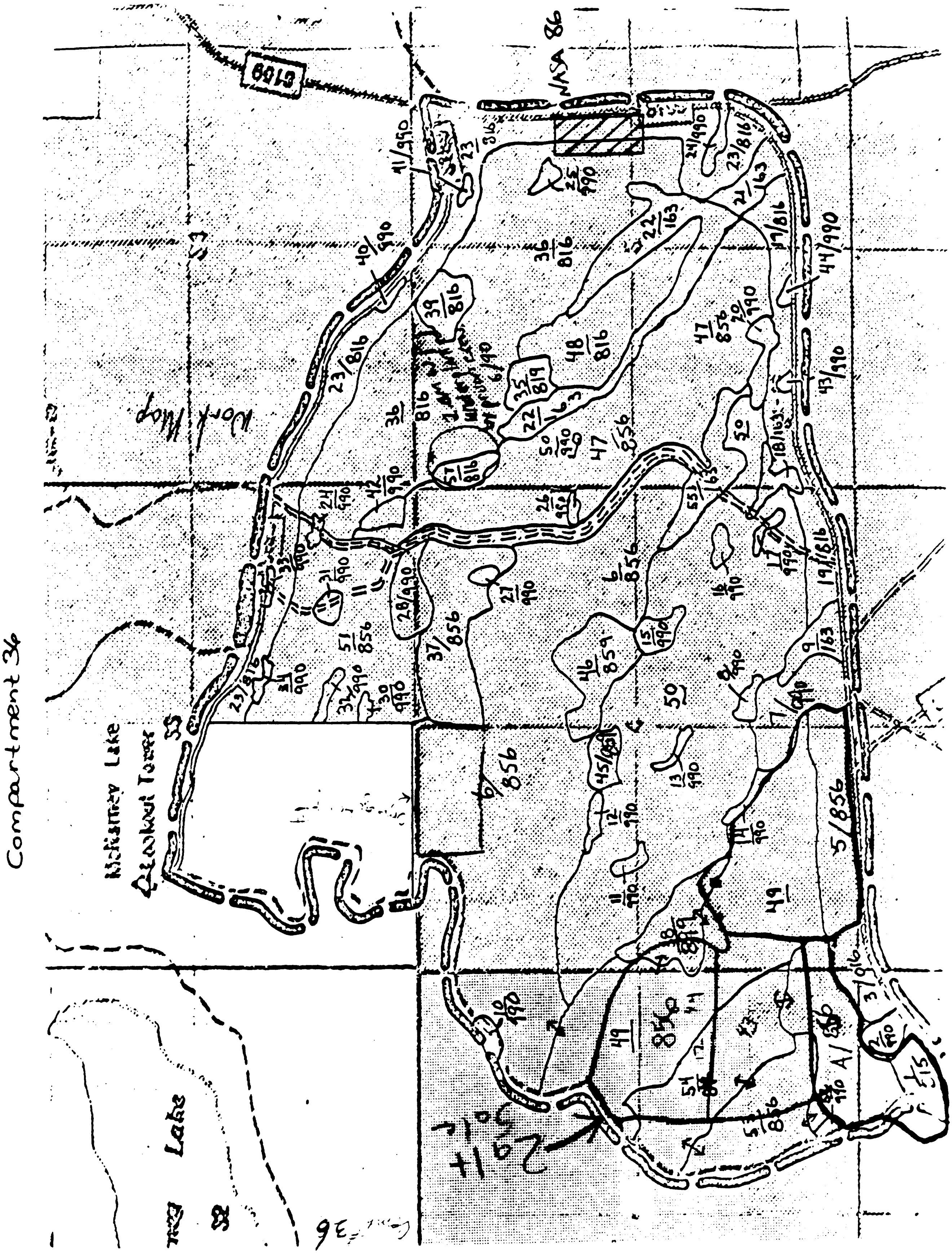
TEK 8/91

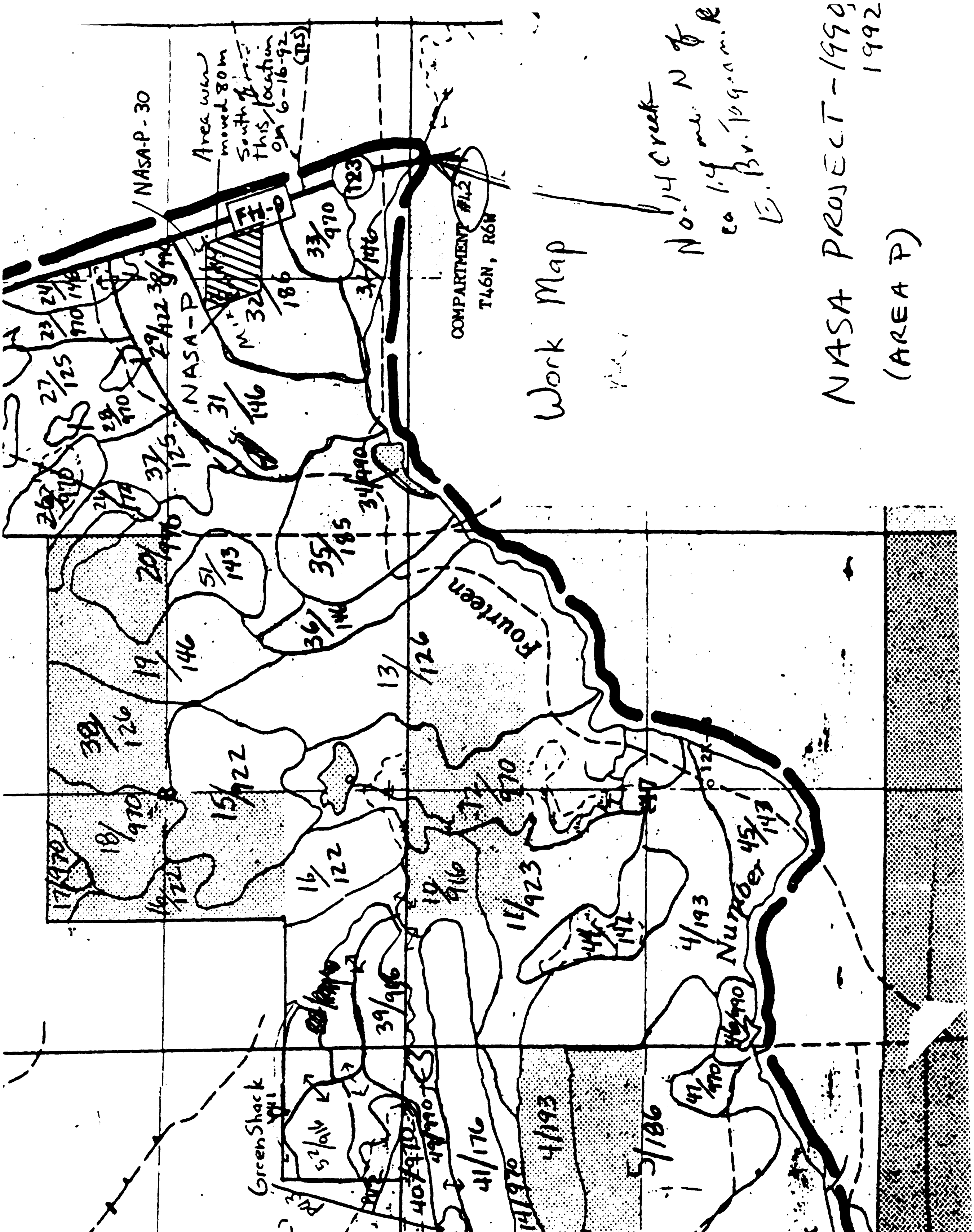
Compartment 34

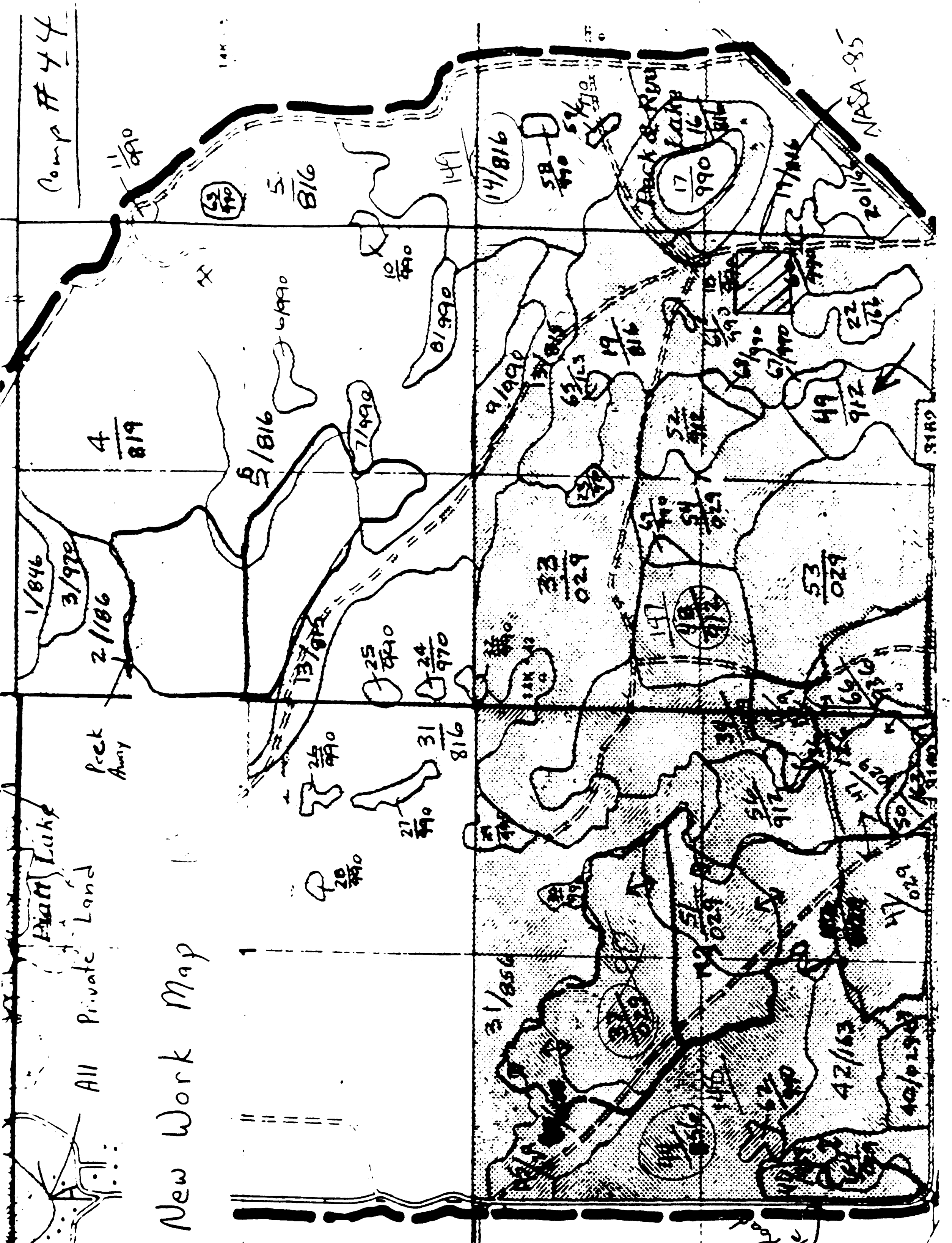
Comp. # 34

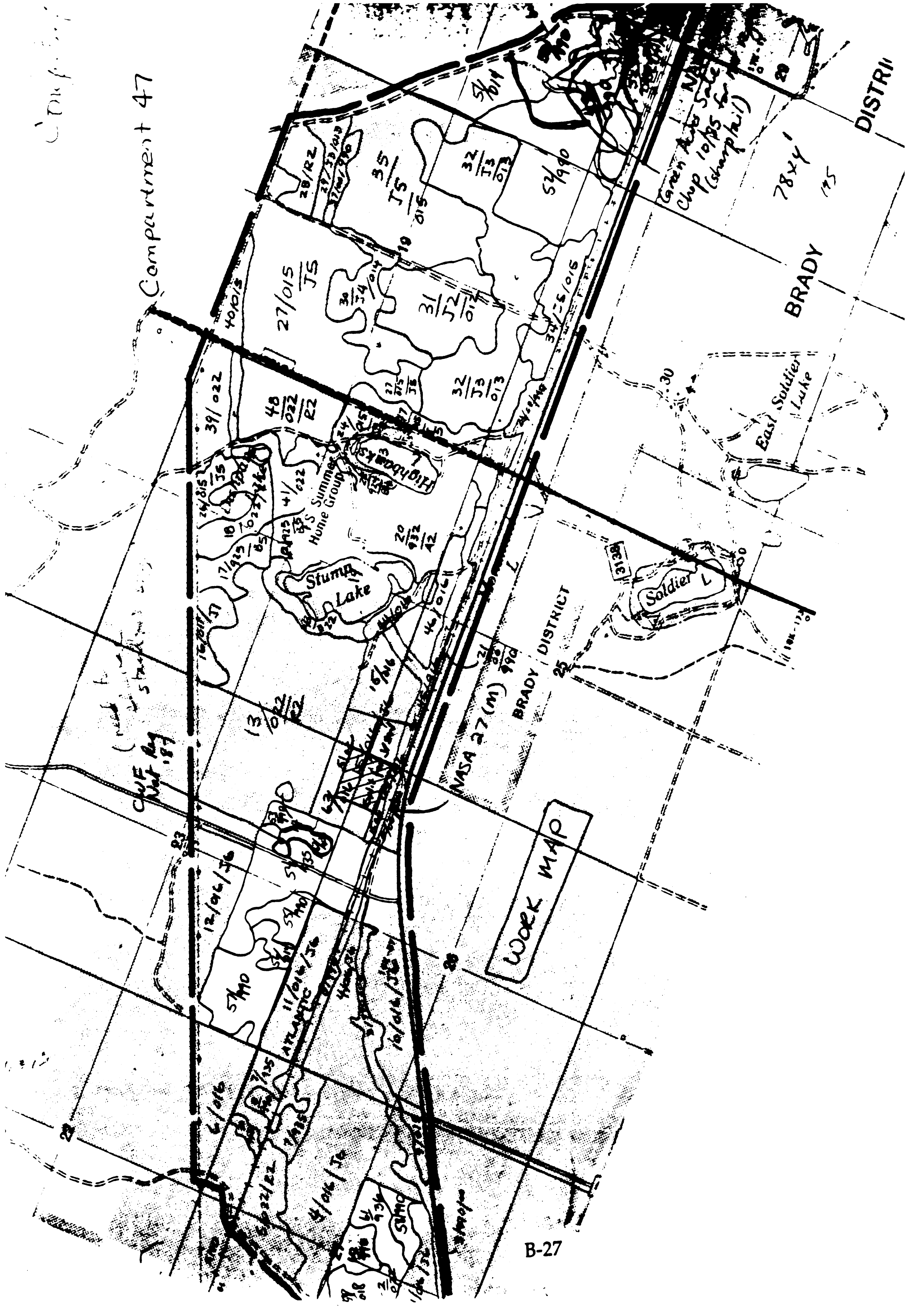


Transportation Map

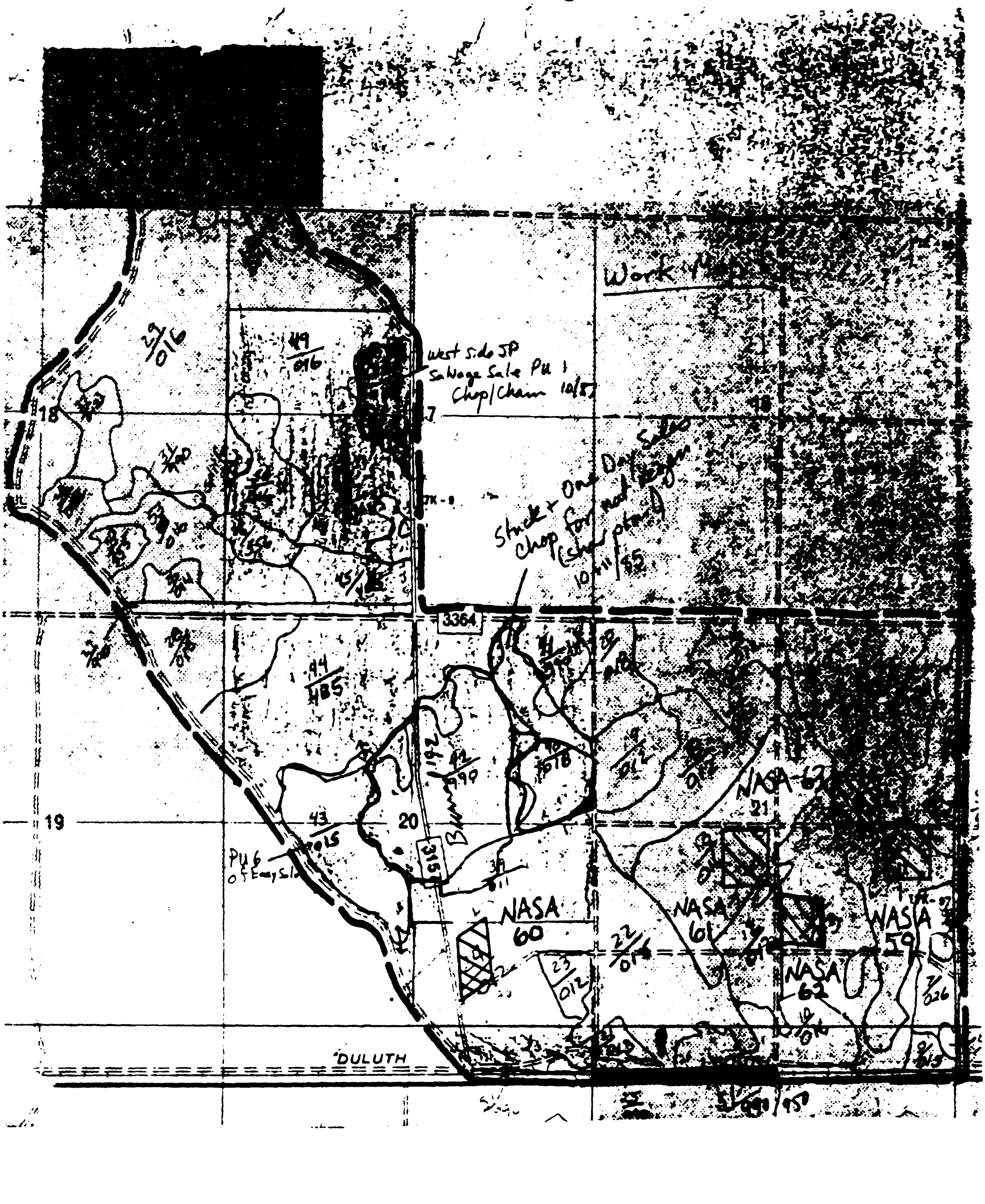

Compartment 36
Work Map
NASA 86
Lake

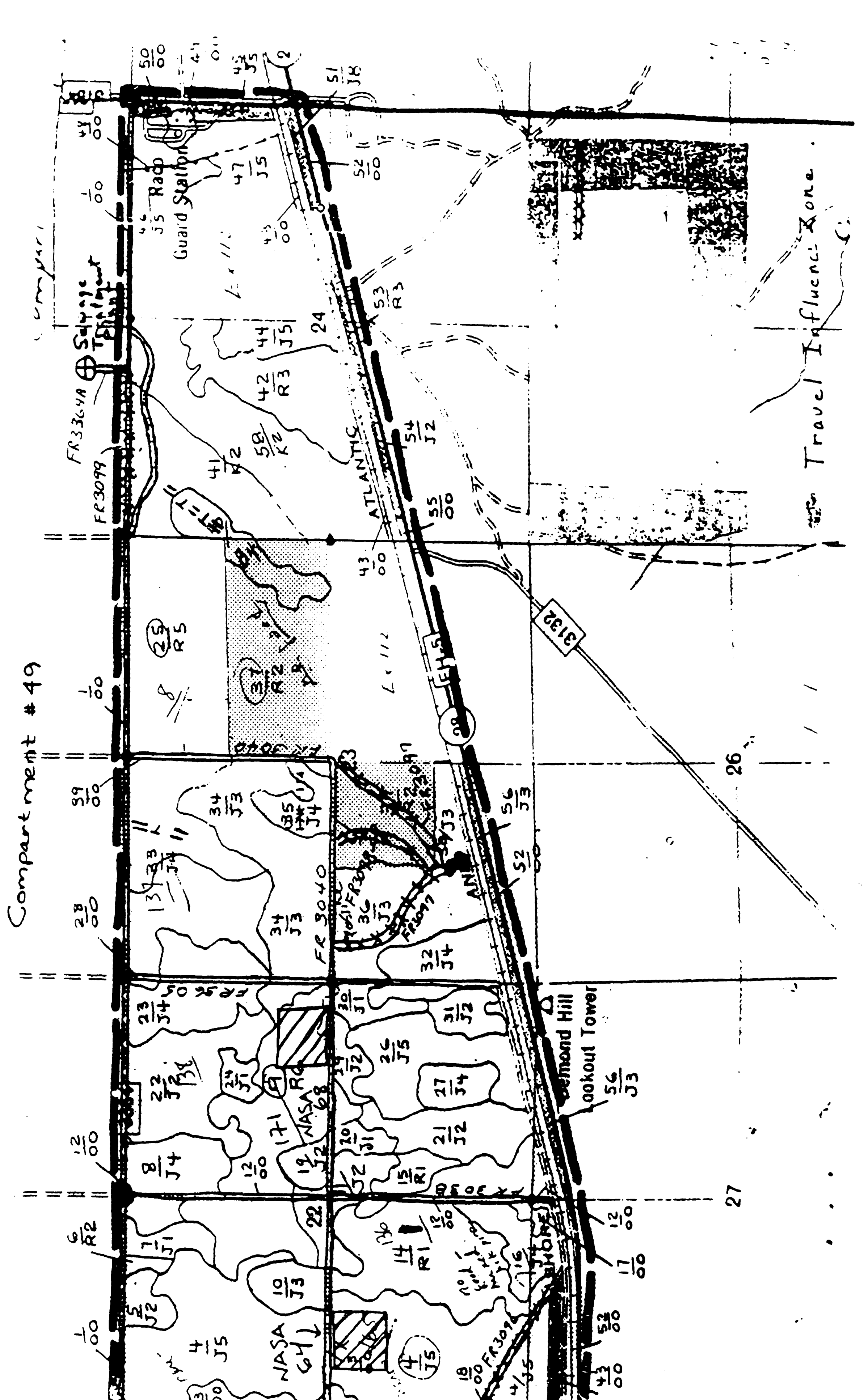

NASA PROJECT-1990, 1992
(AREA P)
Work Map
COMPARTMENT #42
T46N, R6W
NASA-P-30
NASA-P
Fourteen
Number
Creek
Green Shack


Compartment 44
New Work Map
All Private Land
Comp #44
NASA-85
4/819
5/816
14/816
53/029
33/029
42/163
31/856
31/816

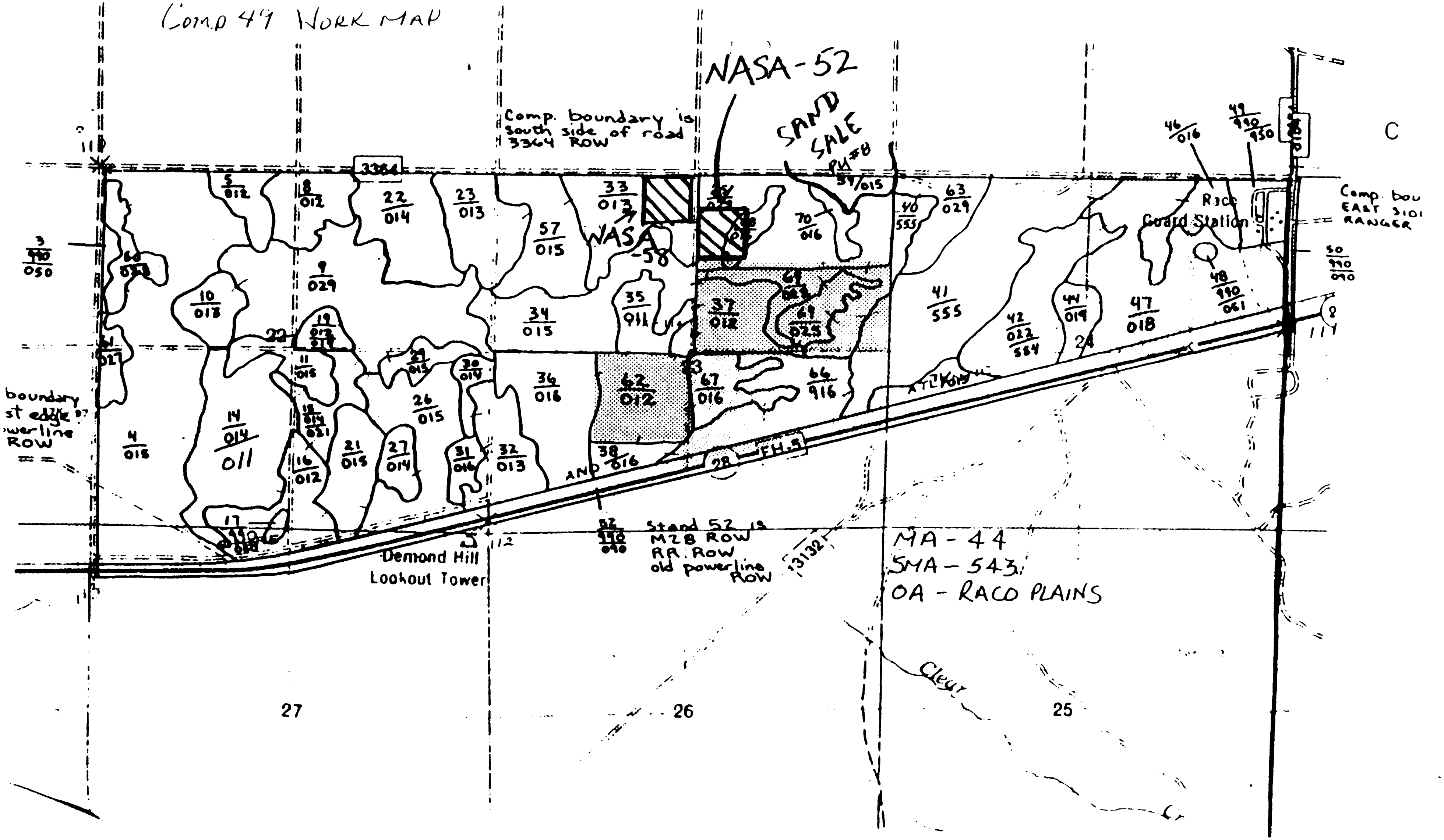

Compartment 47
WORK MAP
BRADY DISTRICT
BRADY
DISTRI
NASA 27 (M)
Stump Lake
Highbanks
FS Summer Home Group
Soldier L
East Soldier Lake
3138

Compartment 48

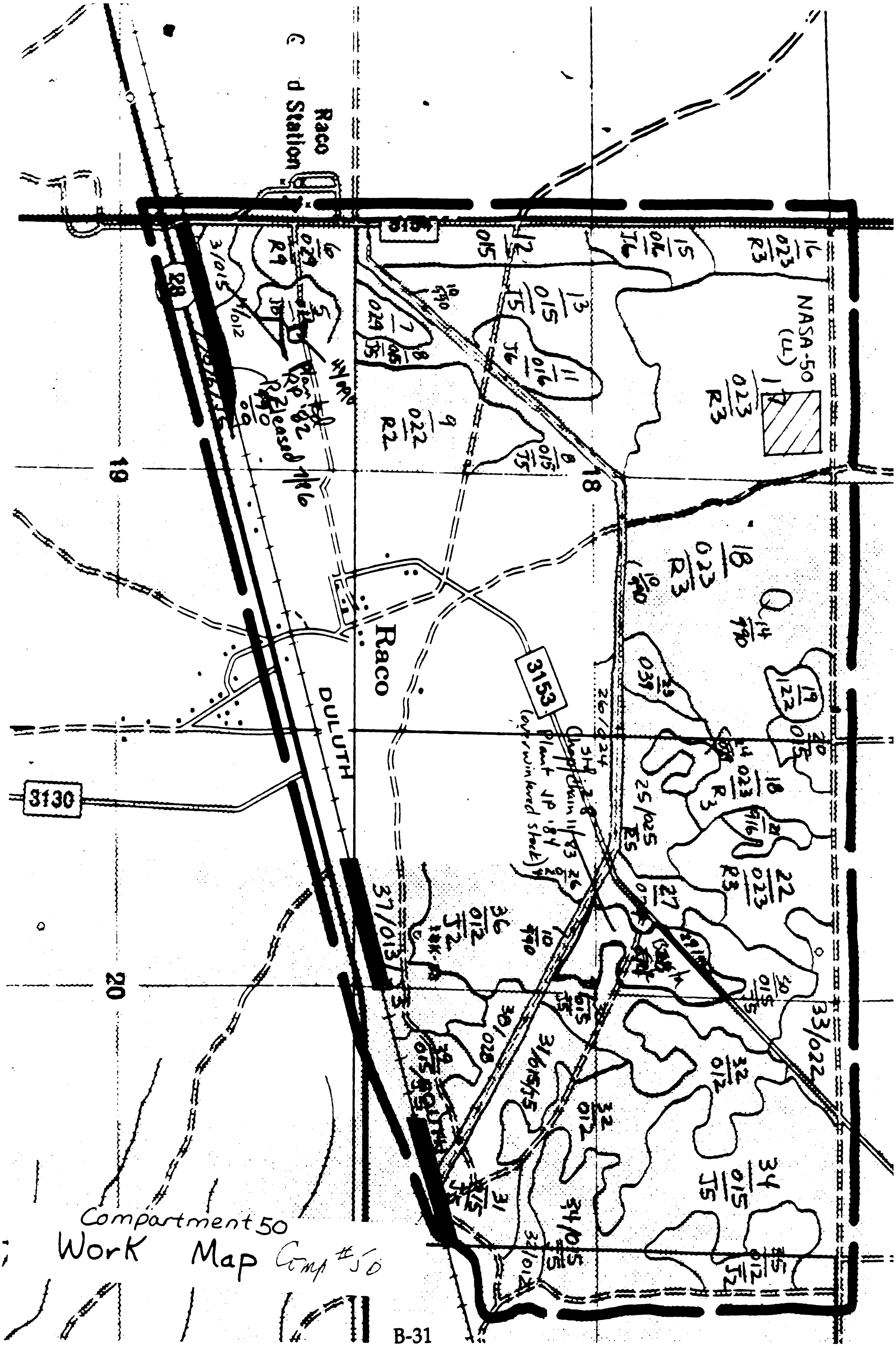



Compartment # 49
Travel Influence Zone
Lookout Tower
Guard Station
ATLANTIC
NASA Rd
26
27
3132
FR 3040

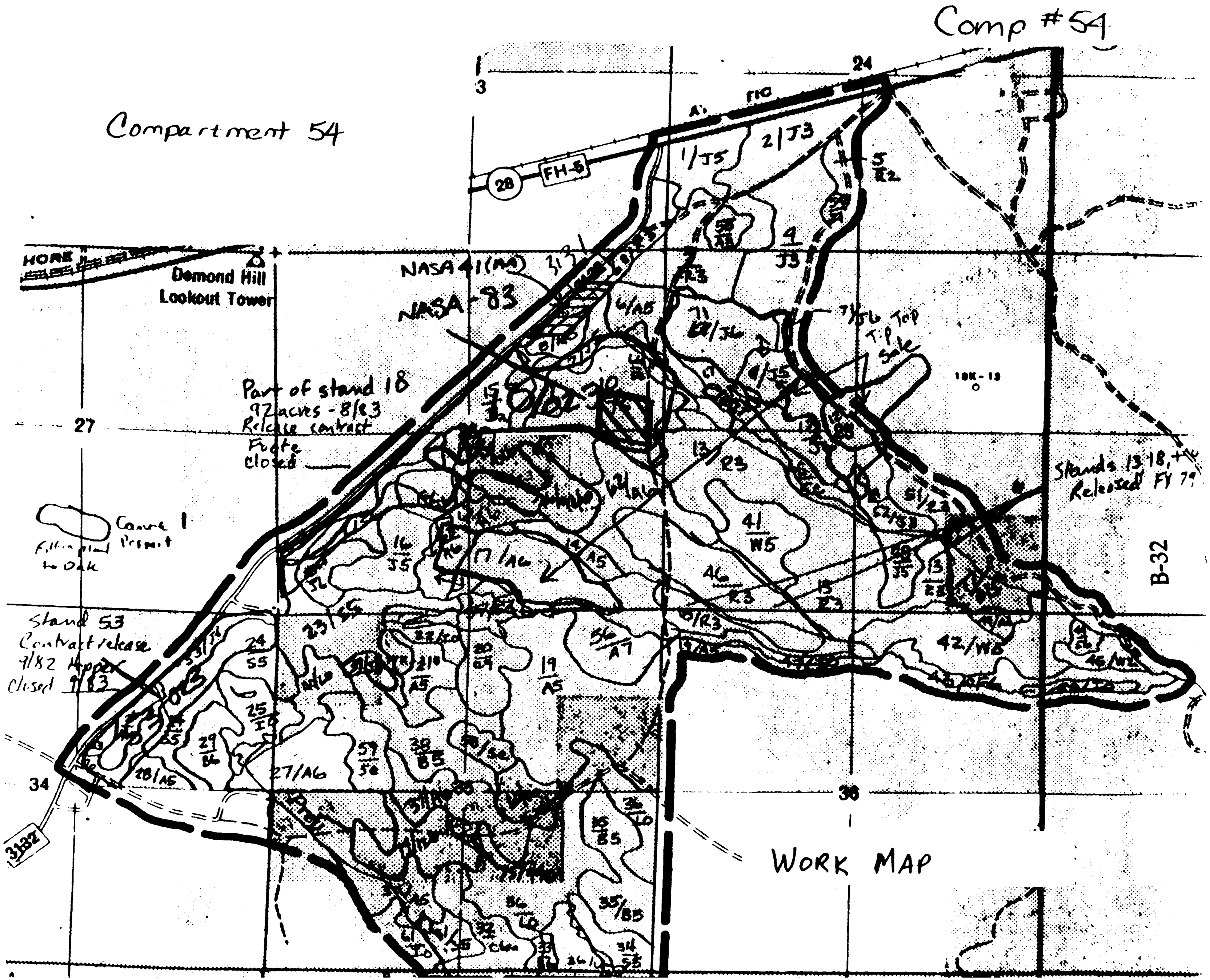
Compartment 49 continued

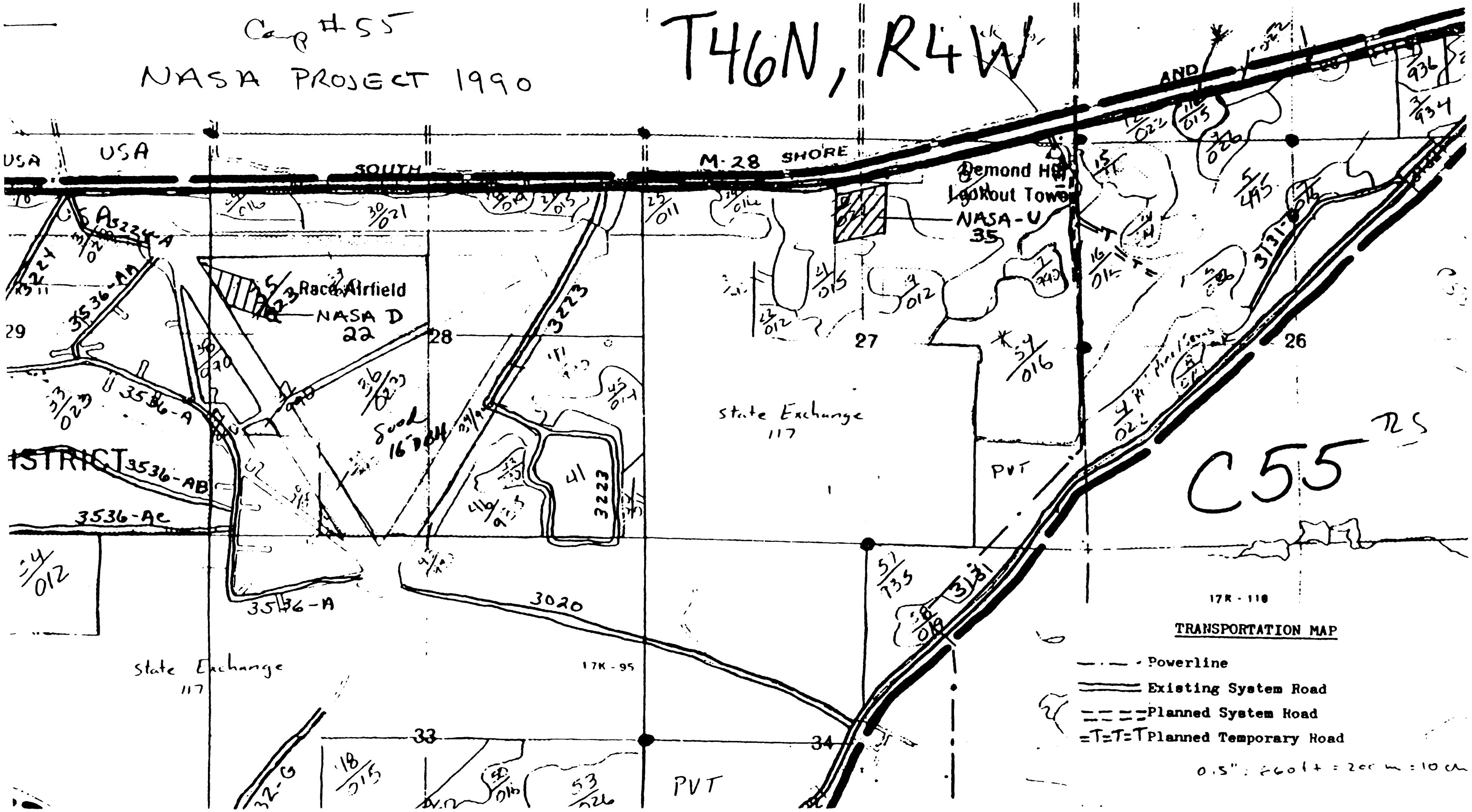


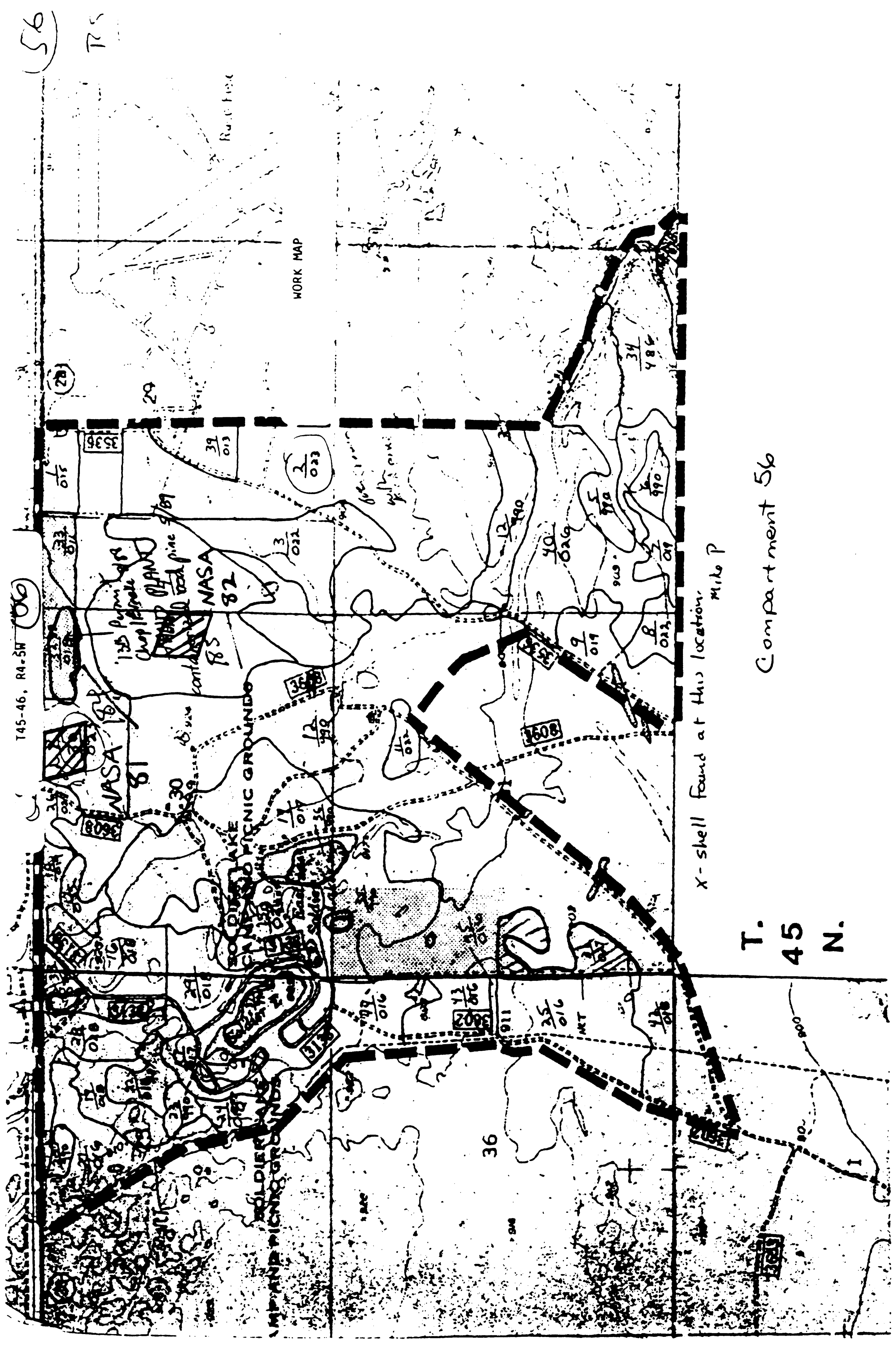
NASA STAND #5.



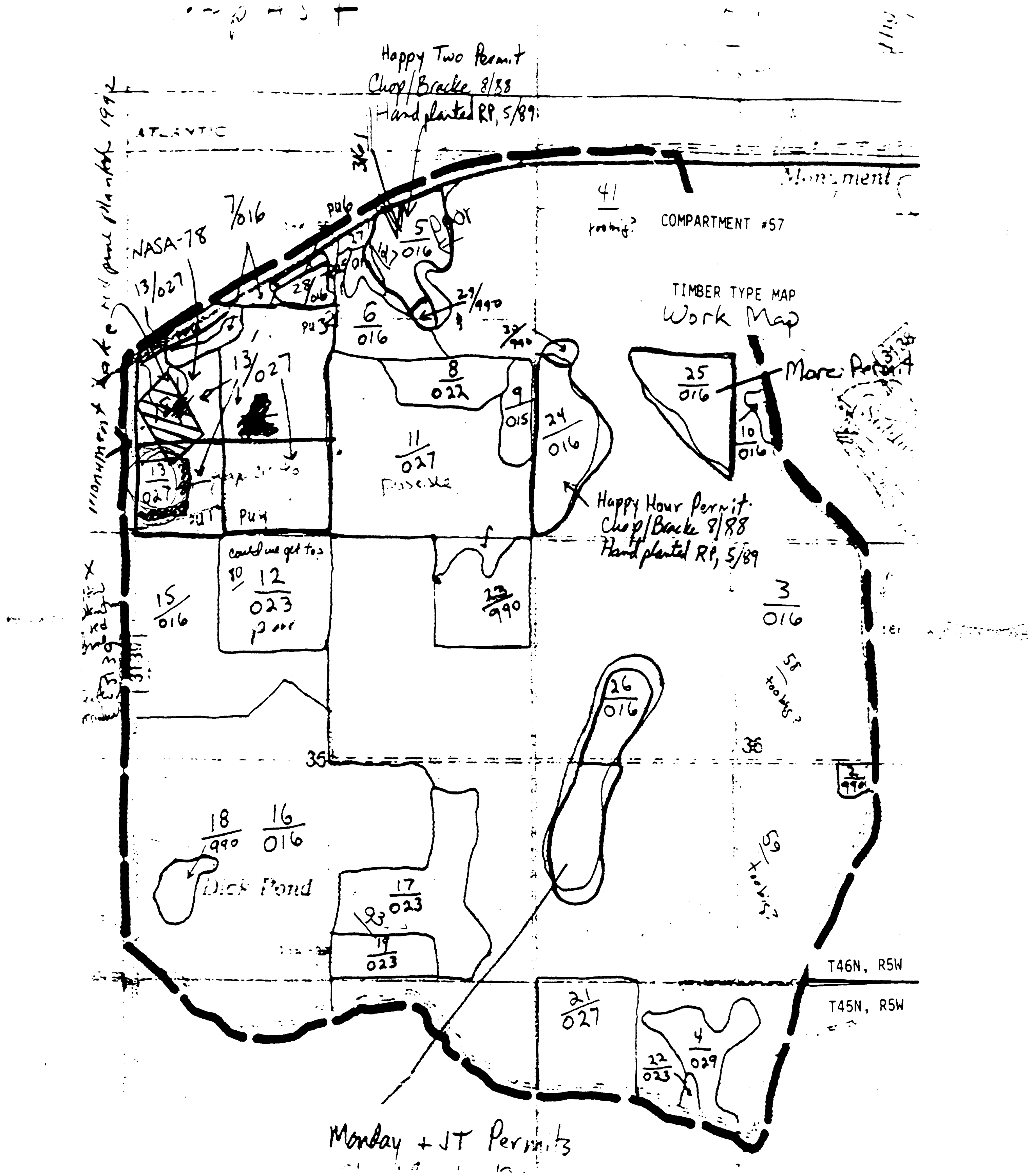
Compartment 50
Work Map Comp #50


Compartment 54
Comp #54
Demond Hill
Lookout Tower
FH-8
28
NASA 41 (MA)
NASA-83
Part of stand 18
92 acres - 8/83
Release contract
Foote
Closed
Canoe 1
Stand 53
Contract release
9/82 Hopper
Closed 9/83
Stands 13, 18, + 46
Released FY 79
WORK MAP
3132
27
34
3
24
36
1/J5
2/J3
4/J3
41/W5
42/W5
17/A6
27/A6
28/A6
14/A5
19/A5
13/23
35/B5

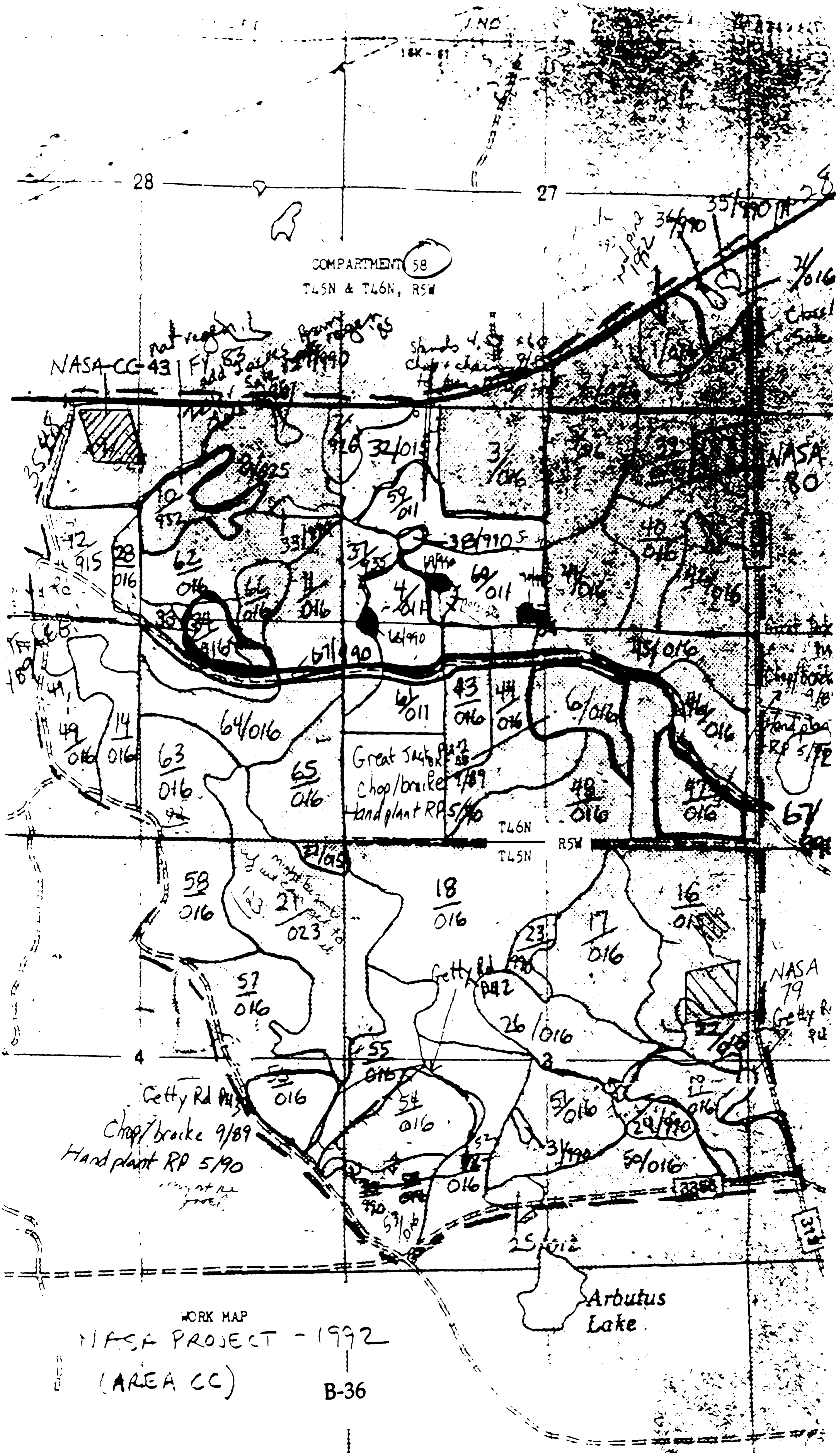

Camp #55
NASA PROJECT 1990
T46N, R4W
USA
SOUTH
M-28
SHORE
AND
Race Airfield
NASA D
22
Demond Hill
Lookout Tower
NASA-U
35
3536-AA
3536-A
3536-AB
3536-AC
3223
3020
3131
state Exchange
117
PVT
C55
28
27
26
29
33
34
17K-95
17K-110
TRANSPORTATION MAP
Powerline
Existing System Road
Planned System Road
Planned Temporary Road


WORK MAP
T45-46, R4-5W
NASA 81
NASA 82
SOLDIER LAKE PICNIC GROUNDS
T. 45 N.
36
X-shell found at this location
Compartment 56

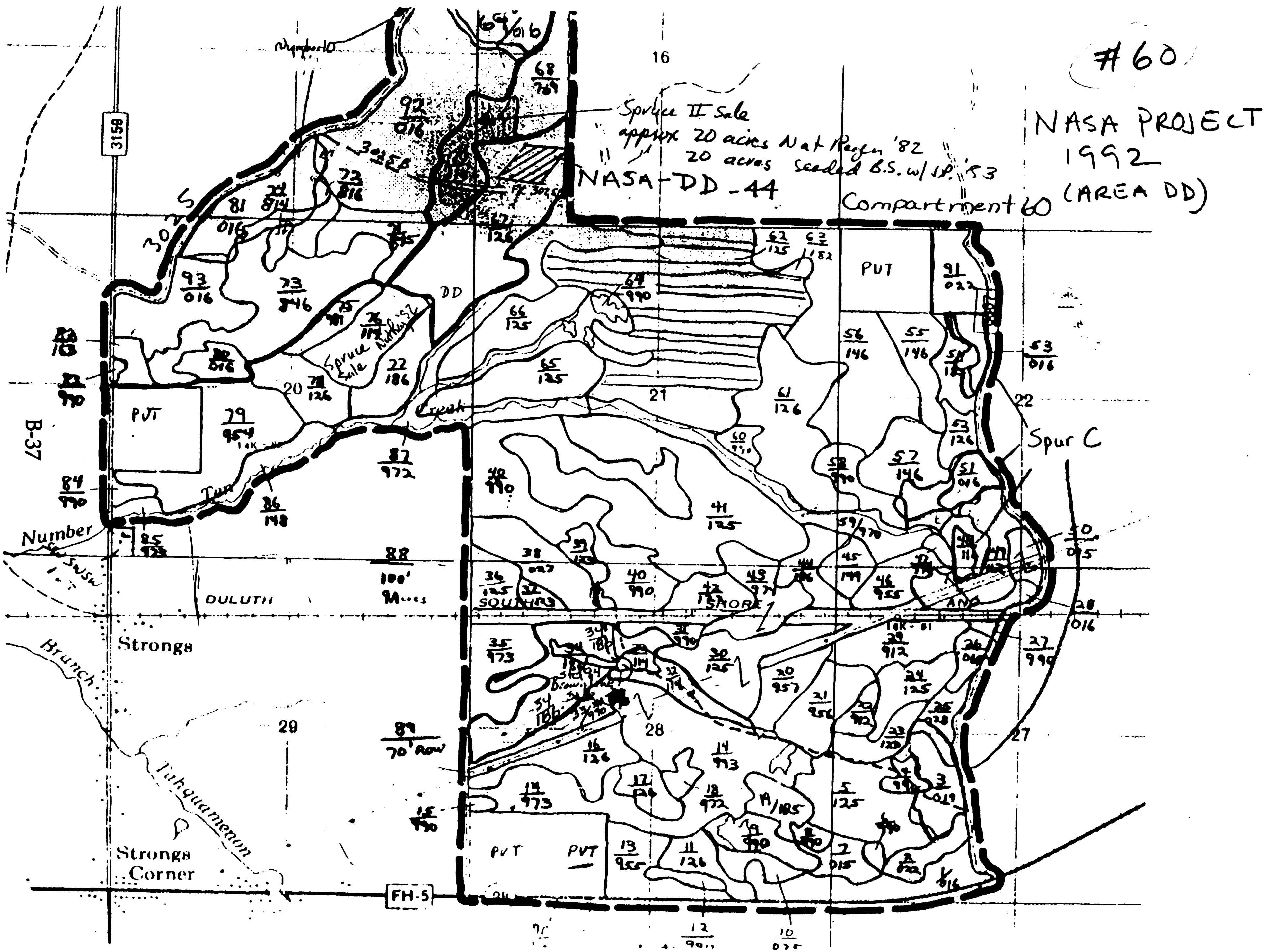
comp 56

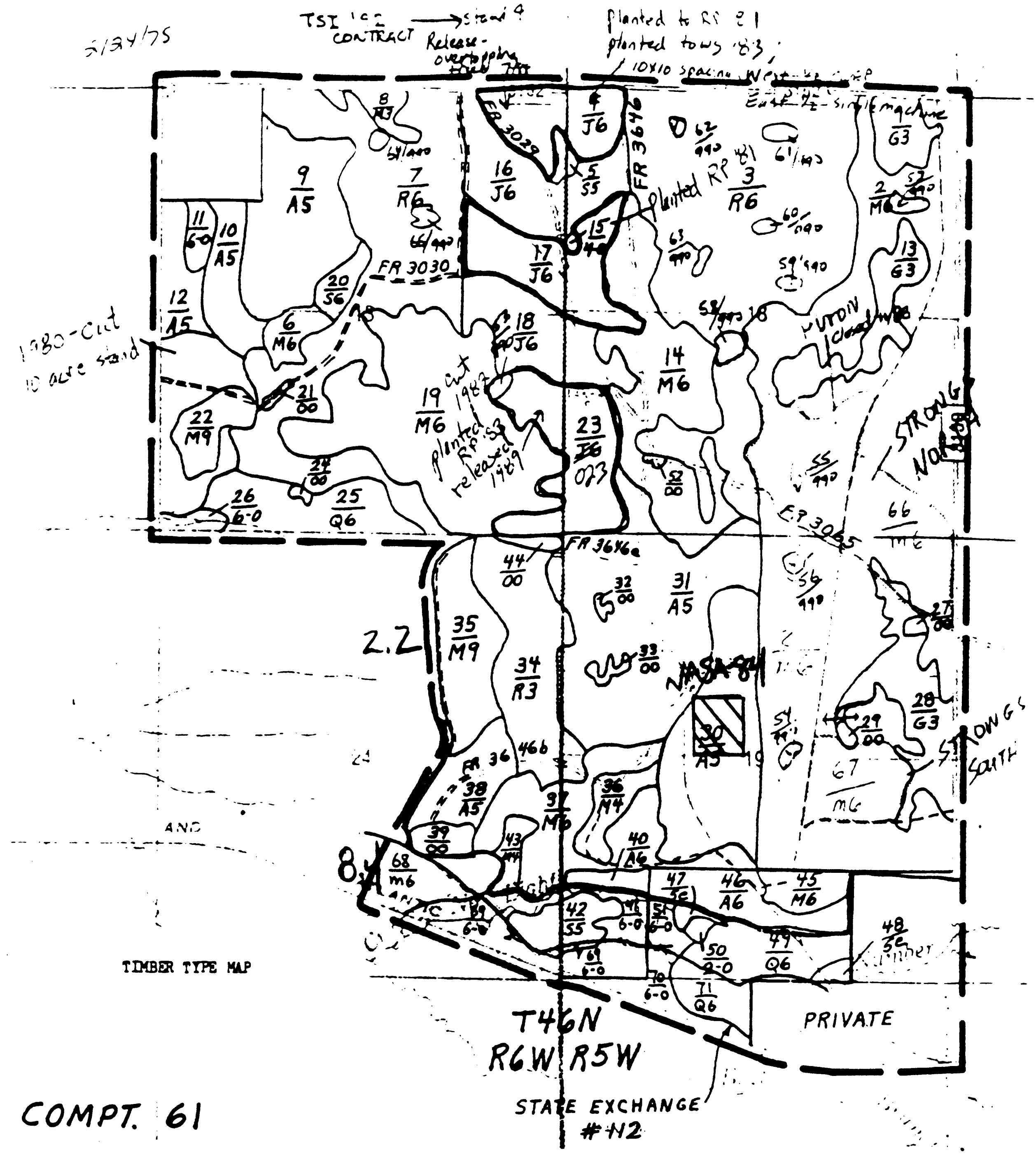


Compartment 57

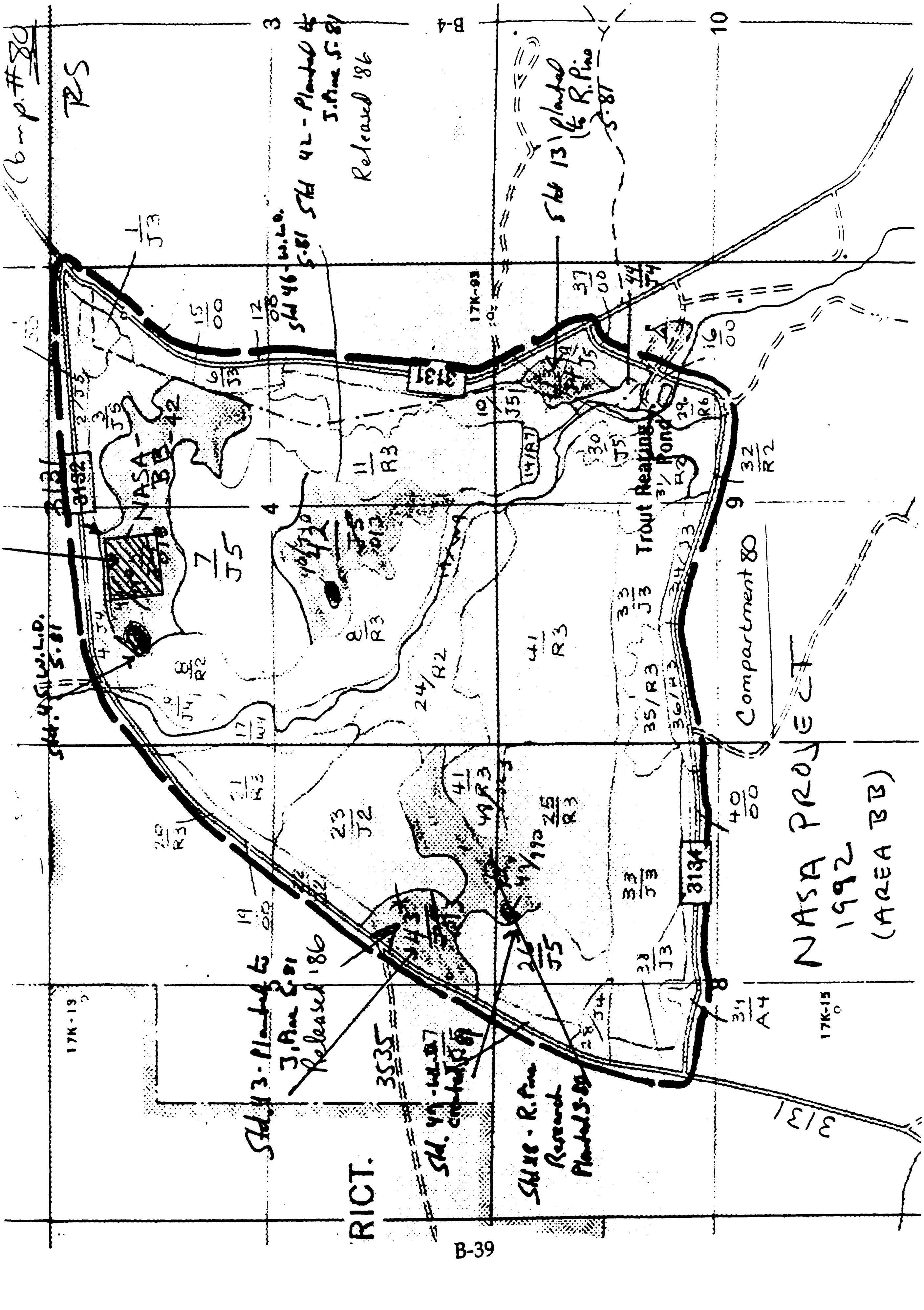


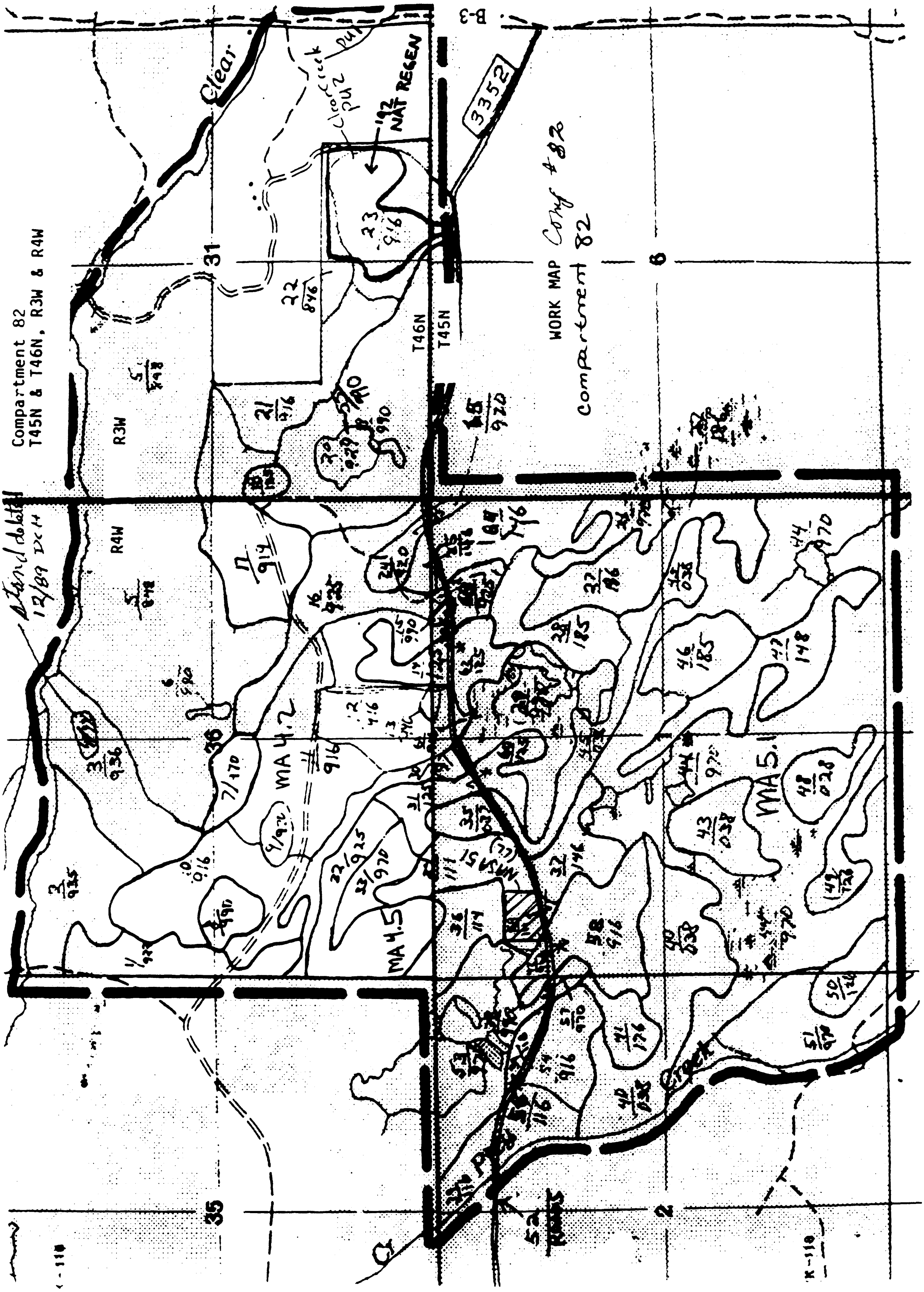
WORK MAP
NASA PROJECT - 1992
(AREA CC)


#60
NASA PROJECT
1992
(AREA DD)
Spruce II Sale
appux 20 acres Nat Regen '82
20 acres Seeded B.S. w/ SP. '83
NASA-DD-44
Compartment 60
Spur C
Spruce Sale
DD
16
21
22
20
27
28
29
PVT
Creek
Number
DULUTH
SOUTH
SHORE
AND
Strongs
Strongs Corner
Branch
Tahquamenon
FH-5
3158


TSI
CONTRACT
Release-overtopping
planted to RP 81
planted tows '83
10x10 spacing West
FR 3029
FR 3646
Planted RP 81
FR 3030
1980-Cut
10 acre stand
19 cut 1982
planted RP 83
released 1989
STRONG NORTH
FR 3065
FR 3646a
2.2
NASA 84
FR 3646b
STRONGS SOUTH
PRIVATE
T46N
R6W R5W
STATE EXCHANGE
#42
TIMBER TYPE MAP

COMPT. 61


Comp. #80
RS
Std 42 - Planted to J. Pine 5-81
Released '86
Std 13 planted to R. Pine 5-81
NASA BB-42
Trout Rearing Pond
Compartment 80
NASA PROJECT
1992
(AREA BB)
3131
3134
3535
RICT.

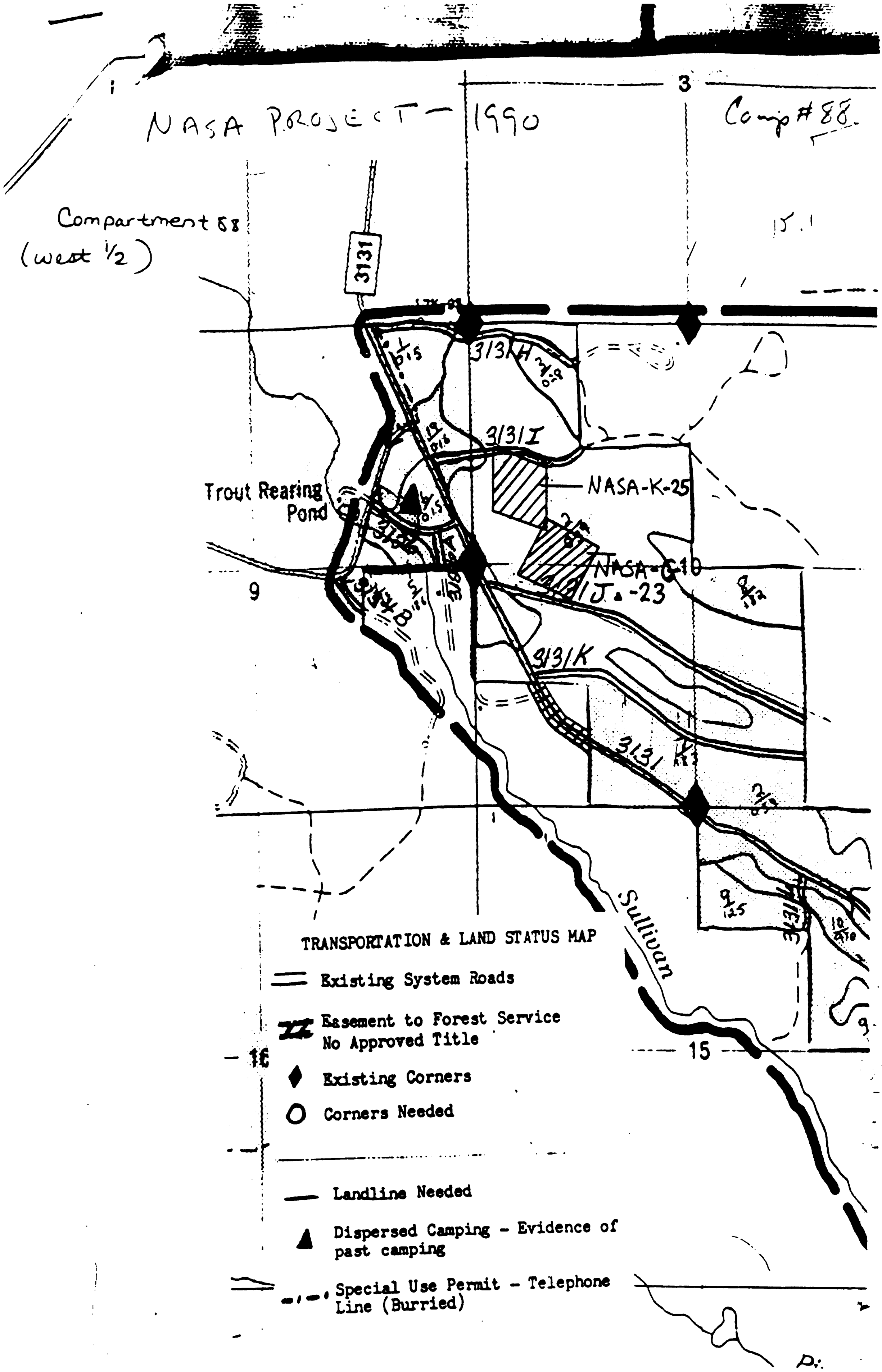


Compartment 82
T45N & T46N, R3W & R4W
WORK MAP
Compartment 82
R3W
R4W
T46N
T45N
31
36
35
6
2
3352
NAT REGEN
Clear
Creek
MA 4.2
MA 4.5
MA 5.1
B-3

NASA PROJECT — 1990

Comp #88

Compartment 88
(west 1/2)



APPENDIX C:
SAS PROGRAMS AND PROCEDURES

No. 1: Program to read in existing variables and cases from .txt format to a SAS data file, and to create new variables

```
libname biofin '~/bio/biofin';
data biofin.all;
   infile '/n/sar/y/kbergen/bio/biofin/allbascat' dlm=',' lrecl=250 missover dsd;
        input stand year plot stratum species $ diam mht bht status type tba uba
        mba td ud md nplots;
logdiam=log(diam);
logdiam2=logdiam**2;
logmht=log(mht);
diam2=diam**2;
invdiam=1/diam;
invba=1/tba;
tba2=tba**2;
diamtba=diam*tba;
logtba=log(tba);
if species = 'betpapx' then status=0;
if species = 'querubx' then status=0;
if species = 'pinband' then status=1;
ba=0.00007854*(diam**2);
if stratum=2 then mba1=ba*(10000/(16*(nplots*2)));
if stratum=1 then uba1=ba*(10000/(100*nplots));
tba1=sum(mba1,uba1);
crat=(mht-bht)/mht;
cdep=mht-bht;
if stratum=2 then stem2=1.0000*(10000/(16*(nplots*2)));
if stratum=1 then stem1=1.0000*(10000/(100*nplots));
stem=sum(stem1,stem2);
if stratum=1 then umht=mht;
if stratum=2 then mmht=mht;
if type=1 then cba=tba1;
if stratum=1 then udiam=diam;
if stratum=2 then mdiam=diam;
run;
```

No. 2: Program to create Stand Structure Statistics by Stratum and Species

```
options linesize=255 pagesize=80;

proc tabulate data=biofin.allsor format=8.2;
where status=1 or status=2;

table species all='stratum total',diam*(mean std n) mht*(mean std n)
cdep*(mean std n)
 tba1*(sum) stem*(sum)*f=6. / printmiss;
class stratum species;
var diam mht cdep tba1 stem;

by stand year stratum;
 run;
```

No. 3: Program to create Diameter and Height Histograms

```
/*-----------------------------------------------------------------*
 | Summary:                                                        |
 |    Creating a simple bar chart using the data set               |
 |    BIO.HTSORTSP and charting the variable                       |
 |    DIAM along the horizontal axis.                              |
 | Generated: 22JUN95 11:21:13                                     |
 *-----------------------------------------------------------------*/

/*-----------------------------------------------------------------*
 | The GOPTIONS statement allows you to have more control over the |
 | final appearance of your output such as fonts, colors, text     |
 | height and so on.  The output device and destination is also    |
 | specified in the goptions statement.                            |
 *-----------------------------------------------------------------*/

filename gsasfile '/p/cmg/bio/diamcht.ps';
goptions reset=(axis, legend, pattern, symbol, title, footnote) norotate
         hpos=0 vpos=0 htext=1.5 ftext=triplex ctext= target= gaccess= gsfmode= ;
goptions device=Xcolor target=APLPLUS ctext=black
         /*device=APLPLUS*/ gaccess=gsasfile
         vsize=4.0 hsize=7.0
         graphrc interpol=join;

/*-----------------------------------------------------------------*
 | PATTERN statements allow you to define colors and patterns in   |
 | the chart, map or plot that you are creating.  SAS/GRAPH uses   |
 | any pattern statements that you specify.  If more are needed,   |
 | default PATTERN statements are used.                            |
 *-----------------------------------------------------------------*/
pattern color=black value=SOLID repeat=71;
/*-----------------------------------------------------------------*
 | AXIS statements allow you to supply information on how your     |
 | vertical and horizontal axes will appear on the graph.          |
 *-----------------------------------------------------------------*/

axis1
   color=black
   width=2.0
   label=(h=1 'STEM DIAMETER (cm)')
   value=(h=.5)
   ;
axis2
   color=black
   width=2.0
   label=(angle=90 h=1 'FREQUENCY')
   value=(h=.7)
   ;
axis3
   color=black
   width=2.0
   ;
```

```
/*---------------------------------------------------------------------*
  | This section produces the actual bar chart and contains           |
  | the options that directly relate to the data and the axis area.   |
  *---------------------------------------------------------------------*/

proc gchart data=BIO.HTSORTSP;
   by SPECIES1;
   vbar DIAM /

      maxis=axis1
      raxis=axis2
      patternid=midpoint
      midpoints=1 to 73 by 2
      type=FREQ
      ;
      label species1='00'x;
     /*where
   species='abibal';*/
run;
```

No. 4: Species Recodes for Height Equation Development

```
libname height '~/bio/height';
data height.spprec;
set height.spstsort;
 where status ne 0;
If species='acepen' then spp1='acerub';

else if species='acespi' then spp1='acerub';
else if (species='coralt' or species='corsto') then spp1='corcor';
else if species='franig' then spp1='fraame';
else if species='ilever' then spp1='slen';
else if (species='ledgro' or species='loncan' or species='lonspp'
  or species='nemmuc') then spp1='slen';
else if species='ostvir' then spp1='amespp';
else if species='pinsyl' then spp1='pinstr';
else if (species='popbal' or species='popdel') then spp1='popgra';
else if (species='pruser' or species='pruvir' or species='pruspp') then
  spp1='prupen';
else if species='queell' then spp1='querub';
else if (species='samcan' or species='sampub' or species='sorame')
 then spp1='slen';
else if species='tilame' then spp1='acerub';
else if species='vibspp' then spp1='vibcas';

else spp1=species;

run;
```

No. 5: Polynomial Stepwise Regression

```
libname biofin '~/bio/biofin';
options linesize=80 pagesize=45;
proc reg data=biofin.spprec;
 by spp1;
model mht=diam diam2 tba tba2 diamtba / selection=stepwise sle=.05 sls=.05
  ss2 tol vif;
output out=biofin.pregstp p=cht;
plot mht*p.;
plot r.*p.;
title 'Stepwise Regressions for Polynomial Model';
run;
```

No. 6: Final Height Variable

```
data biofin.htchoos;
set biofin.pregstp;
if mht ne . then bioht=mht;
else if cht gt 0.5 then bioht=cht;
else bioht=1.0;
run;
```

No. 7: Biomass Program

/* PROGRAM BIOMETRIC*/

/* Program Biometric: This program computes biomass for the forest test stands. It reads the SAS datafile containing data for all of the live trees in all of the stands, sorted by species. The input data file has the following variables needed for this program:

stratum	1=upper, 2=lower
species	6 or 7 letter species code
diam	diameter in centimeters
diam2	diameter squared
bioht	measured height, else calculated height
type	1=conifer, 2=deciduous
stem1	each stratum 1 stem's contribution per ha
stem2	each stratum 2 stem's contribution per ha

This program creates a new data file with the following fields in addition to the ones above:

stem	per stem stem biomass (note dup var name of earlier var)
branch	per stem branch biomass
foliage	per stem foliage biomass
total	per stem total biomass
stotal	per stem summer total
wtotal	per stem winter total
scrown	per stem summer crown
wcrown	per stem winter crown
hstem	per ha stem biomass
hbranch	per ha branch biomass
hfoliage	per ha foliage biomass
hstotal	per ha total biomass
hwtotal	per ha total winter biomass
hscrown	per ha summer crown
hwcrown	per ha winter crown

The program begins here: */

```
libname bio '~/bio';
data bio.bio2;
set bio.htchoos1;    /* this is final output file with bioht */
```

/* Here the program reads the species name for one tree of the inputfile and decides which set of equations to use. It makes the calculations, converting from natural log if necessary. It then converts those numbers to the contribution of that tree's biomass components on a per hectare basis by multiplying them by stem1 or stem2 depending on the stratum */

```
if stratum= 1 then do;

    if species= 'abibal' then do;
      stem=0.005751*(diam**2.082)*(bioht**0.3834)*1.331
             +0.02348*(diam**1.926)*(bioht**0.76)*1.097;
      branch =0.02403*(diam**3.501)*(bioht**-1.2)*0.7111
             +0.001216*(diam**2.306)*6.059;
      foliage =0.03583*(diam**3.12)*(bioht**-1.099)*0.6333;
    end;

    else if species= 'acerub' or species='acesac' or species='acepen'
    or species='acespi' or species= 'tilame' then do;
      stem =0.02102*(diam**2.191)*1.461
      +0.02347*(diam**1.888)*(bioht**0.9912);
      branch=0.1072*(diam**2.841)*(bioht**-1.04)+0.0038*(diam**2.337);
      foliage =0.01913*(diam**1.867)*0.4962;
    end;

    else if species= 'alnrug' then do;
      stem =0.02025*(diam**2.246)*1.271
      +0.02198*(diam**1.865)*(bioht**1.046);
      branch =0.08248*(diam**3.753)*(bioht**-1.847)
      +0.0009194*(diam**2.487)*0.1909;
      foliage =0.07611*(diam**2.763)*(bioht**-1.483);
    end;

    else if species= 'amespp' or species= 'aromel' or species= 'ostvir'
    or species= 'sorame' then do;
      stem= exp(-2.943+0.878*log((diam**2)*bioht));
      branch=exp( -6.128+1.087*log((diam**2)*bioht));
      foliage=exp( -3.648+0.556*log((diam**2)*bioht));
    end;

    else if species= 'betall' then do;
      stem =0.01445*(diam**2.451)+0.05481*(diam**2.619);
      branch =0.01748*(diam**2.55)+0.0009194*(diam**2.487);
      foliage =0.00696*(diam**2.003);
    end;

    else if species= 'betpap' then do;
      stem =0.02198*(diam**2.215)*1.265
      +0.02214*(diam**1.857)*(bioht**1.048);
      branch =0.08908*(diam**3.772)*(bioht**-1.893)
      +0.0008746*(diam**2.496)*0.1971;
      foliage =0.0852*(diam**2.744)*(bioht**-1.51);
    end;
```

```
else if species= 'corcor' then do;
  stem= exp(-3.0782+1.8482*log(diam)+0.8715*log(bioht));
  branch= exp(-2.0235+3.4366*log(diam)-1.643*log(bioht));
  foliage= exp(-4.1049+1.7241*log(diam));
end;

else if species= 'faggra' then do;
  stem=  exp(-2.9936+1.8565*log(diam)+0.8336*log(bioht));
  branch= exp(-3.5982+2.3708*log(diam));
  foliage= exp(-3.7607+1.6303*log(diam));
end;

else if species= 'fraame' or species= 'franig' then do;
  stem= exp(-2.75+2.0199*log(diam)+0.5412*log(bioht));
  branch= exp(-1.3458+3.4031*log(diam)-1.9487*log(bioht));
  foliage= exp(-3.043+2.3071*log(diam)-0.9888*log(bioht));
end;

else if species= 'larlar' or species= 'picmar' then do;
      stem= 0.1183*(diam**2.26);
       branch= (0.0251*(diam**2))+(0.0004*(diam**3.324));
      foliage= 0.061*(diam**1.411);
end;

else if species = 'picgla' then do;
  stem =0.01014*(diam**1.509)*(bioht**0.783)*1.177
  +0.03123*(diam**1.783)*(bioht**0.926)*0.8345;
  branch =.07316*(diam**3.53)*(bioht**-1.784)*0.6615
  +0.03095*(diam**1.002)*(bioht**1.103)*0.6338;
  foliage =0.03064*(diam**2.787)*(bioht**-0.7147);
end;

else if species= 'pinban' or species='pinband' then do;
  stem =0.0157*(diam**1.775)*(bioht**0.3952)*1.294
  +0.01395*(diam**1.709)*(bioht**1.327);
  branch =0.002956*(diam**2.83)
  +0.2391*(diam**2.943)*(bioht**-1.769)*0.3556;
  foliage =0.0008988*(diam**2.903)*1.569;
end;

else if species= 'pinres' then do;
  stem =0.01408*(diam**2.09)
  +0.02137*(diam**1.809)*(bioht**1.037)*0.8823;
  branch =0.03118*(diam**4.098)*(bioht**-2.271)*0.6497
  +0.0005819*(diam**2.714)*4.199;
  foliage =0.0006622*(diam**3.122)*1.313;
end;
```

```
else if species= 'pinstr' or species= 'pinsyl' then do;
  stem=exp(-3.202+1.899*log(diam)+0.724*log(bioht));
  branch=exp(-2.6466+1.7086*log(diam));
  foliage=exp(-2.6925+1.4653*log(diam)) ;
end;

else if species= 'popgra' or species= 'popbal' or species= 'popdel' or
  species= 'salspp' then do;
  stem =0.001*(exp(3.5894+2.6544*log(diam))
  +exp(3.4255+2.2034*log(diam)));
  branch =0.001*(exp(0.5799+2.9459*log(diam))
  +exp(-0.4643+2.938*log(diam)));
  foliage =0.001*(exp(1.2846+2.1483*log(diam))
  +exp(-1.6095+2.3834*log(diam)));
end;

else if species= 'poptre' then do;
  stem =0.001*(exp(3.5894+2.6544*log(diam))+exp(3.4255
  +2.2034*log(diam)));
  branch =0.001*(exp(0.5799+2.9459*log(diam))
  +exp(-0.4643+2.938*log(diam)));
  foliage =0.001*(exp(1.2846+2.1483*log(diam))
  +exp(-1.6095+2.3834*log(diam)));
end;

else if species= 'pruser' or species= 'prupen' or species= 'pruvir' or species=
  'pruspp' then do;
  stem= exp(-2.943+0.878*log((diam**2)*bioht));
  branch=exp( -6.128+1.087*log((diam**2)*bioht));
  foliage=exp( -3.648+0.556*log((diam**2)*bioht));
end;

else if species= 'querub' or species= 'queell' then do;
  stem =0.004408*(diam**2.047)*(bioht**0.8264)
  +0.02635*(diam**1.88)*(bioht**0.979);
  branch =0.01684*(diam**2.514)+0.000478*(diam**3.125);
  foliage =0.04801*(diam**1.455);
end;

else if species= 'thuocc' then do;
  stem =0.009025*(diam**1.896)*(bioht**0.39)
  +0.04475*(diam**1.851)*(bioht**0.5099);
  branch =0.006964*(diam**2.599)+0.03812*(diam**1.472);
  foliage =0.01001*(diam**2.303);
end;
```

```
    else if species= 'tsucan' then do;
      stem= exp(-3.0535+1.8174*log(diam)+0.7576*log(bioht));
      branch= exp(-2.1353+2.9165*log(diam)-1.4459*log(bioht));
      foliage=exp(-2.5014+2.5251*log(diam)-1.2168*log(bioht));
    end;

end;

else if stratum= 2 then do;

    if species= 'abibal' or species= 'larlar' or species= 'picgla'
       or species= 'picmar' or species= 'pinban' or species= 'pinres' or species=
      'pinstr'   or species= 'pinsyl' or species= 'thuocc' or species= 'tsucan' or s
      species='pinband' then do;
      stem =0.08088*((10*diam)**2.662)/1000;
      foliage =0.1193*((10*diam)**2.23)/1000;
    end;

    else if species= 'acerub' or species= 'acesac' or species= 'acepen'
      or species= 'acespi' or species= 'tilame' then do;
      stem =0.06242*((10*diam)**2.486)*(5**0.3991)/1000;
      foliage =0.09901*((10*diam)**2.113)/1000;
    end;

    else if species= 'alnrug' or species= 'betall' then do;
      stem =0.0298*((10*diam)**2.666)*(5**0.4243)/1000;
      foliage =0.08227*((10*diam)**2.058)/1000;
    end;

    else if species= 'amespp' or species= 'aromel' or species= 'ostvir'
      or species= 'sorame' then do;
      stem =0.163*((10*diam)**2.494)/1000;
      foliage =0.107*((10*diam)**1.925)/1000;
    end;

    else if species= 'betpap' then do;
      stem =0.02373*((10*diam)**2.687)*(5**0.4838)/1000;
      foliage =0.06132*((10*diam)**2.174)/1000;
    end;

    else if species= 'corcor' then do;
      stem =0.04544*((10*diam)**2.848)*(5**0.1594)/1000;
      foliage =0.07188*((10*diam)**2.244)/1000;
    end;
```

```
else if species= 'corsto' or species= 'coralt' or species= 'ilever'
  or species= 'nemmuc' or species= 'faggra' then do;
  stem =0.05237*((10*diam)**2.663)*(5**0.2258)/1000;
  foliage =0.1615*((10*diam)**1.985)*(5**-0.1682)/1000;
end;

else if species= 'fraame' or species= 'franig' then do;
  stem =0.05041*((10*diam)**2.545)*(5**0.34)/1000;
  foliage =0.07334*((10*diam)**2.088)/1000;
end;

else if species= 'lonspp' or species= 'loncan' or species= 'ledgro'
  or species= 'samcan' or species= 'sampub' or species= 'vibcas' or
  species= 'vibspp' then do;
  stem =0.115*(diam**2.749);
  foliage =0.1176*(diam**1.891);
end;

else if species= 'popgra' or species= 'popbal' or species= 'popdel' then do;
  stem =0.1671*((10*diam)**2.329)/1000;
  foliage =0.2266*((10*diam)**2.068)*(3**-0.5506)/1000;
end;

else if species= 'poptre' then do;
  stem =0.07789*((10*diam)**2.563)*(3**0.1107)/1000;
  foliage =0.08338*((10*diam)**2.248)*(3**-0.4375)/1000;
end;

else if species= 'pruser' or species= 'prupen' or species= 'pruvir' or species=
  'pruspp' then do;
  stem =0.1263*((10*diam)**2.496)/1000;
  foliage =0.03475*((10*diam)**2.512)/1000;
end;

else if species= 'querub' or species= 'queell' then do;
  stem =0.06487*((10*diam)**2.836)/1000;
  foliage =0.1018*((10*diam)**2.152)/1000;
end;

else if species= 'salspp' then do;
  stem =0.04262*((10*diam)**2.705)*(5**0.2872)/1000;
  foliage =0.07912*((10*diam)**2.14)/1000;
end;

end;
```

```
/* here several partials or totals per tree are calculated */

stotal=sum(stem,branch,foliage);

if type=1 then wtotal=stotal;
else if type=2 then wtotal=sum(stem,branch);

scrown=branch+foliage;

if type=1 then wcrown=branch+foliage;
else if type=2 then wcrown=branch;


/* here stem, branch, and foliage are converted to their per hectare basis */

 if stratum = 1 then do;
     hstem=stem*stem1;
     hbranch=branch*stem1;
     hfoliage=foliage*stem1;
     hstotal=stotal*stem1;
     hwtotal=wtotal*stem1;
     hscrown=scrown*stem1;
     hwcrown=wcrown*stem1;
 end;

 else if stratum = 2 then do;
     hstem=stem*stem2;
     hbranch=branch*stem2;
     hfoliage=foliage*stem2;
     hstotal=stotal*stem2;
     hwtotal=wtotal*stem1;
     hscrown=scrown*stem1;
     hwcrown=wcrown*stem1;

 end;

run;
```

No. 4: Programs to create multiple height and diameter histograms, two per page

```
/* Here SAS catalogs for the histograms, the template, and the colormap are
created: */

proc greplay
  igout=biofin.gseg
  tc=biofin.temcat
  cc=biofin.colmap
  cmap=color
  template=twotem;
run;

/* Here the colormap is created: */

proc greplay cc=biofin.colmap nofs;
cdef color
1 / black : black
2 / white : white;
cmap color;
list cmap;
run;


/* Here the template is created: */

proc greplay tc=biofin.temcat nofs;

tdef twotem
/*defining first panel*/
1/llx=0 lly=0
  ulx=0 uly=50
  urx=100 ury=50
  lrx=100 lry=0
  color=white
/*defining second panel*/
2/llx=0 lly=50
  ulx=0 uly=100
  urx=100 ury=100
  lrx=100 lry=50
  color=white;
template twotem;
run;
quit;
```

```
/* Here an output page is created: */

filename gsasfile '/y/kbergen/bio/biofin/output/g22.ps';
goptions target=APLPLUS device=APLPLUS
vsize=10 hsize=7.5 ctext=black;
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end;
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APPENDIX D:
STAND SUMMARY STATISTICS

Stand	Year Measured	Dominant Species	Structural Type	Level 1 Category	Level 2 Category	Level 3 Category	UPPER STRATUM DRY BIOMASS (kg/ha)						
							Summer Total	Winter Total	Trunk	Crown summer	Crown winter	Branch	Foliage
22	1991	red pine	excurrent	tall	upcon	pinres	45620	45620	27740	17880	17880	13789	4091
23	1991	red pine	excurrent	tall	upcon	pinres	176946	176701	136779	40167	39923	23628	16539
24	1991	jack pine	excurrent	tall	upcon	pinban	70656	70523	51453	19203	19070	13654	5549
25	1991	red pine	excurrent	tall	upcon	pinres	147095	146938	110070	37024	36868	21913	15111
26	1991	black spruce	excurrent	tall	lowcon	picmar	62899	62826	51218	11681	11608	8953	2728
27	1991	jack pine	excurrent	tall	upcon	pinban	89531	89459	70200	19331	19259	13773	5558
28	1991	beech	decurrent	tall	decid	nharwd	250591	247911	199144	51447	48767	47884	3562
29	1991	red maple	decurrent	tall	decid	nharwd	214760	212221	170777	43984	41444	40973	3011
31	1991	red maple	decurrent	tall	decid	nharwd	140535	138278	112264	28271	26014	26014	2257
32	1991	N. white-cedar	excurrent	tall	lowcon	thuocc	162453	162356	103187	59266	59169	40609	18657
33	1991	trembling aspen	decurrent	tall	decid	popspp	36115	34580	31105	5011	3476	3476	1535
34	1991	red maple	decurrent	tall	decid	nharwd	145947	143612	120441	25506	23171	23108	2398
35	1991	jack pine	excurrent	tall	upcon	pinban	31837	31830	20855	10982	10975	8157	2824
36	1991	jack pine	excurrent	tall	upcon	pinban	6463	6463	3476	2987	2987	2545	442
37	1992	jack pine	excurrent	short	supcon	supcon	20	20	13	6	6	5	1
38	1992	jack pine	excurrent	short	supcon	supcon							
39	1992	red pine	excurrent	short	supcon	supcon	548	548	301	247	247	206	41
40	1992	red pine	excurrent	short	supcon	supcon							
41	1992	red pine	excurrent	tall	upcon	pinres	2611	2608	1595	1016	1013	806	210
42	1992	jack pine	excurrent	tall	upcon	pinban	496	495	325	172	170	144	28
43	1992	red pine	excurrent	tall	upcon	pinres	147510	147442	104500	43009	42941	25390	17620
44	1992	black spruce	excurrent	tall	lowcon	picmar	116204	115611	94354	21850	21257	17928	3922
45	1992	trembling aspen	decurrent	tall	decid	popspp	1837	1793	1227	609	566	473	136
47	1992	trembling aspen	decurrent	tall	decid	popspp	88767	87054	74805	13962	12249	11414	2548
48	1992	red maple	decurrent	tall	decid	nharwd	135142	133194	106843	28299	26352	24324	3976
49	1992	trembling aspen	decurrent	tall	decid	popspp	640	619	575	65	44	44	22
50	1992	red pine	excurrent	tall	upcon	pinres	101176	100656	73130	28046	27526	19750	8296
51	1992	red pine	excurrent	tall	upcon	pinres	35372	35331	20737	14635	14594	11545	3090
46	1993	beech	decurrent	tall	decid	nharwd	272884	270224	214752	58132	55472	53767	4365
52	1993	red pine	excurrent	tall	upcon	pinres	77488	77488	53484	24004	24004	16329	7674
53	1993	bigtooth aspen	decurrent	tall	decid	popspp	128941	126913	105487	23455	21426	20319	3136
54	1993	jack pine	excurrent	tall	upcon	pinban	273	273	156	116	116	99	17
55	1993	jack pine	excurrent	tall	upcon	pinban	129	129	75	54	54	46	8
56	1993	jack pine	excurrent	tall	upcon	pinban	15475	15475	10046	5430	5430	4101	1329
57	1993	bigtooth aspen	decurrent	tall	decid	popspp	141428	139222	112444	28985	26778	24386	4599
58	1993	jack pine	excurrent	tall	upcon	pinban							
59	1993	jack pine	excurrent	tall	upcon	pinban	4114	4114	2277	1837	1837	1564	273
60	1993	jack pine	excurrent	tall	upcon	pinban	11252	11252	6269	4983	4983	4103	880
61	1993	jack pine	excurrent	tall	upcon	pinban	62244	62244	46325	15919	15919	11386	4533
62	1993	jack pine	excurrent	tall	upcon	pinban	40376	40376	28717	11658	11658	8928	2730
63	1993	jack pine	excurrent	tall	upcon	pinban	26459	26459	17307	9153	9153	6883	2269
64	1993	jack pine	excurrent	tall	upcon	pinban	35277	35277	23771	11506	11506	8375	3131
65	1993	jack pine	excurrent	tall	upcon	pinban	51755	51755	37854	13901	13901	10126	3775
66	1993	jack pine	excurrent	short	supcon	supcon							
67	1993	jack pine	excurrent	tall	upcon	pinban	83200	83200	64068	19132	19132	13433	5699
68	1993	red pine	excurrent	tall	upcon	pinres	103069	103069	72934	30135	30135	19479	10655
69	1993	pin cherry	decurrent	tall	decid	popspp	4486	4316	3895	591	421	421	170
70	1993	trembling aspen	decurrent	tall	decid	popspp	1681	1620	1491	190	129	129	60
71	1993	red pine	excurrent	tall	upcon	pinres	37254	37254	21723	15531	15531	10873	4659

Stand	Year Measured	Dominant Species	Structural Type	Level 1 Category	Level 2 Category	Level 3 Category	UPPER STRATUM DRY BIOMASS (kg/ha)						
							Summer Total	Winter Total	Trunk	Crown summer	Crown winter	Branch	Foliage
72	1993	red pine	excurrent	tall	upcon	pinres	32005	32003	19219	12786	12784	8853	3933
73	1993	red pine	excurrent	tall	upcon	pinres	68073	68072	42439	25634	25634	17641	7994
74	1993	white pine	excurrent	tall	upcon	pinstr	159489	158483	133285	26204	25197	21095	5109
75	1993	white pine	excurrent	tall	upcon	pinstr	161338	161109	138189	23149	22920	16713	6436
76	1993	sugar maple	decurrent	tall	decid	nharwd	220567	217972	146237	74330	71736	71736	2595
77	1993	red pine	excurrent	tall	upcon	pinres	23918	23869	13906	10011	9962	7995	2016
78	1993	red pine	excurrent	short	supcon	supcon	4202	4195	2526	1677	1670	1131	546
79	1993	red pine	excurrent	short	supcon	supcon	564	564	418	145	145	85	60
80	1993	red pine	excurrent	short	supcon	supcon	2114	2110	1407	707	703	443	264
81	1993	jack pine	excurrent	tall	upcon	pinban	25681	25667	15687	9994	9981	8025	1968
82	1993	red pine	excurrent	tall	upcon	pinres	11461	11461	6492	4969	4969	4130	839
83	1993	red pine	excurrent	tall	upcon	pinres	2741	2737	1937	804	801	654	150
85	1993	sugar maple	decurrent	tall	decid	nharwd	184028	180765	144530	39498	36234	36130	3368
86	1993	red maple	decurrent	tall	decid	nharwd	183362	180668	148951	34411	31717	31717	2693
87	1993	trembling aspen	decurrent	tall	decid	popspp	54532	53288	46650	7882	6638	6638	1244
88	1993	n. white cedar	excurrent	tall	lowcon	thuocc	173288	173288	112779	60509	60509	40918	19592
91	1993	sugar maple	decurrent	tall	decid	nharwd	122080	120297	95906	26174	24391	24387	1787
22	1994	red pine	excurrent	tall	upcon	pinres	53122	53122	33203	19919	19919	15029	4890
33	1994	trembling aspen	decurrent	tall	decid	popspp	59155	57149	50448	8707	6700	6700	2006
36	1994	jack pine	excurrent	tall	upcon	pinban	12086	12086	6921	5165	5165	4291	874
37	1994	jack pine	excurrent	short	supcon	supcon							
38	1994	jack pine	excurrent	short	supcon	supcon	161	161	96	64	64	54	10
39	1994	red pine	excurrent	short	supcon	supcon							
40	1994	red pine	excurrent	short	supcon	supcon							
41	1994	red pine	excurrent	tall	upcon	pinres	9888	9873	6117	3771	3756	3077	694
42	1994	jack pine	excurrent	tall	upcon	pinban	8104	8079	5469	2636	2610	2167	468
45	1994	trembling aspen	decurrent	tall	decid	popspp	6276	6202	4485	1791	1717	1533	258
49	1994	trembling aspen	decurrent	tall	decid	popspp	7167	6888	6344	822	544	544	279
51	1994	red pine	excurrent	tall	upcon	pinres	48002	47995	36072	11930	11923	8011	3919
54	1994	jack pine	excurrent	tall	upcon	pinban	1774	1774	1085	689	689	582	107
55	1994	jack pine	excurrent	tall	upcon	pinban	863	863	552	311	311	260	51
58	1994	jack pine	excurrent	tall	upcon	pinban							
59	1994	jack pine	excurrent	tall	upcon	pinban	6316	6316	3846	2470	2470	2052	418
66	1994	jack pine	excurrent	short	supcon	supcon							
77	1994	red pine	excurrent	tall	upcon	pinres	24153	24051	15374	8779	8677	6890	1889
78	1994	red pine	excurrent	short	supcon	supcon	6351	6339	3989	2363	2351	1426	937
79	1994	red pine	excurrent	short	supcon	supcon	1401	1401	981	420	420	248	172
80	1994	red pine	excurrent	short	supcon	supcon	4012	4004	2665	1347	1339	847	500
81	1994	jack pine	excurrent	tall	upcon	pinban	27551	27529	19698	7854	7831	5892	1961
82	1994	red pine	excurrent	tall	upcon	pinres	14857	14857	9499	5358	5358	4300	1058
83	1994	red pine	excurrent	tall	upcon	pinres	8571	8568	5697	2874	2871	2371	503

Stand	Year Measured	Middle Stratum Totals (Conifer and Broadleaf Combined)						
		Summer Total	Winter Total	Trunk	Crown summer	Crown winter	Woody	Foliage
22	1991	548	448	448	.	.	.	101
23	1991	627	485	485	.	.	.	142
24	1991	493	388	388	.	.	.	105
25	1991	1456	1133	1133	.	.	.	324
26	1991	5033	3682	3682	.	.	.	1351
27	1991	329	266	266	.	.	.	63
28	1991	2081	1734	1734	.	.	.	348
29	1991	2796	2259	2259	.	.	.	537
31	1991	351	287	287	.	.	.	65
32	1991	1612	1287	1287	.	.	.	325
33	1991	5417	4321	4321	.	.	.	1096
34	1991	2232	1892	1892	.	.	.	340
35	1991	768	614	614	.	.	.	155
36	1991	3608	2918	2918	.	.	.	689
37	1992	946	702	702	.	.	.	243
38	1992	8473	6771	6771	.	.	.	1703
39	1992	160	133	133	.	.	.	27
40	1992	2868	2223	2223	.	.	.	645
41	1992	13527	11032	11032	.	.	.	2495
42	1992	19134	15724	15724	.	.	.	3410
43	1992	277	201	201	.	.	.	76
44	1992	2378	1779	1779	.	.	.	599
45	1992	3825	3063	3063	.	.	.	761
47	1992							
48	1992	2334	1817	1817	.	.	.	517
49	1992	10741	8635	8635	.	.	.	2106
50	1992	860	688	688	.	.	.	173
51	1992	1725	1380	1380	.	.	.	344
46	1993	1991	1646	1646	.	.	.	345
52	1993	190	153	153	.	.	.	37
53	1993	1708	1372	1372	.	.	.	336
54	1993	11439	9323	9323	.	.	.	2115
55	1993	14027	11299	11299	.	.	.	2728
56	1993	115	89	89	.	.	.	26
57	1993	3248	2624	2624	.	.	.	625
58	1993	8297	6705	6705	.	.	.	1591
59	1993	5723	4666	4666	.	.	.	1058
60	1993	4107	3404	3404	.	.	.	703
61	1993	175	141	141	.	.	.	34
62	1993	1079	867	867	.	.	.	212
63	1993	1708	1466	1466	.	.	.	241
64	1993	354	284	284	.	.	.	70
65	1993	25	20	20	.	.	.	6
66	1993	447	322	322	.	.	.	125
67	1993	55	43	43	.	.	.	12
68	1993	369	305	305	.	.	.	64
69	1993	10742	8569	8569	.	.	.	2173
70	1993	8499	7136	7136	.	.	.	1363
71	1993	108	89	89	.	.	.	19

Stand	Year Measured	Middle Stratum Totals (Conifer and Broadleaf Combined)						
		Summer Total	Winter Total	Trunk	Crown summer	Crown winter	Woody	Foliage
72	1993	225	185	185	.	.	.	41
73	1993	300	237	237	.	.	.	63
74	1993	420	331	331	.	.	.	89
75	1993	69	53	53	.	.	.	16
76	1993	368	284	284	.	.	.	83
77	1993	4021	3309	3309	.	.	.	712
78	1993	105	83	83	.	.	.	22
79	1993	5	4	4	.	.	.	1
80	1993							
81	1993	3281	2730	2730	.	.	.	551
82	1993	6340	5249	5249	.	.	.	1091
83	1993	18202	14987	14987	.	.	.	3215
85	1993	1061	839	839	.	.	.	222
86	1993	727	587	587	.	.	.	140
87	1993	3629	3079	3079	.	.	.	549
88	1993	1240	984	984	.	.	.	256
91	1993	1560	1275	1275	.	.	.	285
22	1994	110	87	87	.	.	.	23
33	1994	4480	3654	3654	.	.	.	826
36	1994	1060	876	876	.	.	.	184
37	1994	4044	3052	3052	.	.	.	993
38	1994	13017	10554	10554	.	.	.	2463
39	1994	56	41	41	.	.	.	15
40	1994	7090	5656	5656	.	.	.	1434
41	1994	8128	6664	6664	.	.	.	1464
42	1994	7125	5911	5911	.	.	.	1214
45	1994	7475	6073	6073	.	.	.	1403
49	1994	11485	9379	9379	.	.	.	2107
51	1994	1456	1173	1173	.	.	.	282
54	1994	8947	7290	7290	.	.	.	1657
55	1994	13198	10728	10728	.	.	.	2469
58	1994	13828	11175	11175	.	.	.	2652
59	1994	3254	2661	2661	.	.	.	593
66	1994	1702	1232	1232	.	.	.	470
77	1994	3311	2745	2745	.	.	.	566
78	1994	217	175	175	.	.	.	42
79	1994	7	5	5	.	.	.	2
80	1994							
81	1994	4515	3779	3779	.	.	.	736
82	1994	5435	4492	4492	.	.	.	943
83	1994	10207	8385	8385	.	.	.	1822

Stand	Year Measured	DRY BIOMASS (kg/ha) Stand Totals							Stand BA-weighted Avg. Height	Upper Stratum (H>5m)			
										Height (calc. from diam.)		Diameter at Breast Height (dbh)	
		Summer Total	Winter Total	Trunk (Upper Stratum only)	Crown summer	Crown winter	Branch	Foliage		Mean (m)	S.D. (m)	Mean (cm)	S.D. (cm)
22	1991	46168	45620	28188	17880	17880	13789	4192	8.51	7.91	1.63	13.57	3.06
23	1991	177573	176701	137264	40167	39923	23628	16681	23.14	14.56	8.10	17.95	13.79
24	1991	71149	70523	51841	19203	19070	13654	5654	13.02	11.26	3.09	15.28	6.23
25	1991	148551	146938	111203	37024	36868	21913	15435	22.18	12.31	8.04	16.02	14.50
26	1991	67932	62826	54900	11681	11608	8953	4079	11.54	10.25	3.61	12.08	5.51
27	1991	89860	89459	70466	19331	19259	13773	5621	13.18	11.87	3.03	14.26	4.56
28	1991	252672	247911	200878	51447	48767	47884	3910	21.27	16.20	7.68	21.78	14.73
29	1991	217556	212221	173035	43984	41444	40973	3548	19.23	13.99	6.83	17.37	12.30
31	1991	140886	138278	112551	28271	26014	26014	2321	16.37	12.00	4.85	11.83	6.83
32	1991	164065	162356	104473	59266	59169	40609	18982	13.59	11.41	3.68	17.46	8.08
33	1991	41532	34580	36426	5011	3476	3476	2631	5.74	5.57	1.70	4.31	1.58
34	1991	148178	143612	122332	25506	23171	23108	2738	17.14	10.76	5.85	10.76	8.17
35	1991	32605	31830	21469	10982	10975	8157	2979	9.64	7.82	2.54	13.47	6.37
36	1991	10071	6463	6394	2987	2987	2545	1132	4.70	4.55	1.01	8.18	2.27
37	1992	966	20	716	6	6	5	245	1.38	5.60		7.20	
38	1992	8473	6771	6771				1703	3.01				
39	1992	709	548	435	247	247	206	68	6.59	7.31	1.31	12.10	2.69
40	1992	2868	2223	2223				645	1.46				
41	1992	16138	2608	12626	1016	1013	806	2705	4.23	5.64	1.63	8.18	3.29
42	1992	19630	495	16049	172	170	144	3438	4.01	5.25	0.19	8.34	1.23
43	1992	147787	147442	104702	43009	42941	25390	17695	20.06	18.28	4.33	26.18	9.26
44	1992	118582	115611	96133	21850	21257	17928	4521	15.21	13.08	3.91	15.14	6.52
45	1992	5681	1793	4291	609	566	473	897	2.72	7.79	2.18	8.66	4.11
47	1992	88767	87054	74805	13962	12249	11414	2548	13.27	8.64	3.85	7.90	4.53
48	1992	137476	133194	108660	28299	26352	24324	4492	16.18	10.38	5.57	10.82	7.71
49	1992	11381	619	9210	65	44	44	2127	3.05	5.80	0.92	4.34	0.82
50	1992	102036	100656	73818	28046	27526	19750	8469	15.03	13.08	3.90	17.05	7.60
51	1992	37097	35331	22117	14635	14594	11545	3434	7.69	6.97	1.96	12.17	4.44
46	1993	274875	270224	216398	58132	55472	53767	4710	20.72	12.59	8.16	16.85	14.93
52	1993	77678	77488	53637	24004	24004	16329	7712	14.23	12.53	3.18	19.59	6.80
53	1993	130649	126913	106859	23455	21426	20319	3471	16.57	12.29	5.12	13.21	7.85
54	1993	11711	273	9479	116	116	99	2133	3.87	4.97	0.54	7.91	1.61
55	1993	14156	129	11375	54	54	46	2736	3.90	4.78	0.61	7.47	1.51
56	1993	15590	15475	10134	5430	5430	4101	1355	9.05	7.86	2.18	13.82	4.66
57	1993	144677	139222	115068	28985	26778	24386	5223	15.72	11.99	5.00	12.61	7.13
58	1993	8297	6705	6705				1591	3.44				
59	1993	9837	4114	6942	1837	1837	1564	1331	4.41	4.59	0.95	8.09	1.97
60	1993	15358	11252	9673	4983	4983	4103	1583	5.87	5.53	1.32	10.00	3.11
61	1993	62419	62244	46465	15919	15919	11386	4567	12.06	10.75	2.59	15.01	4.48
62	1993	41455	40376	29584	11658	11658	8928	2942	8.34	7.40	1.91	10.12	3.04
63	1993	28167	26459	18773	9153	9153	6883	2511	9.16	7.98	2.39	13.93	5.45
64	1993	35632	35277	24055	11506	11506	8375	3202	10.88	9.90	2.40	17.87	5.53
65	1993	51780	51755	37874	13901	13901	10126	3780	11.08	9.98	2.32	14.40	3.98
66	1993	447	322	322				125	1.20				
67	1993	83255	83200	64111	19132	19132	13433	5711	13.80	12.76	2.54	16.82	4.18
68	1993	103438	103069	73239	30135	30135	19479	10720	15.34	13.82	3.11	19.73	6.30
69	1993	15228	4316	12464	591	421	421	2343	3.52	4.94	1.26	4.19	1.15
70	1993	10180	1620	8628	190	129	129	1423	3.70	5.04	1.06	4.41	1.06
71	1993	37363	37254	21812	15531	15531	10873	4678	13.62	13.17	1.94	26.37	5.03

Stand	Year Measured	DRY BIOMASS (kg/ha) Stand Totals							Stand BA-weighted Avg. Height	Upper Stratum (H>5m)			
										Height (calc. from diam.)		Diameter at Breast Height (dbh)	
		Summer Total	Winter Total	Trunk (Upper Stratum only)	Crown summer	Crown winter	Branch	Foliage		Mean (m)	S.D. (m)	Mean (cm)	S.D. (cm)
72	1993	32230	32003	19404	12786	12784	8853	3974	13.65	12.52	3.05	23.70	7.54
73	1993	68373	68072	42675	25634	25634	17641	8057	14.38	12.52	3.40	22.30	8.92
74	1993	159909	158483	133616	26204	25197	21095	5198	18.21	15.81	4.50	19.21	7.24
75	1993	161407	161109	138242	23149	22920	16713	6451	18.98	16.85	3.97	21.82	7.33
76	1993	220935	217972	146521	74330	71736	71736	2678	18.11	16.59	4.66	18.59	9.18
77	1993	27939	23869	17216	10011	9962	7995	2728	7.34	6.87	2.04	12.70	4.66
78	1993	4308	4195	2609	1677	1670	1131	568	13.95	10.81	5.21	17.27	12.47
79	1993	568	564	422	145	145	85	61	18.67	19.50	.	26.50	.
80	1993	2114	2110	1407	707	703	443	264	18.56	12.71	6.28	18.52	13.89
81	1993	28961	25667	18416	9994	9981	8025	2519	7.13	6.63	1.81	11.38	3.21
82	1993	17801	11461	11741	4969	4969	4130	1930	5.53	5.76	1.15	10.58	2.07
83	1993	20943	2737	16924	804	801	654	3365	4.85	5.61	2.24	9.05	4.88
85	1993	185089	180765	145369	39498	36234	36130	3590	18.55	12.44	6.46	11.35	7.73
86	1993	184089	180668	149538	34411	31717	31717	2834	18.55	15.58	4.93	16.35	7.27
87	1993	58161	53288	49730	7882	6638	6638	1793	13.06	10.74	5.15	10.77	6.00
88	1993	174528	173288	113763	60509	30509	40918	19848	12.12	9.62	3.46	13.43	6.27
91	1993	123641	120297	97181	26174	24391	24387	2072	17.31	13.57	5.05	15.18	9.13
22	1994	53232	53122	33290	19919	19919	15029	4914	9.32	8.74	1.62	14.59	3.08
33	1994	63635	57149	54103	8707	6700	6700	2832	9.03	7.27	2.89	5.02	2.24
36	1994	13146	12086	7796	5165	5165	4291	1059	5.63	5.03	1.39	8.81	2.82
37	1994	4044	3052	3052	.	.	.	993	1.99			.	.
38	1994	13177	161	10650	64	64	54	2473	4.45	5.10	0.14	7.93	1.20
39	1994	56	41	41	.	.	.	15	1.49			.	.
40	1994	7090	5656	5656	.	.	.	1434	2.56			.	.
41	1994	18016	9873	12781	3771	3756	3077	2158	5.57	5.44	1.64	8.38	2.54
42	1994	15229	8079	11380	2636	2610	2167	1682	5.55	5.72	0.98	7.58	1.44
45	1994	13751	6202	10557	1791	1717	1533	1661	4.84	6.62	4.04	7.71	9.02
49	1994	18652	6888	15723	822	544	544	2385	4.59	5.39	1.15	4.10	1.09
51	1994	49458	47995	37246	11930	11923	8011	4201	12.17	11.58	2.60	13.68	4.01
54	1994	10721	1774	8376	689	689	582	1764	4.58	5.01	0.59	7.54	1.04
55	1994	14061	863	11281	311	311	260	2520	4.83	5.20	0.59	7.09	1.48
58	1994	13828	11175	11175	.	.	.	2652	3.62			.	.
59	1994	9570	6316	6507	2470	2470	2052	1011	5.19	5.25	0.93	8.43	1.92
66	1994	1702	1232	1232	.	.	.	470	1.34			.	.
77	1994	27464	24051	18119	8779	8677	6890	2455	9.23	8.04	2.97	13.00	5.90
78	1994	6568	6339	4164	2363	2351	1426	979	17.68	9.98	7.15	15.67	15.93
79	1994	1408	1401	986	420	420	248	174	19.47	20.00	.	31.50	.
80	1994	4012	4004	2665	1347	1339	847	500	18.80	13.27	6.20	19.48	13.87
81	1994	32066	27529	23477	7854	7831	5892	2697	9.03	8.86	2.23	12.05	3.19
82	1994	20292	14857	13991	5358	5358	4300	2002	6.58	6.67	1.72	10.61	2.49
83	1994	18779	8568	14083	2874	2871	2371	2325	6.09	5.69	2.03	8.61	2.78

Stand	Year Measured	Middle Stratum (1m<H<5m) Height (calc. from diam)		Basal Diameter (15 cm)		Crown Depth (in meters) upper stratum		Density (live stems/ha)		
		Mean (m)	S.D. (m)	Mean (cm)	S.D. (cm)	Mean (m)	S. D. (m)	Stand Total	Upper Stratum	Middle Stratum
22	1991	2.53	1.50	3.69	3.09	5.79	1.05	1313	1173	141
23	1991	1.87	0.96	1.32	0.87	8.11	3.31	4143	948	3195
24	1991	1.89	0.68	1.56	0.97	6.54	2.83	2496	903	1594
25	1991	2.13	1.06	1.94	1.19	9.27	4.12	3638	873	2766
26	1991	1.66	0.76	1.81	1.10	7.62	3.65	10509	1213	9297
27	1991	1.76	0.79	1.40	0.82	6.13	2.38	3147	1405	1742
28	1991	1.93	0.85	1.79	0.84	10.31	4.67	7478	705	6773
29	1991	1.83	0.84	1.91	1.01	10.31	4.57	7636	925	6711
31	1991	2.04	1.13	1.78	1.06	8.02	3.44	2895	1840	1055
32	1991	1.83	0.87	2.40	1.68	5.76	2.57	3547	2008	1539
33	1991	2.53	1.02	1.72	0.73	3.04	1.47	31017	9227	21790
34	1991	1.91	0.98	1.34	1.74	8.49	4.37	6218	1911	4307
35	1991	2.34	0.98	3.19	2.04	7.02	2.79	1000	625	375
36	1991	3.05	1.21	4.08	2.49	5.12	0.91	1542	565	977
37	1992	1.21	0.23	2.05	0.77	2.10	.	2010	3	2008
38	1992	2.80	0.61	5.31	1.46	.	.	1844	.	1844
39	1992	4.80	.	10.00	.	5.19	0.92	25	18	8
40	1992	1.37	0.28	3.69	1.06	.	.	1555	.	1555
41	1992	2.36	1.14	3.17	2.69	4.84	1.15	5015	183	4832
42	1992	2.66	1.31	4.42	3.08	4.51	0.71	3808	43	3766
43	1992	1.95	0.72	1.47	0.63	8.62	3.54	1750	561	1189
44	1992	1.83	0.79	1.88	0.93	7.23	3.91	6979	1245	5734
45	1992	1.63	0.54	1.53	0.65	4.71	1.73	21442	70	21372
47	1992			.	.	5.38	2.98	3693	3693	.
48	1992	2.06	0.94	1.92	1.08	7.52	3.99	7041	1893	5148
49	1992	2.35	0.91	2.01	0.89	3.27	0.91	30744	205	30540
50	1992	1.51	0.50	1.27	0.71	7.59	3.17	6771	943	5828
51	1992	1.97	0.89	2.08	1.17	5.83	1.98	4523	1015	3508
46	1993	1.90	0.87	1.64	0.86	7.87	3.75	8267	1040	7227
52	1993	3.53	1.25	4.58	2.53	8.27	2.30	674	628	47
53	1993	1.96	1.18	1.60	1.35	7.32	3.14	5111	1393	3719
54	1993	3.20	1.04	6.06	2.39	4.70	0.46	1582	28	1555
55	1993	3.29	1.02	5.41	1.94	4.65	0.13	2671	15	2656
56	1993	2.03	1.05	2.86	1.65	7.92	2.02	423	338	86
57	1993	1.90	1.06	1.45	1.18	6.12	2.86	10356	1770	8586
58	1993	2.63	0.99	4.82	2.30	.	.	1789	.	1789
59	1993	2.72	1.33	4.64	2.78	4.96	0.46	1526	385	1141
60	1993	3.39	1.45	6.08	3.52	5.34	0.95	1002	573	430
61	1993	3.99	1.05	5.70	1.87	7.09	2.23	1006	975	31
62	1993	3.64	1.18	4.87	2.21	5.92	1.86	2055	1813	242
63	1993	2.54	1.47	4.13	2.46	6.95	2.29	882	530	352
64	1993	2.70	1.27	4.24	2.27	8.29	2.49	512	410	102
65	1993	1.95	1.69	2.27	2.20	6.89	2.17	976	953	23
66	1993	1.08	0.24	1.66	0.54	.	.	1788	.	1788
67	1993	1.87	0.38	2.54	1.55	6.84	1.95	1007	953	55
68	1993	3.06	1.26	7.20	3.55	7.89	1.73	876	845	31
69	1993	2.11	0.93	1.68	0.91	2.52	0.68	40850	1433	39417
70	1993	2.33	1.12	1.98	1.11	3.24	0.40	21450	513	20938
71	1993	2.20	1.41	4.50	5.80	9.51	1.23	193	178	16

Stand	Year Measured	Middle Stratum (1m<H<5m) Height (calc. from diam)		Middle Stratum (1m<H<5m) Basal Diameter (15 cm)		Crown Depth (in meters) upper stratum		Density (live stems/ha)		
		Mean (m)	S.D. (m)	Mean (cm)	S.D. (cm)	Mean (m)	S. D. (m)	Stand Total	Upper Stratum	Middle Stratum
72	1993	2.42	1.43	2.76	2.44	9.41	1.63	305	180	125
73	1993	2.17	1.08	2.19	1.76	9.26	2.50	687	390	297
74	1993	1.81	0.73	1.33	0.68	7.50	2.47	3680	1125	2555
75	1993	1.52	0.53	0.90	0.45	5.74	2.15	2226	1022	1204
76	1993	1.58	0.62	1.21	0.52	8.58	4.04	4181	970	3211
77	1993	2.17	1.03	2.74	2.04	5.57	1.40	2956	613	2344
78	1993	1.20	0.28	1.12	0.34	8.36	3.57	1436	29	1406
79	1993	1.09	0.17	1.11	0.32	10.00	.	65	3	63
80	1993			.	.	10.83	3.33	13	13	.
81	1993	2.58	1.32	3.63	3.08	6.25	1.45	1773	938	836
82	1993	3.40	1.50	7.11	3.39	5.16	1.09	1086	563	523
83	1993	2.72	1.34	4.10	3.26	5.00	1.41	3848	138	3711
85	1993	2.28	1.83	1.89	1.52	7.01	2.83	3924	2205	1719
86	1993	1.56	0.67	1.30	0.66	9.26	3.47	6140	1283	4857
87	1993	2.19	1.24	1.76	1.25	5.69	2.48	11267	1100	10167
88	1993	1.93	1.32	2.54	1.85	5.68	2.13	4703	3813	891
91	1993	1.72	0.90	1.32	0.97	8.60	2.78	7193	880	6313
22	1994	2.23	0.96	2.80	2.34	6.58	1.14	1207	1142	65
33	1994	2.30	1.48	1.65	0.93	3.27	1.32	24555	8430	16125
36	1994	2.40	1.08	3.26	1.98	5.52	0.92	1376	842	534
37	1994	1.34	0.53	2.08	1.01	.	.	7096	.	7096
38	1994	3.98	1.03	6.22	1.84	4.77	0.25	1866	17	1849
39	1994	1.36	0.26	2.26	0.77	.	.	104	.	104
40	1994	2.19	0.82	5.04	1.54	.	.	1706	.	1706
41	1994	2.51	1.43	2.78	2.56	5.25	2.52	4310	729	3581
42	1994	2.48	1.66	2.80	2.61	4.31	0.50	3802	833	2969
45	1994	2.11	0.94	1.66	0.91	7.43	5.60	30037	115	29922
49	1994	2.87	1.31	1.96	1.00	3.59	0.78	33476	2447	31029
51	1994	2.93	1.52	2.19	1.30	7.31	2.45	3517	1004	2513
54	1994	3.72	1.21	6.03	2.33	4.75	0.44	1441	204	1237
55	1994	3.94	1.41	5.81	2.33	4.33	0.78	2088	108	1979
58	1994	2.78	1.07	4.82	2.30	.	.	1883	.	1883
59	1994	3.62	0.97	5.87	2.58	5.13	0.49	980	531	449
66	1994	1.13	0.31	1.80	0.65	.	.	5288	.	5288
77	1994	2.54	1.28	2.97	2.18	5.62	2.35	2033	483	1549
78	1994	1.28	0.27	1.22	0.42	11.17	6.83	2254	35	2219
79	1994	1.17	0.18	1.17	0.45	12.00	.	82	4	78
80	1994			.	.	12.47	4.50	22	22	.
81	1994	3.05	1.71	4.04	3.60	6.89	1.92	1585	817	768
82	1994	3.72	1.51	6.57	3.41	6.07	0.95	1196	675	521
83	1994	2.93	1.46	3.76	3.06	4.89	0.60	3083	583	2500

Stand	Year Measured	Basal Area (m^2/ha)									
		Stand Total Living	Stand Total Dead	Upper Stratum Live	Middle Stratum Live	Conifer BA Live	Conifer BA Percent	Red Pine BA	Jack Pine BA	Red Pine BA Percent	Jack Pine BA Percent
22	1991	18.06	0.01	17.81	0.25	18.05	1.00	17.98	0.00	1.00	0.00
23	1991	38.70	2.08	38.07	0.62	35.67	0.92	19.84	0.00	0.51	0.00
24	1991	19.72	4.24	19.29	0.42	18.42	0.93	1.31	16.85	0.07	0.85
25	1991	33.06	0.92	31.94	1.12	31.06	0.94	17.26	0.00	0.52	0.00
26	1991	20.05	4.57	16.78	3.27	18.21	0.91	0.08	0.55	0.00	0.03
27	1991	25.08	8.59	24.72	0.36	24.24	0.97	0.00	24.24	0.00	0.97
28	1991	40.33	3.88	38.26	2.08	4.08	0.10	0.00	0.00	0.00	0.00
29	1991	35.34	2.59	32.88	2.46	2.72	0.08	0.00	0.00	0.00	0.00
31	1991	27.33	1.87	26.98	0.35	0.02	0.00	0.00	0.00	0.00	0.00
32	1991	59.36	8.06	58.32	1.04	58.18	0.98	0.00	0.00	0.00	0.00
33	1991	21.27	4.39	15.27	6.00	.		0.00	0.00	0.00	0.00
34	1991	29.03	5.17	27.40	1.63	0.18	0.01	0.00	0.00	0.00	0.00
35	1991	11.32	0.73	10.90	0.42	11.22	0.99	0.00	11.21	0.00	0.99
36	1991	4.95	0.20	3.20	1.75	4.93	1.00	0.71	4.22	0.14	0.85
37	1992	0.77	0.02	0.01	0.76	0.77	1.00	0.05	0.72	0.06	0.94
38	1992	4.39	0.01	.	4.39	4.39	1.00	0.00	4.39	0.00	1.00
39	1992	0.27	0.04	0.21	0.06	0.27	1.00	0.21	0.06	0.78	0.22
40	1992	1.80	.		1.80	1.80	1.00	1.58	0.22	0.88	0.12
41	1992	7.67	0.29	1.11	6.55	6.73	0.88	4.45	2.12	0.58	0.28
42	1992	8.82	0.30	0.24	8.59	7.95	0.90	0.00	8.00	0.00	0.91
43	1992	34.19	0.11	33.95	0.24	33.10	0.97	32.75	0.22	0.96	0.01
44	1992	28.53	4.56	26.55	1.98	21.68	0.76	0.12	0.00	0.00	0.00
45	1992	5.16	0.11	0.50	4.66	0.24	0.05	0.00	0.00	0.00	0.00
47	1992	24.04	3.60	24.04	.	1.81	0.08	0.00	0.00	0.00	0.00
48	1992	28.17	2.21	26.21	1.95	5.37	0.19	0.00	0.00	0.00	0.00
49	1992	11.89	1.29	0.31	11.58	.		0.00	0.00	0.00	0.00
50	1992	26.75	0.81	25.78	0.97	19.76	0.74	19.44	0.00	0.73	0.00
51	1992	14.95	0.89	13.38	1.57	13.40	0.90	11.14	2.25	0.75	0.15
46	1993	43.30	2.84	41.36	1.94	8.77	0.20	0.00	0.00	0.00	0.00
52	1993	21.27	1.21	21.17	0.10	21.27	1.00	11.99	9.28	0.56	0.44
53	1993	27.09	1.70	25.81	1.28	3.25	0.12	0.10	0.64	0.00	0.02
54	1993	5.31	0.11	0.14	5.17	5.31	1.00	0.00	5.31	0.00	1.00
55	1993	6.96	0.13	0.07	6.89	6.96	1.00	0.00	6.96	0.00	1.00
56	1993	5.70	4.97	5.63	0.07	5.70	1.00	0.26	5.44	0.05	0.95
57	1993	31.51	2.02	29.15	2.36	6.19	0.20	0.99	0.25	0.03	0.01
58	1993	4.00	0.01	.	4.00	4.00	1.00	0.00	4.00	0.00	1.00
59	1993	4.71	0.02	2.10	2.62	4.69	1.00	0.04	4.65	0.01	0.99
60	1993	6.59	0.20	4.93	1.66	6.56	1.00	1.83	4.73	0.28	0.72
61	1993	18.86	1.79	18.78	0.09	18.86	1.00	0.30	18.56	0.02	0.98
62	1993	16.43	1.98	15.88	0.54	16.42	1.00	0.26	16.16	0.02	0.98
63	1993	9.94	0.63	9.31	0.63	9.94	1.00	0.33	9.58	0.03	0.96
64	1993	11.44	0.43	11.26	0.18	11.44	1.00	0.00	11.43	0.00	1.00
65	1993	16.71	3.85	16.69	0.02	16.71	1.00	0.29	16.42	0.02	0.98
66	1993	0.43	0.18	.	0.43	0.40	0.94	0.00	0.40	0.00	0.94
67	1993	22.52	5.80	22.48	0.04	22.51	1.00	0.10	22.41	0.00	1.00
68	1993	28.62	0.43	28.47	0.15	28.62	1.00	25.43	3.20	0.89	0.11
69	1993	13.40	3.64	2.12	11.28	0.25	0.02	0.00	0.00	0.00	0.00
70	1993	9.32	1.26	0.83	8.50	.		0.00	0.00	0.00	0.00
71	1993	10.09	0.26	10.05	0.05	10.09	1.00	9.76	0.33	0.97	0.03

Stand	Year Measured	Basal Area (m^2/ha)									
		Stand Total Living	Stand Total Dead	Upper Stratum Live	Middle Stratum Live	Conifer BA Live	Conifer BA Percent	Red Pine BA	Jack Pine BA	Red Pine BA Percent	Jack Pine BA Percent
72	1993	8.86	0.51	8.73	0.13	8.79	0.99	8.13	0.65	0.92	0.07
73	1993	17.84	0.20	17.65	0.18	17.81	1.00	12.29	5.52	0.69	0.31
74	1993	37.67	6.70	37.22	0.44	25.51	0.68	0.00	0.00	0.00	0.00
75	1993	42.63	7.22	42.53	0.10	39.72	0.93	0.00	0.42	0.00	0.01
76	1993	33.19	1.31	32.75	0.44			0.00	0.00	0.00	0.00
77	1993	10.95	0.65	8.80	2.15	9.77	0.89	6.67	3.10	0.61	0.28
78	1993	1.16	0.12	1.01	0.15	0.93	0.80	0.93	0.00	0.80	0.00
79	1993	0.14	0.20	0.14	0.01	0.14	0.95	0.14	0.00	0.95	0.00
80	1993	0.49	0.03	0.49		0.44	0.91	0.44	0.00	0.91	0.00
81	1993	11.78	0.27	10.30	1.48	11.38	0.97	5.53	5.84	0.47	0.50
82	1993	7.67	0.06	5.13	2.55	7.67	1.00	4.08	3.59	0.53	0.47
83	1993	9.12	0.14	1.14	7.98	8.34	0.91	5.82	2.11	0.64	0.23
85	1993	33.43	2.61	32.63	0.79	0.42	0.01	0.00	0.00	0.00	0.00
86	1993	33.05	3.16	32.24	0.82	0.06	0.00	0.00	0.00	0.00	0.00
87	1993	16.85	9.05	13.12	3.73			0.00	0.00	0.00	0.00
88	1993	66.40	8.22	65.72	0.69	66.40	1.00	0.00	0.00	0.00	0.00
91	1993	23.00	1.07	21.67	1.33	0.36	0.02	0.00	0.00	0.00	0.00
22	1994	20.00		19.94	0.06	20.00	1.00	20.00	0.00	1.00	0.00
33	1994	24.54	3.47	20.00	4.54			0.00	0.00	0.00	0.00
36	1994	6.27	0.61	5.66	0.60	6.11	0.98	1.17	4.94	0.19	0.79
37	1994	2.99	0.46		2.99	2.99	1.00	0.10	2.89	0.03	0.97
38	1994	6.18	0.05	0.08	6.10	6.18	1.00	0.00	6.18	0.00	1.00
39	1994	0.05			0.05	0.04	0.97	0.00	0.04	0.00	0.97
40	1994	3.72			3.72	3.72	1.00	3.31	0.40	0.89	0.11
41	1994	8.40	0.03	4.39	4.01	7.47	0.89	4.88	2.34	0.58	0.28
42	1994	7.32	0.18	3.90	3.42	6.31	0.86	0.00	6.29	0.00	0.86
45	1994	9.63	1.03	1.24	8.39	0.30	0.03	0.00	0.00	0.00	0.00
49	1994	15.21	1.03	3.45	11.76			0.00	0.00	0.00	0.00
51	1994	17.29	0.44	16.01	1.28	16.19	0.94	14.90	1.28	0.86	0.07
54	1994	4.99	0.03	0.93	4.06	4.99	1.00	0.00	4.99	0.00	1.00
55	1994	6.53	0.10	0.45	6.08	6.53	1.00	0.00	6.53	0.00	1.00
58	1994	4.23	0.02		4.21	4.21	1.00	0.00	4.21	0.00	1.00
59	1994	4.56		3.12	1.44	4.56	1.00	0.00	4.56	0.00	1.00
66	1994	1.52	0.42		1.52	1.52	1.00	0.00	1.52	0.00	1.00
77	1994	9.37	0.33	7.73	1.65	8.02	0.86	5.40	2.76	0.58	0.29
78	1994	1.56	0.13	1.27	0.29	1.14	0.73	1.14	0.00	0.73	0.00
79	1994	0.33	0.09	0.32	0.01	0.32	0.97	0.32	0.00	0.97	0.00
80	1994	0.91	0.05	0.91		0.81	0.89	0.81	0.00	0.89	0.00
81	1994	11.72	0.54	9.97	1.75	11.43	0.97	5.89	5.59	0.50	0.48
82	1994	8.52	0.05	6.29	2.23	8.50	1.00	4.35	4.15	0.51	0.49
83	1994	8.35	0.12	3.75	4.60	7.78	0.93	5.61	1.75	0.67	0.21

Stand	Year Measured	Ground Cover%				Error % (upper & middle)	
		Year Measured	Avg. Cover %	Std	N of Plots	BA	Density
22	1991					16.80	15.79
23	1991					12.88	22.99
24	1991					12.95	31.86
25	1991					16.87	27.30
26	1991					10.55	15.90
27	1991					5.03	36.81
28	1991					14.43	15.06
29	1991					11.90	11.65
31	1991					8.79	13.52
32	1991					9.24	23.43
33	1991					15.23	18.19
34	1991					17.71	13.49
35	1991					16.97	24.39
36	1991					24.74	30.08
37	1992	1992	54.74	22.52	114	41.85	37.85
38	1992	1992	61.95	20.97	104	17.16	13.49
39	1992	1992	66.07	19.05	120	126.96	34.96
40	1992	1992	86.97	14.86	108	24.34	15.40
41	1992	1992	66.23	24.33	120	17.09	18.70
42	1992	1992	74.01	20.83	118	14.90	21.02
43	1992	1992	48.87	25.71	62	12.33	36.88
44	1992	1992	60.98	30.87	120	16.42	20.68
45	1992	1994	70.70	20.93	20	19.88	15.00
47	1992	1993	63.95	28.44	84	11.22	21.57
48	1992	1992	32.71	21.99	120	12.69	14.25
49	1992	1992	75.19	23.899	66	26.30	21.74
50	1992	1992	32.69	23.85	120	9.89	21.58
51	1992	1992	53.11	29.34	120	15.46	34.69
46	1993	1993	29.43	17.45	120	14.09	16.89
52	1993	1993	51.43	25.03	120	17.27	15.83
53	1993	1993	41.65	17.85	120	15.86	17.84
54	1993	1993	67.11	15.76	120	16.44	22.92
55	1993	1993	62.54	19.46	120	14.86	19.14
56	1993	1993	83.21	16.33	120	22.74	25.37
57	1993	1993	43.78	17.86	120	11.27	17.25
58	1993	1993	85.08	17.72	120	21.37	21.66
59	1993	1993	76.79	17.95	120	22.56	36.21
60	1993	1993	72.04	19.74	120	16.38	22.59
61	1993	1993	65.62	19.18	120	10.24	13.70
62	1993	1993	72.12	15.83	120	10.86	12.62
63	1993	1993	70.08	20.76	120	13.60	18.96
64	1993	1993	69.88	21.44	120	19.80	21.67
65	1993	1993	74.46	17.46	120	13.57	16.03
66	1993	1993	83.31	17.81	120	39.27	42.78
67	1993	1993	67.19	16.12	120	9.95	11.52
68	1993	1993	35.76	20.51	120	11.96	12.73
69	1993	1993	62.16	19.93	45	13.02	18.08
70	1993	1993	86.5	19.2	24	28.61	48.71
71	1993	1993	26.43	29.49	120	25.24	24.30

Stand	Year Measured	Ground Cover%				Error % (upper & middle)	
		Year Measured	Avg. Cover %	Std	N of Plots	BA	Density
72	1993	1993	27.97	31.11	120	21.47	50.86
73	1993	1993	56.23	24.84	120	18.57	24.50
74	1993	1993	39.84	16.25	120	9.12	38.04
75	1993	1993	33.67	21.68	81	9.45	30.07
76	1993	1993	28.26	17	120	10.12	27.53
77	1993	1993	60.77	21.18	120	16.71	21.15
78	1993	1993	60.72	18.97	120	114.19	37.83
79	1993	1993	46.2	26.16	120	127.27	86.91
80	1993	1993	32.9	22.38	120	79.62	80.00
81	1993	1993	88.76	12.2	120	14.03	26.75
82	1993	1993	86.53	12.88	120	18.87	21.46
83	1993	1993	49.15	20.37	120	13.73	16.78
85	1993	1993	23.16	16.27	120	8.00	14.17
86	1993	1993	37.25	19.62	105	9.93	26.34
87	1993	1993	92.97	13.2	90	15.59	20.79
88	1993	1993	42.15	25.28	120	6.51	25.27
91	1993	1993	30.88	16.76	120	11.27	36.97
22	1994	1994	65.76	34.35	72		
33	1994	1994	44.17	23.38	24		
36	1994	1994	86.93	12.10	71		
37	1994	1994	70.95	25.27	73		
38	1994	1994	70.73	17.71	48		
39	1994	1994	62.34	21.68	71		
40	1994	1994	68.17	13.29	24		
41	1994	1994	73.28	28.44	54		
42	1994	1994	84.06	18.18	72		
45	1994	1994	70.70	20.93	20		
49	1994	1994	69.44	28.73	50		
51	1994	1994	61.85	26.93	72		
54	1994	1994	71.04	18.03	72		
55	1994	1994	78.56	18.57	72		
58	1994	1994	92.34	13.82	71		
59	1994	1994	86.14	17.98	69		
66	1994	1994	88.14	14.45	70		
77	1994	1994	62.60	32.44	72		
78	1994	1994	81.23	17.04	61		
79	1994	1994	47.02	25.68	47		
80	1994	1994	53.33	25.90	72		
81	1994	1994	88.96	12.87	72		
82	1994	1994	88.86	10.75	71		
83	1994	1994	73.11	22.06	72		

Stand	Year Measured	Leaf Area Index -- = "LAI Summary" Corrected: Sep-90		4/1/1991 or 12/93		Aug-91		Jul-92		Sep-92		Summer LAI Averages		Winter LAI
		Full Canopy	Crown	Full Canopy	Crown	Full Canopy	Crown	Full Canopy	Crown	Full Canopy	Crown	Full Canopy	Crown	Full Canopy
22	1991		2.40			3.20	2.50					3.20	2.45	3.20
23	1991		3.36			4.83	3.10					4.83	3.23	4.60
24	1991		2.00			5.35	2.34					5.35	2.17	5.11
25	1991		3.38			5.32	3.20					5.32	3.29	5.12
26	1991					4.57	2.02					4.57	2.02	4.42
27	1991		2.36			4.22	2.48					4.22	2.42	4.14
28	1991		3.59	0.47	0.47	4.56	4.16	4.19				4.37	3.87	0.47
29	1991		3.72	0.25	0.25	4.22	3.80	4.11				4.16	3.76	0.25
31	1991		2.61	0.13	0.13	3.85	3.36	3.67				3.76	2.98	0.13
32	1991					5.86	5.28					5.86	5.28	5.80
33	1991		1.72	0.11	0.11	3.33	2.18	3.81				3.57	1.95	0.11
34	1991		2.78	0.18	0.18	3.98	3.43	3.71				3.85	3.11	0.18
35	1991		1.03			2.44	1.38					2.44	1.20	2.43
36	1991		0.60			1.73	0.80					1.73	0.70	1.69
37	1992							0.84				0.84		0.84
38	1992							1.15				1.15		1.15
39	1992							1.12				1.12		1.12
40	1992							1.27				1.27		1.27
41	1992									2.20	0.39	2.20	0.39	2.04
42	1992													
43	1992									3.92	2.40	3.92	2.40	3.84
44	1992							3.83	1.92			3.83	1.92	3.12
45	1992			0.13	0.13			2.05				2.05		0.13
47	1992			1.85	1.85					4.76		4.76		1.01
48	1992			1.01	1.01					3.43	1.77	3.43	1.77	0.99
49	1992			0.99	0.99									0.01
50	1992			0.01	0.01			3.02				3.02		2.52
51	1992							3.05				3.05		
46	1993													1.85
52	1993													
53	1993													1.06
54	1993			1.06	1.06									
55	1993													
56	1993													
57	1993													1.44
58	1993			1.44	1.44									
59	1993													0.26
60	1993			0.26	0.26									0.89
61	1993			0.89	0.89									
62	1993													
63	1993													
64	1993													
65	1993													
66	1993													
67	1993													
68	1993													
69	1993													0.73
70	1993			0.73	0.73									
71	1993													

Stand	Year Measured	Leaf Area Index -- = "LAI Summary" Corrected										Summer LAI Averages		Winter LAI
		Sep-90		4/1/1991 or 12/93		Aug-91		Jul-92		Sep-92				
		Full Canopy	Crown	Full Canopy	Crown	Full Canopy	Crown	Full Canopy	Crown	Full Canopy	Crown	Full Canopy	Crown	Full Canopy
72	1993													
73	1993													
74	1993													
75	1993			2.58	2.58									2.58
76	1993													
77	1993			0.90	0.90									0.90
78	1993													
79	1993													
80	1993													
81	1993													
82	1993			1.15	1.15									1.15
83	1993													
85	1993													
86	1993			1.11	1.11									1.11
87	1993			0.99	0.99									0.99
88	1993			0.70	0.70									0.70
91	1993													0.79
22	1994													
33	1994													
36	1994													
37	1994													
38	1994													
39	1994													
40	1994													
41	1994													
42	1994													
45	1994													
49	1994													
51	1994													
54	1994													
55	1994													
58	1994													
59	1994													
66	1994													
77	1994													
78	1994													
79	1994													
80	1994													
81	1994													
82	1994													
83	1994													

Stand	Year Measured	UTM COORDINATES			
		SW X	SW Y	NE X	NE Y
22	1991	667521.8	5135412.5	667820.0	5135645.0
23	1991	669386.9	5130535.0	669650.8	5130808.5
24	1991	673629.3	5138048.5	673826.4	5138262.0
25	1991	669398.8	5130725.5	669580.2	5131006.0
26	1991	676233.3	5133015.5	676390.8	5133338.5
27	1991	662780.4	5135912.0	663020.3	5136121.0
28	1991	661538.3	5139469.5	661738.7	5139694.5
29	1991	661647.8	5139805.5	661861.8	5140015.0
31	1991	660905.3	5143976.5	661109.2	5144177.5
32	1991	656007.3	5147767.5	656203.3	5147983.0
33	1991	660439.2	5143750.0	660818.8	5143976.0
34	1991	660543.3	5143507.0	660796.1	5143756.5
35	1991	670117.2	5135924.0	670311.0	5136173.5
36	1991	666660.3	5136079.0	666904.9	5136271.5
37	1992	667959.8	5139207.5	668164.2	5139413.5
38	1992	669440.2	5139490.5	669710.7	5139683.5
39	1992	668050.5	5139879.0	668300.7	5140099.5
40	1992	672560.4	5139640.5	672959.5	5139832.5
41	1992	671385.9	5135536.0	671727.1	5135743.0
42	1992	668034.9	5132472.0	668246.3	5132752.5
43	1992	658474.1	5134080.5	658742.7	5134277.0
44	1992	657865.9	5137720.0	658188.8	5137887.0
45	1992	659897.4	5144299.5	660131.8	5144620.5
47	1992	655088.5	5146510.0	655400.1	5146768.0
48	1992	655528.3	5145666.0	655861.4	5145808.0
49	1992	661165.4	5143632.5	661445.1	5143842.0
50	1992	661312.9	5143262.5	661535.6	5143541.5
51	1992	674289.1	5139404.5	674555.6	5139599.0
46	1993	649908.9	5148313.5	650229.4	5148562.0
52	1993	671515.9	5137512.0	671722.6	5137729.5
53	1993	673429.1	5141082.0	673745.7	5141207.5
54	1993	669036.0	5138940.0	669246.7	5139153.5
55	1993	669267.5	5140453.5	669496.3	5140713.0
56	1993	669054.7	5138413.5	669263.0	5138612.0
57	1993	669615.5	5141957.5	669773.6	5142210.0
58	1993	671252.4	5137709.0	671458.6	5137909.5
59	1993	668649.5	5136817.0	668847.0	5137018.5
60	1993	666890.8	5136312.5	667058.4	5136648.0
61	1993	.	.	.	.
62	1993	668310.1	5136535.5	668509.3	5136753.0
63	1993	668630.3	5137065.0	668821.0	5137266.0
64	1993	6692.6.4	5136833.5	669416.8	5137036.0
65	1993	668654.0	5137900.0	668856.1	5138108.5
66	1993	668550.4	5138722.0	668857.6	5138925.0
67	1993	668344.7	5139487.5	668546.3	5139692.5
68	1993	670203.3	5137129.5	670423.4	5137337.0
69	1993	673804.4	5141280.5	673939.7	5141601.5
70	1993	.	.	.	.
71	1993	671806.2	5139581.5	671998.9	5139786.0

Stand	Year Measured	UTM COORDINATES			
		SW X	SW Y	NE X	NE Y
72	1993	671998.9	5139585.0	672205.3	5139795.5
73	1993	670106.5	5140329.0	670413.4	5140558.5
74	1993	666143.3	5141916.0	666376.1	5142152.5
75	1993	666417.5	5141759.5	666534.1	5142160.5
76	1993	666264.9	5142955.0	666498.5	5143148.5
77	1993	664039.9	5137771.0	664239.1	5138006.5
78	1993	661131.1	5134797.0	661389.3	5135128.0
79	1993	660921.1	5133597.0	661119.9	5133830.5
80	1993	660858.3	5134149.0	661108.1	5134352.0
81	1993	665172.9	5135674.0	665421.8	5135869.0
82	1993	665688.9	5135026.5	665887.6	5135293.5
83	1993	672055.0	5135539.0	672253.4	5135776.0
85	1993	655787.4	5139630.0	655996.6	5139831.5
86	1993	660400.8	5141600.0	660557.9	5141918.5
87	1993	658838.3	5147164.5	659143.2	5147494.0
88	1993	656279.8	5148144.5	656476.0	5148363.5
91	1993	646641.8	5145553.5	646838.5	5145872.0
22	1994	667521.8	5135412.5	667820.0	5135645.0
33	1994	660439.2	5143750.0	660818.8	5143976.0
36	1994	666660.3	5136079.0	666904.9	5136271.5
37	1994	667959.8	5139207.5	668164.2	5139413.5
38	1994	669440.2	5139490.5	669710.7	5139683.5
39	1994	668050.5	5139879.0	668300.7	5140099.5
40	1994	672560.4	5139640.5	672959.5	5139832.5
41	1994	671385.9	5135536.0	671727.1	5135743.0
42	1994	668034.9	5132472.0	668246.3	5132752.5
45	1994	659897.4	5144299.5	660131.8	5144620.5
49	1994	661165.4	5143632.5	661445.1	5143842.0
51	1994	674289.1	5139404.5	674555.6	5139599.0
54	1994	669036.0	5138940.0	669246.7	5139153.5
55	1994	669267.5	5140453.5	669496.3	5140713.0
58	1994	671252.4	5137709.0	671458.6	5137909.5
59	1994	668649.5	5136817.0	668847.0	5137018.5
66	1994	668550.4	5138722.0	668857.6	5138925.0
77	1994	664039.9	5137771.0	664239.1	5138006.5
78	1994	661131.1	5134797.0	661389.3	5135128.0
79	1994	660921.1	5133597.0	661119.9	5133830.5
80	1994	660858.3	5134149.0	661108.1	5134352.0
81	1994	665172.9	5135674.0	665421.8	5135869.0
82	1994	665688.9	5135026.5	665887.6	5135293.5
83	1994	672055.0	5135539.0	672253.4	5135776.0

APPENDIX E:
STAND STRUCTURE

STAND=22 YEAR=91 STRATUM=1

	DIAMETER (cm)			MEASURED HEIGHT (m)			CROWN DEPTH (m)			BA	DENSITY
SPECIES	**MEAN**	**STD**	**N**	**MEAN**	**STD**	**N**	**MEAN**	**STD**	**N**	**(m^2/ha)**	**(# stems)**
picgla	7.63	3.03	3.00	5.33	0.58	3.00	4.83	0.58	3.00	0.04	8
pinres	13.60	3.03	466.00	7.61	0.96	9.00	6.11	0.99	9.00	17.77	1165
STRATUM TOTAL	13.57	3.06	469.00	7.04	1.34	12.00	5.79	1.05	12.00	17.81	1173

STAND=22 YEAR=91 STRATUM=2

	DIAMETER (cm)			MEASURED HEIGHT (m)			CROWN DEPTH (m)			BA	DENSITY
SPECIES	**MEAN**	**STD**	**N**	**MEAN**	**STD**	**N**	**MEAN**	**STD**	**N**	**(m^2/ha)**	**(# stems)**
amespp	1.01	0.27	8.00	1.45	0.31	8.00	NA	NA	0.00	0.01	63
picgla	5.70	1.13	2.00	4.00	1.13	2.00	NA	NA	0.00	0.04	16
pinres	5.86	2.86	8.00	3.25	1.62	8.00	NA	NA	0.00	0.20	63
STRATUM TOTAL	3.69	3.09	18.00	2.53	1.50	18.00	NA	NA	0.00	0.25	141

STAND=22 YEAR=94 STRATUM=1

	DIAMETER (cm)			MEASURED HEIGHT (m)			CROWN DEPTH (m)			BA	DENSITY
SPECIES	**MEAN**	**STD**	**N**	**MEAN**	**STD**	**N**	**MEAN**	**STD**	**N**	**(m^2/ha)**	**(stems/ha)**
pinres	14.59	3.08	274.00	8.75	1.38	24.00	6.58	1.14	24.00	19.94	1142
STRATUM TOTAL	14.59	3.08	274.00	8.75	1.38	24.00	6.58	1.14	24.00	19.94	1142

STAND=22 YEAR=94 STRATUM=2

	DIAMETER (cm)			MEASURED HEIGHT (m)			CROWN DEPTH (m)			BA	DENSITY
SPECIES	**MEAN**	**STD**	**N**	**MEAN**	**STD**	**N**	**MEAN**	**STD**	**N**	**(m^2/ha)**	**(stems/ha)**
amespp	0.65	0.07	2.00	2.34	NA	1.00	NA	NA	0.00	0.00	26
pinres	4.23	1.80	3.00	2.79	1.40	2.00	NA	NA	0.00	0.06	39
STRATUM TOTAL	2.80	2.34	5.00	2.64	1.02	3.00	NA	NA	0.00	0.06	65

STAND=23 YEAR=91 STRATUM=1

SPECIES	DIAMETER (cm) MEAN	STD	N	MEASURED HEIGHT (m) MEAN	STD	N	CROWN DEPTH (m) MEAN	STD	N	BA (m^2/ha)	DENSITY (stems/ha)
abibal	11.23	5.84	12.00	11.23	5.80	11.00	8.77	4.93	11.00	0.37	30
acerub	6.35	4.53	145.00	12.96	6.22	13.00	7.73	4.37	13.00	1.73	363
betpap	16.73	6.89	11.00	16.28	5.18	9.00	8.94	2.80	9.00	0.70	28
picgla	8.62	4.92	25.00	9.33	5.74	12.00	5.63	2.84	12.00	0.48	63
picmar	18.20	8.06	2.00	18.00	4.24	2.00	10.50	0.71	2.00	0.14	5
pinres	34.69	10.52	77.00	23.33	5.51	24.00	8.54	2.25	24.00	19.84	193
pinstr	24.64	9.92	106.00	20.72	6.64	32.00	8.20	3.02	32.00	14.67	265
popgra	27.10	NA	1.00	23.50	NA	1.00	9.50	NA	1.00	0.14	3
STRATUM TOTAL	17.95	13.79	379.00	17.63	7.73	104.00	8.11	3.31	104.00	38.07	948

STAND=23 YEAR=91 STRATUM=2

SPECIES	DIAMETER (cm) MEAN	STD	N	MEASURED HEIGHT (m) MEAN	STD	N	CROWN DEPTH (m) MEAN	STD	N	BA (m^2/ha)	DENSITY (stems/ha)
abibal	2.63	1.14	20.00	2.06	0.83	20.00	NA	NA	0.00	0.10	156
acerub	1.24	0.78	337.00	1.92	1.00	337.00	NA	NA	0.00	0.44	2633
amespp	0.63	0.26	4.00	1.33	0.33	4.00	NA	NA	0.00	0.00	31
betpap	0.92	0.55	15.00	1.51	0.69	15.00	NA	NA	0.00	0.01	117
picgla	2.14	1.03	15.00	1.71	0.63	15.00	NA	NA	0.00	0.05	117
picmar	2.70	NA	1.00	1.70	NA	1.00	NA	NA	0.00	0.00	8
pinstr	1.30	0.51	6.00	1.27	0.42	6.00	NA	NA	0.00	0.01	47
prupen	1.30	NA	1.00	1.80	NA	1.00	NA	NA	0.00	0.00	8
salspp	0.70	NA	1.00	1.20	NA	1.00	NA	NA	0.00	0.00	8
vibcas	0.82	0.37	9.00	1.29	0.25	9.00	NA	NA	0.00	0.00	70
STRATUM TOTAL	1.32	0.87	409.00	1.87	0.96	409.00	NA	NA	0.00	0.62	3195

STAND=24 YEAR=91 STRATUM=1

	DIAMETER (cm)			MEASURED HEIGHT (m)			CROWN DEPTH (m)			BA	DENSITY
SPECIES	**MEAN**	**STD**	**N**	**MEAN**	**STD**	**N**	**MEAN**	**STD**	**N**	**(m^2/ha)**	**(stems/ha)**
acerub	5.83	2.19	43.00	7.75	2.16	10.00	5.50	2.01	10.00	0.33	108
betpap	11.43	5.24	18.00	10.50	3.38	12.00	7.79	2.86	12.00	0.55	45
pinban	17.20	3.98	275.00	14.60	3.63	15.00	7.17	2.51	15.00	16.83	688
pinres	24.93	19.29	7.00	13.36	5.03	7.00	8.93	2.86	7.00	1.29	18
pinstr	8.19	1.75	9.00	6.00	0.71	4.00	4.75	0.65	4.00	0.12	23
popgra	9.76	3.26	8.00	10.00	2.45	7.00	3.57	1.64	7.00	0.16	20
poptre	2.70	NA	1.00	5.50	NA	1.00	3.50	NA	1.00	0.00	3
STRATUM TOTAL	15.28	6.23	361.00	10.99	4.31	56.00	6.54	2.83	56.00	19.29	903

STAND=24 YEAR=91 STRATUM=2

	DIAMETER (cm)			MEASURED HEIGHT (m)			CROWN DEPTH (m)			BA	DENSITY
SPECIES	**MEAN**	**STD**	**N**	**MEAN**	**STD**	**N**	**MEAN**	**STD**	**N**	**(m^2/ha)**	**(stems/ha)**
acerub	1.61	0.76	65.00	1.97	0.79	65.00	NA	NA	0.00	0.13	508
amespp	0.83	0.25	3.00	1.33	0.15	3.00	NA	NA	0.00	0.00	23
betpap	1.88	1.07	12.00	2.20	0.77	12.00	NA	NA	0.00	0.03	94
corcor	1.14	0.38	97.00	1.75	0.48	97.00	NA	NA	0.00	0.09	758
pinban	5.40	NA	1.00	3.20	NA	1.00	NA	NA	0.00	0.02	8
pinres	4.70	NA	1.00	2.90	NA	1.00	NA	NA	0.00	0.01	8
pinstr	2.92	1.41	22.00	2.09	0.88	22.00	NA	NA	0.00	0.14	172
popgra	2.10	NA	1.00	2.50	NA	1.00	NA	NA	0.00	0.00	8
salspp	1.30	0.85	2.00	1.30	0.42	2.00	NA	NA	0.00	0.00	16
STRATUM TOTAL	1.56	0.97	204.00	1.89	0.68	204.00	NA	NA	0.00	0.42	1594

STAND=25 YEAR=91 STRATUM=1

SPECIES	DIAMETER (cm) MEAN	STD	N	MEASURED HEIGHT (m) MEAN	STD	N	CROWN DEPTH (m) MEAN	STD	N	BA (m^2/ha)	DENSITY (stems/ha)
abibal	7.53	3.06	18.00	7.56	3.14	8.00	6.00	3.00	8.00	0.23	45
acerub	5.29	3.38	123.00	11.77	5.63	13.00	7.85	3.72	13.00	0.95	308
betpap	5.90	5.24	21.00	11.00	5.26	9.00	6.78	2.69	9.00	0.25	53
picgla	10.78	6.16	32.00	10.93	4.83	14.00	8.76	3.89	14.00	0.96	80
picmar	10.45	4.93	23.00	11.83	5.05	9.00	8.33	3.81	9.00	0.60	58
pinres	35.86	11.58	62.00	23.06	6.13	26.00	10.23	3.34	26.00	17.26	155
pinstr	26.66	11.78	68.00	21.04	5.89	27.00	11.37	4.81	27.00	11.32	170
popgra	29.25	12.80	2.00	22.50	7.78	2.00	9.50	3.54	2.00	0.37	5
STRATUM TOTAL	16.02	14.50	349.00	16.52	7.89	108.00	9.27	4.12	108.00	31.94	873

STAND=25 YEAR=91 STRATUM=2

SPECIES	DIAMETER (cm) MEAN	STD	N	MEASURED HEIGHT (m) MEAN	STD	N	CROWN DEPTH (m) MEAN	STD	N	BA (m^2/ha)	DENSITY (stems/ha)
abibal	3.03	1.35	42.00	2.37	1.00	42.00	NA	NA	0.00	0.28	328
acerub	1.57	0.79	206.00	2.13	1.09	206.00	NA	NA	0.00	0.39	1609
alnrug	1.00	NA	1.00	1.30	NA	1.00	NA	NA	0.00	0.00	8
amespp	0.60	NA	1.00	1.20	NA	1.00	NA	NA	0.00	0.00	8
betpap	1.17	0.69	30.00	1.70	0.88	30.00	NA	NA	0.00	0.03	234
picgla	3.56	1.60	23.00	2.43	1.15	23.00	NA	NA	0.00	0.21	180
picmar	3.76	1.34	9.00	3.38	1.13	9.00	NA	NA	0.00	0.09	70
pinstr	2.08	0.81	36.00	1.84	0.69	36.00	NA	NA	0.00	0.11	281
popgra	2.70	NA	1.00	3.70	NA	1.00	NA	NA	0.00	0.00	8
salspp	1.70	0.28	2.00	2.05	0.21	2.00	NA	NA	0.00	0.00	16
vibcas	0.93	0.38	3.00	1.17	0.21	3.00	NA	NA	0.00	0.00	23
STRATUM TOTAL	1.94	1.19	354.00	2.13	1.06	354.00	NA	NA	0.00	1.12	2766

STAND=26 YEAR=91 STRATUM=1

	DIAMETER (cm)			MEASURED HEIGHT (m)			CROWN DEPTH (m)			BA	DENSITY
SPECIES	**MEAN**	**STD**	**N**	**MEAN**	**STD**	**N**	**MEAN**	**STD**	**N**	**(m^2/ha)**	**(stems/ha)**
abibal	7.00	2.39	8.00	6.43	2.57	7.00	5.21	1.91	7.00	0.08	20
acerub	9.91	7.51	12.00	8.67	5.12	12.00	5.63	3.82	12.00	0.35	30
betpap	16.17	5.44	3.00	15.50	3.50	3.00	8.17	3.33	3.00	0.17	8
larlar	15.82	8.99	11.00	12.68	4.01	11.00	7.91	2.86	11.00	0.70	28
picmar	11.58	4.78	422.00	12.05	5.12	20.00	8.18	4.48	20.00	13.00	1055
pinban	17.17	3.68	9.00	13.61	2.61	9.00	8.00	2.25	9.00	0.54	23
pinres	20.70	NA	1.00	15.50	NA	1.00	8.50	NA	1.00	0.08	3
pinstr	22.68	7.81	14.00	13.65	3.47	13.00	10.15	3.61	10.00	1.57	35
poptre	16.16	4.97	5.00	14.90	3.58	5.00	6.60	2.99	5.00	0.28	13
STRATUM TOTAL	12.08	5.51	485.00	11.93	4.70	81.00	7.62	3.65	78.00	16.78	1213

STAND=26 YEAR=91 STRATUM=2

	DIAMETER (cm)			MEASURED HEIGHT (m)			CROWN DEPTH (m)			BA	DENSITY
SPECIES	**MEAN**	**STD**	**N**	**MEAN**	**STD**	**N**	**MEAN**	**STD**	**N**	**(m^2/ha)**	**(stems/ha)**
abibal	3.73	1.97	44.00	2.59	1.18	40.00	NA	NA	0.00	0.48	344
acerub	1.64	0.92	144.00	2.65	1.41	23.00	NA	NA	0.00	0.31	1125
alnrug	1.49	0.63	70.00	1.98	0.90	19.00	NA	NA	0.00	0.11	547
amespp	1.07	0.33	19.00	1.86	0.85	7.00	NA	NA	0.00	0.01	148
aromel	0.82	0.19	5.00	1.30	0.20	5.00	NA	NA	0.00	0.00	39
larlar	2.39	1.54	7.00	2.56	1.43	7.00	NA	NA	0.00	0.03	55
ledgro	1.04	0.23	14.00	1.20	0.13	7.00	NA	NA	0.00	0.01	109
nemmuc	1.43	0.61	175.00	1.65	0.59	20.00	NA	NA	0.00	0.26	1367
picmar	2.61	1.03	352.00	2.60	1.21	32.00	NA	NA	0.00	1.70	2750
pinban	1.85	0.21	2.00	1.30	0.28	2.00	NA	NA	0.00	0.00	16
pinstr	3.20	0.42	2.00	1.10	0.14	2.00	NA	NA	0.00	0.01	16
salspp	1.39	0.70	8.00	1.51	0.40	8.00	NA	NA	0.00	0.01	63
sorame	1.60	0.34	9.00	1.74	0.52	9.00	NA	NA	0.00	0.01	70
vibcas	1.15	0.41	339.00	1.49	0.44	16.00	NA	NA	0.00	0.31	2648
STRATUM TOTAL	1.81	1.10	1190.00	2.14	1.11	197.00	NA	NA	0.00	3.27	9297

STAND=27 YEAR=91 STRATUM=1

	DIAMETER (cm)			MEASURED HEIGHT (m)			CROWN DEPTH (m)			BA	DENSITY
SPECIES	**MEAN**	**STD**	**N**	**MEAN**	**STD**	**N**	**MEAN**	**STD**	**N**	**(m^2/ha)**	**(stems/ha)**
acerub	4.24	1.06	57.00	7.25	1.51	6.00	4.80	1.35	5.00	0.21	143
amespp	2.78	0.39	6.00	7.50	0.00	3.00	5.00	0.00	3.00	0.01	15
betpap	20.67	2.57	3.00	14.17	0.29	3.00	10.00	0.87	3.00	0.25	8
pinban	15.51	2.90	496.00	15.25	2.69	12.00	6.00	2.29	12.00	24.24	1240
STRATUM TOTAL	14.26	4.56	562.00	12.15	4.31	24.00	6.13	2.38	23.00	24.72	1405

STAND=27 YEAR=91 STRATUM=2

	DIAMETER (cm)			MEASURED HEIGHT (m)			CROWN DEPTH (m)			BA	DENSITY
SPECIES	**MEAN**	**STD**	**N**	**MEAN**	**STD**	**N**	**MEAN**	**STD**	**N**	**(m^2/ha)**	**(stems/ha)**
acerub	1.98	0.96	84.00	2.23	1.00	84.00	NA	NA	0.00	0.25	656
amespp	1.42	1.05	11.00	1.75	1.07	11.00	NA	NA	0.00	0.02	86
betpap	1.30	NA	1.00	2.30	NA	1.00	NA	NA	0.00	0.00	8
corcor	1.02	0.33	125.00	1.48	0.44	69.00	NA	NA	0.00	0.09	977
faggra	1.50	NA	1.00	NA	NA	0.00	NA	NA	0.00	0.00	8
pruser	1.40	NA	1.00	1.50	NA	1.00	NA	NA	0.00	0.00	8
STRATUM TOTAL	1.40	0.82	223.00	1.88	0.89	166.00	NA	NA	0.00	0.36	1742

STAND=28 YEAR=91 STRATUM=1

	DIAMETER (cm)			MEASURED HEIGHT (m)			CROWN DEPTH (m)			BA	DENSITY
SPECIES	**MEAN**	**STD**	**N**	**MEAN**	**STD**	**N**	**MEAN**	**STD**	**N**	**(m^2/ha)**	**(stems/ha)**
abibal	8.30	NA	1.00	5.00	NA	1.00	1.50	NA	1.00	0.01	3
acerub	23.47	10.79	109.00	20.63	5.61	31.00	11.88	4.04	28.00	14.26	273
acesac	7.46	7.29	9.00	8.43	4.21	7.00	4.07	1.86	7.00	0.18	23
betall	21.03	13.86	38.00	16.62	7.04	25.00	10.61	4.90	19.00	4.69	95
faggra	20.52	18.26	103.00	19.40	6.75	36.00	11.17	4.32	33.00	15.20	258
pinstr	55.20	NA	1.00	31.00	NA	1.00	15.00	NA	1.00	0.60	3
tsucan	25.79	12.01	21.00	12.94	4.36	18.00	9.06	4.22	18.00	3.31	53
STRATUM TOTAL	21.78	14.73	282.00	17.49	7.07	119.00	10.38	4.64	107.00	38.26	705

STAND=28 YEAR=91 STRATUM=2

	DIAMETER (cm)			MEASURED HEIGHT (m)			CROWN DEPTH (m)			BA	DENSITY
SPECIES	**MEAN**	**STD**	**N**	**MEAN**	**STD**	**N**	**MEAN**	**STD**	**N**	**(m^2/ha)**	**(stems/ha)**
abibal	3.18	1.44	20.00	1.83	1.01	20.00	3.30	NA	1.00	0.15	156
acerub	1.10	0.18	6.00	1.28	0.22	6.00	NA	NA	0.00	0.00	47
acesac	1.55	0.82	90.00	1.77	0.87	90.00	NA	NA	0.00	0.17	703
betall	8.37	2.65	3.00	4.00	0.66	3.00	NA	NA	0.00	0.14	23
faggra	1.76	0.66	745.00	1.95	0.84	745.00	NA	NA	0.00	1.61	5820
tsucan	2.60	0.10	3.00	1.33	0.21	3.00	NA	NA	0.00	0.01	23
STRATUM TOTAL	1.79	0.84	867.00	1.93	0.85	867.00	3.30	NA	1.00	2.08	6773

STAND=29 YEAR=91 STRATUM=1

SPECIES	DIAMETER (cm) MEAN	STD	N	MEASURED HEIGHT (m) MEAN	STD	N	CROWN DEPTH (m) MEAN	STD	N	BA (m^2/ha)	DENSITY (stems/ha)
abibal	7.74	6.27	5.00	8.33	3.06	3.00	5.00	2.83	2.00	0.09	13
acepen	3.90	NA	1.00	5.50	NA	1.00	1.50	NA	1.00	0.00	3
acerub	18.52	9.49	149.00	15.94	7.09	43.00	10.23	4.12	31.00	12.65	373
acesac	9.49	11.10	14.00	6.50	1.27	5.00	3.40	1.56	5.00	0.56	35
betall	16.22	11.57	85.00	15.22	6.01	29.00	9.20	3.45	20.00	6.60	213
faggra	16.53	15.11	104.00	18.94	6.87	33.00	13.07	4.73	28.00	10.20	260
pinstr	11.90	NA	1.00	6.00	NA	1.00	NA	NA	0.00	0.03	3
poptre	34.80	10.63	4.00	23.63	3.25	4.00	10.50	2.55	4.00	1.02	10
tsucan	34.84	7.72	7.00	15.29	2.67	7.00	10.42	1.59	6.00	1.74	18
STRATUM TOTAL	17.37	12.30	370.00	16.05	6.99	126.00	10.31	4.57	97.00	32.88	925

STAND=29 YEAR=91 STRATUM=2

SPECIES	DIAMETER (cm) MEAN	STD	N	MEASURED HEIGHT (m) MEAN	STD	N	CROWN DEPTH (m) MEAN	STD	N	BA (m^2/ha)	DENSITY (stems/ha)
abibal	2.63	1.09	174.00	1.73	0.66	174.00	NA	NA	0.00	0.86	1359
acepen	1.39	0.70	16.00	1.49	0.64	16.00	NA	NA	0.00	0.02	125
acerub	1.33	0.79	73.00	1.46	0.69	73.00	NA	NA	0.00	0.11	570
acesac	1.47	0.64	81.00	1.76	0.89	81.00	NA	NA	0.00	0.13	633
betall	4.35	3.05	13.00	2.36	1.10	13.00	NA	NA	0.00	0.22	102
faggra	1.77	0.72	498.00	1.93	0.88	498.00	NA	NA	0.00	1.11	3891
poptre	1.38	1.15	4.00	1.18	0.15	4.00	NA	NA	0.00	0.01	31
STRATUM TOTAL	1.91	1.01	859.00	1.83	0.84	859.00	NA	NA	0.00	2.46	6711

STAND=31 YEAR=91 STRATUM=1

SPECIES	DIAMETER (cm) MEAN	STD	N	MEASURED HEIGHT (m) MEAN	STD	N	CROWN DEPTH (m) MEAN	STD	N	BA (m^2/ha)	DENSITY (stems/ha)
acerub	14.96	6.31	245.00	18.53	3.40	19.00	8.71	3.35	19.00	12.68	613
acesac	10.12	6.22	455.00	15.17	5.05	21.00	9.00	3.13	21.00	12.59	1138
amespp	11.45	2.76	2.00	17.00	1.41	2.00	3.00	1.41	2.00	0.05	5
faggra	6.69	2.10	23.00	9.06	3.67	8.00	7.06	3.99	8.00	0.22	58
poptre	23.96	10.09	11.00	18.36	4.11	11.00	6.55	2.96	11.00	1.44	28
STRATUM TOTAL	11.83	6.83	736.00	16.05	5.11	61.00	8.02	3.44	61.00	26.98	1840

STAND=31 YEAR=91 STRATUM=2

SPECIES	DIAMETER (cm) MEAN	STD	N	MEASURED HEIGHT (m) MEAN	STD	N	CROWN DEPTH (m) MEAN	STD	N	BA (m^2/ha)	DENSITY (stems/ha)
abibal	2.48	0.50	4.00	1.33	0.32	4.00	NA	NA	0.00	0.02	31
acerub	1.46	0.96	15.00	1.43	0.49	15.00	NA	NA	0.00	0.03	117
acesac	2.03	1.12	80.00	2.40	1.25	80.00	NA	NA	0.00	0.26	625
amespp	1.22	0.57	28.00	1.55	0.62	28.00	NA	NA	0.00	0.03	219
faggra	1.90	1.53	4.00	1.50	0.87	4.00	NA	NA	0.00	0.01	31
poptre	1.10	0.87	4.00	1.75	0.97	4.00	NA	NA	0.00	0.00	31
STRATUM TOTAL	1.78	1.06	135.00	2.04	1.13	135.00	NA	NA	0.00	0.35	1055

STAND=32 YEAR=91 STRATUM=1

	DIAMETER (cm)			MEASURED HEIGHT (m)			CROWN DEPTH (m)			BA	DENSITY
SPECIES	**MEAN**	**STD**	**N**	**MEAN**	**STD**	**N**	**MEAN**	**STD**	**N**	**(m^2/ha)**	**(stems/ha)**
abibal	10.44	4.79	66.00	9.90	4.25	15.00	4.63	2.14	12.00	1.71	165
alnrug	5.96	1.88	7.00	6.20	1.04	5.00	3.50	0.50	5.00	0.05	18
franig	10.06	4.72	5.00	10.70	3.95	5.00	5.38	1.70	4.00	0.12	13
larlar	15.23	7.23	4.00	15.50	2.04	4.00	4.63	1.38	4.00	0.21	10
picgla	19.02	7.42	9.00	17.07	4.49	7.00	7.21	3.68	7.00	0.73	23
picmar	16.96	3.37	83.00	14.80	2.25	10.00	5.89	2.07	9.00	4.87	208
poptre	20.84	6.66	9.00	17.44	2.59	9.00	5.22	1.82	9.00	0.84	23
thuocc	18.40	8.40	620.00	12.39	3.72	32.00	6.53	2.80	32.00	49.80	1550
STRATUM TOTAL	17.46	8.08	803.00	12.83	4.50	87.00	5.76	2.57	82.00	58.32	2008

STAND=32 YEAR=91 STRATUM=2

	DIAMETER (cm)			MEASURED HEIGHT (m)			CROWN DEPTH (m)			BA	DENSITY
SPECIES	**MEAN**	**STD**	**N**	**MEAN**	**STD**	**N**	**MEAN**	**STD**	**N**	**(m^2/ha)**	**(stems/ha)**
abibal	2.48	1.17	49.00	1.91	0.88	49.00	NA	NA	0.00	0.23	383
acerub	0.60	NA	1.00	1.20	NA	1.00	NA	NA	0.00	0.00	8
alnrug	1.93	1.11	50.00	1.92	0.89	50.00	NA	NA	0.00	0.15	391
coralt	1.09	0.62	8.00	1.79	0.39	8.00	NA	NA	0.00	0.01	63
franig	1.05	0.78	2.00	1.80	0.99	2.00	NA	NA	0.00	0.00	16
picmar	1.65	0.64	2.00	1.20	0.14	2.00	NA	NA	0.00	0.00	16
salspp	2.10	2.12	2.00	1.75	0.07	2.00	NA	NA	0.00	0.01	16
thuocc	2.84	2.13	83.00	1.79	0.93	83.00	NA	NA	0.00	0.64	648
STRATUM TOTAL	2.40	1.68	197.00	1.84	0.88	197.00	NA	NA	0.00	1.04	1539

STAND=33 YEAR=91 STRATUM=1

	DIAMETER (cm)			MEASURED HEIGHT (m)			CROWN DEPTH (m)			BA	DENSITY
SPECIES	**MEAN**	**STD**	**N**	**MEAN**	**STD**	**N**	**MEAN**	**STD**	**N**	**(m^2/ha)**	**(stems/ha)**
acerub	3.48	1.12	62.00	5.87	0.98	19.00	3.03	0.96	19.00	0.59	564
acesac	3.79	2.16	35.00	6.47	1.62	18.00	3.81	1.55	18.00	0.47	318
amespp	2.31	0.27	11.00	5.50	0.00	5.00	3.50	0.71	2.00	0.04	100
aromel	2.83	0.61	3.00	7.00	2.12	2.00	3.35	3.04	2.00	0.02	27
popgra	6.02	1.82	106.00	7.63	2.57	34.00	3.61	1.51	27.00	2.99	964
poptre	4.62	1.31	516.00	6.43	1.41	51.00	2.40	1.13	50.00	8.49	4691
prupen	3.40	1.11	277.00	6.68	1.68	42.00	2.84	1.46	41.00	2.53	2518
pruser	6.00	1.54	5.00	8.70	2.02	5.00	5.00	1.84	5.00	0.14	45
STRATUM TOTAL	4.31	1.58	1015.00	6.71	1.84	176.00	3.04	1.47	164.00	15.27	9227

STAND=33 YEAR=91 STRATUM=2

	DIAMETER (cm)			MEASURED HEIGHT (m)			CROWN DEPTH (m)			BA	DENSITY
SPECIES	**MEAN**	**STD**	**N**	**MEAN**	**STD**	**N**	**MEAN**	**STD**	**N**	**(m^2/ha)**	**(stems/ha)**
acerub	1.58	0.74	74.00	2.21	1.17	40.00	NA	NA	0.00	0.50	2102
acesac	1.41	0.55	271.00	1.98	0.91	88.00	NA	NA	0.00	1.38	7699
amespp	1.40	0.51	40.00	2.27	0.89	17.00	NA	NA	0.00	0.20	1136
aromel	1.52	0.67	26.00	2.36	0.77	26.00	NA	NA	0.00	0.16	739
faggra	2.20	NA	1.00	3.70	NA	1.00	NA	NA	0.00	0.01	28
lonspp	0.93	0.23	6.00	1.23	0.05	6.00	NA	NA	0.00	0.01	170
poptre	2.38	0.81	114.00	3.56	1.21	29.00	NA	NA	0.00	1.60	3239
prupen	1.93	0.63	227.00	3.44	1.14	75.00	NA	NA	0.00	2.08	6449
pruser	1.90	NA	1.00	NA	NA	0.00	NA	NA	0.00	0.01	28
pruvir	1.57	0.81	6.00	2.15	1.04	6.00	NA	NA	0.00	0.04	170
sorame	1.60	NA	1.00	1.60	NA	1.00	NA	NA	0.00	0.01	28
STRATUM TOTAL	1.72	0.73	767.00	2.59	1.23	289.00	NA	NA	0.00	6.00	21790

STAND=33 YEAR=94 STRATUM=1

SPECIES	DIAMETER (cm) MEAN	STD	N	MEASURED HEIGHT (m) MEAN	STD	N	CROWN DEPTH (m) MEAN	STD	N	BA (m^2/ha)	DENSITY (stems/ha)
acerub	4.63	3.25	106.00	5.80	0.28	2.00	3.05	0.78	2.00	2.65	1060
acesac	5.02	2.56	32.00	NA	NA	0.00	NA	NA	0.00	0.79	320
amespp	3.42	1.44	27.00	NA	NA	0.00	NA	NA	0.00	0.29	270
popgra	6.78	2.02	179.00	12.17	3.33	3.00	3.75	2.47	2.00	7.03	1790
poptre	5.01	1.73	300.00	6.25	1.59	4.00	2.65	1.34	2.00	6.61	3000
prupen	3.89	1.31	199.00	10.50	NA	1.00	4.00	NA	1.00	2.63	1990
STRATUM TOTAL	5.02	2.24	843.00	8.36	3.48	10.00	3.27	1.32	7.00	20.00	8430

STAND=33 YEAR=94 STRATUM=2

SPECIES	DIAMETER (cm) MEAN	STD	N	MEASURED HEIGHT (m) MEAN	STD	N	CROWN DEPTH (m) MEAN	STD	N	BA (m^2/ha)	DENSITY (stems/ha)
acepen	1.47	0.62	11.00	1.40	NA	1.00	NA	NA	0.00	0.07	344
acerub	1.38	0.79	199.00	1.84	0.60	9.00	NA	NA	0.00	1.23	6219
acesac	1.51	0.79	167.00	1.75	0.13	3.00	NA	NA	0.00	1.19	5219
amespp	1.94	1.04	67.00	4.00	NA	1.00	NA	NA	0.00	0.79	2094
lonspp	0.70	NA	1.00	NA	NA	0.00	NA	NA	0.00	0.00	31
popgra	2.20	0.94	10.00	NA	NA	0.00	NA	NA	0.00	0.14	313
poptre	2.77	0.87	14.00	NA	NA	0.00	NA	NA	0.00	0.29	438
prupen	2.54	1.05	44.00	3.43	1.62	3.00	NA	NA	0.00	0.81	1375
pruser	1.20	0.26	3.00	NA	NA	0.00	NA	NA	0.00	0.01	94
STRATUM TOTAL	1.65	0.93	516.00	2.21	1.07	17.00	NA	NA	0.00	4.54	16125

STAND=34 YEAR=91 STRATUM=1

	DIAMETER (cm)			MEASURED HEIGHT (m)			CROWN DEPTH (m)			BA	DENSITY
SPECIES	**MEAN**	**STD**	**N**	**MEAN**	**STD**	**N**	**MEAN**	**STD**	**N**	**(m^2/ha)**	**(stems/ha)**
abibal	12.43	2.80	3.00	11.33	3.33	3.00	10.17	3.33	3.00	0.10	8
acerub	9.89	6.34	384.00	15.65	7.01	24.00	10.54	5.87	21.00	11.24	1038
acesac	6.91	4.82	200.00	13.30	4.12	16.00	8.93	2.90	15.00	3.01	541
amespp	3.97	1.15	14.00	7.50	1.73	5.00	3.60	0.42	5.00	0.05	38
faggra	8.95	4.53	16.00	10.75	4.31	10.00	8.05	3.39	10.00	0.34	43
picgla	15.30	NA	1.00	8.50	NA	1.00	6.50	NA	1.00	0.05	3
popgra	25.61	7.29	79.00	18.98	5.35	23.00	8.24	3.97	21.00	11.88	214
poptre	23.32	4.94	6.00	21.42	5.10	6.00	8.92	2.65	6.00	0.72	16
prupen	3.60	NA	1.00	5.00	NA	1.00	3.50	NA	1.00	0.00	3
pruser	4.47	1.75	3.00	6.67	1.53	3.00	3.17	1.04	3.00	0.01	8
STRATUM TOTAL	10.76	8.17	707.00	14.85	6.52	92.00	8.49	4.37	86.00	27.40	1911

STAND=34 YEAR=91 STRATUM=2

	DIAMETER (cm)			MEASURED HEIGHT (m)			CROWN DEPTH (m)			BA	DENSITY
SPECIES	**MEAN**	**STD**	**N**	**MEAN**	**STD**	**N**	**MEAN**	**STD**	**N**	**(m^2/ha)**	**(stems/ha)**
abibal	3.72	2.56	5.00	2.74	1.70	5.00	NA	NA	0.00	0.06	42
acerub	1.28	0.74	194.00	1.98	1.03	194.00	NA	NA	0.00	0.28	1639
acesac	1.13	0.60	196.00	1.78	0.89	196.00	NA	NA	0.00	0.21	1655
amespp	1.21	0.77	62.00	1.86	0.91	62.00	NA	NA	0.00	0.08	524
faggra	1.80	1.42	45.00	2.18	1.13	45.00	NA	NA	0.00	0.16	380
popgra	35.50	NA	1.00	1.10	NA	1.00	NA	NA	0.00	0.84	8
poptre	0.50	0.00	2.00	1.15	0.21	2.00	NA	NA	0.00	0.00	17
pruser	1.03	0.61	4.00	1.90	0.78	4.00	NA	NA	0.00	0.00	34
sorame	0.90	NA	1.00	1.20	NA	1.00	NA	NA	0.00	0.00	8
STRATUM TOTAL	1.34	1.74	510.00	1.91	0.98	510.00	NA	NA	0.00	1.63	4307

STAND=35 YEAR=91 STRATUM=1

	DIAMETER (cm)			MEASURED HEIGHT (m)			CROWN DEPTH (m)			BA	DENSITY
SPECIES	**MEAN**	**STD**	**N**	**MEAN**	**STD**	**N**	**MEAN**	**STD**	**N**	**(m^2/ha)**	**(stems/ha)**
acerub	9.83	3.79	3.00	7.50	0.87	3.00	4.67	0.76	3.00	0.06	8
amespp	6.00	NA	1.00	5.50	NA	1.00	2.50	NA	1.00	0.01	3
pinban	13.55	6.38	246.00	9.57	2.62	22.00	7.55	2.68	22.00	10.83	615
STRATUM TOTAL	13.47	6.37	250.00	9.17	2.62	26.00	7.02	2.79	26.00	10.90	625

STAND=35 YEAR=91 STRATUM=2

	DIAMETER (cm)			MEASURED HEIGHT (m)			CROWN DEPTH (m)			BA	DENSITY
SPECIES	**MEAN**	**STD**	**N**	**MEAN**	**STD**	**N**	**MEAN**	**STD**	**N**	**(m^2/ha)**	**(stems/ha)**
acerub	1.94	0.92	9.00	2.06	0.91	9.00	NA	NA	0.00	0.03	70
amespp	1.05	0.17	4.00	1.28	0.05	4.00	NA	NA	0.00	0.00	31
pinban	3.82	2.10	33.00	2.57	0.99	33.00	NA	NA	0.00	0.38	258
pinstr	3.50	NA	1.00	1.90	NA	1.00	NA	NA	0.00	0.01	8
salspp	1.90	NA	1.00	2.20	NA	1.00	NA	NA	0.00	0.00	8
STRATUM TOTAL	3.19	2.04	48.00	2.34	0.98	48.00	NA	NA	0.00	0.42	375

STAND=36 YEAR=91 STRATUM=1

	DIAMETER (cm)			MEASURED HEIGHT (m)			CROWN DEPTH (m)			BA	DENSITY
SPECIES	**MEAN**	**STD**	**N**	**MEAN**	**STD**	**N**	**MEAN**	**STD**	**N**	**(m^2/ha)**	**(stems/ha)**
pinban	7.85	2.01	203.00	5.50	0.71	10.00	4.85	0.82	10.00	2.62	508
pinres	11.10	2.39	23.00	6.07	1.02	7.00	5.50	0.96	7.00	0.58	58
STRATUM TOTAL	8.18	2.27	226.00	5.74	0.87	17.00	5.12	0.91	17.00	3.20	565

STAND=36 YEAR=91 STRATUM=2

	DIAMETER (cm)			MEASURED HEIGHT (m)			CROWN DEPTH (m)			BA	DENSITY
SPECIES	**MEAN**	**STD**	**N**	**MEAN**	**STD**	**N**	**MEAN**	**STD**	**N**	**(m^2/ha)**	**(stems/ha)**
acerub	2.80	NA	1.00	2.10	NA	1.00	NA	NA	0.00	0.00	8
amespp	1.34	0.43	13.00	1.46	0.36	13.00	NA	NA	0.00	0.02	102
pinban	4.36	2.37	106.00	3.22	1.12	105.00	NA	NA	0.00	1.60	828
pinres	6.93	2.91	4.00	3.65	0.77	4.00	NA	NA	0.00	0.13	31
salspp	0.50	NA	1.00	1.50	NA	1.00	NA	NA	0.00	0.00	8
STRATUM TOTAL	4.08	2.49	125.00	3.02	1.19	124.00	NA	NA	0.00	1.75	977

STAND=36 YEAR=94 STRATUM=1

	DIAMETER (cm)			MEASURED HEIGHT (m)			CROWN DEPTH (m)			BA	DENSITY
SPECIES	**MEAN**	**STD**	**N**	**MEAN**	**STD**	**N**	**MEAN**	**STD**	**N**	**(m^2/ha)**	**(stems/ha)**
pinban	8.43	2.55	177.00	6.28	0.93	21.00	5.54	0.95	16.00	4.49	737
pinres	11.56	3.22	25.00	5.70	NA	1.00	5.20	NA	1.00	1.17	104
STRATUM TOTAL	8.81	2.82	202.00	6.25	0.92	22.00	5.52	0.92	17.00	5.66	842

STAND=36 YEAR=94 STRATUM=2

	DIAMETER (cm)			MEASURED HEIGHT (m)			CROWN DEPTH (m)			BA	DENSITY
SPECIES	**MEAN**	**STD**	**N**	**MEAN**	**STD**	**N**	**MEAN**	**STD**	**N**	**(m^2/ha)**	**(stems/ha)**
amespp	3.23	3.12	7.00	3.29	2.25	2.00	NA	NA	0.00	0.13	91
pinban	3.69	1.66	27.00	2.93	1.14	13.00	NA	NA	0.00	0.45	352
prupen	1.61	0.73	7.00	1.70	0.42	2.00	NA	NA	0.00	0.02	91
STRATUM TOTAL	3.26	1.98	41.00	2.83	1.23	17.00	NA	NA	0.00	0.60	534

STAND=37 YEAR=92 STRATUM=1

SPECIES	DIAMETER (cm) MEAN	STD	N	MEASURED HEIGHT (m) MEAN	STD	N	CROWN DEPTH (m) MEAN	STD	N	BA (m^2/ha)	DENSITY (stems/ha)
pinban	7.20	NA	1.00	5.60	NA	1.00	2.10	NA	1.00	0.01	3
STRATUM TOTAL	7.20	NA	1.00	5.60	NA	1.00	2.10	NA	1.00	0.01	3

STAND=37 YEAR=92 STRATUM=2

SPECIES	DIAMETER (cm) MEAN	STD	N	MEASURED HEIGHT (m) MEAN	STD	N	CROWN DEPTH (m) MEAN	STD	N	BA (m^2/ha)	DENSITY (stems/ha)
pinban	2.02	0.63	256.00	1.20	0.23	256.00	NA	NA	0.00	0.71	2000
pinres	9.00	NA	1.00	1.60	NA	1.00	NA	NA	0.00	0.05	8
STRATUM TOTAL	2.05	0.77	257.00	1.21	0.23	257.00	NA	NA	0.00	0.76	2008

STAND=37 YEAR=94 STRATUM=2

SPECIES	DIAMETER (cm) MEAN	STD	N	MEASURED HEIGHT (m) MEAN	STD	N	CROWN DEPTH (m) MEAN	STD	N	BA (m^2/ha)	DENSITY (stems/ha)
pinban	2.07	0.95	544.00	1.46	0.41	45.00	NA	NA	0.00	2.89	7083
pinres	9.90	NA	1.00	NA	NA	0.00	NA	NA	0.00	0.10	13
STRATUM TOTAL	2.08	1.01	545.00	1.46	0.41	45.00	NA	NA	0.00	2.99	7096

STAND=38 YEAR=92 STRATUM=2

SPECIES	DIAMETER (cm) MEAN	STD	N	MEASURED HEIGHT (m) MEAN	STD	N	CROWN DEPTH (m) MEAN	STD	N	BA (m^2/ha)	DENSITY (stems/ha)
pinban	5.31	1.46	236.00	2.80	0.61	236.00	NA	NA	0.00	4.39	1844
STRATUM TOTAL	5.31	1.46	236.00	2.80	0.61	236.00	NA	NA	0.00	4.39	1844

STAND=38 YEAR=94 STRATUM=1

SPECIES	DIAMETER (cm) MEAN	STD	N	MEASURED HEIGHT (m) MEAN	STD	N	CROWN DEPTH (m) MEAN	STD	N	BA (m^2/ha)	DENSITY (stems/ha)
pinban	7.93	1.20	4.00	5.10	0.14	4.00	4.77	0.25	3.00	0.08	17
STRATUM TOTAL	7.93	1.20	4.00	5.10	0.14	4.00	4.77	0.25	3.00	0.08	17

STAND=38 YEAR=94 STRATUM=2

SPECIES	DIAMETER (cm) MEAN	STD	N	MEASURED HEIGHT (m) MEAN	STD	N	CROWN DEPTH (m) MEAN	STD	N	BA (m^2/ha)	DENSITY (stems/ha)
pinban	6.25	1.80	141.00	3.60	0.62	47.00	NA	NA	0.00	6.10	1836
salspp	1.20	NA	1.00	NA	NA	0.00	NA	NA	0.00	0.00	13
STRATUM TOTAL	6.22	1.84	142.00	3.60	0.62	47.00	NA	NA	0.00	6.10	1849

STAND=39 YEAR=92 STRATUM=1

SPECIES	DIAMETER (cm) MEAN	STD	N	MEASURED HEIGHT (m) MEAN	STD	N	CROWN DEPTH (m) MEAN	STD	N	BA (m^2/ha)	DENSITY (stems/ha)
pinban	10.03	1.94	3.00	8.40	1.44	3.00	5.87	0.32	3.00	0.06	8
pinres	13.65	2.11	4.00	6.47	0.06	3.00	5.10	0.36	3.00	0.15	10
STRATUM TOTAL	12.10	2.69	7.00	7.43	1.40	6.00	5.48	0.52	6.00	0.21	18

STAND=39 YEAR=92 STRATUM=2

SPECIES	DIAMETER (cm) MEAN	STD	N	MEASURED HEIGHT (m) MEAN	STD	N	CROWN DEPTH (m) MEAN	STD	N	BA (m^2/ha)	DENSITY (stems/ha)
pinres	10.00	NA	1.00	4.80	NA	1.00	3.40	NA	1.00	0.06	8
STRATUM TOTAL	10.00	NA	1.00	4.80	NA	1.00	3.40	NA	1.00	0.06	8

STAND=39 YEAR=94 STRATUM=2

SPECIES	DIAMETER (cm) MEAN	STD	N	MEASURED HEIGHT (m) MEAN	STD	N	CROWN DEPTH (m) MEAN	STD	N	BA (m^2/ha)	DENSITY (stems/ha)
pinban	2.43	0.66	7.00	1.32	0.23	6.00	NA	NA	0.00	0.04	91
prupen	1.10	NA	1.00	1.20	NA	1.00	NA	NA	0.00	0.00	13
STRATUM TOTAL	2.26	0.77	8.00	1.30	0.22	7.00	NA	NA	0.00	0.05	104

STAND=40 YEAR=92 STRATUM=2

	DIAMETER (cm)			MEASURED HEIGHT (m)			CROWN DEPTH (m)			BA	DENSITY
SPECIES	**MEAN**	**STD**	**N**	**MEAN**	**STD**	**N**	**MEAN**	**STD**	**N**	**(m^2/ha)**	**(stems/ha)**
pinban	3.60	1.16	25.00	1.64	0.40	25.00	NA	NA	0.00	0.22	195
pinres	3.70	1.05	174.00	1.33	0.23	174.00	NA	NA	0.00	1.58	1359
STRATUM TOTAL	3.69	1.06	199.00	1.37	0.28	199.00	NA	NA	0.00	1.80	1555

STAND=40 YEAR=94 STRATUM=2

	DIAMETER (cm)			MEASURED HEIGHT (m)			CROWN DEPTH (m)			BA	DENSITY
SPECIES	**MEAN**	**STD**	**N**	**MEAN**	**STD**	**N**	**MEAN**	**STD**	**N**	**(m^2/ha)**	**(stems/ha)**
pinban	4.93	1.49	15.00	2.60	0.54	5.00	NA	NA	0.00	0.40	195
pinres	5.05	1.56	116.00	1.88	0.42	42.00	NA	NA	0.00	3.31	1510
STRATUM TOTAL	5.04	1.54	131.00	1.96	0.48	47.00	NA	NA	0.00	3.72	1706

STAND=41 YEAR=92 STRATUM=1

	DIAMETER (cm)			MEASURED HEIGHT (m)			CROWN DEPTH (m)			BA	DENSITY
SPECIES	**MEAN**	**STD**	**N**	**MEAN**	**STD**	**N**	**MEAN**	**STD**	**N**	**(m^2/ha)**	**(stems/ha)**
picgla	7.65	0.49	2.00	5.75	0.35	2.00	5.25	0.35	2.00	0.02	5
picmar	7.70	NA	1.00	5.30	NA	1.00	3.80	NA	1.00	0.01	2
pinban	8.10	2.17	39.00	5.57	0.65	30.00	4.73	0.79	24.00	0.52	95
pinres	10.15	4.32	22.00	6.15	2.75	22.00	5.28	1.55	19.00	0.51	54
popgra	4.80	0.95	3.00	6.23	0.95	3.00	4.87	1.20	3.00	0.01	7
poptre	4.60	0.79	8.00	5.52	0.65	6.00	3.93	0.44	6.00	0.03	20
STRATUM TOTAL	8.18	3.29	75.00	5.80	1.69	64.00	4.84	1.15	55.00	1.11	183

STAND=41 YEAR=92 STRATUM=2

	DIAMETER (cm)			MEASURED HEIGHT (m)			CROWN DEPTH (m)			BA	DENSITY
SPECIES	**MEAN**	**STD**	**N**	**MEAN**	**STD**	**N**	**MEAN**	**STD**	**N**	**(m^2/ha)**	**(stems/ha)**
acerub	1.00	NA	1.00	2.00	NA	1.00	NA	NA	0.00	0.00	8
amespp	1.24	0.45	23.00	1.32	0.30	23.00	NA	NA	0.00	0.02	175
aromel	0.85	0.25	4.00	1.10	0.12	4.00	NA	NA	0.00	0.00	30
betpap	2.77	0.92	8.00	2.68	0.74	8.00	NA	NA	0.00	0.04	61
picgla	4.95	4.17	2.00	2.75	2.47	2.00	NA	NA	0.00	0.04	15
picmar	4.62	2.08	6.00	2.68	0.68	6.00	NA	NA	0.00	0.09	46
pinban	5.05	1.97	91.00	3.66	0.82	91.00	NA	NA	0.00	1.60	694
pinres	7.40	2.12	111.00	3.57	0.82	111.00	NA	NA	0.00	3.94	846
popgra	2.31	0.87	126.00	2.23	0.71	126.00	NA	NA	0.00	0.46	960
poptre	3.00	1.13	25.00	2.84	1.06	25.00	NA	NA	0.00	0.15	191
prupen	2.80	NA	1.00	1.30	NA	1.00	NA	NA	0.00	0.00	8
queell	3.20	NA	1.00	2.20	NA	1.00	NA	NA	0.00	0.01	8
salspp	1.14	0.36	223.00	1.44	0.31	223.00	NA	NA	0.00	0.19	1700
vibcas	0.75	0.27	12.00	1.13	0.14	12.00	NA	NA	0.00	0.00	91
STRATUM TOTAL	3.17	2.69	634.00	2.36	1.14	634.00	NA	NA	0.00	6.55	4832

STAND=41 YEAR=94 STRATUM=1

SPECIES	DIAMETER (cm) MEAN	STD	N	MEASURED HEIGHT (m) MEAN	STD	N	CROWN DEPTH (m) MEAN	STD	N	BA (m^2/ha)	DENSITY (stems/ha)
betpap	6.70	1.56	2.00	NA	NA	0.00	NA	NA	0.00	0.03	8
picmar	8.85	1.28	6.00	5.90	0.57	2.00	5.00	NA	1.00	0.16	25
pinban	7.97	1.97	58.00	6.27	1.51	11.00	5.03	0.67	7.00	1.28	242
pinres	8.74	2.78	103.00	6.63	3.67	10.00	6.10	3.42	8.00	2.83	429
popgra	3.47	0.06	3.00	NA	NA	0.00	NA	NA	0.00	0.01	13
poptre	9.30	0.42	2.00	5.10	NA	1.00	NA	NA	0.00	0.06	8
prupen	8.90	NA	1.00	5.40	NA	1.00	NA	NA	0.00	0.03	4
STRATUM TOTAL	8.38	2.54	175.00	6.30	2.48	25.00	5.56	2.44	16.00	4.39	729

STAND=41 YEAR=94 STRATUM=2

SPECIES	DIAMETER (cm) MEAN	STD	N	MEASURED HEIGHT (m) MEAN	STD	N	CROWN DEPTH (m) MEAN	STD	N	BA (m^2/ha)	DENSITY (stems/ha)
acerub	0.50	0.14	6.00	NA	NA	0.00	NA	NA	0.00	0.00	78
amespp	1.54	0.81	21.00	NA	NA	0.00	NA	NA	0.00	0.06	273
betpap	1.20	0.28	2.00	NA	NA	0.00	NA	NA	0.00	0.00	26
corcor	0.72	0.20	6.00	NA	NA	0.00	NA	NA	0.00	0.00	78
picmar	3.51	1.84	6.00	2.56	1.56	4.00	NA	NA	0.00	0.09	78
pinban	5.22	2.55	31.00	2.82	0.87	5.00	NA	NA	0.00	1.06	404
pinres	6.38	2.91	41.00	3.79	0.93	13.00	4.30	NA	1.00	2.05	534
popdel	2.20	NA	1.00	NA	NA	0.00	NA	NA	0.00	0.00	13
popgra	2.43	0.89	43.00	3.11	1.08	9.00	1.20	NA	1.00	0.29	560
poptre	3.01	1.33	15.00	1.88	0.86	3.00	NA	NA	0.00	0.16	195
prupen	1.43	0.59	3.00	NA	NA	0.00	NA	NA	0.00	0.01	39
salspp	1.24	1.05	95.00	1.61	0.25	7.00	NA	NA	0.00	0.26	1237
vibcas	0.84	0.21	5.00	NA	NA	0.00	NA	NA	0.00	0.00	65
STRATUM TOTAL	2.78	2.56	275.00	2.89	1.20	41.00	2.75	2.19	2.00	4.01	3581

STAND=42 YEAR=92 STRATUM=1

SPECIES	DIAMETER (cm) MEAN	STD	N	MEASURED HEIGHT (m) MEAN	STD	N	CROWN DEPTH (m) MEAN	STD	N	BA (m^2/ha)	DENSITY (stems/ha)
pinban	8.14	0.95	16.00	5.26	0.19	16.00	4.55	0.73	12.00	0.21	40
popgra	11.50	NA	1.00	5.10	NA	1.00	4.10	NA	1.00	0.03	3
STRATUM TOTAL	8.34	1.23	17.00	5.25	0.19	17.00	4.51	0.71	13.00	0.24	43

STAND=42 YEAR=92 STRATUM=2

SPECIES	DIAMETER (cm) MEAN	STD	N	MEASURED HEIGHT (m) MEAN	STD	N	CROWN DEPTH (m) MEAN	STD	N	BA (m^2/ha)	DENSITY (stems/ha)
acerub	2.23	0.97	20.00	1.85	0.86	20.00	NA	NA	0.00	0.07	156
amespp	1.37	0.46	12.00	1.33	0.30	12.00	NA	NA	0.00	0.02	94
betpap	5.27	0.61	3.00	2.60	0.70	3.00	NA	NA	0.00	0.05	23
corcor	1.24	0.31	40.00	1.29	0.17	40.00	NA	NA	0.00	0.04	313
pinban	7.02	2.28	233.00	3.76	0.90	233.00	NA	NA	0.00	7.79	1820
popgra	2.10	1.01	92.00	1.72	0.59	91.00	NA	NA	0.00	0.31	719
poptre	1.30	NA	1.00	1.30	NA	1.00	NA	NA	0.00	0.00	8
querub	2.63	1.22	56.00	1.83	0.78	56.00	NA	NA	0.00	0.29	438
salspp	1.12	0.45	25.00	1.33	0.24	25.00	NA	NA	0.00	0.02	195
STRATUM TOTAL	4.42	3.08	482.00	2.66	1.31	481.00	NA	NA	0.00	8.59	3766

STAND=42 YEAR=94 STRATUM=1

SPECIES	DIAMETER (cm) MEAN	STD	N	MEASURED HEIGHT (m) MEAN	STD	N	CROWN DEPTH (m) MEAN	STD	N	BA (m^2/ha)	DENSITY (stems/ha)
acerub	6.80	2.15	4.00	NA	NA	0.00	NA	NA	0.00	0.07	17
amespp	6.77	1.60	7.00	5.00	NA	1.00	4.50	NA	1.00	0.11	29
pinban	7.65	1.41	188.00	5.27	0.27	21.00	4.36	0.45	14.00	3.72	783
popgra	5.00	NA	1.00	3.80	NA	1.00	3.30	NA	1.00	0.01	4
STRATUM TOTAL	7.58	1.44	200.00	5.20	0.40	23.00	4.31	0.50	16.00	3.90	833

STAND=42 YEAR=94 STRATUM=2

SPECIES	DIAMETER (cm) MEAN	STD	N	MEASURED HEIGHT (m) MEAN	STD	N	CROWN DEPTH (m) MEAN	STD	N	BA (m^2/ha)	DENSITY (stems/ha)
acerub	1.65	1.14	11.00	2.53	1.10	2.00	NA	NA	0.00	0.04	143
amespp	1.45	1.68	50.00	1.30	0.14	2.00	NA	NA	0.00	0.25	651
betpap	5.50	NA	1.00	NA	NA	0.00	NA	NA	0.00	0.03	13
corcor	0.80	0.41	21.00	1.00	NA	1.00	NA	NA	0.00	0.02	273
pinban	6.15	2.70	56.00	3.58	1.11	19.00	NA	NA	0.00	2.58	729
popdel	0.60	NA	1.00	NA	NA	0.00	NA	NA	0.00	0.00	13
popgra	2.00	0.94	41.00	1.96	0.75	8.00	NA	NA	0.00	0.20	534
poptre	1.45	1.48	2.00	NA	NA	0.00	NA	NA	0.00	0.01	26
querub	2.26	1.33	41.00	1.81	0.85	9.00	NA	NA	0.00	0.29	534
salspp	1.00	0.18	4.00	NA	NA	0.00	NA	NA	0.00	0.00	52
STRATUM TOTAL	2.80	2.61	228.00	2.65	1.29	41.00	NA	NA	0.00	3.42	2969

STAND=43 YEAR=92 STRATUM=1

SPECIES	DIAMETER (cm) MEAN	STD	N	MEASURED HEIGHT (m) MEAN	STD	N	CROWN DEPTH (m) MEAN	STD	N	BA (m^2/ha)	DENSITY (stems/ha)
abibal	6.23	1.24	3.00	6.50	1.32	3.00	5.33	1.44	3.00	0.03	8
acerub	6.75	2.44	11.00	8.00	2.38	4.00	5.50	1.58	4.00	0.12	31
picgla	10.70	NA	1.00	9.00	NA	1.00	8.00	NA	1.00	0.02	3
pinban	32.00	NA	1.00	15.00	NA	1.00	6.50	NA	1.00	0.22	3
pinres	29.64	5.59	165.00	18.81	2.99	48.00	9.79	3.29	48.00	32.75	458
pinstr	15.90	NA	1.00	12.00	NA	1.00	6.00	NA	1.00	0.06	3
popgra	4.55	0.07	2.00	6.40	1.27	2.00	3.10	1.56	2.00	0.01	6
poptre	13.08	4.33	18.00	15.30	4.81	10.00	6.90	3.40	10.00	0.74	50
STRATUM TOTAL	26.18	9.26	202.00	16.52	5.10	70.00	8.62	3.54	70.00	33.95	561

STAND=43 YEAR=92 STRATUM=2

SPECIES	DIAMETER (cm) MEAN	STD	N	MEASURED HEIGHT (m) MEAN	STD	N	CROWN DEPTH (m) MEAN	STD	N	BA (m^2/ha)	DENSITY (stems/ha)
abibal	3.15	1.34	2.00	2.75	0.92	2.00	NA	NA	0.00	0.01	17
acerub	1.38	0.40	17.00	1.91	0.57	17.00	NA	NA	0.00	0.02	148
amespp	0.97	0.39	15.00	1.56	0.38	15.00	NA	NA	0.00	0.01	130
betpap	1.61	1.00	10.00	2.27	0.97	10.00	NA	NA	0.00	0.02	87
corcor	1.10	0.32	23.00	1.40	0.31	23.00	NA	NA	0.00	0.02	200
faggra	0.80	NA	1.00	1.30	NA	1.00	NA	NA	0.00	0.00	9
picgla	2.25	0.07	2.00	1.25	0.21	2.00	NA	NA	0.00	0.01	17
poptre	1.87	0.47	23.00	2.80	0.70	23.00	NA	NA	0.00	0.06	200
prupen	0.90	NA	1.00	1.20	NA	1.00	NA	NA	0.00	0.00	9
pruser	1.53	0.41	7.00	1.86	0.34	7.00	NA	NA	0.00	0.01	61
salspp	1.91	0.65	14.00	2.26	0.50	14.00	NA	NA	0.00	0.04	122
vibcas	1.30	0.40	22.00	1.70	0.46	22.00	NA	NA	0.00	0.03	191
STRATUM TOTAL	1.47	0.63	137.00	1.95	0.72	137.00	NA	NA	0.00	0.24	1189

STAND=44 YEAR=92 STRATUM=1

SPECIES	DIAMETER (cm) MEAN	STD	N	MEASURED HEIGHT (m) MEAN	STD	N	CROWN DEPTH (m) MEAN	STD	N	BA (m^2/ha)	DENSITY (stems/ha)
abibal	12.25	4.46	4.00	6.50	2.12	2.00	4.25	0.35	2.00	0.13	10
acerub	4.06	1.11	8.00	5.63	0.75	4.00	3.50	0.71	2.00	0.03	20
betpap	29.55	12.86	8.00	21.00	5.70	5.00	9.80	6.42	5.00	1.60	20
picgla	17.35	9.00	4.00	20.50	NA	1.00	14.00	NA	1.00	0.28	10
picmar	14.43	5.05	429.00	14.02	4.01	48.00	7.41	3.90	48.00	19.68	1073
pinres	25.00	NA	1.00	NA	NA	0.00	NA	NA	0.00	0.12	3
poptre	24.49	9.35	32.00	16.70	4.25	14.00	6.98	2.66	13.00	4.30	80
thuocc	12.73	3.64	12.00	8.00	1.78	4.00	4.25	0.65	4.00	0.41	30
STRATUM TOTAL	15.14	6.52	498.00	14.10	5.17	78.00	7.23	3.91	75.00	26.55	1245

STAND=44 YEAR=92 STRATUM=2

SPECIES	DIAMETER (cm) MEAN	STD	N	MEASURED HEIGHT (m) MEAN	STD	N	CROWN DEPTH (m) MEAN	STD	N	BA (m^2/ha)	DENSITY (stems/ha)
abibal	2.20	0.86	284.00	1.70	0.64	284.00	NA	NA	0.00	0.97	2219
acerub	1.89	0.96	254.00	2.20	0.98	254.00	NA	NA	0.00	0.70	1984
alnrug	1.29	0.37	30.00	1.45	0.29	30.00	NA	NA	0.00	0.03	234
amespp	2.37	0.81	3.00	1.23	0.06	3.00	NA	NA	0.00	0.01	23
betpap	1.45	0.60	53.00	1.61	0.58	53.00	NA	NA	0.00	0.08	414
corcor	0.70	0.00	2.00	1.35	0.07	2.00	NA	NA	0.00	0.00	16
faggra	1.60	NA	1.00	1.40	NA	1.00	NA	NA	0.00	0.00	8
ilever	0.93	0.17	4.00	1.35	0.29	4.00	NA	NA	0.00	0.00	31
lonspp	0.72	0.34	8.00	1.28	0.18	8.00	NA	NA	0.00	0.00	63
picmar	2.94	1.68	12.00	1.97	0.88	12.00	NA	NA	0.00	0.08	94
popbal	0.80	NA	1.00	1.00	NA	1.00	NA	NA	0.00	0.00	8
poptre	1.91	0.85	4.00	1.88	0.45	4.00	NA	NA	0.00	0.01	31
salspp	1.90	0.96	4.00	1.53	0.43	4.00	NA	NA	0.00	0.01	31
sorame	1.10	NA	1.00	1.10	NA	1.00	NA	NA	0.00	0.00	8
vibcas	1.17	0.43	73.00	1.46	0.37	73.00	NA	NA	0.00	0.07	570
STRATUM TOTAL	1.88	0.93	734.00	1.83	0.79	734.00	NA	NA	0.00	1.98	5734

STAND=45 YEAR=92 STRATUM=1

	DIAMETER (cm)			MEASURED HEIGHT (m)			CROWN DEPTH (m)			BA	DENSITY
SPECIES	**MEAN**	**STD**	**N**	**MEAN**	**STD**	**N**	**MEAN**	**STD**	**N**	**(m^2/ha)**	**(stems/ha)**
abibal	20.20	NA	1.00	10.00	NA	1.00	8.50	NA	1.00	0.14	4
acerub	5.95	2.62	2.00	7.00	1.41	2.00	4.75	1.06	2.00	0.03	9
amespp	6.05	0.78	2.00	6.00	0.00	2.00	3.75	1.06	2.00	0.03	9
faggra	8.94	3.11	9.00	8.52	2.38	9.00	4.46	1.55	8.00	0.27	39
poptre	6.90	0.42	2.00	6.00	0.71	2.00	NA	NA	0.00	0.03	9
STRATUM TOTAL	8.66	4.11	16.00	7.79	2.18	16.00	4.71	1.73	13.00	0.50	70

STAND=45 YEAR=92 STRATUM=2

	DIAMETER (cm)			MEASURED HEIGHT (m)			CROWN DEPTH (m)			BA	DENSITY
SPECIES	**MEAN**	**STD**	**N**	**MEAN**	**STD**	**N**	**MEAN**	**STD**	**N**	**(m^2/ha)**	**(stems/ha)**
abibal	4.95	2.90	2.00	3.05	2.05	2.00	NA	NA	0.00	0.06	27
acerub	1.38	0.73	242.00	1.40	0.43	242.00	NA	NA	0.00	0.63	3288
acesac	1.64	0.95	19.00	1.82	0.88	19.00	NA	NA	0.00	0.07	258
amespp	1.16	0.38	256.00	1.45	0.31	256.00	NA	NA	0.00	0.40	3478
corcor	1.30	0.28	2.00	2.10	0.29	2.00	NA	NA	0.00	0.00	27
faggra	2.10	NA	1.00	2.20	NA	1.00	NA	NA	0.00	0.00	14
pinstr	5.70	NA	1.00	2.60	NA	1.00	NA	NA	0.00	0.03	14
popgra	1.64	0.48	347.00	1.71	0.47	347.00	NA	NA	0.00	1.08	4715
poptre	1.78	0.66	533.00	1.85	0.63	533.00	NA	NA	0.00	2.06	7242
prupen	1.24	0.38	114.00	1.32	0.26	114.00	NA	NA	0.00	0.20	1549
pruser	1.32	0.43	16.00	1.34	0.30	16.00	NA	NA	0.00	0.03	217
pruspp	1.23	0.42	40.00	1.44	0.54	40.00	NA	NA	0.00	0.07	543
STRATUM TOTAL	1.53	0.65	1573.00	1.63	0.54	1573.00	NA	NA	0.00	4.66	21372

STAND=45 YEAR=94 STRATUM=1

SPECIES	DIAMETER (cm) MEAN	STD	N	MEASURED HEIGHT (m) MEAN	STD	N	CROWN DEPTH (m) MEAN	STD	N	BA (m^2/ha)	DENSITY (stems/ha)
abibal	19.15	4.45	2.00	10.75	0.35	2.00	9.75	1.06	2.00	0.30	10
acerub	5.50	1.56	2.00	5.00	NA	1.00	3.00	NA	1.00	0.02	10
faggra	21.53	18.29	3.00	13.17	8.00	3.00	11.87	8.52	3.00	0.81	15
popgra	7.00	NA	1.00	NA	NA	0.00	NA	NA	0.00	0.02	5
poptre	3.77	1.14	15.00	5.16	0.24	4.00	4.04	0.35	4.00	0.09	75
STRATUM TOTAL	7.71	9.02	23.00	8.67	5.38	10.00	7.43	5.60	10.00	1.24	115

STAND=45 YEAR=94 STRATUM=2

SPECIES	DIAMETER (cm) MEAN	STD	N	MEASURED HEIGHT (m) MEAN	STD	N	CROWN DEPTH (m) MEAN	STD	N	BA (m^2/ha)	DENSITY (stems/ha)
abibal	2.50	NA	1.00	NA	NA	0.00	NA	NA	0.00	0.01	16
acerub	1.62	1.02	187.00	3.10	NA	1.00	NA	NA	0.00	0.84	2922
acesac	1.73	1.52	12.00	NA	NA	0.00	NA	NA	0.00	0.08	188
amespp	1.21	0.46	372.00	1.79	0.50	7.00	NA	NA	0.00	0.77	5813
faggra	3.40	NA	1.00	NA	NA	0.00	NA	NA	0.00	0.01	16
lonspp	0.90	NA	1.00	NA	NA	0.00	NA	NA	0.00	0.00	16
popgra	2.04	0.81	291.00	2.86	0.90	8.00	NA	NA	0.00	1.72	4547
poptre	2.10	0.98	591.00	2.78	1.00	12.00	NA	NA	0.00	3.89	9234
prupen	1.21	0.66	458.00	2.08	0.93	8.00	NA	NA	0.00	1.08	7156
tilame	2.20	NA	1.00	NA	NA	0.00	NA	NA	0.00	0.01	16
STRATUM TOTAL	1.66	0.91	1915.00	2.46	0.95	36.00	NA	NA	0.00	8.39	29922

STAND=46 YEAR=93 STRATUM=1

	DIAMETER (cm)			MEASURED HEIGHT (m)			CROWN DEPTH (m)			BA	DENSITY
SPECIES	**MEAN**	**STD**	**N**	**MEAN**	**STD**	**N**	**MEAN**	**STD**	**N**	**(m^2/ha)**	**(stems/ha)**
abibal	10.54	5.19	16.00	NA	NA	0.00	NA	NA	0.00	0.43	40
acerub	24.85	12.08	94.00	19.50	3.63	9.00	8.33	3.32	9.00	14.06	235
acesac	11.10	8.34	2.00	NA	NA	0.00	NA	NA	0.00	0.06	5
betall	32.70	19.41	21.00	21.50	2.12	2.00	6.00	1.41	2.00	5.89	53
faggra	10.69	12.92	233.00	11.03	6.17	19.00	6.27	3.40	19.00	12.83	583
picgla	11.10	NA	1.00	9.50	NA	1.00	5.50	NA	1.00	0.02	3
pinstr	59.80	NA	1.00	NA	NA	0.00	NA	NA	0.00	0.70	3
tsucan	25.72	11.04	48.00	17.67	4.42	9.00	11.44	2.99	9.00	7.36	120
STRATUM TOTAL	16.85	14.93	416.00	14.91	6.43	40.00	7.87	3.75	40.00	41.36	1040

STAND=46 YEAR=93 STRATUM=2

	DIAMETER (cm)			MEASURED HEIGHT (m)			CROWN DEPTH (m)			BA	DENSITY
SPECIES	**MEAN**	**STD**	**N**	**MEAN**	**STD**	**N**	**MEAN**	**STD**	**N**	**(m^2/ha)**	**(stems/ha)**
abibal	2.48	0.83	49.00	1.75	0.87	4.00	NA	NA	0.00	0.20	383
acerub	1.21	0.81	79.00	1.50	0.66	4.00	NA	NA	0.00	0.10	617
acesac	1.26	0.54	5.00	2.80	NA	1.00	NA	NA	0.00	0.01	39
betall	1.99	0.92	10.00	1.80	NA	1.00	NA	NA	0.00	0.03	78
faggra	1.62	0.81	770.00	2.18	1.01	62.00	NA	NA	0.00	1.55	6016
loncan	1.35	0.21	2.00	NA	NA	0.00	NA	NA	0.00	0.00	16
picgla	4.40	NA	1.00	NA	NA	0.00	NA	NA	0.00	0.01	8
pinstr	7.20	NA	1.00	NA	NA	0.00	NA	NA	0.00	0.03	8
sorame	0.80	0.00	2.00	NA	NA	0.00	NA	NA	0.00	0.00	16
tsucan	1.45	0.15	6.00	1.15	0.21	2.00	NA	NA	0.00	0.01	47
STRATUM TOTAL	1.64	0.86	925.00	2.09	0.99	74.00	NA	NA	0.00	1.94	7227

STAND=47 YEAR=92 STRATUM=1

	DIAMETER (cm)			MEASURED HEIGHT (m)			CROWN DEPTH (m)			BA	DENSITY
SPECIES	**MEAN**	**STD**	**N**	**MEAN**	**STD**	**N**	**MEAN**	**STD**	**N**	**(m^2/ha)**	**(stems/ha)**
abibal	6.57	2.81	104.00	7.84	3.77	9.00	7.00	3.12	8.00	1.44	359
acerub	6.38	4.59	72.00	11.78	5.64	9.00	6.44	4.50	9.00	1.20	248
acesac	5.96	3.06	58.00	8.43	2.99	11.00	4.73	2.71	10.00	0.70	200
betall	8.60	3.99	3.00	8.50	2.18	3.00	5.53	1.27	3.00	0.07	10
betpap	20.17	8.06	3.00	17.00	2.18	3.00	12.00	1.00	3.00	0.37	10
fraame	4.32	1.49	17.00	8.12	1.83	6.00	4.53	1.85	6.00	0.10	59
franig	5.63	0.31	3.00	8.20	1.75	3.00	4.00	1.41	3.00	0.03	10
ostvir	5.47	1.64	6.00	6.40	1.47	5.00	4.00	1.41	5.00	0.05	21
picgla	13.90	6.64	6.00	10.00	1.73	3.00	6.43	0.98	3.00	0.37	21
popbal	7.95	0.35	2.00	9.00	NA	1.00	4.90	NA	1.00	0.03	7
popgra	7.07	2.06	20.00	9.32	2.14	5.00	3.42	0.62	5.00	0.29	69
poptre	8.43	4.67	771.00	13.47	5.37	34.00	5.25	2.82	33.00	19.37	2659
salspp	3.82	1.02	6.00	5.90	0.65	4.00	3.25	0.53	4.00	0.03	21
STRATUM TOTAL	7.90	4.53	1071.00	10.61	4.90	96.00	5.38	2.98	93.00	24.04	3693

STAND=48 YEAR=92 STRATUM=1

	DIAMETER (cm)			MEASURED HEIGHT (m)			CROWN DEPTH (m)			BA	DENSITY
SPECIES	**MEAN**	**STD**	**N**	**MEAN**	**STD**	**N**	**MEAN**	**STD**	**N**	**(m^2/ha)**	**(stems/ha)**
abibal	11.05	5.32	121.00	11.22	4.22	23.00	6.96	4.09	22.00	3.57	303
acerub	9.35	6.41	279.00	13.58	5.86	29.00	6.83	4.11	28.00	7.03	698
acesac	7.23	5.76	136.00	12.70	6.27	17.00	6.71	4.18	16.00	2.28	340
amespp	4.20	NA	1.00	NA	NA	0.00	NA	NA	0.00	0.00	3
betall	14.69	6.46	36.00	14.38	3.51	12.00	7.79	2.20	12.00	1.81	90
betpap	21.70	9.96	22.00	19.03	6.53	16.00	10.06	4.96	16.00	2.44	55
corcor	5.87	1.09	6.00	NA	NA	0.00	NA	NA	0.00	0.04	15
faggra	10.73	8.39	19.00	12.65	7.42	4.00	10.35	6.62	4.00	0.68	48
fraame	7.61	7.21	16.00	11.75	6.83	6.00	6.83	3.78	6.00	0.34	40
picgla	14.77	5.01	15.00	10.13	2.60	12.00	6.33	1.47	12.00	0.71	38
popgra	14.19	7.44	8.00	15.40	4.26	5.00	5.40	1.85	5.00	0.39	20
poptre	16.39	10.47	93.00	18.61	5.58	27.00	8.42	3.91	26.00	6.89	233
prupen	7.00	NA	1.00	8.50	NA	1.00	4.50	NA	1.00	0.01	3
tsucan	5.05	0.85	4.00	5.50	NA	1.00	5.00	NA	1.00	0.02	10
STRATUM TOTAL	10.82	7.71	757.00	14.25	6.08	153.00	7.52	3.99	149.00	26.21	1893

STAND=48 YEAR=92 STRATUM=2

	DIAMETER (cm)			MEASURED HEIGHT (m)			CROWN DEPTH (m)			BA	DENSITY
SPECIES	**MEAN**	**STD**	**N**	**MEAN**	**STD**	**N**	**MEAN**	**STD**	**N**	**(m^2/ha)**	**(stems/ha)**
abibal	2.65	1.14	205.00	1.96	0.87	205.00	NA	NA	0.00	1.05	1602
acerub	1.72	0.99	157.00	2.20	1.01	157.00	NA	NA	0.00	0.38	1227
acesac	1.74	0.75	105.00	2.56	1.11	105.00	NA	NA	0.00	0.23	820
amespp	1.42	0.91	5.00	1.76	1.34	5.00	NA	NA	0.00	0.01	39
betall	1.45	0.88	80.00	1.86	0.67	80.00	NA	NA	0.00	0.14	625
betpap	1.58	1.18	4.00	1.90	0.81	4.00	NA	NA	0.00	0.01	31
corcor	1.20	0.38	48.00	1.60	0.44	48.00	NA	NA	0.00	0.05	375
faggra	1.86	0.63	10.00	2.15	0.85	10.00	NA	NA	0.00	0.02	78
fraame	1.16	0.36	27.00	1.79	0.83	27.00	NA	NA	0.00	0.02	211
franig	1.10	0.42	2.00	1.25	0.21	2.00	NA	NA	0.00	0.00	16
ilever	0.85	0.07	2.00	1.50	0.00	2.00	NA	NA	0.00	0.00	16
picgla	2.13	0.32	3.00	1.53	0.12	3.00	NA	NA	0.00	0.01	23
popgra	0.80	NA	1.00	1.30	NA	1.00	NA	NA	0.00	0.00	8
poptre	1.19	1.21	7.00	1.71	0.99	7.00	NA	NA	0.00	0.01	55
thuocc	2.40	NA	1.00	2.30	NA	1.00	NA	NA	0.00	0.00	8
tsucan	3.80	0.28	2.00	3.00	0.99	2.00	NA	NA	0.00	0.02	16
STRATUM TOTAL	1.92	1.08	659.00	2.06	0.94	659.00	NA	NA	0.00	1.95	5148

STAND=49 YEAR=92 STRATUM=1

SPECIES	DIAMETER (cm) MEAN	STD	N	MEASURED HEIGHT (m) MEAN	STD	N	CROWN DEPTH (m) MEAN	STD	N	BA (m^2/ha)	DENSITY (stems/ha)
amespp	5.20	NA	1.00	10.00	NA	1.00	2.00	NA	1.00	0.01	5
popgra	4.63	1.05	7.00	5.89	1.14	7.00	3.07	0.86	3.00	0.06	32
poptre	4.26	0.77	37.00	5.67	0.56	37.00	3.40	0.91	14.00	0.25	168
STRATUM TOTAL	4.34	0.82	45.00	5.80	0.92	45.00	3.27	0.91	18.00	0.31	205

STAND=49 YEAR=92 STRATUM=2

SPECIES	DIAMETER (cm) MEAN	STD	N	MEASURED HEIGHT (m) MEAN	STD	N	CROWN DEPTH (m) MEAN	STD	N	BA (m^2/ha)	DENSITY (stems/ha)
acerub	1.38	0.50	51.00	1.52	0.38	51.00	NA	NA	0.00	0.12	724
acesac	1.23	0.42	96.00	1.63	0.57	96.00	NA	NA	0.00	0.18	1364
amespp	1.22	0.72	137.00	1.64	0.74	137.00	NA	NA	0.00	0.31	1946
popgra	2.64	0.91	177.00	2.74	0.88	177.00	NA	NA	0.00	1.53	2514
poptre	2.29	0.86	842.00	2.55	0.95	842.00	NA	NA	0.00	5.63	11960
prupen	1.86	0.78	745.00	2.32	0.81	745.00	NA	NA	0.00	3.39	10582
pruser	1.75	0.76	97.00	2.40	0.78	97.00	NA	NA	0.00	0.39	1378
pruvir	2.67	0.50	3.00	1.30	0.26	3.00	NA	NA	0.00	0.02	43
sampub	1.20	0.71	2.00	1.15	0.21	2.00	NA	NA	0.00	0.00	28
STRATUM TOTAL	2.01	0.89	2150.00	2.35	0.91	2150.00	NA	NA	0.00	11.58	30540

STAND=49 YEAR=94 STRATUM=1

SPECIES	DIAMETER (cm) MEAN	STD	N	MEASURED HEIGHT (m) MEAN	STD	N	CROWN DEPTH (m) MEAN	STD	N	BA (m^2/ha)	DENSITY (stems/ha)
acerub	7.10	NA	1.00	5.20	NA	1.00	3.70	NA	1.00	0.02	6
amespp	3.36	1.10	17.00	NA	NA	0.00	NA	NA	0.00	0.10	100
faggra	9.40	NA	1.00	7.30	NA	1.00	4.30	NA	1.00	0.04	6
popgra	4.58	0.98	49.00	5.00	NA	1.00	NA	NA	0.00	0.50	288
poptre	4.12	1.02	312.00	5.88	0.87	8.00	3.69	0.67	7.00	2.60	1835
prupen	3.36	0.81	36.00	5.10	NA	1.00	2.10	NA	1.00	0.20	212
STRATUM TOTAL	4.10	1.09	416.00	5.80	0.91	12.00	3.59	0.78	10.00	3.45	2447

STAND=49 YEAR=94 STRATUM=2

SPECIES	DIAMETER (cm) MEAN	STD	N	MEASURED HEIGHT (m) MEAN	STD	N	CROWN DEPTH (m) MEAN	STD	N	BA (m^2/ha)	DENSITY (stems/ha)
acerub	1.26	0.50	61.00	NA	NA	0.00	NA	NA	0.00	0.16	1121
acesac	1.22	0.46	198.00	NA	NA	0.00	NA	NA	0.00	0.49	3640
amespp	1.58	1.06	249.00	2.03	1.38	3.00	NA	NA	0.00	1.30	4577
lonspp	0.68	0.21	8.00	NA	NA	0.00	NA	NA	0.00	0.01	147
popgra	2.64	1.04	131.00	3.34	1.38	5.00	NA	NA	0.00	1.52	2408
poptre	2.37	0.96	518.00	2.91	1.29	13.00	NA	NA	0.00	4.88	9522
prupen	1.95	0.88	509.00	3.97	0.89	7.00	NA	NA	0.00	3.35	9357
pruser	1.30	0.63	8.00	NA	NA	0.00	NA	NA	0.00	0.02	147
salspp	1.65	0.69	6.00	NA	NA	0.00	NA	NA	0.00	0.03	110
STRATUM TOTAL	1.96	1.00	1688.00	3.16	1.30	28.00	NA	NA	0.00	11.76	31029

STAND=50 YEAR=92 STRATUM=1

SPECIES	DIAMETER (cm) MEAN	STD	N	MEASURED HEIGHT (m) MEAN	STD	N	CROWN DEPTH (m) MEAN	STD	N	BA (m^2/ha)	DENSITY (stems/ha)
acerub	13.02	6.07	49.00	12.74	5.35	16.00	7.58	3.91	16.00	1.98	123
acesac	11.29	6.43	74.00	13.83	3.03	22.00	8.36	3.37	22.00	2.44	185
faggra	12.62	4.61	19.00	12.18	2.22	11.00	8.15	2.14	11.00	0.67	48
picgla	27.75	7.71	2.00	NA	NA	0.00	NA	NA	0.00	0.31	5
pinres	19.83	6.71	226.00	16.29	4.39	51.00	7.02	2.73	50.00	19.43	565
popgra	25.50	6.40	4.00	15.63	0.48	4.00	5.88	1.31	4.00	0.53	10
poptre	25.47	7.92	3.00	22.50	4.95	2.00	13.75	6.01	2.00	0.41	8
STRATUM TOTAL	17.05	7.60	377.00	14.91	4.43	106.00	7.59	3.17	105.00	25.78	943

STAND=50 YEAR=92 STRATUM=2

SPECIES	DIAMETER (cm) MEAN	STD	N	MEASURED HEIGHT (m) MEAN	STD	N	CROWN DEPTH (m) MEAN	STD	N	BA (m^2/ha)	DENSITY (stems/ha)
abibal	3.00	NA	1.00	1.70	NA	1.00	NA	NA	0.00	0.01	8
acepen	1.10	0.28	2.00	1.50	0.14	2.00	NA	NA	0.00	0.00	16
acerub	1.34	0.64	327.00	1.56	0.53	327.00	NA	NA	0.00	0.44	2555
acesac	1.29	1.03	178.00	1.48	0.55	177.00	NA	NA	0.00	0.30	1391
amespp	0.92	0.45	54.00	1.34	0.35	54.00	NA	NA	0.00	0.03	422
faggra	1.45	0.50	33.00	1.35	0.41	33.00	NA	NA	0.00	0.05	258
loncan	1.30	NA	1.00	1.20	NA	1.00	NA	NA	0.00	0.00	8
pinres	0.93	0.12	3.00	1.37	0.31	3.00	NA	NA	0.00	0.00	23
popgra	1.30	0.39	95.00	1.59	0.47	95.00	NA	NA	0.00	0.11	742
poptre	0.90	0.26	45.00	1.49	0.38	45.00	NA	NA	0.00	0.02	352
pruser	1.37	0.53	7.00	1.29	0.27	7.00	NA	NA	0.00	0.01	55
STRATUM TOTAL	1.27	0.71	746.00	1.51	0.50	745.00	NA	NA	0.00	0.97	5828

STAND=51 YEAR=92 STRATUM=1

	DIAMETER (cm)			MEASURED HEIGHT (m)			CROWN DEPTH (m)			BA	DENSITY
SPECIES	**MEAN**	**STD**	**N**	**MEAN**	**STD**	**N**	**MEAN**	**STD**	**N**	**(m^2/ha)**	**(stems/ha)**
acerub	5.64	2.37	15.00	6.03	1.26	6.00	3.90	0.74	5.00	0.11	38
betpap	6.88	3.17	9.00	8.13	3.33	4.00	5.90	1.79	4.00	0.10	23
pinban	10.72	6.15	70.00	8.54	3.34	22.00	6.02	2.69	17.00	2.09	175
pinres	13.09	3.47	306.00	7.32	1.29	40.00	6.38	1.19	37.00	11.02	765
pinsyl	6.80	NA	1.00	5.20	NA	1.00	NA	NA	0.00	0.01	3
popgra	5.23	0.21	3.00	5.70	0.75	3.00	2.63	0.23	3.00	0.02	8
poptre	4.50	NA	1.00	5.20	NA	1.00	NA	NA	0.00	0.00	3
querub	11.60	NA	1.00	5.00	NA	1.00	1.40	NA	1.00	0.03	3
STRATUM TOTAL	12.17	4.44	406.00	7.46	2.30	78.00	5.83	1.98	67.00	13.38	1015

STAND=51 YEAR=92 STRATUM=2

	DIAMETER (cm)			MEASURED HEIGHT (m)			CROWN DEPTH (m)			BA	DENSITY
SPECIES	**MEAN**	**STD**	**N**	**MEAN**	**STD**	**N**	**MEAN**	**STD**	**N**	**(m^2/ha)**	**(stems/ha)**
acerub	2.18	1.09	210.00	2.12	0.90	208.00	NA	NA	0.00	0.77	1641
amespp	1.28	0.38	18.00	1.36	0.22	17.00	NA	NA	0.00	0.02	141
betpap	1.92	0.60	9.00	2.44	1.01	9.00	NA	NA	0.00	0.02	70
pinban	3.33	1.76	18.00	2.65	1.14	18.00	NA	NA	0.00	0.15	141
pinres	4.81	2.39	7.00	2.79	1.33	7.00	NA	NA	0.00	0.12	55
pinstr	4.00	NA	1.00	2.10	NA	1.00	NA	NA	0.00	0.01	8
popgra	2.25	1.16	78.00	2.13	0.90	78.00	NA	NA	0.00	0.31	609
poptre	1.68	0.65	45.00	1.63	0.58	45.00	NA	NA	0.00	0.09	352
prupen	1.37	0.46	63.00	1.30	0.22	63.00	NA	NA	0.00	0.08	492
STRATUM TOTAL	2.08	1.17	449.00	1.97	0.89	446.00	NA	NA	0.00	1.57	3508

STAND=51 YEAR=94 STRATUM=1

	DIAMETER (cm)			MEASURED HEIGHT (m)			CROWN DEPTH (m)			BA	DENSITY
SPECIES	**MEAN**	**STD**	**N**	**MEAN**	**STD**	**N**	**MEAN**	**STD**	**N**	**(m^2/ha)**	**(stems/ha)**
acerub	6.35	0.92	2.00	NA	NA	0.00	NA	NA	0.00	0.03	8
betpap	4.20	1.39	3.00	NA	NA	0.00	NA	NA	0.00	0.02	13
pinban	10.25	3.34	32.00	6.98	1.06	4.00	5.53	1.15	3.00	1.21	133
pinres	14.42	3.61	204.00	8.95	2.22	19.00	7.63	2.50	17.00	14.75	850
STRATUM TOTAL	13.68	4.01	241.00	8.61	2.19	23.00	7.31	2.45	20.00	16.01	1004

STAND=51 YEAR=94 STRATUM=2

	DIAMETER (cm)			MEASURED HEIGHT (m)			CROWN DEPTH (m)			BA	DENSITY
SPECIES	**MEAN**	**STD**	**N**	**MEAN**	**STD**	**N**	**MEAN**	**STD**	**N**	**(m^2/ha)**	**(stems/ha)**
acerub	2.18	1.20	114.00	2.34	0.88	9.00	NA	NA	0.00	0.72	1484
acesac	2.08	0.98	24.00	2.30	0.73	5.00	NA	NA	0.00	0.13	313
amespp	1.03	0.31	3.00	NA	NA	0.00	NA	NA	0.00	0.00	39
betpap	2.05	0.07	2.00	2.90	NA	1.00	NA	NA	0.00	0.01	26
pinban	2.41	1.83	7.00	2.38	1.18	5.00	NA	NA	0.00	0.06	91
pinres	2.47	2.26	13.00	2.90	NA	1.00	NA	NA	0.00	0.14	169
pinstr	4.10	NA	1.00	NA	NA	0.00	NA	NA	0.00	0.02	13
popgra	2.30	1.45	24.00	2.93	1.39	6.00	NA	NA	0.00	0.18	313
poptre	1.70	0.42	5.00	2.50	NA	1.00	NA	NA	0.00	0.02	65
STRATUM TOTAL	2.19	1.30	193.00	2.51	0.97	28.00	NA	NA	0.00	1.28	2513

STAND=52 YEAR=93 STRATUM=1

SPECIES	DIAMETER (cm) MEAN	STD	N	MEASURED HEIGHT (m) MEAN	STD	N	CROWN DEPTH (m) MEAN	STD	N	BA (m^2/ha)	DENSITY (stems/ha)
pinban	16.87	5.31	100.00	11.70	3.46	16.00	8.01	2.87	16.00	6.14	250
pinband	17.55	7.96	42.00	12.42	0.38	6.00	9.25	1.29	6.00	3.05	105
pinres	22.86	6.15	109.00	13.64	2.92	18.00	8.17	2.01	18.00	11.99	273
STRATUM TOTAL	19.59	6.80	251.00	12.68	3.03	40.00	8.27	2.30	40.00	21.17	628

STAND=52 YEAR=93 STRATUM=2

SPECIES	DIAMETER (cm) MEAN	STD	N	MEASURED HEIGHT (m) MEAN	STD	N	CROWN DEPTH (m) MEAN	STD	N	BA (m^2/ha)	DENSITY (stems/ha)
amespp	1.55	1.20	2.00	3.10	NA	1.00	NA	NA	0.00	0.00	16
pinban	6.30	0.57	2.00	3.80	0.14	2.00	NA	NA	0.00	0.05	16
pinband	5.90	1.56	2.00	4.60	0.28	2.00	NA	NA	0.00	0.04	16
STRATUM TOTAL	4.58	2.53	6.00	3.98	0.65	5.00	NA	NA	0.00	0.10	47

STAND=53 YEAR=93 STRATUM=1

	DIAMETER (cm)			MEASURED HEIGHT (m)			CROWN DEPTH (m)			BA	DENSITY
SPECIES	**MEAN**	**STD**	**N**	**MEAN**	**STD**	**N**	**MEAN**	**STD**	**N**	**(m^2/ha)**	**(stems/ha)**
abibal	9.13	3.49	27.00	5.75	0.35	2.00	3.75	0.35	2.00	0.50	68
acerub	10.67	5.11	266.00	14.94	4.92	14.00	7.61	3.52	14.00	7.30	665
acesac	8.61	4.81	71.00	13.83	5.51	6.00	9.25	3.27	6.00	1.35	178
amespp	4.48	1.13	4.00	NA	NA	0.00	NA	NA	0.00	0.02	10
betpap	16.65	8.43	24.00	NA	NA	0.00	NA	NA	0.00	1.63	60
picgla	20.73	18.15	4.00	12.50	NA	1.00	12.00	NA	1.00	0.53	10
pinban	24.70	10.87	3.00	19.50	NA	1.00	9.50	NA	1.00	0.41	8
pinband	34.40	NA	1.00	NA	NA	0.00	NA	NA	0.00	0.23	3
pinres	12.67	5.16	3.00	11.50	NA	1.00	9.00	NA	1.00	0.10	8
pinstr	17.73	16.80	8.00	NA	NA	0.00	NA	NA	0.00	0.88	20
popgra	21.48	6.93	116.00	17.63	5.68	12.00	5.63	2.04	12.00	11.60	290
poptre	13.71	7.30	25.00	16.00	5.68	3.00	8.33	2.08	3.00	1.17	63
pruser	2.70	NA	1.00	NA	NA	0.00	NA	NA	0.00	0.00	3
querub	9.30	4.69	4.00	NA	NA	0.00	NA	NA	0.00	0.08	10
STRATUM TOTAL	13.21	7.85	557.00	15.17	5.52	40.00	7.32	3.14	40.00	25.81	1393

STAND=53 YEAR=93 STRATUM=2

	DIAMETER (cm)			MEASURED HEIGHT (m)			CROWN DEPTH (m)			BA	DENSITY
SPECIES	**MEAN**	**STD**	**N**	**MEAN**	**STD**	**N**	**MEAN**	**STD**	**N**	**(m^2/ha)**	**(stems/ha)**
abibal	3.79	1.22	51.00	2.74	1.09	12.00	NA	NA	0.00	0.50	398
acerub	1.66	1.37	137.00	2.45	1.34	22.00	NA	NA	0.00	0.39	1070
acesac	1.38	0.95	49.00	2.18	1.07	9.00	NA	NA	0.00	0.08	383
amespp	1.13	0.75	85.00	1.66	0.57	14.00	NA	NA	0.00	0.10	664
corcor	0.95	0.34	116.00	1.46	0.28	9.00	NA	NA	0.00	0.07	906
faggra	0.80	NA	1.00	NA	NA	0.00	NA	NA	0.00	0.00	8
picgla	4.50	2.40	2.00	1.50	NA	1.00	NA	NA	0.00	0.03	16
pinban	3.10	NA	1.00	NA	NA	0.00	NA	NA	0.00	0.01	8
pinstr	3.26	3.24	5.00	1.30	NA	1.00	NA	NA	0.00	0.06	39
popgra	1.90	NA	1.00	3.00	NA	1.00	NA	NA	0.00	0.00	8
poptre	1.41	1.14	21.00	1.44	0.49	7.00	NA	NA	0.00	0.04	164
querub	1.22	0.88	5.00	NA	NA	0.00	NA	NA	0.00	0.01	39
salspp	1.35	0.21	2.00	2.00	NA	1.00	NA	NA	0.00	0.00	16
STRATUM TOTAL	1.60	1.35	476.00	2.09	1.06	77.00	NA	NA	0.00	1.28	3719

STAND=54 YEAR=93 STRATUM=1

SPECIES	DIAMETER (cm) MEAN	STD	N	MEASURED HEIGHT (m) MEAN	STD	N	CROWN DEPTH (m) MEAN	STD	N	BA (m^2/ha)	DENSITY (stems/ha)
pinban	7.91	1.61	11.00	5.18	0.19	9.00	4.70	0.46	8.00	0.14	28
STRATUM TOTAL	7.91	1.61	11.00	5.18	0.19	9.00	4.70	0.46	8.00	0.14	28

STAND=54 YEAR=93 STRATUM=2

SPECIES	DIAMETER (cm) MEAN	STD	N	MEASURED HEIGHT (m) MEAN	STD	N	CROWN DEPTH (m) MEAN	STD	N	BA (m^2/ha)	DENSITY (stems/ha)
pinban	6.03	2.39	197.00	3.54	0.92	75.00	NA	NA	0.00	5.09	1539
pinband	8.30	0.71	2.00	NA	NA	0.00	NA	NA	0.00	0.08	16
STRATUM TOTAL	6.06	2.39	199.00	3.54	0.92	75.00	NA	NA	0.00	5.17	1555

STAND=54 YEAR=94 STRATUM=1

SPECIES	DIAMETER (cm) MEAN	STD	N	MEASURED HEIGHT (m) MEAN	STD	N	CROWN DEPTH (m) MEAN	STD	N	BA (m^2/ha)	DENSITY (stems/ha)
pinban	7.54	1.04	49.00	5.34	0.32	17.00	4.75	0.44	13.00	0.93	204
STRATUM TOTAL	7.54	1.04	49.00	5.34	0.32	17.00	4.75	0.44	13.00	0.93	204

STAND=54 YEAR=94 STRATUM=2

SPECIES	DIAMETER (cm) MEAN	STD	N	MEASURED HEIGHT (m) MEAN	STD	N	CROWN DEPTH (m) MEAN	STD	N	BA (m^2/ha)	DENSITY (stems/ha)
pinban	6.03	2.33	95.00	3.62	1.03	40.00	NA	NA	0.00	4.06	1237
STRATUM TOTAL	6.03	2.33	95.00	3.62	1.03	40.00	NA	NA	0.00	4.06	1237

STAND=55 YEAR=93 STRATUM=1

	DIAMETER (cm)			MEASURED HEIGHT (m)			CROWN DEPTH (m)			BA	DENSITY
SPECIES	**MEAN**	**STD**	**N**	**MEAN**	**STD**	**N**	**MEAN**	**STD**	**N**	**(m^2/ha)**	**(stems/ha)**
pinban	7.47	1.51	6.00	5.10	0.14	4.00	4.65	0.13	4.00	0.07	15
STRATUM TOTAL	7.47	1.51	6.00	5.10	0.14	4.00	4.65	0.13	4.00	0.07	15

STAND=55 YEAR=93 STRATUM=2

	DIAMETER (cm)			MEASURED HEIGHT (m)			CROWN DEPTH (m)			BA	DENSITY
SPECIES	**MEAN**	**STD**	**N**	**MEAN**	**STD**	**N**	**MEAN**	**STD**	**N**	**(m^2/ha)**	**(stems/ha)**
pinban	5.43	1.93	338.00	3.38	0.75	75.00	NA	NA	0.00	6.88	2641
pinband	2.95	1.34	2.00	NA	NA	0.00	NA	NA	0.00	0.01	16
STRATUM TOTAL	5.41	1.94	340.00	3.38	0.75	75.00	NA	NA	0.00	6.89	2656

STAND=55 YEAR=94 STRATUM=1

	DIAMETER (cm)			MEASURED HEIGHT (m)			CROWN DEPTH (m)			BA	DENSITY
SPECIES	**MEAN**	**STD**	**N**	**MEAN**	**STD**	**N**	**MEAN**	**STD**	**N**	**(m^2/ha)**	**(stems/ha)**
pinban	7.09	1.48	26.00	5.25	0.44	15.00	4.67	0.52	15.00	0.45	108
STRATUM TOTAL	7.09	1.48	26.00	5.25	0.44	15.00	4.67	0.52	15.00	0.45	108

STAND=55 YEAR=94 STRATUM=2

	DIAMETER (cm)			MEASURED HEIGHT (m)			CROWN DEPTH (m)			BA	DENSITY
SPECIES	**MEAN**	**STD**	**N**	**MEAN**	**STD**	**N**	**MEAN**	**STD**	**N**	**(m^2/ha)**	**(stems/ha)**
pinban	5.81	2.33	152.00	3.63	0.74	45.00	3.30	0.46	5.00	6.08	1979
STRATUM TOTAL	5.81	2.33	152.00	3.63	0.74	45.00	3.30	0.46	5.00	6.08	1979

STAND=56 YEAR=93 STRATUM=1

	DIAMETER (cm)			MEASURED HEIGHT (m)			CROWN DEPTH (m)			BA	DENSITY
SPECIES	**MEAN**	**STD**	**N**	**MEAN**	**STD**	**N**	**MEAN**	**STD**	**N**	**(m^2/ha)**	**(stems/ha)**
pinban	13.63	4.45	133.00	10.87	1.91	19.00	7.92	2.02	19.00	5.37	333
pinres	25.90	1.98	2.00	NA	NA	0.00	NA	NA	0.00	0.26	5
STRATUM TOTAL	13.82	4.66	135.00	10.87	1.91	19.00	7.92	2.02	19.00	5.63	338

STAND=56 YEAR=93 STRATUM=2

	DIAMETER (cm)			MEASURED HEIGHT (m)			CROWN DEPTH (m)			BA	DENSITY
SPECIES	**MEAN**	**STD**	**N**	**MEAN**	**STD**	**N**	**MEAN**	**STD**	**N**	**(m^2/ha)**	**(stems/ha)**
amespp	0.90	NA	1.00	1.10	NA	1.00	NA	NA	0.00	0.00	8
pinban	3.06	1.59	10.00	1.65	0.89	6.00	NA	NA	0.00	0.07	78
STRATUM TOTAL	2.86	1.65	11.00	1.57	0.84	7.00	NA	NA	0.00	0.07	86

STAND=57 YEAR=93 STRATUM=1

	DIAMETER (cm)			MEASURED HEIGHT (m)			CROWN DEPTH (m)			BA	DENSITY
SPECIES	**MEAN**	**STD**	**N**	**MEAN**	**STD**	**N**	**MEAN**	**STD**	**N**	**(m^2/ha)**	**(stems/ha)**
abibal	9.38	3.24	10.00	NA	NA	0.00	NA	NA	0.00	0.19	25
acerub	10.47	4.64	318.00	12.05	3.48	15.00	5.29	2.55	15.00	8.19	795
acesac	8.75	4.81	95.00	12.12	4.22	5.00	5.22	2.18	5.00	1.85	238
amespp	3.92	1.82	11.00	NA	NA	0.00	NA	NA	0.00	0.04	28
betpap	16.70	6.10	50.00	15.50	6.08	3.00	6.17	2.02	3.00	3.10	125
picgla	14.66	7.47	45.00	12.53	4.49	4.00	9.63	3.97	4.00	2.38	113
pinban	25.35	3.46	2.00	NA	NA	0.00	NA	NA	0.00	0.25	5
pinres	19.11	6.91	12.00	12.45	8.56	2.00	5.60	3.39	2.00	0.96	30
pinstr	11.68	5.78	40.00	7.93	2.87	3.00	4.93	1.44	3.00	1.33	100
popgra	22.11	5.66	79.00	19.50	2.15	5.00	8.10	3.17	5.00	8.07	198
poptre	17.75	3.44	16.00	15.33	1.89	3.00	5.33	2.08	3.00	1.02	40
querub	11.84	12.78	30.00	NA	NA	0.00	NA	NA	0.00	1.76	75
STRATUM TOTAL	12.61	7.13	708.00	13.25	4.61	40.00	6.12	2.86	40.00	29.15	1770

STAND=57 YEAR=93 STRATUM=2

	DIAMETER (cm)			MEASURED HEIGHT (m)			CROWN DEPTH (m)			BA	DENSITY
SPECIES	**MEAN**	**STD**	**N**	**MEAN**	**STD**	**N**	**MEAN**	**STD**	**N**	**(m^2/ha)**	**(stems/ha)**
abibal	3.55	1.64	16.00	1.87	0.64	3.00	NA	NA	0.00	0.15	125
acepen	1.49	0.62	8.00	NA	NA	0.00	NA	NA	0.00	0.01	63
acerub	1.51	0.96	132.00	1.86	0.91	9.00	NA	NA	0.00	0.26	1031
acesac	1.56	1.02	10.00	2.85	1.91	2.00	NA	NA	0.00	0.02	78
amespp	1.08	0.60	254.00	1.53	0.34	15.00	NA	NA	0.00	0.24	1984
betpap	1.92	2.75	12.00	NA	NA	0.00	NA	NA	0.00	0.08	94
corcor	1.08	0.39	407.00	1.75	0.44	13.00	NA	NA	0.00	0.33	3180
faggra	0.90	NA	1.00	NA	NA	0.00	NA	NA	0.00	0.00	8
loncan	0.90	0.29	4.00	NA	NA	0.00	NA	NA	0.00	0.00	31
picgla	3.61	1.74	14.00	1.00	NA	1.00	NA	NA	0.00	0.14	109
pinres	6.00	NA	1.00	NA	NA	0.00	NA	NA	0.00	0.02	8
pinstr	3.38	1.84	84.00	2.19	0.93	16.00	NA	NA	0.00	0.76	656
popgra	4.16	5.61	5.00	NA	NA	0.00	NA	NA	0.00	0.13	39
poptre	1.30	NA	1.00	NA	NA	0.00	NA	NA	0.00	0.00	8
querub	1.38	0.68	149.00	1.88	0.95	20.00	NA	NA	0.00	0.22	1164
vibspp	0.70	NA	1.00	NA	NA	0.00	NA	NA	0.00	0.00	8
STRATUM TOTAL	1.45	1.18	1099.00	1.87	0.81	79.00	NA	NA	0.00	2.36	8586

STAND=58 YEAR=93 STRATUM=2

SPECIES	DIAMETER (cm) MEAN	STD	N	MEASURED HEIGHT (m) MEAN	STD	N	CROWN DEPTH (m) MEAN	STD	N	BA (m^2/ha)	DENSITY (stems/ha)
pinban	4.82	2.30	229.00	2.66	0.79	61.00	NA	NA	0.00	4.00	1789
STRATUM TOTAL	4.82	2.30	229.00	2.66	0.79	61.00	NA	NA	0.00	4.00	1789

STAND=58 YEAR=94 STRATUM=2

SPECIES	DIAMETER (cm) MEAN	STD	N	MEASURED HEIGHT (m) MEAN	STD	N	CROWN DEPTH (m) MEAN	STD	N	BA (m^2/ha)	DENSITY (stems/ha)
pinban	4.82	2.30	229.00	2.66	0.79	61.00	NA	NA	0.00	4.21	1883
STRATUM TOTAL	4.82	2.30	229.00	2.66	0.79	61.00	NA	NA	0.00	4.21	1883

STAND=59 YEAR=93 STRATUM=1

SPECIES	DIAMETER (cm) MEAN	STD	N	MEASURED HEIGHT (m) MEAN	STD	N	CROWN DEPTH (m) MEAN	STD	N	BA (m^2/ha)	DENSITY (stems/ha)
pinban	8.09	1.97	154.00	5.43	0.53	38.00	4.96	0.46	37.00	2.10	385
STRATUM TOTAL	8.09	1.97	154.00	5.43	0.53	38.00	4.96	0.46	37.00	2.10	385

STAND=59 YEAR=93 STRATUM=2

SPECIES	DIAMETER (cm) MEAN	STD	N	MEASURED HEIGHT (m) MEAN	STD	N	CROWN DEPTH (m) MEAN	STD	N	BA (m^2/ha)	DENSITY (stems/ha)
amespp	1.84	0.51	8.00	NA	NA	0.00	NA	NA	0.00	0.02	63
pinban	4.85	2.85	130.00	3.08	1.29	41.00	NA	NA	0.00	2.52	1016
pinband	3.85	0.68	4.00	NA	NA	0.00	NA	NA	0.00	0.04	31
pinres	3.95	1.01	4.00	1.65	0.24	4.00	NA	NA	0.00	0.04	31
STRATUM TOTAL	4.64	2.78	146.00	2.95	1.30	45.00	NA	NA	0.00	2.62	1141

STAND=59 YEAR=94 STRATUM=1

SPECIES	DIAMETER (cm) MEAN	STD	N	MEASURED HEIGHT (m) MEAN	STD	N	CROWN DEPTH (m) MEAN	STD	N	BA (m^2/ha)	DENSITY (stems/ha)
pinban	8.43	1.92	85.00	5.76	0.41	15.00	5.13	0.49	10.00	3.12	531
STRATUM TOTAL	8.43	1.92	85.00	5.76	0.41	15.00	5.13	0.49	10.00	3.12	531

STAND=59 YEAR=94 STRATUM=2

SPECIES	DIAMETER (cm) MEAN	STD	N	MEASURED HEIGHT (m) MEAN	STD	N	CROWN DEPTH (m) MEAN	STD	N	BA (m^2/ha)	DENSITY (stems/ha)
pinban	5.87	2.58	23.00	3.95	0.80	11.00	NA	NA	0.00	1.44	449
STRATUM TOTAL	5.87	2.58	23.00	3.95	0.80	11.00	NA	NA	0.00	1.44	449

STAND=60 YEAR=93 STRATUM=1

SPECIES	DIAMETER (cm) MEAN	STD	N	MEASURED HEIGHT (m) MEAN	STD	N	CROWN DEPTH (m) MEAN	STD	N	BA (m^2/ha)	DENSITY (stems/ha)
pinban	9.18	2.22	193.00	5.95	0.68	31.00	5.16	0.86	29.00	3.38	483
pinres	14.39	3.48	36.00	6.61	0.82	9.00	6.06	0.88	9.00	1.55	90
STRATUM TOTAL	10.00	3.11	229.00	6.10	0.76	40.00	5.38	0.93	38.00	4.93	573

STAND=60 YEAR=93 STRATUM=2

SPECIES	DIAMETER (cm) MEAN	STD	N	MEASURED HEIGHT (m) MEAN	STD	N	CROWN DEPTH (m) MEAN	STD	N	BA (m^2/ha)	DENSITY (stems/ha)
amespp	1.91	0.86	11.00	1.20	0.00	2.00	NA	NA	0.00	0.03	86
pinban	6.86	2.83	39.00	3.44	1.26	25.00	4.00	NA	1.00	1.31	305
pinband	4.45	4.31	2.00	2.50	0.71	2.00	NA	NA	0.00	0.04	16
pinres	12.33	0.87	3.00	4.50	NA	1.00	NA	NA	0.00	0.28	23
STRATUM TOTAL	6.08	3.52	55.00	3.27	1.32	30.00	4.00	NA	1.00	1.66	430

STAND=61 YEAR=93 STRATUM=1

SPECIES	DIAMETER (cm) MEAN	STD	N	MEASURED HEIGHT (m) MEAN	STD	N	CROWN DEPTH (m) MEAN	STD	N	BA (m^2/ha)	DENSITY (stems/ha)
pinban	15.62	4.03	337.00	13.19	2.24	34.00	7.12	2.31	34.00	17.22	843
pinband	10.56	3.48	52.00	12.33	2.84	3.00	6.83	1.04	3.00	1.26	130
pinres	39.00	NA	1.00	NA	NA	0.00	NA	NA	0.00	0.30	3
STRATUM TOTAL	15.01	4.48	390.00	13.12	2.26	37.00	7.09	2.23	37.00	18.78	975

STAND=61 YEAR=93 STRATUM=2

SPECIES	DIAMETER (cm) MEAN	STD	N	MEASURED HEIGHT (m) MEAN	STD	N	CROWN DEPTH (m) MEAN	STD	N	BA (m^2/ha)	DENSITY (stems/ha)
pinban	6.00	2.17	3.00	3.40	1.13	2.00	NA	NA	0.00	0.07	23
pinband	4.80	NA	1.00	4.00	NA	1.00	NA	NA	0.00	0.01	8
STRATUM TOTAL	5.70	1.87	4.00	3.60	0.87	3.00	NA	NA	0.00	0.09	31

STAND=62 YEAR=93 STRATUM=1

SPECIES	DIAMETER (cm) MEAN	STD	N	MEASURED HEIGHT (m) MEAN	STD	N	CROWN DEPTH (m) MEAN	STD	N	BA (m^2/ha)	DENSITY (stems/ha)
pinban	10.39	2.76	654.00	10.46	1.67	37.00	6.18	1.67	36.00	14.85	1635
pinband	7.13	2.30	70.00	6.97	1.00	3.00	2.80	1.21	3.00	0.77	175
pinres	36.40	NA	1.00	NA	NA	0.00	NA	NA	0.00	0.26	3
STRATUM TOTAL	10.12	3.04	725.00	10.20	1.87	40.00	5.92	1.86	39.00	15.88	1813

STAND=62 YEAR=93 STRATUM=2

SPECIES	DIAMETER (cm) MEAN	STD	N	MEASURED HEIGHT (m) MEAN	STD	N	CROWN DEPTH (m) MEAN	STD	N	BA (m^2/ha)	DENSITY (stems/ha)
amespp	0.90	0.42	4.00	1.40	NA	1.00	NA	NA	0.00	0.00	31
pinban	5.56	1.67	11.00	3.52	0.79	5.00	NA	NA	0.00	0.23	86
pinband	5.39	1.75	16.00	3.97	0.75	10.00	NA	NA	0.00	0.31	125
STRATUM TOTAL	4.87	2.21	31.00	3.67	0.96	16.00	NA	NA	0.00	0.54	242

STAND=63 YEAR=93 STRATUM=1

SPECIES	DIAMETER (cm) MEAN	STD	N	MEASURED HEIGHT (m) MEAN	STD	N	CROWN DEPTH (m) MEAN	STD	N	BA (m^2/ha)	DENSITY (stems/ha)
pinban	13.88	5.29	167.00	8.88	2.83	27.00	6.59	2.26	27.00	7.23	418
pinband	13.48	5.55	42.00	9.60	2.42	10.00	7.70	2.32	10.00	1.75	105
pinres	23.17	6.37	3.00	10.00	NA	1.00	9.00	NA	1.00	0.33	8
STRATUM TOTAL	13.93	5.45	212.00	9.10	2.68	38.00	6.95	2.29	38.00	9.31	530

STAND=63 YEAR=93 STRATUM=2

SPECIES	DIAMETER (cm) MEAN	STD	N	MEASURED HEIGHT (m) MEAN	STD	N	CROWN DEPTH (m) MEAN	STD	N	BA (m^2/ha)	DENSITY (stems/ha)
amespp	1.20	NA	1.00	1.30	NA	1.00	NA	NA	0.00	0.00	8
juncom	2.51	0.88	7.00	1.00	NA	1.00	NA	NA	0.00	0.03	55
pinban	4.60	2.59	33.00	2.59	0.98	22.00	NA	NA	0.00	0.56	258
pinband	3.75	1.96	4.00	3.03	1.23	4.00	NA	NA	0.00	0.04	31
STRATUM TOTAL	4.13	2.46	45.00	2.55	1.05	28.00	NA	NA	0.00	0.63	352

STAND=64 YEAR=93 STRATUM=1

SPECIES	DIAMETER (cm) MEAN	STD	N	MEASURED HEIGHT (m) MEAN	STD	N	CROWN DEPTH (m) MEAN	STD	N	BA (m^2/ha)	DENSITY (stems/ha)
pinban	17.73	5.36	121.00	11.77	2.55	24.00	8.95	2.39	24.00	8.15	303
pinband	18.24	6.03	43.00	9.59	2.26	11.00	6.85	2.14	11.00	3.11	108
STRATUM TOTAL	17.87	5.53	164.00	11.09	2.63	35.00	8.29	2.49	35.00	11.26	410

STAND=64 YEAR=93 STRATUM=2

SPECIES	DIAMETER (cm) MEAN	STD	N	MEASURED HEIGHT (m) MEAN	STD	N	CROWN DEPTH (m) MEAN	STD	N	BA (m^2/ha)	DENSITY (stems/ha)
abibal	3.30	NA	1.00	2.00	NA	1.00	NA	NA	0.00	0.01	8
pinban	4.08	2.52	10.00	2.71	1.51	7.00	NA	NA	0.00	0.14	78
pinband	5.50	0.28	2.00	3.60	0.85	2.00	NA	NA	0.00	0.04	16
STRATUM TOTAL	4.24	2.27	13.00	2.82	1.35	10.00	NA	NA	0.00	0.18	102

STAND=65 YEAR=93 STRATUM=1

	DIAMETER (cm)			MEASURED HEIGHT (m)			CROWN DEPTH (m)			BA	DENSITY
SPECIES	**MEAN**	**STD**	**N**	**MEAN**	**STD**	**N**	**MEAN**	**STD**	**N**	**(m^2/ha)**	**(stems/ha)**
pinban	14.70	3.76	318.00	12.88	2.57	37.00	6.76	2.09	37.00	14.36	795
pinband	12.55	4.35	59.00	14.00	0.71	2.00	10.25	0.35	2.00	2.04	148
pinres	18.10	7.20	4.00	6.40	NA	1.00	4.90	NA	1.00	0.29	10
STRATUM TOTAL	14.40	3.98	381.00	12.77	2.69	40.00	6.89	2.17	40.00	16.69	953

STAND=65 YEAR=93 STRATUM=2

	DIAMETER (cm)			MEASURED HEIGHT (m)			CROWN DEPTH (m)			BA	DENSITY
SPECIES	**MEAN**	**STD**	**N**	**MEAN**	**STD**	**N**	**MEAN**	**STD**	**N**	**(m^2/ha)**	**(stems/ha)**
acerub	0.80	NA	1.00	NA	NA	0.00	NA	NA	0.00	0.00	8
pinban	3.00	2.55	2.00	2.45	2.05	2.00	NA	NA	0.00	0.02	16
STRATUM TOTAL	2.27	2.20	3.00	2.45	2.05	2.00	NA	NA	0.00	0.02	23

STAND=66 YEAR=93 STRATUM=2

	DIAMETER (cm)			MEASURED HEIGHT (m)			CROWN DEPTH (m)			BA	DENSITY
SPECIES	**MEAN**	**STD**	**N**	**MEAN**	**STD**	**N**	**MEAN**	**STD**	**N**	**(m^2/ha)**	**(stems/ha)**
amespp	1.09	0.22	28.00	1.00	NA	1.00	NA	NA	0.00	0.02	243
pinban	1.75	0.52	178.00	1.26	0.19	32.00	NA	NA	0.00	0.40	1545
STRATUM TOTAL	1.66	0.54	206.00	1.25	0.19	33.00	NA	NA	0.00	0.43	1788

STAND=66 YEAR=94 STRATUM=2

	DIAMETER (cm)			MEASURED HEIGHT (m)			CROWN DEPTH (m)			BA	DENSITY
SPECIES	**MEAN**	**STD**	**N**	**MEAN**	**STD**	**N**	**MEAN**	**STD**	**N**	**(m^2/ha)**	**(stems/ha)**
amespp	1.10	0.10	3.00	NA	NA	0.00	NA	NA	0.00	0.00	38
pinban	1.81	0.65	420.00	1.25	0.19	39.00	NA	NA	0.00	1.52	5250
STRATUM TOTAL	1.80	0.65	423.00	1.25	0.19	39.00	NA	NA	0.00	1.52	5288

STAND=67 YEAR=93 STRATUM=1

	DIAMETER (cm)			MEASURED HEIGHT (m)			CROWN DEPTH (m)			BA	DENSITY
SPECIES	**MEAN**	**STD**	**N**	**MEAN**	**STD**	**N**	**MEAN**	**STD**	**N**	**(m^2/ha)**	**(stems/ha)**
pinban	17.43	3.84	327.00	14.98	1.81	33.00	7.21	1.87	33.00	20.45	818
pinband	13.16	4.37	52.00	10.08	2.98	5.00	5.02	1.58	5.00	1.96	130
pinres	13.45	1.34	2.00	6.45	0.78	2.00	5.15	0.21	2.00	0.07	5
STRATUM TOTAL	16.82	4.18	381.00	13.95	3.05	40.00	6.84	1.95	40.00	22.48	953

STAND=67 YEAR=93 STRATUM=2

	DIAMETER (cm)			MEASURED HEIGHT (m)			CROWN DEPTH (m)			BA	DENSITY
SPECIES	**MEAN**	**STD**	**N**	**MEAN**	**STD**	**N**	**MEAN**	**STD**	**N**	**(m^2/ha)**	**(stems/ha)**
acerub	1.30	NA	1.00	2.00	NA	1.00	NA	NA	0.00	0.00	8
amespp	1.25	0.07	2.00	1.40	NA	1.00	NA	NA	0.00	0.00	16
faggra	1.80	NA	1.00	1.80	NA	1.00	NA	NA	0.00	0.00	8
pinres	4.07	1.01	3.00	2.03	0.51	3.00	NA	NA	0.00	0.03	23
STRATUM TOTAL	2.54	1.55	7.00	1.88	0.41	6.00	NA	NA	0.00	0.04	55

STAND=68 YEAR=93 STRATUM=1

	DIAMETER (cm)			MEASURED HEIGHT (m)			CROWN DEPTH (m)			BA	DENSITY
SPECIES	**MEAN**	**STD**	**N**	**MEAN**	**STD**	**N**	**MEAN**	**STD**	**N**	**(m^2/ha)**	**(stems/ha)**
pinban	16.97	5.19	45.00	NA	NA	0.00	NA	NA	0.00	2.78	113
pinband	14.03	4.05	10.00	13.75	1.77	2.00	5.50	0.71	2.00	0.42	25
pinres	20.37	6.32	283.00	13.65	2.27	36.00	8.02	1.67	36.00	25.28	708
STRATUM TOTAL	19.73	6.30	338.00	13.66	2.22	38.00	7.89	1.73	38.00	28.47	845

STAND=68 YEAR=93 STRATUM=2

	DIAMETER (cm)			MEASURED HEIGHT (m)			CROWN DEPTH (m)			BA	DENSITY
SPECIES	**MEAN**	**STD**	**N**	**MEAN**	**STD**	**N**	**MEAN**	**STD**	**N**	**(m^2/ha)**	**(stems/ha)**
pinban	2.20	NA	1.00	2.00	NA	1.00	NA	NA	0.00	0.00	8
pinres	8.87	1.50	3.00	3.40	1.28	3.00	NA	NA	0.00	0.15	23
STRATUM TOTAL	7.20	3.55	4.00	3.05	1.26	4.00	NA	NA	0.00	0.15	31

STAND=69 YEAR=93 STRATUM=1

	DIAMETER (cm)			MEASURED HEIGHT (m)			CROWN DEPTH (m)			BA	DENSITY
SPECIES	**MEAN**	**STD**	**N**	**MEAN**	**STD**	**N**	**MEAN**	**STD**	**N**	**(m^2/ha)**	**(stems/ha)**
acerub	3.64	0.66	7.00	5.10	NA	1.00	3.20	NA	1.00	0.05	47
acesac	4.29	0.65	8.00	5.40	NA	1.00	1.90	NA	1.00	0.08	53
betpap	3.75	1.06	2.00	NA	NA	0.00	NA	NA	0.00	0.02	13
popgra	4.29	1.12	35.00	6.15	0.59	8.00	2.96	0.64	8.00	0.36	233
poptre	4.33	1.17	138.00	6.09	0.77	13.00	2.60	0.49	13.00	1.45	920
prupen	3.41	0.99	25.00	5.27	0.27	6.00	1.73	0.42	6.00	0.16	167
STRATUM TOTAL	4.19	1.15	215.00	5.88	0.71	29.00	2.52	0.68	29.00	2.12	1433

STAND=69 YEAR=93 STRATUM=2

	DIAMETER (cm)			MEASURED HEIGHT (m)			CROWN DEPTH (m)			BA	DENSITY
SPECIES	**MEAN**	**STD**	**N**	**MEAN**	**STD**	**N**	**MEAN**	**STD**	**N**	**(m^2/ha)**	**(stems/ha)**
abibal	5.80	1.73	4.00	3.30	NA	1.00	NA	NA	0.00	0.23	83
acerub	1.53	0.77	428.00	2.25	0.70	4.00	NA	NA	0.00	2.05	8917
acesac	1.33	0.57	221.00	1.67	0.81	3.00	NA	NA	0.00	0.76	4604
amespp	1.21	0.63	127.00	1.73	0.32	3.00	NA	NA	0.00	0.39	2646
betpap	1.98	1.13	9.00	NA	NA	0.00	NA	NA	0.00	0.07	188
corcor	0.84	0.19	224.00	NA	NA	0.00	NA	NA	0.00	0.27	4667
loncan	0.80	NA	1.00	NA	NA	0.00	NA	NA	0.00	0.00	21
lonspp	0.68	0.17	4.00	NA	NA	0.00	NA	NA	0.00	0.00	83
pinstr	3.50	NA	1.00	NA	NA	0.00	NA	NA	0.00	0.02	21
popgra	3.09	1.12	50.00	4.00	NA	1.00	NA	NA	0.00	0.88	1042
poptre	2.73	0.83	193.00	3.50	1.07	5.00	NA	NA	0.00	2.57	4021
prupen	1.84	0.73	623.00	3.56	1.20	5.00	NA	NA	0.00	3.99	12979
querub	1.63	0.76	6.00	NA	NA	0.00	NA	NA	0.00	0.03	125
sorame	0.90	NA	1.00	NA	NA	0.00	NA	NA	0.00	0.00	21
STRATUM TOTAL	1.68	0.91	1892.00	2.81	1.17	22.00	NA	NA	0.00	11.28	39417

STAND=70 YEAR=93 STRATUM=1

	DIAMETER (cm)			MEASURED HEIGHT (m)			CROWN DEPTH (m)			BA	DENSITY
SPECIES	**MEAN**	**STD**	**N**	**MEAN**	**STD**	**N**	**MEAN**	**STD**	**N**	**(m^2/ha)**	**(stems/ha)**
acesac	4.00	NA	1.00	NA	NA	0.00	NA	NA	0.00	0.02	13
amespp	3.88	2.30	4.00	5.00	NA	1.00	2.70	NA	1.00	0.07	50
popgra	3.97	0.06	3.00	5.20	0.00	2.00	3.05	0.21	2.00	0.05	38
poptre	4.53	0.91	33.00	5.33	0.26	9.00	3.34	0.40	9.00	0.69	413
STRATUM TOTAL	4.41	1.06	41.00	5.28	0.25	12.00	3.24	0.40	12.00	0.83	513

STAND=70 YEAR=93 STRATUM=2

	DIAMETER (cm)			MEASURED HEIGHT (m)			CROWN DEPTH (m)			BA	DENSITY
SPECIES	**MEAN**	**STD**	**N**	**MEAN**	**STD**	**N**	**MEAN**	**STD**	**N**	**(m^2/ha)**	**(stems/ha)**
acerub	1.26	0.40	26.00	1.80	NA	1.00	NA	NA	0.00	0.14	1016
acesac	2.00	NA	1.00	NA	NA	0.00	NA	NA	0.00	0.01	39
amespp	1.60	0.97	134.00	1.70	0.81	4.00	NA	NA	0.00	1.44	5234
corcor	1.00	0.22	46.00	NA	NA	0.00	NA	NA	0.00	0.15	1797
popgra	2.94	1.10	18.00	NA	NA	0.00	NA	NA	0.00	0.54	703
poptre	2.96	0.95	167.00	2.88	0.98	9.00	NA	NA	0.00	4.96	6523
prupen	1.51	0.73	141.00	2.90	0.85	2.00	NA	NA	0.00	1.22	5508
querub	2.00	0.17	3.00	NA	NA	0.00	NA	NA	0.00	0.04	117
STRATUM TOTAL	1.98	1.11	536.00	2.52	1.00	16.00	NA	NA	0.00	8.50	20938

STAND=71 YEAR=93 STRATUM=1

	DIAMETER (cm)			MEASURED HEIGHT (m)			CROWN DEPTH (m)			BA	DENSITY
SPECIES	**MEAN**	**STD**	**N**	**MEAN**	**STD**	**N**	**MEAN**	**STD**	**N**	**(m^2/ha)**	**(stems/ha)**
pinban	41.00	NA	1.00	14.50	NA	1.00	11.00	NA	1.00	0.33	3
pinres	26.17	4.75	70.00	13.65	1.66	33.00	9.47	1.22	33.00	9.72	175
STRATUM TOTAL	26.37	5.03	71.00	13.67	1.64	34.00	9.51	1.23	34.00	10.05	178

STAND=71 YEAR=93 STRATUM=2

	DIAMETER (cm)			MEASURED HEIGHT (m)			CROWN DEPTH (m)			BA	DENSITY
SPECIES	**MEAN**	**STD**	**N**	**MEAN**	**STD**	**N**	**MEAN**	**STD**	**N**	**(m^2/ha)**	**(stems/ha)**
amespp	0.40	NA	1.00	1.20	NA	1.00	NA	NA	0.00	0.00	8
pinres	8.60	NA	1.00	3.20	NA	1.00	NA	NA	0.00	0.05	8
STRATUM TOTAL	4.50	5.80	2.00	2.20	1.41	2.00	NA	NA	0.00	0.05	16

STAND=72 YEAR=93 STRATUM=1

SPECIES	DIAMETER (cm) MEAN	DIAMETER (cm) STD	DIAMETER (cm) N	MEASURED HEIGHT (m) MEAN	MEASURED HEIGHT (m) STD	MEASURED HEIGHT (m) N	CROWN DEPTH (m) MEAN	CROWN DEPTH (m) STD	CROWN DEPTH (m) N	BA (m^2/ha)	DENSITY (stems/ha)
acerub	4.73	1.33	4.00	NA	NA	0.00	NA	NA	0.00	0.02	10
pinban	19.42	7.29	6.00	13.75	0.35	2.00	9.50	0.00	2.00	0.50	15
pinband	14.55	0.92	2.00	9.50	NA	1.00	5.00	NA	1.00	0.08	5
pinres	25.70	5.54	60.00	13.98	1.69	25.00	9.58	1.47	25.00	8.13	150
STRATUM TOTAL	23.70	7.54	72.00	13.80	1.80	28.00	9.41	1.63	28.00	8.73	180

STAND=72 YEAR=93 STRATUM=2

SPECIES	DIAMETER (cm) MEAN	DIAMETER (cm) STD	DIAMETER (cm) N	MEASURED HEIGHT (m) MEAN	MEASURED HEIGHT (m) STD	MEASURED HEIGHT (m) N	CROWN DEPTH (m) MEAN	CROWN DEPTH (m) STD	CROWN DEPTH (m) N	BA (m^2/ha)	DENSITY (stems/ha)
acerub	2.25	1.79	11.00	2.03	0.75	3.00	NA	NA	0.00	0.05	86
amespp	1.00	NA	1.00	NA	NA	0.00	NA	NA	0.00	0.00	8
pinban	7.65	0.78	2.00	3.50	0.99	2.00	NA	NA	0.00	0.07	16
salspp	1.50	0.28	2.00	2.10	0.00	2.00	NA	NA	0.00	0.00	16
STRATUM TOTAL	2.76	2.44	16.00	2.47	0.92	7.00	NA	NA	0.00	0.13	125

STAND=73 YEAR=93 STRATUM=1

SPECIES	DIAMETER (cm) MEAN	DIAMETER (cm) STD	DIAMETER (cm) N	MEASURED HEIGHT (m) MEAN	MEASURED HEIGHT (m) STD	MEASURED HEIGHT (m) N	CROWN DEPTH (m) MEAN	CROWN DEPTH (m) STD	CROWN DEPTH (m) N	BA (m^2/ha)	DENSITY (stems/ha)
acerub	5.80	NA	1.00	NA	NA	0.00	NA	NA	0.00	0.01	3
pinban	16.59	7.24	59.00	10.50	2.72	7.00	7.79	1.63	7.00	3.78	148
pinband	18.84	7.12	20.00	12.22	2.75	9.00	7.67	2.89	9.00	1.58	50
pinres	27.86	6.87	76.00	13.65	2.24	24.00	10.29	2.06	24.00	12.28	190
STRATUM TOTAL	22.30	8.92	156.00	12.78	2.67	40.00	9.26	2.50	40.00	17.65	390

STAND=73 YEAR=93 STRATUM=2

SPECIES	DIAMETER (cm) MEAN	DIAMETER (cm) STD	DIAMETER (cm) N	MEASURED HEIGHT (m) MEAN	MEASURED HEIGHT (m) STD	MEASURED HEIGHT (m) N	CROWN DEPTH (m) MEAN	CROWN DEPTH (m) STD	CROWN DEPTH (m) N	BA (m^2/ha)	DENSITY (stems/ha)
acerub	1.40	0.60	13.00	1.74	0.52	7.00	NA	NA	0.00	0.02	102
amespp	0.90	0.58	8.00	1.27	0.38	3.00	NA	NA	0.00	0.01	63
pinban	3.85	1.95	13.00	3.06	0.87	10.00	NA	NA	0.00	0.15	102
pinband	1.80	NA	1.00	2.50	NA	1.00	NA	NA	0.00	0.00	8
pinres	2.70	0.99	2.00	1.40	0.57	2.00	NA	NA	0.00	0.01	16
prupen	0.50	NA	1.00	1.00	NA	1.00	NA	NA	0.00	0.00	8
STRATUM TOTAL	2.19	1.76	38.00	2.20	1.01	24.00	NA	NA	0.00	0.18	297

STAND=74 YEAR=93 STRATUM=1

SPECIES	DIAMETER (cm) MEAN	STD	N	MEASURED HEIGHT (m) MEAN	STD	N	CROWN DEPTH (m) MEAN	STD	N	BA (m^2/ha)	DENSITY (stems/ha)
acerub	18.25	6.90	69.00	18.83	2.47	3.00	7.67	0.58	3.00	5.15	173
acesac	19.71	8.27	36.00	20.00	0.71	2.00	10.25	1.77	2.00	3.22	90
betall	15.14	10.54	5.00	NA	NA	0.00	NA	NA	0.00	0.31	13
betpap	13.70	7.50	2.00	NA	NA	0.00	NA	NA	0.00	0.08	5
faggra	14.09	7.47	55.00	15.20	4.93	5.00	9.60	4.34	5.00	2.74	138
pinstr	20.44	6.60	281.00	16.02	2.49	30.00	6.95	1.97	30.00	25.45	703
querub	26.35	3.04	2.00	NA	NA	0.00	NA	NA	0.00	0.27	5
STRATUM TOTAL	19.21	7.24	450.00	16.33	2.97	40.00	7.50	2.47	40.00	37.22	1125

STAND=74 YEAR=93 STRATUM=2

SPECIES	DIAMETER (cm) MEAN	STD	N	MEASURED HEIGHT (m) MEAN	STD	N	CROWN DEPTH (m) MEAN	STD	N	BA (m^2/ha)	DENSITY (stems/ha)
abibal	4.43	0.83	3.00	2.70	NA	1.00	NA	NA	0.00	0.04	23
acepen	1.23	0.49	27.00	1.33	0.31	8.00	NA	NA	0.00	0.03	211
acerub	1.29	0.59	176.00	1.61	0.54	13.00	NA	NA	0.00	0.22	1375
acesac	1.39	0.53	42.00	2.23	1.63	3.00	NA	NA	0.00	0.06	328
amespp	0.78	0.32	5.00	1.15	0.07	2.00	NA	NA	0.00	0.00	39
corcor	1.33	0.54	48.00	1.10	NA	1.00	NA	NA	0.00	0.06	375
faggra	1.12	0.31	20.00	1.46	0.48	9.00	NA	NA	0.00	0.02	156
lonspp	0.60	NA	1.00	NA	NA	0.00	NA	NA	0.00	0.00	8
pinstr	5.80	NA	1.00	NA	NA	0.00	NA	NA	0.00	0.02	8
querub	1.55	0.72	4.00	1.50	NA	1.00	NA	NA	0.00	0.01	31
STRATUM TOTAL	1.33	0.68	327.00	1.55	0.64	38.00	NA	NA	0.00	0.44	2555

STAND=75 YEAR=93 STRATUM=1

SPECIES	DIAMETER (cm) MEAN	STD	N	MEASURED HEIGHT (m) MEAN	STD	N	CROWN DEPTH (m) MEAN	STD	N	BA (m^2/ha)	DENSITY (stems/ha)
acerub	16.36	8.47	20.00	NA	NA	0.00	NA	NA	0.00	1.95	74
acesac	13.33	3.86	6.00	NA	NA	0.00	NA	NA	0.00	0.33	22
faggra	21.15	4.31	2.00	18.00	NA	1.00	10.50	NA	1.00	0.27	7
pinban	25.65	11.81	2.00	NA	NA	0.00	NA	NA	0.00	0.42	7
pinstr	22.52	7.00	243.00	15.52	2.97	26.00	5.56	1.97	26.00	39.30	900
poptre	16.47	6.24	3.00	NA	NA	0.00	NA	NA	0.00	0.26	11
STRATUM TOTAL	21.82	7.33	276.00	15.61	2.95	27.00	5.74	2.15	27.00	42.53	1022

STAND=75 YEAR=93 STRATUM=2

SPECIES	DIAMETER (cm) MEAN	STD	N	MEASURED HEIGHT (m) MEAN	STD	N	CROWN DEPTH (m) MEAN	STD	N	BA (m^2/ha)	DENSITY (stems/ha)
acerub	0.85	0.49	64.00	1.36	0.43	13.00	NA	NA	0.00	0.06	741
acesac	1.00	0.42	4.00	1.40	0.61	3.00	NA	NA	0.00	0.00	46
amespp	0.60	0.20	5.00	1.15	0.17	4.00	NA	NA	0.00	0.00	58
corcor	1.12	0.42	18.00	1.70	0.42	2.00	NA	NA	0.00	0.02	208
faggra	0.60	NA	1.00	1.10	NA	1.00	NA	NA	0.00	0.00	12
poptre	0.95	0.24	11.00	1.35	0.17	4.00	NA	NA	0.00	0.01	127
sorame	0.90	NA	1.00	1.60	NA	1.00	NA	NA	0.00	0.00	12
STRATUM TOTAL	0.90	0.45	104.00	1.36	0.38	28.00	NA	NA	0.00	0.10	1204

STAND=76 YEAR=93 STRATUM=1

	DIAMETER (cm)			MEASURED HEIGHT (m)			CROWN DEPTH (m)			BA	DENSITY
SPECIES	MEAN	STD	N	MEAN	STD	N	MEAN	STD	N	(m^2/ha)	(stems/ha)
acerub	22.76	6.28	18.00	26.50	NA	1.00	12.50	NA	1.00	1.96	45
acesac	18.30	9.11	361.00	17.44	4.88	36.00	8.31	4.14	36.00	29.60	903
amespp	10.80	NA	1.00	NA	NA	0.00	NA	NA	0.00	0.02	3
betall	21.10	NA	1.00	18.50	NA	1.00	12.50	NA	1.00	0.09	3
faggra	12.43	5.85	4.00	NA	NA	0.00	NA	NA	0.00	0.14	10
poptre	36.20	11.03	2.00	25.00	NA	1.00	9.00	NA	1.00	0.54	5
querub	44.80	NA	1.00	25.50	NA	1.00	10.00	NA	1.00	0.39	3
STRATUM TOTAL	18.59	9.18	388.00	18.09	5.12	40.00	8.58	4.04	40.00	32.75	970

STAND=76 YEAR=93 STRATUM=2

	DIAMETER (cm)			MEASURED HEIGHT (m)			CROWN DEPTH (m)			BA	DENSITY
SPECIES	MEAN	STD	N	MEAN	STD	N	MEAN	STD	N	(m^2/ha)	(stems/ha)
acepen	1.76	0.88	8.00	1.50	NA	1.00	NA	NA	0.00	0.02	63
acerub	1.06	0.24	50.00	1.34	0.33	8.00	NA	NA	0.00	0.04	391
acesac	1.11	0.45	256.00	1.52	0.82	34.00	NA	NA	0.00	0.23	2000
betall	1.07	0.31	7.00	2.30	NA	1.00	NA	NA	0.00	0.01	55
faggra	1.53	0.67	81.00	1.54	0.45	14.00	NA	NA	0.00	0.14	633
pruser	1.05	0.35	2.00	NA	NA	0.00	NA	NA	0.00	0.00	16
querub	1.20	NA	1.00	NA	NA	0.00	NA	NA	0.00	0.00	8
samcan	1.58	0.22	6.00	1.30	NA	1.00	NA	NA	0.00	0.01	47
STRATUM TOTAL	1.21	0.52	411.00	1.51	0.68	59.00	NA	NA	0.00	0.44	3211

STAND=77 YEAR=93 STRATUM=1

	DIAMETER (cm)			MEASURED HEIGHT (m)			CROWN DEPTH (m)			BA	DENSITY
SPECIES	MEAN	STD	N	MEAN	STD	N	MEAN	STD	N	(m^2/ha)	(stems/ha)
betpap	4.79	1.24	10.00	NA	NA	0.00	NA	NA	0.00	0.05	25
pinban	13.31	5.55	51.00	7.64	2.45	7.00	6.39	2.21	7.00	2.08	128
pinband	28.30	NA	1.00	NA	NA	0.00	NA	NA	0.00	0.16	3
pinres	13.09	3.21	174.00	6.53	1.10	30.00	5.43	1.07	30.00	6.21	435
popgra	3.30	NA	1.00	5.20	NA	1.00	3.10	NA	1.00	0.00	3
querub	9.49	11.23	8.00	12.00	NA	1.00	6.50	NA	1.00	0.31	20
STRATUM TOTAL	12.70	4.66	245.00	6.84	1.68	39.00	5.57	1.40	39.00	8.80	613

STAND=77 YEAR=93 STRATUM=2

	DIAMETER (cm)			MEASURED HEIGHT (m)			CROWN DEPTH (m)			BA	DENSITY
SPECIES	MEAN	STD	N	MEAN	STD	N	MEAN	STD	N	(m^2/ha)	(stems/ha)
acerub	1.96	1.21	71.00	1.90	0.63	6.00	NA	NA	0.00	0.23	555
betpap	2.44	1.13	22.00	2.35	0.49	2.00	NA	NA	0.00	0.10	172
pinban	4.76	2.95	40.00	2.94	1.26	22.00	NA	NA	0.00	0.76	313
pinband	7.10	8.06	2.00	2.95	1.48	2.00	NA	NA	0.00	0.10	16
pinres	6.38	2.74	16.00	2.54	0.86	8.00	NA	NA	0.00	0.47	125
popgra	2.30	0.88	49.00	2.15	0.82	8.00	NA	NA	0.00	0.18	383
querub	2.13	0.73	96.00	1.94	0.78	7.00	NA	NA	0.00	0.30	750
salspp	1.15	0.34	4.00	1.05	0.07	2.00	NA	NA	0.00	0.00	31
STRATUM TOTAL	2.74	2.04	300.00	2.45	1.08	57.00	NA	NA	0.00	2.15	2344

STAND=77 YEAR=94 STRATUM=1

SPECIES	DIAMETER (cm) MEAN	STD	N	MEASURED HEIGHT (m) MEAN	STD	N	CROWN DEPTH (m) MEAN	STD	N	BA (m^2/ha)	DENSITY (stems/ha)
acerub	28.75	9.55	2.00	10.00	NA	1.00	7.00	NA	1.00	0.57	8
betpap	4.98	1.21	11.00	5.58	NA	1.00	4.08	NA	1.00	0.09	46
pinban	14.90	6.90	24.00	7.90	2.56	5.00	6.70	2.64	5.00	2.10	100
pinres	13.14	4.41	79.00	7.45	0.77	13.00	5.22	2.32	13.00	4.96	329
STRATUM TOTAL	13.00	5.90	116.00	7.60	1.52	20.00	5.62	2.35	20.00	7.73	483

STAND=77 YEAR=94 STRATUM=2

SPECIES	DIAMETER (cm) MEAN	STD	N	MEASURED HEIGHT (m) MEAN	STD	N	CROWN DEPTH (m) MEAN	STD	N	BA (m^2/ha)	DENSITY (stems/ha)
acerub	2.01	1.21	15.00	2.39	1.35	3.00	NA	NA	0.00	0.08	195
betpap	1.30	0.36	3.00	NA	NA	0.00	NA	NA	0.00	0.01	39
pinban	4.13	2.86	26.00	2.84	1.19	12.00	NA	NA	0.00	0.66	339
pinres	5.40	3.33	11.00	3.10	1.59	6.00	NA	NA	0.00	0.44	143
popgra	2.68	0.90	19.00	2.50	NA	1.00	NA	NA	0.00	0.15	247
querub	2.27	1.22	44.00	2.17	0.45	6.00	NA	NA	0.00	0.30	573
salspp	1.40	NA	1.00	1.80	NA	1.00	NA	NA	0.00	0.00	13
STRATUM TOTAL	2.97	2.18	119.00	2.66	1.15	29.00	NA	NA	0.00	1.65	1549

STAND=78 YEAR=93 STRATUM=1

	DIAMETER (cm)			MEASURED HEIGHT (m)			CROWN DEPTH (m)			BA	DENSITY
SPECIES	MEAN	STD	N	MEAN	STD	N	MEAN	STD	N	(m^2/ha)	(stems/ha)
acerub	7.86	3.19	5.00	5.90	NA	1.00	3.80	NA	1.00	0.08	15
pinres	26.68	10.89	5.00	15.25	4.01	4.00	9.50	2.89	4.00	0.93	15
STRATUM TOTAL	17.27	12.47	10.00	13.38	5.44	5.00	8.36	3.57	5.00	1.01	29

STAND=78 YEAR=93 STRATUM=2

	DIAMETER (cm)			MEASURED HEIGHT (m)			CROWN DEPTH (m)			BA	DENSITY
SPECIES	MEAN	STD	N	MEAN	STD	N	MEAN	STD	N	(m^2/ha)	(stems/ha)
acerub	1.58	0.77	10.00	2.45	1.91	2.00	NA	NA	0.00	0.02	92
amespp	1.06	0.21	14.00	1.24	0.23	5.00	NA	NA	0.00	0.01	129
salspp	1.10	0.27	129.00	1.19	0.14	12.00	NA	NA	0.00	0.12	1186
STRATUM TOTAL	1.12	0.34	153.00	1.34	0.62	19.00	NA	NA	0.00	0.15	1406

STAND=78 YEAR=94 STRATUM=1

	DIAMETER (cm)			MEASURED HEIGHT (m)			CROWN DEPTH (m)			BA	DENSITY
SPECIES	MEAN	STD	N	MEAN	STD	N	MEAN	STD	N	(m^2/ha)	(stems/ha)
acerub	7.96	2.73	5.00	7.00	NA	1.00	5.00	NA	1.00	0.14	25
pinres	34.95	21.28	2.00	19.50	7.07	2.00	14.25	6.01	2.00	1.14	10
STRATUM TOTAL	15.67	15.93	7.00	15.33	8.78	3.00	11.17	6.83	3.00	1.27	35

STAND=78 YEAR=94 STRATUM=2

	DIAMETER (cm)			MEASURED HEIGHT (m)			CROWN DEPTH (m)			BA	DENSITY
SPECIES	MEAN	STD	N	MEAN	STD	N	MEAN	STD	N	(m^2/ha)	(stems/ha)
acerub	1.28	0.28	6.00	1.15	0.07	2.00	NA	NA	0.00	0.01	94
amespp	1.07	0.21	30.00	1.11	0.11	7.00	NA	NA	0.00	0.04	469
prupen	1.18	0.28	5.00	1.70	NA	1.00	NA	NA	0.00	0.01	78
salspp	1.26	0.46	101.00	1.28	0.22	6.00	NA	NA	0.00	0.22	1578
STRATUM TOTAL	1.22	0.42	142.00	1.22	0.21	16.00	NA	NA	0.00	0.29	2219

STAND=79 YEAR=93 STRATUM=1

	DIAMETER (cm)			MEASURED HEIGHT (m)			CROWN DEPTH (m)			BA	DENSITY
SPECIES	**MEAN**	**STD**	**N**	**MEAN**	**STD**	**N**	**MEAN**	**STD**	**N**	**(m^2/ha)**	**(stems/ha)**
pinres	26.50	NA	1.00	19.50	NA	1.00	10.00	NA	1.00	0.14	3
STRATUM TOTAL	26.50	NA	1.00	19.50	NA	1.00	10.00	NA	1.00	0.14	3

STAND=79 YEAR=93 STRATUM=2

	DIAMETER (cm)			MEASURED HEIGHT (m)			CROWN DEPTH (m)			BA	DENSITY
SPECIES	**MEAN**	**STD**	**N**	**MEAN**	**STD**	**N**	**MEAN**	**STD**	**N**	**(m^2/ha)**	**(stems/ha)**
amespp	1.60	NA	1.00	1.10	NA	1.00	NA	NA	0.00	0.00	8
salspp	1.04	0.28	7.00	1.00	NA	1.00	NA	NA	0.00	0.00	55
STRATUM TOTAL	1.11	0.32	8.00	1.05	0.07	2.00	NA	NA	0.00	0.01	63

STAND=79 YEAR=94 STRATUM=1

	DIAMETER (cm)			MEASURED HEIGHT (m)			CROWN DEPTH (m)			BA	DENSITY
SPECIES	**MEAN**	**STD**	**N**	**MEAN**	**STD**	**N**	**MEAN**	**STD**	**N**	**(m^2/ha)**	**(stems/ha)**
pinres	31.50	NA	1.00	20.00	NA	1.00	12.00	NA	1.00	0.32	4
STRATUM TOTAL	31.50	NA	1.00	20.00	NA	1.00	12.00	NA	1.00	0.32	4

STAND=79 YEAR=94 STRATUM=2

	DIAMETER (cm)			MEASURED HEIGHT (m)			CROWN DEPTH (m)			BA	DENSITY
SPECIES	**MEAN**	**STD**	**N**	**MEAN**	**STD**	**N**	**MEAN**	**STD**	**N**	**(m^2/ha)**	**(stems/ha)**
acerub	1.30	0.35	5.00	1.27	0.21	3.00	NA	NA	0.00	0.01	65
prupen	0.50	NA	1.00	NA	NA	0.00	NA	NA	0.00	0.00	13
STRATUM TOTAL	1.17	0.45	6.00	1.27	0.21	3.00	NA	NA	0.00	0.01	78

STAND=80 YEAR=93 STRATUM=1

	DIAMETER (cm)			MEASURED HEIGHT (m)			CROWN DEPTH (m)			BA	DENSITY
SPECIES	**MEAN**	**STD**	**N**	**MEAN**	**STD**	**N**	**MEAN**	**STD**	**N**	**(m^2/ha)**	**(stems/ha)**
acerub	8.63	1.69	3.00	9.50	NA	1.00	7.00	NA	1.00	0.05	8
pinres	33.35	5.73	2.00	19.50	0.71	2.00	12.75	0.35	2.00	0.44	5
STRATUM TOTAL	18.52	13.89	5.00	16.17	5.80	3.00	10.83	3.33	3.00	0.49	13

STAND=80 YEAR=94 STRATUM=1

	DIAMETER (cm)			MEASURED HEIGHT (m)			CROWN DEPTH (m)			BA	DENSITY
SPECIES	**MEAN**	**STD**	**N**	**MEAN**	**STD**	**N**	**MEAN**	**STD**	**N**	**(m^2/ha)**	**(stems/ha)**
acerub	9.63	1.69	3.00	9.90	NA	1.00	7.40	NA	1.00	0.10	13
pinres	34.25	6.01	2.00	20.00	0.00	2.00	15.00	1.41	2.00	0.81	9
STRATUM TOTAL	19.48	13.87	5.00	16.63	5.83	3.00	12.47	4.50	3.00	0.91	22

STAND=81 YEAR=93 STRATUM=1

SPECIES	DIAMETER (cm) MEAN	STD	N	MEASURED HEIGHT (m) MEAN	STD	N	CROWN DEPTH (m) MEAN	STD	N	BA (m^2/ha)	DENSITY (stems/ha)
abibal	7.10	NA	1.00	NA	NA	0.00	NA	NA	0.00	0.01	3
acerub	20.35	0.21	2.00	NA	NA	0.00	NA	NA	0.00	0.16	5
pinban	11.53	2.96	189.00	8.11	1.10	21.00	6.61	1.29	21.00	5.25	473
pinband	10.98	2.80	5.00	NA	NA	0.00	NA	NA	0.00	0.12	13
pinres	11.17	3.35	178.00	6.89	1.91	20.00	5.85	1.54	19.00	4.75	445
STRATUM TOTAL	11.38	3.21	375.00	7.51	1.65	41.00	6.25	1.45	40.00	10.30	938

STAND=81 YEAR=93 STRATUM=2

SPECIES	DIAMETER (cm) MEAN	STD	N	MEASURED HEIGHT (m) MEAN	STD	N	CROWN DEPTH (m) MEAN	STD	N	BA (m^2/ha)	DENSITY (stems/ha)
acerub	1.05	0.38	12.00	1.20	0.32	6.00	NA	NA	0.00	0.01	94
amespp	2.38	1.46	45.00	1.52	0.55	6.00	NA	NA	0.00	0.21	352
pinban	7.37	4.38	9.00	3.18	1.45	6.00	NA	NA	0.00	0.39	70
pinband	7.60	1.56	2.00	4.80	NA	1.00	NA	NA	0.00	0.07	16
pinres	6.74	1.96	26.00	3.35	1.02	20.00	NA	NA	0.00	0.78	203
salspp	0.92	0.33	13.00	1.70	0.85	2.00	NA	NA	0.00	0.01	102
STRATUM TOTAL	3.63	3.08	107.00	2.70	1.33	41.00	NA	NA	0.00	1.48	836

STAND=81 YEAR=94 STRATUM=1

SPECIES	DIAMETER (cm) MEAN	STD	N	MEASURED HEIGHT (m) MEAN	STD	N	CROWN DEPTH (m) MEAN	STD	N	BA (m^2/ha)	DENSITY (stems/ha)
acerub	12.50	NA	1.00	NA	NA	0.00	NA	NA	0.00	0.05	4
acesac	16.50	NA	1.00	NA	NA	0.00	NA	NA	0.00	0.09	4
pinban	12.26	3.51	91.00	8.78	2.10	10.00	7.70	2.21	10.00	4.84	379
pinres	11.83	2.89	103.00	7.42	1.18	12.00	6.16	1.32	11.00	4.99	429
STRATUM TOTAL	12.05	3.19	196.00	8.04	1.76	22.00	6.89	1.92	21.00	9.97	817

STAND=81 YEAR=94 STRATUM=2

SPECIES	DIAMETER (cm) MEAN	STD	N	MEASURED HEIGHT (m) MEAN	STD	N	CROWN DEPTH (m) MEAN	STD	N	BA (m^2/ha)	DENSITY (stems/ha)
acerub	1.20	NA	1.00	NA	NA	0.00	NA	NA	0.00	0.00	13
acesac	1.78	0.40	5.00	2.40	NA	1.00	NA	NA	0.00	0.02	65
amespp	1.93	0.66	15.00	1.10	NA	1.00	NA	NA	0.00	0.06	195
pinban	8.11	5.46	8.00	2.99	1.59	5.00	NA	NA	0.00	0.75	104
pinres	6.68	2.15	18.00	2.76	0.79	11.00	NA	NA	0.00	0.90	234
prupen	0.90	NA	1.00	1.60	NA	1.00	NA	NA	0.00	0.00	13
salspp	1.22	0.43	11.00	1.73	0.65	3.00	NA	NA	0.00	0.02	143
STRATUM TOTAL	4.04	3.60	59.00	2.53	1.06	22.00	NA	NA	0.00	1.75	768

STAND=82 YEAR=93 STRATUM=1

	DIAMETER (cm)			MEASURED HEIGHT (m)			CROWN DEPTH (m)			BA	DENSITY
SPECIES	**MEAN**	**STD**	**N**	**MEAN**	**STD**	**N**	**MEAN**	**STD**	**N**	**(m^2/ha)**	**(stems/ha)**
pinban	11.12	2.31	104.00	6.63	1.09	18.00	5.79	0.99	16.00	2.63	260
pinband	11.11	1.96	10.00	NA	NA	0.00	NA	NA	0.00	0.25	25
pinres	10.02	1.66	111.00	5.73	0.62	21.00	4.83	0.53	19.00	2.25	278
STRATUM TOTAL	10.58	2.07	225.00	6.15	0.97	39.00	5.27	0.90	35.00	5.13	563

STAND=82 YEAR=93 STRATUM=2

	DIAMETER (cm)			MEASURED HEIGHT (m)			CROWN DEPTH (m)			BA	DENSITY
SPECIES	**MEAN**	**STD**	**N**	**MEAN**	**STD**	**N**	**MEAN**	**STD**	**N**	**(m^2/ha)**	**(stems/ha)**
amespp	1.07	0.44	10.00	1.23	0.25	3.00	NA	NA	0.00	0.01	78
pinban	7.75	2.80	17.00	3.38	0.98	6.00	NA	NA	0.00	0.70	133
pinband	2.90	NA	1.00	2.20	NA	1.00	NA	NA	0.00	0.01	8
pinres	8.49	2.11	39.00	3.36	0.88	28.00	1.50	NA	1.00	1.83	305
STRATUM TOTAL	7.11	3.39	67.00	3.16	1.03	38.00	1.50	NA	1.00	2.55	523

STAND=82 YEAR=94 STRATUM=1

	DIAMETER (cm)			MEASURED HEIGHT (m)			CROWN DEPTH (m)			BA	DENSITY
SPECIES	**MEAN**	**STD**	**N**	**MEAN**	**STD**	**N**	**MEAN**	**STD**	**N**	**(m^2/ha)**	**(stems/ha)**
pinban	11.31	2.53	78.00	7.02	1.18	15.00	6.50	0.81	11.00	3.42	325
pinres	9.96	2.28	84.00	6.39	0.96	9.00	5.40	0.76	7.00	2.87	350
STRATUM TOTAL	10.61	2.49	162.00	6.78	1.12	24.00	6.07	0.95	18.00	6.29	675

STAND=82 YEAR=94 STRATUM=2

	DIAMETER (cm)			MEASURED HEIGHT (m)			CROWN DEPTH (m)			BA	DENSITY
SPECIES	**MEAN**	**STD**	**N**	**MEAN**	**STD**	**N**	**MEAN**	**STD**	**N**	**(m^2/ha)**	**(stems/ha)**
amespp	1.64	0.70	8.00	1.10	NA	1.00	NA	NA	0.00	0.03	104
pinban	7.95	2.97	10.00	3.45	1.27	6.00	NA	NA	0.00	0.73	130
pinres	7.74	2.45	22.00	3.71	1.04	14.00	NA	NA	0.00	1.48	286
STRATUM TOTAL	6.57	3.41	40.00	3.51	1.20	21.00	NA	NA	0.00	2.23	521

STAND=83 YEAR=93 STRATUM=1

	DIAMETER (cm)			MEASURED HEIGHT (m)			CROWN DEPTH (m)			BA	DENSITY
SPECIES	**MEAN**	**STD**	**N**	**MEAN**	**STD**	**N**	**MEAN**	**STD**	**N**	**(m^2/ha)**	**(stems/ha)**
pinban	7.93	2.13	39.00	5.56	0.63	17.00	4.76	0.56	10.00	0.52	98
pinres	9.33	1.04	10.00	5.08	0.13	5.00	4.48	0.25	5.00	0.17	25
pinstr	31.90	0.42	2.00	12.00	NA	1.00	10.00	NA	1.00	0.40	5
poptre	7.75	1.17	4.00	NA	NA	0.00	NA	NA	0.00	0.05	10
STRATUM TOTAL	9.05	4.88	55.00	5.73	1.48	23.00	5.00	1.41	16.00	1.14	138

STAND=83 YEAR=93 STRATUM=2

	DIAMETER (cm)			MEASURED HEIGHT (m)			CROWN DEPTH (m)			BA	DENSITY
SPECIES	**MEAN**	**STD**	**N**	**MEAN**	**STD**	**N**	**MEAN**	**STD**	**N**	**(m^2/ha)**	**(stems/ha)**
abibal	5.00	NA	1.00	1.50	NA	1.00	NA	NA	0.00	0.02	8
acerub	1.95	0.68	28.00	NA	NA	0.00	NA	NA	0.00	0.07	219
amespp	1.21	0.54	19.00	1.20	NA	1.00	NA	NA	0.00	0.02	148
betpap	1.95	0.83	28.00	1.43	0.67	3.00	NA	NA	0.00	0.08	219
pinban	6.00	2.56	61.00	3.94	0.78	13.00	NA	NA	0.00	1.59	477
pinres	8.12	2.32	129.00	3.66	0.86	36.00	NA	NA	0.00	5.64	1008
popgra	2.08	0.87	159.00	2.19	0.66	18.00	NA	NA	0.00	0.50	1242
poptre	1.90	NA	1.00	1.90	NA	1.00	NA	NA	0.00	0.00	8
prupen	1.48	0.70	30.00	1.73	0.47	3.00	NA	NA	0.00	0.05	234
querub	2.00	0.28	2.00	1.70	NA	1.00	NA	NA	0.00	0.00	16
salspp	1.01	0.30	17.00	NA	NA	0.00	NA	NA	0.00	0.01	133
STRATUM TOTAL	4.10	3.25	475.00	3.09	1.15	77.00	NA	NA	0.00	7.98	3711

STAND=83 YEAR=94 STRATUM=1

SPECIES	DIAMETER (cm) MEAN	STD	N	MEASURED HEIGHT (m) MEAN	STD	N	CROWN DEPTH (m) MEAN	STD	N	BA (m^2/ha)	DENSITY (stems/ha)
pinban	7.63	2.10	56.00	5.67	0.62	7.00	5.03	0.71	7.00	1.15	233
pinres	8.94	1.28	80.00	5.46	0.33	14.00	4.92	0.37	10.00	2.13	333
pinstr	24.20	11.74	2.00	25.00	NA	1.00	NA	NA	0.00	0.43	8
popgra	7.35	3.75	2.00	NA	NA	0.00	NA	NA	0.00	0.04	8
STRATUM TOTAL	8.61	2.78	140.00	6.41	4.17	22.00	4.96	0.52	17.00	3.75	583

STAND=83 YEAR=94 STRATUM=2

SPECIES	DIAMETER (cm) MEAN	STD	N	MEASURED HEIGHT (m) MEAN	STD	N	CROWN DEPTH (m) MEAN	STD	N	BA (m^2/ha)	DENSITY (stems/ha)
acerub	1.46	0.50	15.00	NA	NA	0.00	NA	NA	0.00	0.04	195
amespp	1.18	0.62	13.00	1.23	0.21	3.00	NA	NA	0.00	0.02	169
betpap	1.24	0.71	5.00	2.50	NA	1.00	NA	NA	0.00	0.01	65
pinban	4.93	2.28	20.00	3.23	1.20	7.00	NA	NA	0.00	0.60	260
pinres	7.64	2.65	52.00	3.96	0.91	15.00	3.56	NA	1.00	3.47	677
popdel	0.70	NA	1.00	NA	NA	0.00	NA	NA	0.00	0.00	13
popgra	2.31	0.70	56.00	2.34	0.73	12.00	NA	NA	0.00	0.33	729
poptre	2.00	NA	1.00	NA	NA	0.00	NA	NA	0.00	0.00	13
prupen	2.30	1.24	9.00	2.90	NA	1.00	NA	NA	0.00	0.06	117
pruser	1.31	0.63	10.00	NA	NA	0.00	NA	NA	0.00	0.02	130
querub	2.80	0.53	3.00	NA	NA	0.00	NA	NA	0.00	0.02	39
salspp	1.04	0.55	7.00	NA	NA	0.00	NA	NA	0.00	0.01	91
STRATUM TOTAL	3.76	3.06	192.00	3.06	1.20	39.00	3.56	NA	1.00	4.60	2500

STAND=85 YEAR=93 STRATUM=1

SPECIES	DIAMETER (cm) MEAN	STD	N	MEASURED HEIGHT (m) MEAN	STD	N	CROWN DEPTH (m) MEAN	STD	N	BA (m^2/ha)	DENSITY (stems/ha)
abibal	10.33	5.39	9.00	NA	NA	0.00	NA	NA	0.00	0.23	23
acerub	12.56	7.38	46.00	18.00	NA	1.00	8.00	NA	1.00	1.91	115
acesac	9.25	7.27	625.00	14.70	5.71	29.00	7.18	3.02	29.00	16.96	1563
amespp	8.30	3.82	2.00	NA	NA	0.00	NA	NA	0.00	0.03	5
ostvir	12.59	8.24	10.00	14.00	NA	1.00	7.50	NA	1.00	0.43	25
picgla	7.70	NA	1.00	NA	NA	0.00	NA	NA	0.00	0.01	3
prupen	33.00	NA	1.00	19.00	NA	1.00	4.00	NA	1.00	0.21	3
pruser	17.94	5.07	187.00	20.31	2.40	8.00	6.56	2.56	8.00	12.76	468
sorame	20.10	NA	1.00	NA	NA	0.00	NA	NA	0.00	0.08	3
STRATUM TOTAL	11.35	7.73	882.00	15.99	5.48	40.00	7.01	2.83	40.00	32.63	2205

STAND=85 YEAR=93 STRATUM=2

SPECIES	DIAMETER (cm) MEAN	STD	N	MEASURED HEIGHT (m) MEAN	STD	N	CROWN DEPTH (m) MEAN	STD	N	BA (m^2/ha)	DENSITY (stems/ha)
abibal	3.23	1.29	20.00	2.03	0.88	7.00	NA	NA	0.00	0.15	156
acerub	0.94	0.31	8.00	1.25	0.07	2.00	NA	NA	0.00	0.00	63
acesac	1.72	1.20	182.00	2.04	1.15	54.00	NA	NA	0.00	0.49	1422
corcor	0.80	NA	1.00	NA	NA	0.00	NA	NA	0.00	0.00	8
ostvir	0.90	NA	1.00	NA	NA	0.00	NA	NA	0.00	0.00	8
picgla	3.05	1.10	4.00	1.70	NA	1.00	NA	NA	0.00	0.03	31
pruser	4.25	6.64	4.00	1.45	0.64	2.00	NA	NA	0.00	0.13	31
STRATUM TOTAL	1.89	1.52	220.00	1.99	1.09	66.00	NA	NA	0.00	0.79	1719

STAND=86 YEAR=93 STRATUM=1

SPECIES	DIAMETER (cm) MEAN	STD	N	MEASURED HEIGHT (m) MEAN	STD	N	CROWN DEPTH (m) MEAN	STD	N	BA (m^2/ha)	DENSITY (stems/ha)
acerub	20.14	5.64	181.00	18.94	1.70	8.00	7.31	2.70	8.00	17.76	517
acesac	13.27	6.65	177.00	15.08	3.33	20.00	8.67	2.71	20.00	8.74	506
faggra	14.79	7.87	89.00	19.36	3.90	7.00	13.17	3.52	7.00	5.59	254
sorame	14.45	14.92	2.00	NA	NA	0.00	NA	NA	0.00	0.14	6
STRATUM TOTAL	16.35	7.27	449.00	16.81	3.69	35.00	9.26	3.47	35.00	32.24	1283

STAND=86 YEAR=93 STRATUM=2

SPECIES	DIAMETER (cm) MEAN	STD	N	MEASURED HEIGHT (m) MEAN	STD	N	CROWN DEPTH (m) MEAN	STD	N	BA (m^2/ha)	DENSITY (stems/ha)
abibal	2.95	0.79	10.00	1.93	0.87	4.00	NA	NA	0.00	0.06	89
acerub	1.25	0.66	71.00	1.40	0.62	9.00	NA	NA	0.00	0.10	634
acesac	1.81	1.19	24.00	1.65	0.07	2.00	NA	NA	0.00	0.08	214
amespp	0.71	0.37	15.00	1.26	0.33	5.00	NA	NA	0.00	0.01	134
betall	2.63	2.99	4.00	2.55	1.63	2.00	NA	NA	0.00	0.04	36
faggra	1.27	0.47	384.00	1.33	0.28	41.00	NA	NA	0.00	0.49	3429
pruser	1.11	0.45	36.00	NA	NA	0.00	NA	NA	0.00	0.04	321
STRATUM TOTAL	1.30	0.66	544.00	1.42	0.51	63.00	NA	NA	0.00	0.82	4857

STAND=87 YEAR=93 STRATUM=1

	DIAMETER (cm)			MEASURED HEIGHT (m)			CROWN DEPTH (m)			BA	DENSITY
SPECIES	**MEAN**	**STD**	**N**	**MEAN**	**STD**	**N**	**MEAN**	**STD**	**N**	**(m^2/ha)**	**(stems/ha)**
acespi	4.45	1.20	2.00	NA	NA	0.00	NA	NA	0.00	0.01	7
alnrug	5.78	2.05	142.00	6.99	1.53	10.00	4.82	1.14	10.00	1.40	473
betpap	9.89	2.87	7.00	NA	NA	0.00	NA	NA	0.00	0.19	23
popbal	15.35	4.75	26.00	17.00	0.82	4.00	10.50	2.65	4.00	1.75	87
poptre	14.80	5.14	152.00	14.50	4.70	16.00	5.03	1.61	16.00	9.76	507
salspp	5.60	NA	1.00	NA	NA	0.00	NA	NA	0.00	0.01	3
STRATUM TOTAL	10.77	6.00	330.00	12.33	5.26	30.00	5.69	2.48	30.00	13.12	1100

STAND=87 YEAR=93 STRATUM=2

	DIAMETER (cm)			MEASURED HEIGHT (m)			CROWN DEPTH (m)			BA	DENSITY
SPECIES	**MEAN**	**STD**	**N**	**MEAN**	**STD**	**N**	**MEAN**	**STD**	**N**	**(m^2/ha)**	**(stems/ha)**
acepen	1.17	0.47	3.00	NA	NA	0.00	NA	NA	0.00	0.00	31
acerub	3.02	1.61	12.00	NA	NA	0.00	NA	NA	0.00	0.11	125
acespi	2.11	1.17	14.00	3.60	NA	1.00	NA	NA	0.00	0.07	146
alnrug	2.10	1.31	457.00	2.00	0.84	17.00	NA	NA	0.00	2.29	4760
amespp	2.30	NA	1.00	NA	NA	0.00	NA	NA	0.00	0.00	10
betpap	2.02	0.85	5.00	NA	NA	0.00	NA	NA	0.00	0.02	52
corcor	1.17	0.44	111.00	1.77	0.81	3.00	NA	NA	0.00	0.14	1156
corsto	1.14	0.48	252.00	1.60	0.48	7.00	NA	NA	0.00	0.31	2625
franig	2.28	0.96	6.00	NA	NA	0.00	NA	NA	0.00	0.03	63
lonspp	0.66	0.05	5.00	NA	NA	0.00	NA	NA	0.00	0.00	52
popbal	4.50	5.28	9.00	2.90	1.13	2.00	NA	NA	0.00	0.33	94
poptre	2.02	0.84	88.00	2.30	0.69	9.00	NA	NA	0.00	0.35	917
pruvir	5.20	NA	1.00	NA	NA	0.00	NA	NA	0.00	0.02	10
salspp	1.99	1.16	12.00	2.50	NA	1.00	NA	NA	0.00	0.05	125
STRATUM TOTAL	1.76	1.25	976.00	2.08	0.81	40.00	NA	NA	0.00	3.73	10167

STAND=88 YEAR=93 STRATUM=1

SPECIES	DIAMETER (cm) MEAN	STD	N	MEASURED HEIGHT (m) MEAN	STD	N	CROWN DEPTH (m) MEAN	STD	N	BA (m^2/ha)	DENSITY (stems/ha)
abibal	12.63	6.46	29.00	20.50	NA	1.00	11.00	NA	1.00	1.14	73
larlar	10.14	4.72	17.00	NA	NA	0.00	NA	NA	0.00	0.41	43
picgla	14.21	5.96	25.00	16.00	2.83	2.00	7.25	1.06	2.00	1.16	63
picmar	12.46	4.08	220.00	13.31	2.27	8.00	4.81	1.60	8.00	7.42	550
thuocc	13.65	6.58	1234.00	11.73	2.61	28.00	5.62	2.05	28.00	55.59	3085
STRATUM TOTAL	13.43	6.27	1525.00	12.50	2.99	39.00	5.68	2.13	39.00	65.72	3813

STAND=88 YEAR=93 STRATUM=2

SPECIES	DIAMETER (cm) MEAN	STD	N	MEASURED HEIGHT (m) MEAN	STD	N	CROWN DEPTH (m) MEAN	STD	N	BA (m^2/ha)	DENSITY (stems/ha)
abibal	1.89	0.92	87.00	2.26	1.16	7.00	NA	NA	0.00	0.24	680
acerub	2.10	NA	1.00	NA	NA	0.00	NA	NA	0.00	0.00	8
acespi	1.40	NA	1.00	NA	NA	0.00	NA	NA	0.00	0.00	8
betpap	1.00	NA	1.00	NA	NA	0.00	NA	NA	0.00	0.00	8
lonspp	1.20	NA	1.00	NA	NA	0.00	NA	NA	0.00	0.00	8
sorame	1.00	NA	1.00	NA	NA	0.00	NA	NA	0.00	0.00	8
thuocc	5.37	2.10	22.00	2.89	1.15	14.00	NA	NA	0.00	0.45	172
STRATUM TOTAL	2.54	1.85	114.00	2.68	1.16	21.00	NA	NA	0.00	0.69	891

STAND=91 YEAR=93 STRATUM=1

	DIAMETER (cm)			MEASURED HEIGHT (m)			CROWN DEPTH (m)			BA	DENSITY
SPECIES	**MEAN**	**STD**	**N**	**MEAN**	**STD**	**N**	**MEAN**	**STD**	**N**	**(m^2/ha)**	**(stems/ha)**
abibal	7.30	NA	1.00	NA	NA	0.00	NA	NA	0.00	0.01	3
acerub	10.04	6.45	5.00	NA	NA	0.00	NA	NA	0.00	0.13	13
acesac	13.70	8.03	294.00	15.47	4.74	30.00	8.01	2.59	30.00	14.54	735
betall	21.60	2.97	2.00	NA	NA	0.00	NA	NA	0.00	0.18	5
faggra	25.17	9.46	48.00	17.75	3.39	10.00	10.36	2.69	10.00	6.80	120
pruser	3.65	0.35	2.00	NA	NA	0.00	NA	NA	0.00	0.01	5
STRATUM TOTAL	15.18	9.13	352.00	16.04	4.52	40.00	8.60	2.78	40.00	21.67	880

STAND=91 YEAR=93 STRATUM=2

	DIAMETER (cm)			MEASURED HEIGHT (m)			CROWN DEPTH (m)			BA	DENSITY
SPECIES	**MEAN**	**STD**	**N**	**MEAN**	**STD**	**N**	**MEAN**	**STD**	**N**	**(m^2/ha)**	**(stems/ha)**
abibal	3.02	1.06	55.00	1.76	0.62	12.00	NA	NA	0.00	0.35	430
acerub	1.21	0.85	49.00	1.63	0.38	3.00	NA	NA	0.00	0.07	383
acesac	1.09	0.59	542.00	1.89	1.10	27.00	NA	NA	0.00	0.51	4234
amespp	1.00	NA	1.00	NA	NA	0.00	NA	NA	0.00	0.00	8
faggra	1.65	1.47	112.00	1.64	0.64	14.00	NA	NA	0.00	0.33	875
poptre	1.43	0.70	3.00	NA	NA	0.00	NA	NA	0.00	0.00	23
pruser	1.38	0.81	46.00	1.40	0.86	10.00	NA	NA	0.00	0.07	359
STRATUM TOTAL	1.32	0.97	808.00	1.73	0.88	66.00	NA	NA	0.00	1.33	6313

APPENDIX F:
CALCULATED HEIGHTS

-------------------------- STAND=22 YEAR=91 STRATUM=1 ------------------------

	TREE HEIGHT		
SPECIES	**MEAN**	**STD**	**N**
picgla	5.33	0.58	3.00
pinres	7.93	1.63	466.00
STRATUM MEAN	7.91	1.63	469.00

-------------------------- STAND=22 YEAR=91 STRATUM=2 ------------------------

	TREE HEIGHT		
SPECIES	**MEAN**	**STD**	**N**
amespp	1.45	0.31	8.00
picgla	4.00	1.13	2.00
pinres	3.25	1.62	8.00
STRATUM MEAN	2.53	1.50	18.00

-------------------------- STAND=22 YEAR=94 STRATUM=1 ------------------------

	TREE HEIGHT		
SPECIES	**MEAN**	**STD**	**N**
pinres	8.74	1.62	274.00
STRATUM MEAN	8.74	1.62	274.00

-------------------------- STAND=22 YEAR=94 STRATUM=2 ------------------------

	TREE HEIGHT		
SPECIES	**MEAN**	**STD**	**N**
amespp	1.76	0.82	2.00
pinres	2.55	1.08	3.00
STRATUM MEAN	2.23	0.96	5.00

-------------------------- STAND=23 YEAR=91 STRATUM=1 -----------------------

	TREE HEIGHT		
SPECIES	**MEAN**	**STD**	**N**
abibal	10.64	5.89	12.00
acerub	7.70	4.28	145.00
betpap	17.11	5.02	11.00
picgla	7.68	4.39	25.00
picmar	18.00	4.24	2.00
pinres	24.04	3.97	77.00
pinstr	18.70	5.15	106.00
popgra	23.50	.	1.00
STRATUM MEAN	14.56	8.10	379.00

-------------------------- STAND=23 YEAR=91 STRATUM=2 ------------------------

	TREE HEIGHT		
SPECIES	**MEAN**	**STD**	**N**
abibal	2.06	0.83	20.00
acerub	1.92	1.00	337.00
amespp	1.33	0.33	4.00
betpap	1.51	0.69	15.00
picgla	1.71	0.63	15.00
picmar	1.70	.	1.00
pinstr	1.27	0.42	6.00
prupen	1.80	.	1.00
salspp	1.20	.	1.00
vibcas	1.29	0.25	9.00
STRATUM MEAN	1.87	0.96	409.00

STAND=24 YEAR=91 STRATUM=1

SPECIES	TREE HEIGHT MEAN	STD	N
acerub	6.38	1.97	43.00
betpap	11.35	3.17	18.00
pinban	12.18	2.20	275.00
pinres	13.36	5.03	7.00
pinstr	6.06	0.74	9.00
popgra	10.24	2.36	8.00
poptre	5.50	.	1.00
STRATUM MEAN	11.26	3.09	361.00

STAND=24 YEAR=91 STRATUM=2

SPECIES	TREE HEIGHT MEAN	STD	N
acerub	1.97	0.79	65.00
amespp	1.33	0.15	3.00
betpap	2.20	0.77	12.00
corcor	1.75	0.48	97.00
pinban	3.20	.	1.00
pinres	2.90	.	1.00
pinstr	2.09	0.88	22.00
popgra	2.50	.	1.00
salspp	1.30	0.42	2.00
STRATUM MEAN	1.89	0.68	204.00

STAND=25 YEAR=91 STRATUM=1

SPECIES	TREE HEIGHT MEAN	STD	N
abibal	6.27	2.48	18.00
acerub	6.46	3.52	123.00
betpap	7.20	4.79	21.00
picgla	8.39	4.15	32.00
picmar	9.98	4.04	23.00
pinres	22.51	4.73	62.00
pinstr	19.09	5.82	68.00
popgra	22.50	7.78	2.00
STRATUM MEAN	12.31	8.04	349.00

STAND=25 YEAR=91 STRATUM=2

SPECIES	TREE HEIGHT MEAN	STD	N
abibal	2.37	1.00	42.00
acerub	2.13	1.09	206.00
alnrug	1.30	.	1.00
amespp	1.20	.	1.00
betpap	1.70	0.88	30.00
picgla	2.43	1.15	23.00
picmar	3.38	1.13	9.00
pinstr	1.84	0.69	36.00
popgra	3.70	.	1.00
salspp	2.05	0.21	2.00
vibcas	1.17	0.21	3.00
STRATUM MEAN	2.13	1.06	354.00

STAND=26 YEAR=91 STRATUM=1

TREE HEIGHT

SPECIES	MEAN	STD	N
abibal	6.28	2.42	8.00
acerub	8.67	5.12	12.00
betpap	15.50	3.50	3.00
larlar	12.68	4.01	11.00
picmar	10.00	3.36	422.00
pinban	13.61	2.61	9.00
pinres	15.50	.	1.00
pinstr	14.10	3.73	14.00
poptre	14.90	3.58	5.00
STRATUM MEAN	10.25	3.61	485.00

STAND=26 YEAR=91 STRATUM=2

TREE HEIGHT

SPECIES	MEAN	STD	N
abibal	2.55	1.14	44.00
acerub	1.93	0.95	144.00
alnrug	1.80	0.59	70.00
amespp	1.72	0.56	19.00
aromel	1.30	0.20	5.00
larlar	2.56	1.43	7.00
ledgro	1.25	0.12	14.00
nemmuc	1.46	0.26	175.00
picmar	1.70	1.00	352.00
pinban	1.30	0.28	2.00
pinstr	1.10	0.14	2.00
salspp	1.51	0.40	8.00
sorame	1.74	0.52	9.00
vibcas	1.46	0.25	339.00
STRATUM MEAN	1.66	0.76	1190.00

STAND=27 YEAR=91 STRATUM=1

TREE HEIGHT

SPECIES	MEAN	STD	N
acerub	5.11	1.35	57.00
amespp	5.59	2.14	6.00
betpap	14.17	0.29	3.00
pinban	12.71	1.92	496.00
STRATUM MEAN	11.87	3.03	562.00

STAND=27 YEAR=91 STRATUM=2

TREE HEIGHT

SPECIES	MEAN	STD	N
acerub	2.23	1.00	84.00
amespp	1.75	1.07	11.00
betpap	2.30	.	1.00
corcor	1.45	0.34	125.00
faggra	1.71	.	1.00
pruser	1.50	.	1.00
STRATUM MEAN	1.76	0.79	223.00

-------------------------- STAND=28 YEAR=91 STRATUM=1 ------------------------

	TREE HEIGHT		
SPECIES	**MEAN**	**STD**	**N**
abibal	5.00	.	1.00
acerub	20.43	4.97	109.00
acesac	7.73	3.90	9.00
betall	14.67	6.69	38.00
faggra	13.64	8.78	103.00
pinstr	31.00	.	1.00
tsucan	13.06	4.04	21.00
STRATUM MEAN	16.20	7.68	282.00

-------------------------- STAND=28 YEAR=91 STRATUM=2 ------------------------

	TREE HEIGHT		
SPECIES	**MEAN**	**STD**	**N**
abibal	1.83	1.01	20.00
acerub	1.28	0.22	6.00
acesac	1.77	0.87	90.00
betall	4.00	0.66	3.00
faggra	1.95	0.84	745.00
tsucan	1.33	0.21	3.00
STRATUM MEAN	1.93	0.85	867.00

-------------------------- STAND=29 YEAR=91 STRATUM=1 ------------------------

	TREE HEIGHT		
SPECIES	**MEAN**	**STD**	**N**
abibal	5.86	4.01	5.00
acepen	5.50	.	1.00
acerub	16.57	5.82	149.00
acesac	8.79	5.42	14.00
betall	12.37	5.52	85.00
faggra	12.43	7.92	104.00
pinstr	6.00	.	1.00
poptre	23.63	3.25	4.00
tsucan	15.29	2.67	7.00
STRATUM MEAN	13.99	6.83	370.00

-------------------------- STAND=29 YEAR=91 STRATUM=2 ------------------------

	TREE HEIGHT		
SPECIES	**MEAN**	**STD**	**N**
abibal	1.73	0.66	174.00
acepen	1.49	0.64	16.00
acerub	1.46	0.69	73.00
acesac	1.76	0.89	81.00
betall	2.36	1.10	13.00
faggra	1.93	0.88	498.00
poptre	1.18	0.15	4.00
STRATUM MEAN	1.83	0.84	859.00

------------------------- STAND=31 YEAR=91 STRATUM=1 -------------------------

	TREE HEIGHT		
SPECIES	**MEAN**	**STD**	**N**
acerub	13.99	4.09	245.00
acesac	10.99	4.79	455.00
amespp	17.00	1.41	2.00
faggra	7.25	2.66	23.00
poptre	18.36	4.11	11.00
STRATUM MEAN	12.00	4.85	736.00

------------------------- STAND=31 YEAR=91 STRATUM=2 -------------------------

	TREE HEIGHT		
SPECIES	**MEAN**	**STD**	**N**
abibal	1.33	0.32	4.00
acerub	1.43	0.49	15.00
acesac	2.40	1.25	80.00
amespp	1.55	0.62	28.00
faggra	1.50	0.87	4.00
poptre	1.75	0.97	4.00
STRATUM MEAN	2.04	1.13	135.00

------------------------- STAND=32 YEAR=91 STRATUM=1 -------------------------

	TREE HEIGHT		
SPECIES	**MEAN**	**STD**	**N**
abibal	8.88	3.43	66.00
alnrug	5.83	1.08	7.00
franig	10.70	3.95	5.00
larlar	15.50	2.04	4.00
picgla	17.48	3.97	9.00
picmar	15.46	2.03	83.00
poptre	17.44	2.59	9.00
thuocc	11.00	3.28	620.00
STRATUM MEAN	11.41	3.68	803.00

------------------------- STAND=32 YEAR=91 STRATUM=2 -------------------------

	TREE HEIGHT		
SPECIES	**MEAN**	**STD**	**N**
abibal	1.91	0.88	49.00
acerub	1.20	.	1.00
alnrug	1.92	0.89	50.00
coralt	1.79	0.39	8.00
franig	1.80	0.99	2.00
picmar	1.20	0.14	2.00
salspp	1.75	0.07	2.00
thuocc	1.77	0.92	82.00
STRATUM MEAN	1.83	0.87	196.00

STAND=33 YEAR=91 STRATUM=1

	TREE HEIGHT		
SPECIES	**MEAN**	**STD**	**N**
acerub	4.36	1.42	62.00
acesac	5.40	2.10	35.00
amespp	4.05	1.39	11.00
aromel	6.13	2.13	3.00
popgra	7.11	2.09	106.00
poptre	5.81	1.44	516.00
prupen	4.84	1.31	277.00
pruser	8.70	2.02	5.00
STRATUM MEAN	5.57	1.70	1015.00

STAND=33 YEAR=91 STRATUM=2

	TREE HEIGHT		
SPECIES	**MEAN**	**STD**	**N**
acerub	1.98	1.01	74.00
acesac	2.07	0.76	271.00
amespp	2.08	0.72	40.00
aromel	2.36	0.77	26.00
faggra	3.70	.	1.00
lonspp	1.23	0.05	6.00
poptre	3.23	0.99	114.00
prupen	3.05	0.93	227.00
pruser	2.93	.	1.00
pruvir	2.15	1.04	6.00
sorame	1.60	.	1.00
STRATUM MEAN	2.53	1.02	767.00

STAND=33 YEAR=94 STRATUM=1

	TREE HEIGHT		
SPECIES	**MEAN**	**STD**	**N**
acerub	6.28	2.82	106.00
acesac	6.36	3.32	32.00
amespp	5.79	2.68	27.00
popgra	10.10	2.67	179.00
poptre	6.72	1.77	300.00
prupen	6.43	2.83	199.00
STRATUM MEAN	7.27	2.89	843.00

STAND=33 YEAR=94 STRATUM=2

	TREE HEIGHT		
SPECIES	**MEAN**	**STD**	**N**
acepen	2.30	0.85	11.00
acerub	2.17	1.06	199.00
acesac	1.63	1.06	167.00
amespp	3.10	1.83	67.00
lonspp	1.22	.	1.00
popgra	3.54	1.44	10.00
poptre	4.35	0.98	14.00
prupen	3.41	2.21	44.00
pruser	0.96	0.07	3.00
STRATUM MEAN	2.30	1.48	516.00

-------------------------- STAND=34 YEAR=91 STRATUM=1 ------------------------

TREE HEIGHT

SPECIES	MEAN	STD	N
abibal	11.33	3.33	3.00
acerub	10.28	5.16	384.00
acesac	8.31	4.35	200.00
amespp	5.91	1.69	14.00
faggra	9.30	4.01	16.00
picgla	8.50	.	1.00
popgra	19.88	3.23	79.00
poptre	21.42	5.10	6.00
prupen	5.00	.	1.00
pruser	6.67	1.53	3.00
STRATUM MEAN	10.76	5.85	707.00

-------------------------- STAND=34 YEAR=91 STRATUM=2 ------------------------

TREE HEIGHT

SPECIES	MEAN	STD	N
abibal	2.74	1.70	5.00
acerub	1.98	1.03	194.00
acesac	1.78	0.89	196.00
amespp	1.86	0.91	62.00
faggra	2.18	1.13	45.00
popgra	1.10	.	1.00
poptre	1.15	0.21	2.00
pruser	1.90	0.78	4.00
sorame	1.20	.	1.00
STRATUM MEAN	1.91	0.98	510.00

-------------------------- STAND=35 YEAR=91 STRATUM=1 ------------------------

TREE HEIGHT

SPECIES	MEAN	STD	N
acerub	7.50	0.87	3.00
amespp	5.50	.	1.00
pinban	7.84	2.56	246.00
STRATUM MEAN	7.82	2.54	250.00

-------------------------- STAND=35 YEAR=91 STRATUM=2 ------------------------

TREE HEIGHT

SPECIES	MEAN	STD	N
acerub	2.06	0.91	9.00
amespp	1.28	0.05	4.00
pinban	2.57	0.99	33.00
pinstr	1.90	.	1.00
salspp	2.20	.	1.00
STRATUM MEAN	2.34	0.98	48.00

-------------------------- STAND=36 YEAR=91 STRATUM=1 ------------------------

TREE HEIGHT

SPECIES	MEAN	STD	N
pinban	4.42	0.91	203.00
pinres	5.69	1.16	23.00
STRATUM MEAN	4.55	1.01	226.00

-------------------------- STAND=36 YEAR=91 STRATUM=2 ------------------------

TREE HEIGHT

SPECIES	MEAN	STD	N
acerub	2.10	.	1.00
amespp	1.46	0.36	13.00
pinban	3.24	1.14	106.00
pinres	3.65	0.77	4.00
salspp	1.50	.	1.00
STRATUM MEAN	3.05	1.21	125.00

STAND=36 YEAR=94 STRATUM=1

	TREE HEIGHT		
SPECIES	**MEAN**	**STD**	**N**
pinban	4.90	1.28	177.00
pinres	5.98	1.76	25.00
STRATUM MEAN	5.03	1.39	202.00

STAND=36 YEAR=94 STRATUM=2

	TREE HEIGHT		
SPECIES	**MEAN**	**STD**	**N**
amespp	2.33	1.21	7.00
pinban	2.65	1.06	27.00
prupen	1.46	0.43	7.00
STRATUM MEAN	2.40	1.08	41.00

STAND=37 YEAR=92 STRATUM=1

	TREE HEIGHT		
SPECIES	**MEAN**	**STD**	**N**
pinban	5.60	.	1.00
STRATUM MEAN	5.60	.	1.00

STAND=37 YEAR=92 STRATUM=2

	TREE HEIGHT		
SPECIES	**MEAN**	**STD**	**N**
pinban	1.20	0.23	256.00
pinres	1.60	.	1.00
STRATUM MEAN	1.21	0.23	257.00

STAND=37 YEAR=94 STRATUM=2

	TREE HEIGHT		
SPECIES	**MEAN**	**STD**	**N**
pinban	1.33	0.51	544.00
pinres	5.15	.	1.00
STRATUM MEAN	1.34	0.53	545.00

STAND=38 YEAR=92 STRATUM=2

	TREE HEIGHT		
SPECIES	**MEAN**	**STD**	**N**
pinban	2.80	0.61	236.00
STRATUM MEAN	2.80	0.61	236.00

STAND=38 YEAR=94 STRATUM=1

	TREE HEIGHT		
SPECIES	**MEAN**	**STD**	**N**
pinban	5.10	0.14	4.00
STRATUM MEAN	5.10	0.14	4.00

STAND=38 YEAR=94 STRATUM=2

	TREE HEIGHT		
SPECIES	**MEAN**	**STD**	**N**
pinban	3.99	1.01	141.00
salspp	1.55	.	1.00
STRATUM MEAN	3.98	1.03	142.00

-------------------------- STAND=39 YEAR=92 STRATUM=1 ------------------------

	TREE HEIGHT		
SPECIES	**MEAN**	**STD**	**N**
pinban	8.40	1.44	3.00
pinres	6.50	0.08	4.00
STRATUM MEAN	7.31	1.31	7.00

-------------------------- STAND=39 YEAR=92 STRATUM=2 ------------------------

	TREE HEIGHT		
SPECIES	**MEAN**	**STD**	**N**
pinres	4.80	.	1.00
STRATUM MEAN	4.80	.	1.00

-------------------------- STAND=39 YEAR=94 STRATUM=2 ------------------------

	TREE HEIGHT		
SPECIES	**MEAN**	**STD**	**N**
pinban	1.38	0.27	7.00
prupen	1.20	.	1.00
STRATUM MEAN	1.36	0.26	8.00

-------------------------- STAND=40 YEAR=92 STRATUM=2 ------------------------

	TREE HEIGHT		
SPECIES	**MEAN**	**STD**	**N**
pinban	1.64	0.40	25.00
pinres	1.33	0.23	174.00
STRATUM MEAN	1.37	0.28	199.00

-------------------------- STAND=40 YEAR=94 STRATUM=2 ------------------------

	TREE HEIGHT		
SPECIES	**MEAN**	**STD**	**N**
pinban	2.98	0.69	15.00
pinres	2.09	0.78	116.00
STRATUM MEAN	2.19	0.82	131.00

STAND=41 YEAR=92 STRATUM=1

SPECIES	TREE HEIGHT MEAN	STD	N
picgla	5.75	0.35	2.00
picmar	5.30	.	1.00
pinban	5.39	0.75	39.00
pinres	6.15	2.75	22.00
popgra	6.23	0.95	3.00
poptre	5.27	0.72	8.00
STRATUM MEAN	5.64	1.63	75.00

STAND=41 YEAR=92 STRATUM=2

SPECIES	TREE HEIGHT MEAN	STD	N
acerub	2.00	.	1.00
amespp	1.32	0.30	23.00
aromel	1.10	0.12	4.00
betpap	2.68	0.74	8.00
picgla	2.75	2.47	2.00
picmar	2.68	0.68	6.00
pinban	3.66	0.82	91.00
pinres	3.57	0.82	111.00
popgra	2.23	0.71	126.00
poptre	2.84	1.06	25.00
prupen	1.30	.	1.00
queell	2.20	.	1.00
salspp	1.44	0.31	223.00
vibcas	1.13	0.14	12.00
STRATUM MEAN	2.36	1.14	634.00

STAND=41 YEAR=94 STRATUM=1

SPECIES	TREE HEIGHT MEAN	STD	N
betpap	6.60	1.30	2.00
picmar	6.91	1.15	6.00
pinban	6.03	1.38	58.00
pinres	5.01	1.62	103.00
popgra	3.83	0.06	3.00
poptre	7.57	3.50	2.00
prupen	5.40	.	1.00
STRATUM MEAN	5.44	1.64	175.00

STAND=41 YEAR=94 STRATUM=2

SPECIES	TREE HEIGHT MEAN	STD	N
acerub	0.72	0.18	6.00
amespp	1.98	0.69	21.00
betpap	1.70	0.27	2.00
corcor	1.24	0.14	6.00
picmar	2.37	1.39	6.00
pinban	3.97	1.78	31.00
pinres	3.73	1.57	41.00
popdel	2.51	.	1.00
popgra	2.80	0.94	43.00
poptre	3.48	1.62	15.00
prupen	2.17	0.62	3.00
salspp	1.62	0.32	95.00
vibcas	1.28	0.12	5.00
STRATUM MEAN	2.51	1.43	275.00

------------------------- STAND=42 YEAR=92 STRATUM=1 ------------------------

SPECIES	TREE HEIGHT MEAN	STD	N
pinban	5.26	0.19	16.00
popgra	5.10	.	1.00
STRATUM MEAN	5.25	0.19	17.00

------------------------- STAND=42 YEAR=92 STRATUM=2 ------------------------

SPECIES	TREE HEIGHT MEAN	STD	N
acerub	1.85	0.86	20.00
amespp	1.33	0.30	12.00
betpap	2.60	0.70	3.00
corcor	1.29	0.17	40.00
pinban	3.76	0.90	233.00
popgra	1.72	0.59	92.00
poptre	1.30	.	1.00
querub	1.83	0.78	56.00
salspp	1.33	0.24	25.00
STRATUM MEAN	2.66	1.31	482.00

------------------------- STAND=42 YEAR=94 STRATUM=1 ------------------------

SPECIES	TREE HEIGHT MEAN	STD	N
acerub	6.88	1.84	4.00
amespp	6.87	1.69	7.00
pinban	5.67	0.88	188.00
popgra	3.80	.	1.00
STRATUM MEAN	5.72	0.98	200.00

------------------------- STAND=42 YEAR=94 STRATUM=2 ------------------------

SPECIES	TREE HEIGHT MEAN	STD	N
acerub	2.02	1.27	11.00
amespp	1.88	1.52	50.00
betpap	5.60	.	1.00
corcor	1.29	0.28	21.00
pinban	4.28	1.73	56.00
popdel	0.73	.	1.00
popgra	2.25	0.94	41.00
poptre	1.88	1.79	2.00
querub	1.83	0.77	41.00
salspp	1.53	0.14	4.00
STRATUM MEAN	2.48	1.66	228.00

------------------------- STAND=43 YEAR=92 STRATUM=1 -------------------------

	TREE HEIGHT		
SPECIES	**MEAN**	**STD**	**N**
abibal	6.50	1.32	3.00
acerub	8.53	2.36	11.00
picgla	9.00	.	1.00
pinban	15.00	.	1.00
pinres	19.80	2.37	165.00
pinstr	12.00	.	1.00
popgra	6.40	1.27	2.00
poptre	14.57	4.06	18.00
STRATUM MEAN	18.28	4.33	202.00

------------------------- STAND=43 YEAR=92 STRATUM=2 -------------------------

	TREE HEIGHT		
SPECIES	**MEAN**	**STD**	**N**
abibal	2.75	0.92	2.00
acerub	1.91	0.57	17.00
amespp	1.56	0.38	15.00
betpap	2.27	0.97	10.00
corcor	1.40	0.31	23.00
faggra	1.30	.	1.00
picgla	1.25	0.21	2.00
poptre	2.80	0.70	23.00
prupen	1.20	.	1.00
pruser	1.86	0.34	7.00
salspp	2.26	0.50	14.00
vibcas	1.70	0.46	22.00
STRATUM MEAN	1.95	0.72	137.00

------------------------- STAND=44 YEAR=92 STRATUM=1 -------------------------

	TREE HEIGHT		
SPECIES	**MEAN**	**STD**	**N**
abibal	8.70	3.51	4.00
acerub	5.78	0.97	8.00
betpap	20.25	4.77	8.00
picgla	12.60	5.43	4.00
picmar	12.88	3.27	429.00
pinres	17.96	.	1.00
poptre	17.97	4.77	32.00
thuocc	8.47	2.01	12.00
STRATUM MEAN	13.08	3.91	498.00

------------------------- STAND=44 YEAR=92 STRATUM=2 -------------------------

	TREE HEIGHT		
SPECIES	**MEAN**	**STD**	**N**
abibal	1.70	0.64	284.00
acerub	2.20	0.98	254.00
alnrug	1.45	0.29	30.00
amespp	1.23	0.06	3.00
betpap	1.61	0.58	53.00
corcor	1.35	0.07	2.00
faggra	1.40	.	1.00
ilever	1.35	0.29	4.00
lonspp	1.28	0.18	8.00
picmar	1.97	0.88	12.00
popbal	1.00	.	1.00
poptre	1.88	0.45	4.00
salspp	1.53	0.43	4.00
sorame	1.10	.	1.00
vibcas	1.46	0.37	73.00
STRATUM MEAN	1.83	0.79	734.00

-------------------------- STAND=45 YEAR=92 STRATUM=1 ------------------------

	TREE HEIGHT		
SPECIES	**MEAN**	**STD**	**N**
abibal	10.00	.	1.00
acerub	7.00	1.41	2.00
amespp	6.00	0.00	2.00
faggra	8.52	2.38	9.00
poptre	6.00	0.71	2.00
STRATUM MEAN	7.79	2.18	16.00

-------------------------- STAND=45 YEAR=92 STRATUM=2 ------------------------

	TREE HEIGHT		
SPECIES	**MEAN**	**STD**	**N**
abibal	3.05	2.05	2.00
acerub	1.40	0.43	242.00
acesac	1.82	0.88	19.00
amespp	1.45	0.31	256.00
corcor	2.10	0.29	2.00
faggra	2.20	.	1.00
pinstr	2.60	.	1.00
popgra	1.71	0.47	347.00
poptre	1.85	0.63	533.00
prupen	1.32	0.26	114.00
pruser	1.34	0.30	16.00
pruspp	1.44	0.54	40.00
STRATUM MEAN	1.63	0.54	1573.00

-------------------------- STAND=45 YEAR=94 STRATUM=1 ------------------------

	TREE HEIGHT		
SPECIES	**MEAN**	**STD**	**N**
abibal	10.75	0.35	2.00
acerub	5.83	1.18	2.00
faggra	13.17	8.00	3.00
popgra	6.99	.	1.00
poptre	4.85	1.14	15.00
STRATUM MEAN	6.62	4.04	23.00

-------------------------- STAND=45 YEAR=94 STRATUM=2 ------------------------

	TREE HEIGHT		
SPECIES	**MEAN**	**STD**	**N**
abibal	1.76	.	1.00
acerub	1.82	1.04	187.00
acesac	2.29	1.80	12.00
amespp	1.67	0.37	372.00
faggra	3.48	.	1.00
lonspp	1.28	.	1.00
popgra	2.28	0.86	291.00
poptre	2.58	1.14	591.00
prupen	1.87	0.63	458.00
tilame	2.43	.	1.00
STRATUM MEAN	2.11	0.94	1915.00

STAND=46 YEAR=93 STRATUM=1

SPECIES	TREE HEIGHT MEAN	STD	N
abibal	8.30	3.64	16.00
acerub	20.62	4.97	94.00
acesac	12.78	8.40	2.00
betall	17.76	6.16	21.00
faggra	8.63	7.28	233.00
picgla	9.50	.	1.00
pinstr	26.55	.	1.00
tsucan	15.03	4.49	48.00
STRATUM MEAN	12.59	8.16	416.00

STAND=46 YEAR=93 STRATUM=2

SPECIES	TREE HEIGHT MEAN	STD	N
abibal	1.91	0.72	49.00
acerub	1.86	1.04	79.00
acesac	1.33	0.92	5.00
betall	2.39	0.85	10.00
faggra	1.90	0.83	770.00
loncan	1.44	0.07	2.00
picgla	4.52	.	1.00
pinstr	6.84	.	1.00
sorame	1.25	0.00	2.00
tsucan	1.47	0.27	6.00
STRATUM MEAN	1.90	0.87	925.00

STAND=47 YEAR=92 STRATUM=1

SPECIES	TREE HEIGHT MEAN	STD	N
abibal	5.10	2.10	104.00
acerub	6.88	3.85	72.00
acesac	7.29	2.75	58.00
betall	8.50	2.18	3.00
betpap	17.00	2.18	3.00
fraame	7.32	2.23	17.00
franig	8.20	1.75	3.00
ostvir	6.18	1.43	6.00
picgla	8.94	3.90	6.00
popbal	8.85	0.21	2.00
popgra	8.44	2.13	20.00
poptre	9.43	3.81	771.00
salspp	4.98	1.52	6.00
STRATUM MEAN	8.64	3.85	1071.00

---------------------------- STAND=48 YEAR=92 STRATUM=1 ----------------------------

	TREE HEIGHT		
SPECIES	**MEAN**	**STD**	**N**
abibal	8.45	3.47	121.00
acerub	9.78	5.08	279.00
acesac	8.54	4.47	136.00
amespp	5.71	.	1.00
betall	12.65	4.48	36.00
betpap	18.77	6.33	22.00
corcor	4.84	0.75	6.00
faggra	9.50	6.04	19.00
fraame	10.01	5.60	16.00
picgla	9.82	2.73	15.00
popgra	15.94	4.01	8.00
poptre	15.09	6.37	93.00
prupen	8.50	.	1.00
tsucan	3.64	1.29	4.00
STRATUM MEAN	10.38	5.57	757.00

---------------------------- STAND=48 YEAR=92 STRATUM=2 ----------------------------

	TREE HEIGHT		
SPECIES	**MEAN**	**STD**	**N**
abibal	1.96	0.87	205.00
acerub	2.20	1.01	157.00
acesac	2.56	1.11	105.00
amespp	1.76	1.34	5.00
betall	1.86	0.67	80.00
betpap	1.90	0.81	4.00
corcor	1.60	0.44	48.00
faggra	2.15	0.85	10.00
fraame	1.79	0.83	27.00
franig	1.25	0.21	2.00
ilever	1.50	0.00	2.00
picgla	1.53	0.12	3.00
popgra	1.30	.	1.00
poptre	1.71	0.99	7.00
thuocc	2.30	.	1.00
tsucan	3.00	0.99	2.00
STRATUM MEAN	2.06	0.94	659.00

---------------------------- STAND=49 YEAR=92 STRATUM=1 ----------------------------

	TREE HEIGHT		
SPECIES	**MEAN**	**STD**	**N**
amespp	10.00	.	1.00
popgra	5.89	1.14	7.00
poptre	5.67	0.56	37.00
STRATUM MEAN	5.80	0.92	45.00

---------------------------- STAND=49 YEAR=92 STRATUM=2 ----------------------------

	TREE HEIGHT		
SPECIES	**MEAN**	**STD**	**N**
acerub	1.52	0.38	51.00
acesac	1.63	0.57	96.00
amespp	1.64	0.74	137.00
popgra	2.74	0.88	177.00
poptre	2.55	0.95	842.00
prupen	2.32	0.81	745.00
pruser	2.40	0.78	97.00
pruvir	1.30	0.26	3.00
sampub	1.15	0.21	2.00
STRATUM MEAN	2.35	0.91	2150.00

------------------------- STAND=49 YEAR=94 STRATUM=1 ------------------------

SPECIES	TREE HEIGHT MEAN	STD	N
acerub	5.20	.	1.00
amespp	4.48	1.41	17.00
faggra	7.30	.	1.00
popgra	5.71	1.12	49.00
poptre	5.41	1.11	312.00
prupen	5.18	1.11	36.00
STRATUM MEAN	5.39	1.15	416.00

------------------------- STAND=49 YEAR=94 STRATUM=2 ------------------------

SPECIES	TREE HEIGHT MEAN	STD	N
acerub	1.66	0.60	61.00
acesac	1.82	0.62	198.00
amespp	2.29	1.31	249.00
lonspp	1.21	0.07	8.00
popgra	3.38	1.27	131.00
poptre	3.43	1.11	518.00
prupen	3.06	1.31	509.00
pruser	2.07	0.99	8.00
salspp	2.11	0.49	6.00
STRATUM MEAN	2.87	1.31	1688.00

------------------------- STAND=50 YEAR=92 STRATUM=1 ------------------------

SPECIES	TREE HEIGHT MEAN	STD	N
acerub	12.27	4.17	49.00
acesac	11.59	3.59	74.00
faggra	11.30	2.72	19.00
picgla	16.40	2.45	2.00
pinres	13.72	3.77	226.00
popgra	15.63	0.48	4.00
poptre	20.58	4.83	3.00
STRATUM MEAN	13.08	3.90	377.00

------------------------- STAND=50 YEAR=92 STRATUM=2 ------------------------

SPECIES	TREE HEIGHT MEAN	STD	N
abibal	1.70	.	1.00
acepen	1.50	0.14	2.00
acerub	1.56	0.53	327.00
acesac	1.48	0.55	178.00
amespp	1.34	0.35	54.00
faggra	1.35	0.41	33.00
loncan	1.20	.	1.00
pinres	1.37	0.31	3.00
popgra	1.59	0.47	95.00
poptre	1.49	0.38	45.00
pruser	1.29	0.27	7.00
STRATUM MEAN	1.51	0.50	746.00

STAND=51 YEAR=92 STRATUM=1

SPECIES	TREE HEIGHT		
	MEAN	STD	N
acerub	5.77	1.40	15.00
betpap	6.73	2.52	9.00
pinban	6.98	2.53	70.00
pinres	7.07	1.81	306.00
pinsyl	5.20	.	1.00
popgra	5.70	0.75	3.00
poptre	5.20	.	1.00
querub	5.00	.	1.00
STRATUM MEAN	6.97	1.96	406.00

STAND=51 YEAR=92 STRATUM=2

SPECIES	TREE HEIGHT		
	MEAN	STD	N
acerub	2.12	0.90	210.00
amespp	1.42	0.30	18.00
betpap	2.44	1.01	9.00
pinban	2.65	1.14	18.00
pinres	2.79	1.33	7.00
pinstr	2.10	.	1.00
popgra	2.13	0.90	78.00
poptre	1.63	0.58	45.00
prupen	1.30	0.22	63.00
STRATUM MEAN	1.97	0.89	449.00

STAND=51 YEAR=94 STRATUM=1

SPECIES	TREE HEIGHT		
	MEAN	STD	N
acerub	7.63	0.97	2.00
betpap	4.94	1.38	3.00
pinban	9.48	2.94	32.00
pinres	12.05	2.22	204.00
STRATUM MEAN	11.58	2.60	241.00

STAND=51 YEAR=94 STRATUM=2

SPECIES	TREE HEIGHT		
	MEAN	STD	N
acerub	2.81	1.41	114.00
acesac	2.60	1.10	24.00
amespp	1.63	0.41	3.00
betpap	2.80	0.14	2.00
pinban	2.14	1.06	7.00
pinres	5.24	1.57	13.00
pinstr	4.24	.	1.00
popgra	2.99	1.75	24.00
poptre	2.79	0.52	5.00
STRATUM MEAN	2.93	1.52	193.00

-------------------------- STAND=52 YEAR=93 STRATUM=1 ------------------------

SPECIES	TREE HEIGHT MEAN	STD	N
pinban	12.13	3.09	100.00
pinband	11.98	3.97	42.00
pinres	13.11	2.85	109.00
STRATUM MEAN	12.53	3.18	251.00

-------------------------- STAND=52 YEAR=93 STRATUM=2 ------------------------

SPECIES	TREE HEIGHT MEAN	STD	N
amespp	2.19	1.29	2.00
pinban	3.80	0.14	2.00
pinband	4.60	0.28	2.00
STRATUM MEAN	3.53	1.25	6.00

-------------------------- STAND=53 YEAR=93 STRATUM=1 ------------------------

SPECIES	TREE HEIGHT MEAN	STD	N
abibal	6.98	2.47	27.00
acerub	10.91	4.15	266.00
acesac	10.13	4.16	71.00
amespp	5.89	1.45	4.00
betpap	14.45	5.66	24.00
picgla	11.71	5.19	4.00
pinban	16.78	3.86	3.00
pinband	22.88	.	1.00
pinres	9.19	2.09	3.00
pinstr	11.96	7.27	8.00
popgra	17.67	3.10	116.00
poptre	13.59	5.16	25.00
pruser	4.24	.	1.00
querub	7.03	2.96	4.00
STRATUM MEAN	12.29	5.12	557.00

-------------------------- STAND=53 YEAR=93 STRATUM=2 ------------------------

SPECIES	TREE HEIGHT MEAN	STD	N
abibal	2.87	1.01	51.00
acerub	2.08	1.49	137.00
acesac	1.97	1.19	49.00
amespp	1.76	0.90	85.00
corcor	1.46	0.24	116.00
faggra	1.00	.	1.00
picgla	3.01	2.13	2.00
pinban	3.15	.	1.00
pinstr	2.91	2.78	5.00
popgra	3.00	.	1.00
poptre	2.19	1.36	21.00
querub	1.64	0.63	5.00
salspp	2.02	0.02	2.00
STRATUM MEAN	1.96	1.18	476.00

------------------------- STAND=54 YEAR=93 STRATUM=1 -------------------------

TREE HEIGHT

SPECIES	MEAN	STD	N
pinban	4.97	0.54	11.00
STRATUM MEAN	4.97	0.54	11.00

------------------------- STAND=54 YEAR=93 STRATUM=2 -------------------------

TREE HEIGHT

SPECIES	MEAN	STD	N
pinban	3.19	1.04	197.00
pinband	4.14	0.28	2.00
STRATUM MEAN	3.20	1.04	199.00

------------------------- STAND=54 YEAR=94 STRATUM=1 -------------------------

TREE HEIGHT

SPECIES	MEAN	STD	N
pinban	5.01	0.59	49.00
STRATUM MEAN	5.01	0.59	49.00

------------------------- STAND=54 YEAR=94 STRATUM=2 -------------------------

TREE HEIGHT

SPECIES	MEAN	STD	N
pinban	3.72	1.21	95.00
STRATUM MEAN	3.72	1.21	95.00

------------------------- STAND=55 YEAR=93 STRATUM=1 -------------------------

TREE HEIGHT

SPECIES	MEAN	STD	N
pinban	4.78	0.61	6.00
STRATUM MEAN	4.78	0.61	6.00

------------------------- STAND=55 YEAR=93 STRATUM=2 -------------------------

TREE HEIGHT

SPECIES	MEAN	STD	N
pinban	3.29	1.02	338.00
pinband	1.98	0.80	2.00
STRATUM MEAN	3.29	1.02	340.00

------------------------- STAND=55 YEAR=94 STRATUM=1 -------------------------

TREE HEIGHT

SPECIES	MEAN	STD	N
pinban	5.20	0.59	26.00
STRATUM MEAN	5.20	0.59	26.00

------------------------- STAND=55 YEAR=94 STRATUM=2 -------------------------

TREE HEIGHT

SPECIES	MEAN	STD	N
pinban	3.94	1.41	152.00
STRATUM MEAN	3.94	1.41	152.00

-------------------------- STAND=56 YEAR=93 STRATUM=1 --------------------------

TREE HEIGHT

SPECIES	MEAN	STD	N
pinban	7.79	2.10	133.00
pinres	13.01	0.84	2.00
STRATUM MEAN	7.86	2.18	135.00

-------------------------- STAND=56 YEAR=93 STRATUM=2 --------------------------

TREE HEIGHT

SPECIES	MEAN	STD	N
amespp	1.10	.	1.00
pinban	2.13	1.06	10.00
STRATUM MEAN	2.03	1.05	11.00

-------------------------- STAND=57 YEAR=93 STRATUM=1 --------------------------

TREE HEIGHT

SPECIES	MEAN	STD	N
abibal	7.23	2.28	10.00
acerub	11.12	3.80	318.00
acesac	10.27	4.24	95.00
amespp	5.50	2.61	11.00
betpap	15.22	4.22	50.00
picgla	10.15	4.09	45.00
pinban	20.52	1.93	2.00
pinres	13.99	3.87	12.00
pinstr	9.85	3.95	40.00
popgra	19.15	2.29	79.00
poptre	16.55	2.16	16.00
querub	8.30	6.86	30.00
STRATUM MEAN	11.99	5.00	708.00

-------------------------- STAND=57 YEAR=93 STRATUM=2 --------------------------

TREE HEIGHT

SPECIES	MEAN	STD	N
abibal	2.70	1.35	16.00
acepen	2.00	0.75	8.00
acerub	2.01	1.14	132.00
acesac	2.17	1.21	10.00
amespp	1.71	0.77	254.00
betpap	2.51	2.63	12.00
corcor	1.57	0.28	407.00
faggra	1.11	.	1.00
loncan	1.28	0.10	4.00
picgla	2.52	1.51	14.00
pinres	6.94	.	1.00
pinstr	3.31	1.65	84.00
popgra	4.91	5.95	5.00
poptre	2.30	.	1.00
querub	1.89	0.60	149.00
vibspp	1.20	.	1.00
STRATUM MEAN	1.90	1.06	1099.00

-------------------------- STAND=58 YEAR=93 STRATUM=2 --------------------------

TREE HEIGHT

SPECIES	MEAN	STD	N
pinban	2.63	0.99	229.00
STRATUM MEAN	2.63	0.99	229.00

-------------------------- STAND=58 YEAR=94 STRATUM=2 --------------------------

TREE HEIGHT

SPECIES	MEAN	STD	N
pinban	2.78	1.07	229.00
STRATUM MEAN	2.78	1.07	229.00

-------------------------- STAND=59 YEAR=93 STRATUM=1 ------------------------

TREE HEIGHT

SPECIES	MEAN	STD	N
pinban	4.59	0.95	154.00
STRATUM MEAN	4.59	0.95	154.00

-------------------------- STAND=59 YEAR=93 STRATUM=2 ------------------------

TREE HEIGHT

SPECIES	MEAN	STD	N
amespp	1.72	0.26	8.00
pinban	2.82	1.37	130.00
pinband	2.37	0.36	4.00
pinres	1.65	0.24	4.00
STRATUM MEAN	2.72	1.33	146.00

-------------------------- STAND=59 YEAR=94 STRATUM=1 ------------------------

TREE HEIGHT

SPECIES	MEAN	STD	N
pinban	5.25	0.93	85.00
STRATUM MEAN	5.25	0.93	85.00

-------------------------- STAND=59 YEAR=94 STRATUM=2 ------------------------

TREE HEIGHT

SPECIES	MEAN	STD	N
pinban	3.62	0.97	23.00
STRATUM MEAN	3.62	0.97	23.00

-------------------------- STAND=60 YEAR=93 STRATUM=1 ------------------------

TREE HEIGHT

SPECIES	MEAN	STD	N
pinban	5.24	0.99	193.00
pinres	7.12	1.69	36.00
STRATUM MEAN	5.53	1.32	229.00

-------------------------- STAND=60 YEAR=93 STRATUM=2 ------------------------

TREE HEIGHT

SPECIES	MEAN	STD	N
amespp	1.82	0.53	11.00
pinban	3.68	1.21	39.00
pinband	2.50	0.71	2.00
pinres	5.90	1.26	3.00
STRATUM MEAN	3.39	1.45	55.00

-------------------------- STAND=61 YEAR=93 STRATUM=1 ------------------------

TREE HEIGHT

SPECIES	MEAN	STD	N
pinban	11.14	2.34	337.00
pinband	8.08	2.33	52.00
pinres	18.78	.	1.00
STRATUM MEAN	10.75	2.59	390.00

-------------------------- STAND=61 YEAR=93 STRATUM=2 ------------------------

TREE HEIGHT

SPECIES	MEAN	STD	N
pinban	3.99	1.29	3.00
pinband	4.00	.	1.00
STRATUM MEAN	3.99	1.05	4.00

-------------------------- STAND=62 YEAR=93 STRATUM=1 ------------------------

SPECIES	TREE HEIGHT MEAN	STD	N
pinban	7.60	1.81	654.00
pinband	5.42	1.31	70.00
pinres	17.57	.	1.00
STRATUM MEAN	7.40	1.91	725.00

-------------------------- STAND=62 YEAR=93 STRATUM=2 ------------------------

SPECIES	TREE HEIGHT MEAN	STD	N
amespp	1.49	0.32	4.00
pinban	4.03	1.04	11.00
pinband	3.91	0.79	16.00
STRATUM MEAN	3.64	1.18	31.00

-------------------------- STAND=63 YEAR=93 STRATUM=1 ------------------------

SPECIES	TREE HEIGHT MEAN	STD	N
pinban	7.96	2.33	167.00
pinband	7.92	2.65	42.00
pinres	10.10	0.26	3.00
STRATUM MEAN	7.98	2.39	212.00

-------------------------- STAND=63 YEAR=93 STRATUM=2 ------------------------

SPECIES	TREE HEIGHT MEAN	STD	N
amespp	1.30	.	1.00
juncom	1.00	0.00	7.00
pinban	2.85	1.47	33.00
pinband	3.03	1.23	4.00
STRATUM MEAN	2.54	1.47	45.00

-------------------------- STAND=64 YEAR=93 STRATUM=1 ------------------------

SPECIES	TREE HEIGHT MEAN	STD	N
pinban	10.00	2.41	121.00
pinband	9.60	2.37	43.00
STRATUM MEAN	9.90	2.40	164.00

-------------------------- STAND=64 YEAR=93 STRATUM=2 ------------------------

SPECIES	TREE HEIGHT MEAN	STD	N
abibal	2.00	.	1.00
pinban	2.60	1.35	10.00
pinband	3.60	0.85	2.00
STRATUM MEAN	2.70	1.27	13.00

------------------------- STAND=65 YEAR=93 STRATUM=1 ------------------------

SPECIES	TREE HEIGHT MEAN	STD	N
pinban	10.20	2.19	318.00
pinband	8.78	2.63	59.00
pinres	10.31	2.97	4.00
STRATUM MEAN	9.98	2.32	381.00

------------------------- STAND=65 YEAR=93 STRATUM=2 ------------------------

SPECIES	TREE HEIGHT MEAN	STD	N
acerub	0.96	.	1.00
pinban	2.45	2.05	2.00
STRATUM MEAN	1.95	1.69	3.00

------------------------- STAND=66 YEAR=93 STRATUM=2 ------------------------

SPECIES	TREE HEIGHT MEAN	STD	N
amespp	1.20	0.08	28.00
pinban	1.06	0.25	178.00
STRATUM MEAN	1.08	0.24	206.00

------------------------- STAND=66 YEAR=94 STRATUM=2 ------------------------

SPECIES	TREE HEIGHT MEAN	STD	N
amespp	1.26	0.04	3.00
pinban	1.13	0.31	420.00
STRATUM MEAN	1.13	0.31	423.00

------------------------- STAND=67 YEAR=93 STRATUM=1 ------------------------

SPECIES	TREE HEIGHT MEAN	STD	N
pinban	13.20	2.24	327.00
pinband	10.23	2.61	52.00
pinres	6.45	0.78	2.00
STRATUM MEAN	12.76	2.54	381.00

------------------------- STAND=67 YEAR=93 STRATUM=2 ------------------------

SPECIES	TREE HEIGHT MEAN	STD	N
acerub	2.00	.	1.00
amespp	1.59	0.27	2.00
faggra	1.80	.	1.00
pinres	2.03	0.51	3.00
STRATUM MEAN	1.87	0.38	7.00

------------------------- STAND=68 YEAR=93 STRATUM=1 ------------------------

SPECIES	TREE HEIGHT MEAN	STD	N
pinban	14.44	3.50	45.00
pinband	12.01	2.64	10.00
pinres	13.78	3.04	283.00
STRATUM MEAN	13.82	3.11	338.00

------------------------- STAND=68 YEAR=93 STRATUM=2 ------------------------

SPECIES	TREE HEIGHT MEAN	STD	N
pinban	2.00	.	1.00
pinres	3.40	1.28	3.00
STRATUM MEAN	3.05	1.26	4.00

------------------------- STAND=69 YEAR=93 STRATUM=1 -----------------------

	TREE HEIGHT		
SPECIES	**MEAN**	**STD**	**N**
acerub	4.00	0.81	7.00
acesac	5.20	0.69	8.00
betpap	3.99	0.93	2.00
popgra	4.70	1.21	35.00
poptre	5.18	1.29	138.00
prupen	4.14	0.94	25.00
STRATUM MEAN	4.94	1.26	215.00

------------------------- STAND=69 YEAR=93 STRATUM=2 -----------------------

	TREE HEIGHT		
SPECIES	**MEAN**	**STD**	**N**
abibal	4.33	1.27	4.00
acerub	1.70	0.80	428.00
acesac	1.81	0.69	221.00
amespp	1.65	0.50	127.00
betpap	2.39	1.03	9.00
corcor	1.31	0.13	224.00
loncan	1.25	.	1.00
lonspp	1.21	0.06	4.00
pinstr	0.73	.	1.00
popgra	3.31	1.11	50.00
poptre	3.30	0.97	193.00
prupen	2.42	0.67	623.00
querub	1.46	0.41	6.00
sorame	1.28	.	1.00
STRATUM MEAN	2.11	0.93	1892.00

------------------------- STAND=70 YEAR=93 STRATUM=1 -----------------------

	TREE HEIGHT		
SPECIES	**MEAN**	**STD**	**N**
acesac	4.76	.	1.00
amespp	3.24	1.19	4.00
popgra	4.81	0.67	3.00
poptre	5.29	0.88	33.00
STRATUM MEAN	5.04	1.06	41.00

------------------------- STAND=70 YEAR=93 STRATUM=2 -----------------------

	TREE HEIGHT		
SPECIES	**MEAN**	**STD**	**N**
acerub	1.39	0.41	26.00
acesac	2.51	.	1.00
amespp	1.86	0.71	134.00
corcor	1.40	0.15	46.00
popgra	3.03	1.05	18.00
poptre	3.41	1.10	167.00
prupen	1.91	0.59	141.00
querub	1.57	0.09	3.00
STRATUM MEAN	2.33	1.12	536.00

-------------------------- STAND=71 YEAR=93 STRATUM=1 ------------------------

TREE HEIGHT

SPECIES	MEAN	STD	N
pinban	14.50	.	1.00
pinres	13.15	1.95	70.00
STRATUM MEAN	13.17	1.94	71.00

-------------------------- STAND=71 YEAR=93 STRATUM=2 ------------------------

TREE HEIGHT

SPECIES	MEAN	STD	N
amespp	1.20	.	1.00
pinres	3.20	.	1.00
STRATUM MEAN	2.20	1.41	2.00

-------------------------- STAND=72 YEAR=93 STRATUM=1 ------------------------

TREE HEIGHT

SPECIES	MEAN	STD	N
acerub	4.65	1.22	4.00
pinban	10.79	3.11	6.00
pinband	8.97	0.75	2.00
pinres	13.34	2.16	60.00
STRATUM MEAN	12.52	3.05	72.00

-------------------------- STAND=72 YEAR=93 STRATUM=2 ------------------------

TREE HEIGHT

SPECIES	MEAN	STD	N
acerub	2.38	1.61	11.00
amespp	1.41	.	1.00
pinban	3.50	0.99	2.00
salspp	2.10	0.00	2.00
STRATUM MEAN	2.42	1.43	16.00

-------------------------- STAND=73 YEAR=93 STRATUM=1 ------------------------

TREE HEIGHT

SPECIES	MEAN	STD	N
acerub	6.15	.	1.00
pinban	10.86	3.55	59.00
pinband	11.66	3.29	20.00
pinres	14.12	2.44	76.00
STRATUM MEAN	12.52	3.40	156.00

-------------------------- STAND=73 YEAR=93 STRATUM=2 ------------------------

TREE HEIGHT

SPECIES	MEAN	STD	N
acerub	1.86	0.58	13.00
amespp	1.41	0.49	8.00
pinban	3.13	1.18	13.00
pinband	2.50	.	1.00
pinres	1.40	0.57	2.00
prupen	1.00	.	1.00
STRATUM MEAN	2.17	1.08	38.00

------------------------- STAND=74 YEAR=93 STRATUM=1 -----------------------

SPECIES	TREE HEIGHT MEAN	STD	N
acerub	17.70	4.34	69.00
acesac	18.14	5.40	36.00
betall	11.89	6.48	5.00
betpap	13.82	6.32	2.00
faggra	12.55	5.11	55.00
pinstr	15.74	3.79	281.00
querub	20.01	1.72	2.00
STRATUM MEAN	15.81	4.50	450.00

------------------------- STAND=74 YEAR=93 STRATUM=2 -----------------------

SPECIES	TREE HEIGHT MEAN	STD	N
abibal	3.09	0.61	3.00
acepen	1.69	0.62	27.00
acerub	1.87	0.74	176.00
acesac	1.75	0.78	42.00
amespp	1.17	0.43	5.00
corcor	1.77	0.38	48.00
faggra	1.42	0.36	20.00
lonspp	1.18	.	1.00
pinstr	5.85	.	1.00
querub	2.22	0.75	4.00
STRATUM MEAN	1.81	0.73	327.00

------------------------- STAND=75 YEAR=93 STRATUM=1 -----------------------

SPECIES	TREE HEIGHT MEAN	STD	N
acerub	16.77	4.83	20.00
acesac	15.45	3.46	6.00
faggra	16.99	1.42	2.00
pinban	25.43	8.97	2.00
pinstr	16.82	3.82	243.00
poptre	16.00	4.43	3.00
STRATUM MEAN	16.85	3.97	276.00

------------------------- STAND=75 YEAR=93 STRATUM=2 -----------------------

SPECIES	TREE HEIGHT MEAN	STD	N
acerub	1.46	0.59	64.00
acesac	1.43	0.50	4.00
amespp	1.18	0.16	5.00
corcor	1.69	0.29	18.00
faggra	1.10	.	1.00
poptre	1.84	0.43	11.00
sorame	1.60	.	1.00
STRATUM MEAN	1.52	0.53	104.00

------------------------- STAND=76 YEAR=93 STRATUM=1 ------------------------

	TREE HEIGHT		
SPECIES	**MEAN**	**STD**	**N**
acerub	19.66	3.01	18.00
acesac	16.43	4.63	361.00
amespp	16.46	.	1.00
betall	18.50	.	1.00
faggra	11.25	4.58	4.00
poptre	23.48	2.15	2.00
querub	25.50	.	1.00
STRATUM MEAN	16.59	4.66	388.00

------------------------- STAND=76 YEAR=93 STRATUM=2 ------------------------

	TREE HEIGHT		
SPECIES	**MEAN**	**STD**	**N**
acepen	2.37	1.11	8.00
acerub	1.52	0.31	50.00
acesac	1.51	0.61	256.00
betall	1.71	0.37	7.00
faggra	1.76	0.68	81.00
pruser	1.30	0.67	2.00
querub	1.86	.	1.00
samcan	1.48	0.11	6.00
STRATUM MEAN	1.58	0.62	411.00

------------------------- STAND=77 YEAR=93 STRATUM=1 ------------------------

	TREE HEIGHT		
SPECIES	**MEAN**	**STD**	**N**
betpap	4.80	1.02	10.00
pinban	7.72	2.33	51.00
pinband	12.78	.	1.00
pinres	6.83	1.64	174.00
popgra	5.20	.	1.00
querub	4.47	3.86	8.00
STRATUM MEAN	6.87	2.04	245.00

------------------------- STAND=77 YEAR=93 STRATUM=2 ------------------------

	TREE HEIGHT		
SPECIES	**MEAN**	**STD**	**N**
acerub	2.03	1.11	71.00
betpap	2.76	1.00	22.00
pinban	2.75	1.31	40.00
pinband	2.95	1.48	2.00
pinres	3.19	1.27	16.00
popgra	2.33	0.82	49.00
querub	1.65	0.40	96.00
salspp	1.38	0.39	4.00
STRATUM MEAN	2.17	1.03	300.00

------------------------- STAND=77 YEAR=94 STRATUM=1 -------------------------

SPECIES	TREE HEIGHT MEAN	STD	N
acerub	13.43	4.86	2.00
betpap	5.11	0.81	11.00
pinban	10.09	3.85	24.00
pinres	7.69	2.20	79.00
STRATUM MEAN	8.04	2.97	116.00

------------------------- STAND=77 YEAR=94 STRATUM=2 -------------------------

SPECIES	TREE HEIGHT MEAN	STD	N
acerub	2.14	1.06	15.00
betpap	1.84	0.35	3.00
pinban	3.00	1.76	26.00
pinres	3.28	1.89	11.00
popgra	3.03	0.87	19.00
querub	2.09	0.72	44.00
salspp	1.80	.	1.00
STRATUM MEAN	2.54	1.28	119.00

------------------------- STAND=78 YEAR=93 STRATUM=1 -------------------------

SPECIES	TREE HEIGHT MEAN	STD	N
acerub	6.57	1.99	5.00
pinres	15.05	3.50	5.00
STRATUM MEAN	10.81	5.21	10.00

------------------------- STAND=78 YEAR=93 STRATUM=2 -------------------------

SPECIES	TREE HEIGHT MEAN	STD	N
acerub	1.54	0.86	10.00
amespp	1.23	0.14	14.00
salspp	1.17	0.17	129.00
STRATUM MEAN	1.20	0.28	153.00

------------------------- STAND=78 YEAR=94 STRATUM=1 -------------------------

SPECIES	TREE HEIGHT MEAN	STD	N
acerub	6.17	0.89	5.00
pinres	19.50	7.07	2.00
STRATUM MEAN	9.98	7.15	7.00

------------------------- STAND=78 YEAR=94 STRATUM=2 -------------------------

SPECIES	TREE HEIGHT MEAN	STD	N
acerub	1.20	0.27	6.00
amespp	1.25	0.12	30.00
prupen	1.01	0.40	5.00
salspp	1.31	0.29	101.00
STRATUM MEAN	1.28	0.27	142.00

-------------------------- STAND=79 YEAR=93 STRATUM=1 ------------------------

	TREE HEIGHT		
SPECIES	**MEAN**	**STD**	**N**
pinres	19.50	.	1.00
STRATUM MEAN	19.50	.	1.00

-------------------------- STAND=79 YEAR=93 STRATUM=2 ------------------------

	TREE HEIGHT		
SPECIES	**MEAN**	**STD**	**N**
amespp	1.10	.	1.00
salspp	1.09	0.18	7.00
STRATUM MEAN	1.09	0.17	8.00

-------------------------- STAND=79 YEAR=94 STRATUM=1 ------------------------

	TREE HEIGHT		
SPECIES	**MEAN**	**STD**	**N**
pinres	20.00	.	1.00
STRATUM MEAN	20.00	.	1.00

-------------------------- STAND=79 YEAR=94 STRATUM=2 ------------------------

	TREE HEIGHT		
SPECIES	**MEAN**	**STD**	**N**
acerub	1.20	0.18	5.00
prupen	1.00	.	1.00
STRATUM MEAN	1.17	0.18	6.00

-------------------------- STAND=80 YEAR=93 STRATUM=1 ------------------------

	TREE HEIGHT		
SPECIES	**MEAN**	**STD**	**N**
acerub	8.18	1.36	3.00
pinres	19.50	0.71	2.00
STRATUM MEAN	12.71	6.28	5.00

-------------------------- STAND=80 YEAR=94 STRATUM=1 ------------------------

	TREE HEIGHT		
SPECIES	**MEAN**	**STD**	**N**
acerub	8.79	1.19	3.00
pinres	20.00	0.00	2.00
STRATUM MEAN	13.27	6.20	5.00

-------------------------- STAND=81 YEAR=93 STRATUM=1 ------------------------

	TREE HEIGHT		
SPECIES	**MEAN**	**STD**	**N**
abibal	5.24	.	1.00
acerub	14.54	0.07	2.00
pinban	7.25	1.50	189.00
pinband	6.96	1.49	5.00
pinres	5.89	1.69	178.00
STRATUM MEAN	6.63	1.81	375.00

-------------------------- STAND=81 YEAR=93 STRATUM=2 ------------------------

	TREE HEIGHT		
SPECIES	**MEAN**	**STD**	**N**
acerub	1.27	0.37	12.00
amespp	2.47	1.12	45.00
pinban	3.73	1.77	9.00
pinband	4.65	0.21	2.00
pinres	3.40	0.97	26.00
salspp	1.40	0.32	13.00
STRATUM MEAN	2.58	1.32	107.00

------------------------- STAND=81 YEAR=94 STRATUM=1 -------------------------

SPECIES	TREE HEIGHT MEAN	STD	N
acerub	12.29	.	1.00
acesac	16.18	.	1.00
pinban	9.77	2.36	91.00
pinres	7.95	1.53	103.00
STRATUM MEAN	8.86	2.23	196.00

------------------------- STAND=81 YEAR=94 STRATUM=2 -------------------------

SPECIES	TREE HEIGHT MEAN	STD	N
acerub	1.52	.	1.00
acesac	2.59	0.52	5.00
amespp	2.55	0.78	15.00
pinban	4.42	2.39	8.00
pinres	3.99	1.84	18.00
prupen	1.60	.	1.00
salspp	1.70	0.39	11.00
STRATUM MEAN	3.05	1.71	59.00

------------------------- STAND=82 YEAR=93 STRATUM=1 -------------------------

SPECIES	TREE HEIGHT MEAN	STD	N
pinban	6.34	1.05	104.00
pinband	6.34	0.90	10.00
pinres	5.17	0.94	111.00
STRATUM MEAN	5.76	1.15	225.00

------------------------- STAND=82 YEAR=93 STRATUM=2 -------------------------

SPECIES	TREE HEIGHT MEAN	STD	N
amespp	1.27	0.14	10.00
pinban	4.21	1.52	17.00
pinband	2.20	.	1.00
pinres	3.63	1.16	39.00
STRATUM MEAN	3.40	1.50	67.00

------------------------- STAND=82 YEAR=94 STRATUM=1 -------------------------

SPECIES	TREE HEIGHT MEAN	STD	N
pinban	7.75	1.46	78.00
pinres	5.68	1.30	84.00
STRATUM MEAN	6.67	1.72	162.00

------------------------- STAND=82 YEAR=94 STRATUM=2 -------------------------

SPECIES	TREE HEIGHT MEAN	STD	N
amespp	1.81	0.53	8.00
pinban	4.35	1.57	10.00
pinres	4.13	1.15	22.00
STRATUM MEAN	3.72	1.51	40.00

-------------------------- STAND=83 YEAR=93 STRATUM=1 ------------------------

	TREE HEIGHT		
SPECIES	**MEAN**	**STD**	**N**
pinban	5.05	0.85	39.00
pinres	4.81	0.58	10.00
pinstr	14.80	3.96	2.00
poptre	8.51	1.18	4.00
STRATUM MEAN	5.61	2.24	55.00

-------------------------- STAND=83 YEAR=93 STRATUM=2 ------------------------

	TREE HEIGHT		
SPECIES	**MEAN**	**STD**	**N**
abibal	1.50	.	1.00
acerub	2.01	0.67	28.00
amespp	1.53	0.35	19.00
betpap	2.22	0.78	28.00
pinban	3.76	1.37	61.00
pinres	3.84	1.21	129.00
popgra	2.13	0.83	159.00
poptre	1.90	.	1.00
prupen	1.69	0.46	30.00
querub	1.65	0.07	2.00
salspp	1.38	0.21	17.00
STRATUM MEAN	2.72	1.34	475.00

-------------------------- STAND=83 YEAR=94 STRATUM=1 ------------------------

	TREE HEIGHT		
SPECIES	**MEAN**	**STD**	**N**
pinban	5.84	1.30	56.00
pinres	5.23	0.73	80.00
pinstr	18.09	9.78	2.00
popgra	7.44	3.23	2.00
STRATUM MEAN	5.69	2.03	140.00

-------------------------- STAND=83 YEAR=94 STRATUM=2 ------------------------

	TREE HEIGHT		
SPECIES	**MEAN**	**STD**	**N**
acerub	1.70	0.55	15.00
amespp	1.52	0.43	13.00
betpap	1.66	0.48	5.00
pinban	3.76	1.65	20.00
pinres	4.27	1.42	52.00
popdel	0.86	.	1.00
popgra	2.57	0.77	56.00
poptre	2.62	.	1.00
prupen	2.89	1.07	9.00
pruser	2.08	0.71	10.00
querub	2.27	0.31	3.00
salspp	1.57	0.40	7.00
STRATUM MEAN	2.93	1.46	192.00

------------------------- STAND=85 YEAR=93 STRATUM=1 ------------------------

SPECIES	TREE HEIGHT MEAN	STD	N
abibal	7.87	3.79	9.00
acerub	12.68	5.31	46.00
acesac	10.17	5.38	625.00
amespp	12.53	6.11	2.00
ostvir	20.67	15.12	10.00
picgla	6.22	.	1.00
prupen	19.00	.	1.00
pruser	19.73	2.48	187.00
sorame	7.91	.	1.00
STRATUM MEAN	12.44	6.46	882.00

------------------------- STAND=85 YEAR=93 STRATUM=2 ------------------------

SPECIES	TREE HEIGHT MEAN	STD	N
abibal	2.26	0.94	20.00
acerub	1.38	0.38	8.00
acesac	2.26	1.54	182.00
corcor	1.39	.	1.00
ostvir	1.44	.	1.00
picgla	2.30	0.99	4.00
pruser	5.76	8.67	4.00
STRATUM MEAN	2.28	1.83	220.00

------------------------- STAND=86 YEAR=93 STRATUM=1 ------------------------

SPECIES	TREE HEIGHT MEAN	STD	N
acerub	18.57	3.11	181.00
acesac	14.06	4.77	177.00
faggra	12.74	5.01	89.00
sorame	5.96	5.15	2.00
STRATUM MEAN	15.58	4.93	449.00

------------------------- STAND=86 YEAR=93 STRATUM=2 ------------------------

SPECIES	TREE HEIGHT MEAN	STD	N
abibal	2.03	0.66	10.00
acerub	1.77	0.83	71.00
acesac	2.44	1.62	24.00
amespp	1.13	0.28	15.00
betall	2.19	1.05	4.00
faggra	1.48	0.44	384.00
pruser	1.44	0.72	36.00
STRATUM MEAN	1.56	0.67	544.00

------------------------- STAND=87 YEAR=93 STRATUM=1 ------------------------

SPECIES	TREE HEIGHT MEAN	STD	N
acespi	4.79	1.18	2.00
alnrug	6.35	2.06	142.00
betpap	9.15	2.19	7.00
popbal	12.88	3.10	26.00
poptre	14.67	4.07	152.00
salspp	3.47	.	1.00
STRATUM MEAN	10.74	5.15	330.00

------------------------- STAND=87 YEAR=93 STRATUM=2 ------------------------

SPECIES	TREE HEIGHT MEAN	STD	N
acepen	1.37	0.52	3.00
acerub	3.31	1.63	12.00
acespi	2.45	1.28	14.00
alnrug	2.52	1.35	457.00
amespp	2.68	.	1.00
betpap	2.49	0.80	5.00
corcor	1.55	0.32	111.00
corsto	1.53	0.33	252.00
franig	4.15	1.72	6.00
lonspp	1.20	0.02	5.00
popbal	4.40	4.43	9.00
poptre	2.61	1.00	88.00
pruvir	5.79	.	1.00
salspp	2.10	0.52	12.00
STRATUM MEAN	2.19	1.24	976.00

------------------------- STAND=88 YEAR=93 STRATUM=1 ------------------------

SPECIES	TREE HEIGHT MEAN	STD	N
abibal	10.54	4.93	29.00
larlar	13.57	2.29	17.00
picgla	14.67	3.77	25.00
picmar	12.37	2.90	220.00
thuocc	8.95	3.14	1234.00
STRATUM MEAN	9.62	3.46	1525.00

------------------------- STAND=88 YEAR=93 STRATUM=2 ------------------------

SPECIES	TREE HEIGHT MEAN	STD	N
abibal	1.50	0.80	87.00
acerub	3.71	.	1.00
acespi	2.61	.	1.00
betpap	1.88	.	1.00
lonspp	1.39	.	1.00
sorame	1.32	.	1.00
thuocc	3.59	1.72	22.00
STRATUM MEAN	1.93	1.32	114.00

-------------------------- STAND=91 YEAR=93 STRATUM=1 ------------------------

SPECIES	TREE HEIGHT MEAN	STD	N
abibal	5.63	.	1.00
acerub	9.81	5.01	5.00
acesac	12.99	4.70	294.00
betall	16.51	1.56	2.00
faggra	17.88	4.79	48.00
pruser	5.32	0.44	2.00
STRATUM MEAN	13.57	5.05	352.00

-------------------------- STAND=91 YEAR=93 STRATUM=2 ------------------------

SPECIES	TREE HEIGHT MEAN	STD	N
abibal	2.16	0.82	55.00
acerub	1.55	0.94	49.00
acesac	1.64	0.73	542.00
amespp	1.59	.	1.00
faggra	1.81	1.34	112.00
poptre	2.22	0.84	3.00
pruser	2.12	1.19	46.00
STRATUM MEAN	1.72	0.90	808.00

APPENDIX G:
BIOMASS

------------------ STAND=22 YEAR=91 STRATUM=1 ------------------

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
picgla	109.73	46.42	63.31	38.97	24.34
pinres	45510.06	27693.69	17816.38	13749.72	4066.66
STRATUM TOTAL	45619.79	27740.11	17879.68	13788.69	4091.00

------------------ STAND=22 YEAR=91 STRATUM=2 ------------------

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
amespp	4.27	3.67	.	.	0.61
picgla	78.04	62.28	.	.	15.76
pinres	466.05	381.79	.	.	84.26
STRATUM TOTAL	548.36	447.73	.	.	100.63

------------------ STAND=22 YEAR=94 STRATUM=1 ------------------

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
pinres	53122.11	33203.20	19918.90	15028.58	4890.33
STRATUM TOTAL	53122.11	33203.20	19918.90	15028.58	4890.33

------------------ STAND=22 YEAR=94 STRATUM=2 ------------------

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
amespp	0.56	0.46	.	.	0.10
pinres	109.57	86.49	.	.	23.09
STRATUM TOTAL	110.13	86.94	.	.	23.19

------------------ STAND=23 YEAR=91 STRATUM=1 ------------------

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
abibal	1313.83	914.96	398.87	278.08	120.79
acerub	7973.59	6306.08	1667.51	1516.34	151.17
betpap	4062.20	3371.41	690.78	609.73	81.06
picgla	1683.79	1101.96	581.83	334.74	247.09
picmar	581.75	474.68	107.07	88.25	18.82
pinres	103406.25	73786.52	29619.73	15782.72	13837.01
pinstr	57125.95	50136.83	6989.13	4917.94	2071.19
popgra	798.42	686.48	111.94	99.82	12.12
STRATUM TOTAL	176945.79	136778.92	40166.86	23627.62	16539.24

------------------ STAND=23 YEAR=91 STRATUM=2 ------------------

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
abibal	141.80	107.64	.	.	34.16
acerub	385.00	306.00	.	.	79.01
amespp	0.75	0.62	.	.	0.13
betpap	5.82	4.52	.	.	1.29
picgla	67.49	50.55	.	.	16.94
picmar	5.53	4.08	.	.	1.45
pinstr	6.60	4.59	.	.	2.01
prupen	0.77	0.60	.	.	0.17
salspp	0.14	0.10	.	.	0.04
vibcas	13.32	6.76	.	.	6.56
STRATUM TOTAL	627.22	485.46	.	.	141.76

------------------ STAND=24 YEAR=91 STRATUM=1 ------------------

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
acerub	1118.49	766.68	351.82	321.38	30.44
betpap	2599.68	1943.75	655.93	565.71	90.22
pinban	59510.33	44824.60	14685.73	10383.50	4302.23
pinres	6602.07	3247.73	3354.34	2273.84	1080.50
pinstr	287.14	194.12	93.02	59.37	33.64
popgra	535.92	474.16	61.76	49.90	11.86
poptre	2.14	1.95	0.19	0.11	0.08
STRATUM TOTAL	70655.78	51452.99	19202.79	13653.83	5548.97

------------------ STAND=24 YEAR=91 STRATUM=2 ------------------

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
acerub	109.25	86.74	.	.	22.51
amespp	1.00	0.84	.	.	0.16
betpap	27.12	22.43	.	.	4.69
corcor	74.04	59.27	.	.	14.77
pinban	32.64	25.84	.	.	6.80
pinres	22.85	17.85	.	.	4.99
pinstr	221.80	171.87	.	.	49.94
popgra	2.09	1.57	.	.	0.52
salspp	2.00	1.62	.	.	0.38
STRATUM TOTAL	492.78	388.03	.	.	104.76

------------------ STAND=25 YEAR=91 STRATUM=1 ------------------

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
abibal	637.17	374.74	262.44	173.41	89.02
acerub	3889.60	2959.55	930.06	843.98	86.07
betpap	1227.02	973.60	253.42	215.34	38.08
picgla	3371.42	2051.36	1320.06	746.19	573.87
picmar	2211.02	1800.65	410.37	308.70	101.68
pinres	88835.59	60521.06	28314.54	15632.12	12682.42
pinstr	44570.99	39387.92	5183.07	3675.27	1507.80
popgra	2351.89	2001.38	350.51	318.39	32.12
STRATUM TOTAL	147094.70	110070.24	37024.46	21913.40	15111.06

------------------ STAND=25 YEAR=91 STRATUM=2 ------------------

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
abibal	445.07	344.60	.	.	100.48
acerub	337.68	268.29	.	.	69.38
alnrug	0.29	0.21	.	.	0.07
amespp	0.14	0.11	.	.	0.03
betpap	21.80	17.40	.	.	4.41
picgla	361.11	282.88	.	.	78.23
picmar	143.52	111.97	.	.	31.56
pinstr	134.80	99.51	.	.	35.29
popgra	3.70	2.81	.	.	0.88
salspp	2.86	2.32	.	.	0.54
vibcas	5.43	2.78	.	.	2.64
STRATUM TOTAL	1456.41	1132.90	.	.	323.51

------------------ STAND=26 YEAR=91 STRATUM=1 ------------------------------------

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
abibal	217.54	132.81	84.73	55.42	29.31
acerub	1745.42	1309.01	436.40	407.17	29.23
betpap	880.97	705.36	175.61	153.69	21.92
larlar	2972.09	2394.76	577.33	488.18	89.15
picmar	48494.40	39558.30	8936.10	6800.99	2135.11
pinban	2049.99	1595.93	454.06	318.54	135.53
pinres	289.51	214.05	75.46	47.56	27.90
pinstr	5045.97	4259.67	786.29	548.02	238.27
poptre	1203.20	1048.36	154.84	133.22	21.63
STRATUM TOTAL	62899.08	51218.25	11680.84	8952.78	2728.05

------------------ STAND=26 YEAR=91 STRATUM=2 ------------------------------------

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
abibal	892.02	710.20	.	.	181.82
acerub	286.81	230.25	.	.	56.56
alnrug	76.48	62.49	.	.	14.00
amespp	12.18	10.53	.	.	1.65
aromel	1.56	1.31	.	.	0.25
larlar	49.42	37.87	.	.	11.55
ledgro	29.73	15.45	.	.	14.28
nemmuc	215.33	176.40	.	.	38.93
picmar	2386.67	1809.89	.	.	576.77
pinban	4.29	3.03	.	.	1.26
pinstr	17.37	13.08	.	.	4.29
salspp	9.75	8.00	.	.	1.75
sorame	14.06	12.43	.	.	1.62
vibcas	1037.52	590.93	.	.	446.60
STRATUM TOTAL	5033.19	3681.87	.	.	1351.33

------------------ STAND=27 YEAR=91 STRATUM=1 ------------------------------------

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
acerub	629.54	412.85	216.69	195.67	21.03
amespp	26.91	21.76	5.16	2.02	3.13
betpap	1394.35	921.59	472.76	424.44	48.32
pinban	87480.28	68843.65	18636.63	13151.25	5485.38
STRATUM TOTAL	89531.08	70199.85	19331.24	13773.38	5557.86

------------------ STAND=27 YEAR=91 STRATUM=2 ------------------------------------

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
acerub	233.81	188.32	.	.	45.48
amespp	23.23	21.04	.	.	2.19
betpap	0.52	0.40	.	.	0.13
corcor	69.53	54.87	.	.	14.66
faggra	1.01	0.80	.	.	0.21
pruser	0.92	0.72	.	.	0.21
STRATUM TOTAL	329.01	266.14	.	.	62.87

------------------ STAND=28 YEAR=91 STRATUM=1 -----------------------------------

SPECIES	**TOTAL**	**BOLE**	**CROWN**	**BRANCH**	**FOLIAGE**
abibal	35.57	15.80	19.78	12.65	7.13
acerub	93282.32	76338.87	16943.45	15848.57	1094.88
acesac	897.55	672.46	225.09	210.07	15.02
betall	42485.05	34301.74	8183.31	7762.95	420.36
faggra	99521.79	77030.65	22491.15	21341.49	1149.65
pinstr	2711.44	2483.23	228.21	167.81	60.40
tsucan	11657.04	8301.30	3355.74	2540.97	814.77
STRATUM TOTAL	250590.77	199144.04	51446.73	47884.50	3562.23

------------------ STAND=28 YEAR=91 STRATUM=2 -----------------------------------

SPECIES	**TOTAL**	**BOLE**	**CROWN**	**BRANCH**	**FOLIAGE**
abibal	236.42	183.36	.	.	53.06
acerub	3.00	2.25	.	.	0.76
acesac	149.74	119.31	.	.	30.43
betall	230.65	211.93	.	.	18.72
faggra	1446.22	1205.62	.	.	240.60
tsucan	15.11	11.10	.	.	4.00
STRATUM TOTAL	2081.13	1733.57	.	.	347.57

STAND=29 YEAR=91 STRATUM=1

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
abibal	294.10	161.93	132.17	89.90	42.27
acepen	8.37	5.67	2.70	2.40	0.30
acerub	76585.24	61742.91	14842.33	13847.73	994.60
acesac	3262.95	2448.72	814.24	770.67	43.56
betall	56146.44	45274.04	10872.40	10281.56	590.83
faggra	65104.79	50665.06	14439.73	13620.48	819.25
pinstr	59.61	41.04	18.57	12.20	6.38
poptre	7141.37	6036.71	1104.66	1013.55	91.10
tsucan	6157.55	4400.48	1757.07	1334.15	422.92
STRATUM TOTAL	214760.42	170776.55	43983.87	40972.66	3011.21

STAND=29 YEAR=91 STRATUM=2

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
abibal	1219.25	925.03	.	.	294.22
acepen	19.39	15.23	.	.	4.16
acerub	94.44	75.36	.	.	19.08
acesac	104.07	81.68	.	.	22.40
betall	321.37	291.92	.	.	29.45
faggra	1031.14	864.66	.	.	166.48
poptre	6.04	5.00	.	.	1.04
STRATUM TOTAL	2795.70	2258.88	.	.	536.82

------------------ STAND=31 YEAR=91 STRATUM=1 ------------------------------------

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
acerub	67064.74	53162.04	13902.70	12864.81	1037.89
acesac	63919.00	51019.52	12899.48	11843.88	1055.60
amespp	297.19	237.23	59.96	50.42	9.54
faggra	829.16	633.27	195.89	164.84	31.04
poptre	8424.53	7211.90	1212.63	1089.98	122.65
STRATUM TOTAL	140534.62	112263.96	28270.66	26013.94	2256.72

------------------ STAND=31 YEAR=91 STRATUM=2 ------------------------------------

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
abibal	18.84	13.86	.	.	4.98
acerub	25.83	20.83	.	.	5.00
acesac	258.75	210.08	.	.	48.67
amespp	29.27	25.84	.	.	3.43
faggra	15.47	13.51	.	.	1.96
poptre	3.25	2.65	.	.	0.60
STRATUM TOTAL	351.41	286.77	.	.	64.64

------------------ STAND=32 YEAR=91 STRATUM=1 ------------------------------------

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
abibal	5632.15	3478.73	2153.43	1477.90	675.52
alnrug	176.89	105.40	71.49	56.50	14.99
franig	518.35	381.97	136.37	122.55	13.82
larlar	852.44	694.30	158.14	128.38	29.76
picgla	3053.35	2168.14	885.21	486.10	399.11
picmar	18966.15	15551.88	3414.28	2719.29	694.99
poptre	4319.62	3726.58	593.04	524.21	68.83
thuocc	128934.21	77079.77	51854.44	35094.28	16760.16
STRATUM TOTAL	162453.16	103186.76	59266.41	40609.22	18657.19

------------------ STAND=32 YEAR=91 STRATUM=2 ------------------------------------

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
abibal	328.77	251.40	.	.	77.37
acerub	0.11	0.08	.	.	0.03
alnrug	131.49	112.28	.	.	19.21
coralt	5.63	4.51	.	.	1.12
franig	1.03	0.83	.	.	0.20
picmar	3.63	2.56	.	.	1.07
salspp	9.99	8.64	.	.	1.35
thuocc	1131.14	906.38	.	.	224.76
STRATUM TOTAL	1611.80	1286.69	.	.	325.12

------------------ STAND=33 YEAR=91 STRATUM=1 ------------------------------------

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
acerub	1666.71	1056.70	610.01	550.51	59.50
acesac	1558.80	1112.57	446.23	400.88	45.35
amespp	100.41	79.69	20.72	6.45	14.28
aromel	58.62	47.59	11.03	4.72	6.30
popgra	7415.48	6638.24	777.25	578.27	198.97
poptre	18116.45	16306.09	1810.35	1270.56	539.79
prupen	6713.89	5465.70	1248.20	606.49	641.71
pruser	485.08	397.99	87.09	57.88	29.21
STRATUM TOTAL	36115.44	31104.57	5010.87	3475.77	1535.10

------------------ STAND=33 YEAR=91 STRATUM=2 ------------------------------------

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
acerub	427.49	338.51	.	.	88.98
acesac	1086.04	846.11	.	.	239.93
amespp	186.70	165.07	.	.	21.63
aromel	164.02	146.59	.	.	17.43
faggra	9.66	8.04	.	.	1.62
lonspp	36.64	18.27	.	.	18.37
poptre	1421.14	1180.49	.	.	240.64
prupen	2035.08	1578.39	.	.	456.69
pruser	7.19	5.58	.	.	1.61
pruvir	37.75	29.29	.	.	8.46
sorame	5.30	4.66	.	.	0.63
STRATUM TOTAL	5417.01	4321.01	.	.	1096.00

STAND=33 YEAR=94 STRATUM=1

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
acerub	12012.04	9488.59	2523.45	2285.05	238.41
acesac	2904.26	2180.62	723.63	649.45	74.18
amespp	1011.33	825.42	185.91	105.52	80.39
popgra	18634.27	16635.20	1999.08	1522.14	476.94
poptre	15202.33	13644.10	1558.23	1128.60	429.63
prupen	9390.88	7674.37	1716.50	1009.73	706.77
STRATUM TOTAL	59155.10	50448.30	8706.80	6700.49	2006.32

STAND=33 YEAR=94 STRATUM=2

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
acepen	54.96	43.02	.	.	11.95
acerub	1071.61	851.50	.	.	220.11
acesac	1028.13	816.01	.	.	212.13
amespp	944.62	860.15	.	.	84.47
lonspp	3.22	1.35	.	.	1.87
popgra	115.34	88.10	.	.	27.24
poptre	270.79	226.28	.	.	44.51
prupen	983.65	761.61	.	.	222.03
pruser	7.99	6.21	.	.	1.78
STRATUM TOTAL	4480.31	3654.21	.	.	826.09

STAND=34 YEAR=91 STRATUM=1

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
abibal	324.92	216.35	108.57	74.33	34.24
acerub	57225.14	45612.23	11612.91	10671.29	941.63
acesac	13968.87	11021.75	2947.12	2685.49	261.63
amespp	151.66	124.10	27.56	14.87	12.69
faggra	1563.56	1224.55	339.00	298.79	40.22
picgla	165.03	76.75	88.28	52.34	35.94
popgra	68725.80	58872.10	9853.71	8845.29	1008.42
poptre	3770.87	3251.31	519.56	460.15	59.41
prupen	6.81	5.55	1.26	0.55	0.72
pruser	43.91	36.03	7.88	4.56	3.32
STRATUM TOTAL	145946.56	120440.71	25505.85	23107.65	2398.20

STAND=34 YEAR=91 STRATUM=2

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
abibal	126.35	101.63	.	.	24.72
acerub	232.82	183.31	.	.	49.51
acesac	163.76	127.18	.	.	36.58
amespp	85.70	76.57	.	.	9.13
faggra	195.71	172.59	.	.	23.13
popgra	1424.11	1227.74	.	.	196.37
poptre	0.12	0.09	.	.	0.03
pruser	2.74	2.13	.	.	0.61
sorame	0.39	0.33	.	.	0.06
STRATUM TOTAL	2231.71	1891.57	.	.	340.14

------------------ STAND=35 YEAR=91 STRATUM=1 ------------------------------------

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
acerub	239.35	149.59	89.75	84.27	5.48
amespp	16.63	13.69	2.94	1.71	1.23
pinban	31581.12	20692.16	10888.96	8071.34	2817.62
STRATUM TOTAL	31837.09	20855.44	10981.65	8157.32	2824.33

------------------ STAND=35 YEAR=91 STRATUM=2 ------------------------------------

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
acerub	23.17	18.61	.	.	4.56
amespp	2.18	1.86	.	.	0.31
pinban	730.42	583.49	.	.	146.94
pinstr	10.73	8.15	.	.	2.59
salspp	1.86	1.52	.	.	0.34
STRATUM TOTAL	768.36	613.63	.	.	154.73

STAND=36 YEAR=91 STRATUM=1

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
pinban	5096.82	2776.49	2320.33	1983.59	336.75
pinres	1365.83	699.16	666.67	560.93	105.74
STRATUM TOTAL	6462.65	3475.65	2987.00	2544.51	442.49

STAND=36 YEAR=91 STRATUM=2

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
acerub	4.55	3.67	.	.	0.88
amespp	14.29	12.55	.	.	1.74
pinban	3274.10	2643.22	.	.	630.88
pinres	314.87	258.91	.	.	55.96
salspp	0.06	0.04	.	.	0.02
STRATUM TOTAL	3607.87	2918.39	.	.	689.48

STAND=36 YEAR=94 STRATUM=1

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
pinban	9216.97	5388.22	3828.76	3191.41	637.34
pinres	2868.59	1532.29	1336.31	1099.47	236.84
STRATUM TOTAL	12085.57	6920.50	5165.06	4290.89	874.18

STAND=36 YEAR=94 STRATUM=2

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
amespp	255.97	242.71	.	.	13.26
pinban	783.75	617.20	.	.	166.54
prupen	20.46	15.88	.	.	4.59
STRATUM TOTAL	1060.18	875.79	.	.	184.39

------------------ STAND=37 YEAR=92 STRATUM=1 ------------------

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
pinban	19.77	13.35	6.42	5.34	1.09
STRATUM TOTAL	19.77	13.35	6.42	5.34	1.09

------------------ STAND=37 YEAR=92 STRATUM=2 ------------------

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
pinban	823.86	601.62	.	.	222.24
pinres	121.90	100.65	.	.	21.25
STRATUM TOTAL	945.77	702.27	.	.	243.49

------------------ STAND=37 YEAR=94 STRATUM=2 ------------------

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
pinban	3784.14	2835.40	.	.	948.74
pinres	260.01	216.20	.	.	43.81
STRATUM TOTAL	4044.15	3051.61	.	.	992.55

------------------ STAND=38 YEAR=92 STRATUM=2 ------------------

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
pinban	8473.32	6770.56	.	.	1702.76
STRATUM TOTAL	8473.32	6770.56	.	.	1702.76

------------------ STAND=38 YEAR=94 STRATUM=1 ------------------

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
pinban	160.86	96.45	64.42	54.38	10.04
STRATUM TOTAL	160.86	96.45	64.42	54.38	10.04

------------------ STAND=38 YEAR=94 STRATUM=2 ------------------

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
pinban	13015.60	10553.03	.	.	2462.56
salspp	0.94	0.73	.	.	0.21
STRATUM TOTAL	13016.54	10553.76	.	.	2462.77

------------------ STAND=39 YEAR=92 STRATUM=1 ------------------

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
pinban	155.90	117.04	38.87	29.76	9.11
pinres	392.50	184.39	208.11	175.83	32.28
STRATUM TOTAL	548.41	301.43	246.98	205.59	41.39

------------------ STAND=39 YEAR=92 STRATUM=2 ------------------

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
pinres	160.12	133.24	.	.	26.88
STRATUM TOTAL	160.12	133.24	.	.	26.88

------------------ STAND=39 YEAR=94 STRATUM=2 ------------------

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
pinban	55.33	40.83	.	.	14.51
prupen	0.84	0.65	.	.	0.19
STRATUM TOTAL	56.17	41.48	.	.	14.69

------------------ STAND=40 YEAR=92 STRATUM=2 ------------------

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
pinban	349.04	270.56	.	.	78.48
pinres	2518.52	1952.21	.	.	566.30
STRATUM TOTAL	2867.56	2222.78	.	.	644.78

------------------ STAND=40 YEAR=94 STRATUM=2 ------------------

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
pinban	758.47	603.42	.	.	155.05
pinres	6331.80	5052.36	.	.	1279.44
STRATUM TOTAL	7090.27	5655.78	.	.	1434.49

------------------ STAND=41 YEAR=92 STRATUM=1 ------------------------------------

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
picgla	60.74	29.05	31.68	19.13	12.56
picmar	36.23	29.09	7.14	4.49	2.65
pinban	1070.82	662.31	408.50	337.68	70.82
pinres	1347.27	787.99	559.28	438.56	120.72
popgra	28.22	25.43	2.79	1.93	0.86
poptre	67.41	60.80	6.61	4.53	2.08
STRATUM TOTAL	2610.68	1594.67	1016.01	806.32	209.69

------------------ STAND=41 YEAR=92 STRATUM=2 ------------------------------------

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
acerub	0.37	0.28	.	.	0.10
amespp	21.83	19.17	.	.	2.67
aromel	1.37	1.16	.	.	0.21
betpap	34.49	28.74	.	.	5.75
picgla	87.42	71.20	.	.	16.23
picmar	174.15	139.42	.	.	34.73
pinban	3226.50	2596.68	.	.	629.82
pinres	9278.20	7625.03	.	.	1653.17
popgra	386.83	295.90	.	.	90.93
poptre	155.30	130.84	.	.	24.46
prupen	5.08	3.94	.	.	1.14
queell	10.52	9.18	.	.	1.35
salspp	131.68	104.01	.	.	27.67
vibcas	13.10	6.25	.	.	6.85
STRATUM TOTAL	13526.86	11031.78	.	.	2495.08

------------------ STAND=41 YEAR=94 STRATUM=1 ------------------

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
betpap	100.74	64.82	35.92	28.27	7.65
picmar	516.61	418.39	98.22	64.99	33.23
pinban	2746.76	1884.12	862.65	697.77	164.88
pinres	6283.41	3539.02	2744.39	2264.19	480.20
popgra	20.10	18.22	1.87	1.17	0.70
poptre	165.78	147.48	18.29	14.32	3.97
prupen	54.59	44.86	9.74	6.58	3.15
STRATUM TOTAL	9888.00	6116.92	3771.08	3077.29	693.78

------------------ STAND=41 YEAR=94 STRATUM=2 ------------------

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
acerub	0.82	0.57	.	.	0.25
amespp	69.27	62.34	.	.	6.94
betpap	1.50	1.14	.	.	0.37
corcor	1.98	1.47	.	.	0.51
picmar	162.01	127.60	.	.	34.41
pinban	2269.72	1841.58	.	.	428.14
pinres	4813.25	3954.91	.	.	858.34
popdel	3.87	2.91	.	.	0.96
popgra	247.52	189.51	.	.	58.01
poptre	173.22	146.41	.	.	26.82
prupen	5.94	4.61	.	.	1.33
salspp	367.86	325.50	.	.	42.36
vibcas	10.92	5.18	.	.	5.73
STRATUM TOTAL	8127.88	6663.71	.	.	1464.16

------------------ STAND=42 YEAR=92 STRATUM=1 ------------------------------------

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
pinban	410.67	248.85	161.81	136.04	25.77
popgra	85.79	75.90	9.89	8.00	1.88
STRATUM TOTAL	496.46	324.75	171.70	144.05	27.65

------------------ STAND=42 YEAR=92 STRATUM=2 ------------------------------------

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
acerub	69.24	55.98	.	.	13.26
amespp	14.05	12.37	.	.	1.68
betpap	60.25	52.22	.	.	8.04
corcor	34.61	27.69	.	.	6.92
pinban	18097.11	14845.32	.	.	3251.78
popgra	258.41	197.99	.	.	60.42
poptre	0.62	0.49	.	.	0.13
querub	583.81	519.29	.	.	64.53
salspp	15.86	12.60	.	.	3.26
STRATUM TOTAL	19133.96	15723.95	.	.	3410.01

------------------ STAND=42 YEAR=94 STRATUM=1 ------------------------------------

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
acerub	226.62	155.01	71.61	65.60	6.01
amespp	325.79	266.88	58.91	39.82	19.10
pinban	7534.89	5031.46	2503.43	2060.66	442.77
popgra	16.92	15.26	1.67	1.15	0.52
STRATUM TOTAL	8104.23	5468.61	2635.62	2167.22	468.40

------------------ STAND=42 YEAR=94 STRATUM=2 ------------------------------------

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
acerub	42.65	34.54	.	.	8.11
amespp	395.03	369.58	.	.	25.45
betpap	36.80	31.95	.	.	4.85
corcor	14.74	11.84	.	.	2.90
pinban	5889.15	4822.28	.	.	1066.87
popdel	0.21	0.14	.	.	0.07
popgra	168.36	128.29	.	.	40.07
poptre	5.37	4.42	.	.	0.95
querub	570.35	506.51	.	.	63.83
salspp	2.48	1.89	.	.	0.59
STRATUM TOTAL	7125.13	5911.45	.	.	1213.68

STAND=43 YEAR=92 STRATUM=1

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
abibal	60.01	35.71	24.30	15.62	8.68
acerub	463.58	350.39	113.19	101.94	11.25
picgla	75.71	44.53	31.18	18.09	13.09
pinban	897.33	603.58	293.76	202.04	91.71
pinres	142921.22	100769.03	42152.19	24725.13	17427.06
pinstr	163.64	130.58	33.07	22.23	10.83
popgra	17.76	16.04	1.72	1.16	0.56
poptre	2910.61	2550.56	360.05	303.64	56.41
STRATUM TOTAL	147509.87	104500.41	43009.45	25389.85	17619.60

STAND=43 YEAR=92 STRATUM=2

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
abibal	21.53	16.42	.	.	5.11
acerub	17.83	13.73	.	.	4.10
amespp	9.23	7.96	.	.	1.26
betpap	17.90	14.65	.	.	3.25
corcor	16.78	13.29	.	.	3.49
faggra	0.23	0.17	.	.	0.07
picgla	7.74	5.59	.	.	2.15
poptre	43.78	35.74	.	.	8.04
prupen	0.34	0.26	.	.	0.08
pruser	9.96	7.73	.	.	2.23
salspp	35.72	29.74	.	.	5.98
vibcas	96.13	56.16	.	.	39.98
STRATUM TOTAL	277.17	201.43	.	.	75.74

------------------ STAND=44 YEAR=92 STRATUM=1 ----------------------------------

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
abibal	424.57	245.81	178.76	121.38	57.38
acerub	81.80	56.45	25.35	22.62	2.74
betpap	11927.34	8676.61	3250.74	3027.10	223.64
picgla	1115.91	721.95	393.96	214.94	179.03
picmar	76131.20	62219.03	13912.16	10986.75	2925.41
pinres	474.55	347.80	126.74	76.44	50.30
poptre	25125.84	21510.00	3615.84	3249.76	366.08
thuocc	922.63	576.32	346.31	229.32	116.99
STRATUM TOTAL	116203.84	94353.97	21849.87	17928.30	3921.56

------------------ STAND=44 YEAR=92 STRATUM=2 ----------------------------------

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
abibal	1234.80	917.96	.	.	316.84
acerub	659.76	531.63	.	.	128.13
alnrug	18.87	14.85	.	.	4.02
amespp	12.85	11.67	.	.	1.18
betpap	50.45	40.11	.	.	10.34
corcor	0.32	0.23	.	.	0.09
faggra	1.18	0.95	.	.	0.24
ilever	1.26	0.93	.	.	0.33
lonspp	8.83	4.23	.	.	4.61
picmar	134.64	104.80	.	.	29.84
popbal	0.24	0.17	.	.	0.07
poptre	8.39	6.91	.	.	1.48
salspp	10.67	9.00	.	.	1.67
sorame	0.59	0.50	.	.	0.08
vibcas	235.15	134.81	.	.	100.33
STRATUM TOTAL	2378.00	1778.75	.	.	599.25

STAND=45 YEAR=92 STRATUM=1

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
abibal	552.35	252.52	299.83	206.97	92.86
acerub	89.63	62.36	27.28	24.79	2.49
amespp	63.69	52.42	11.27	6.73	4.54
faggra	1050.57	787.92	262.65	228.52	34.12
poptre	80.57	72.18	8.39	6.22	2.17
STRATUM TOTAL	1836.82	1227.41	609.41	473.23	136.18

STAND=45 YEAR=92 STRATUM=2

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
abibal	122.31	98.25	.	.	24.06
acerub	546.73	434.20	.	.	112.52
acesac	65.97	52.95	.	.	13.03
amespp	352.41	307.05	.	.	45.36
corcor	3.16	2.52	.	.	0.64
faggra	4.10	3.40	.	.	0.71
pinstr	65.24	51.89	.	.	13.35
popgra	806.86	600.14	.	.	206.72
poptre	1614.86	1324.31	.	.	290.56
prupen	158.80	123.36	.	.	35.44
pruser	26.49	20.57	.	.	5.92
pruspp	57.69	44.81	.	.	12.88
STRATUM TOTAL	3824.62	3063.45	.	.	761.17

------------------ STAND=45 YEAR=94 STRATUM=1 ------------------------------------

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
abibal	1161.16	561.41	599.75	415.48	184.27
acerub	77.33	50.16	27.16	24.80	2.36
faggra	4813.55	3671.81	1141.74	1077.19	64.55
popgra	47.88	42.89	5.00	3.71	1.28
poptre	175.79	158.65	17.14	11.55	5.59
STRATUM TOTAL	6275.71	4484.92	1790.79	1532.73	258.06

------------------ STAND=45 YEAR=94 STRATUM=2 ------------------------------------

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
abibal	9.10	6.65	.	.	2.44
acerub	798.72	645.33	.	.	153.39
acesac	79.56	65.36	.	.	14.20
amespp	696.64	611.33	.	.	85.31
faggra	16.21	14.09	.	.	2.11
lonspp	2.85	1.35	.	.	1.51
popgra	1396.90	1060.20	.	.	336.70
poptre	3483.48	2898.71	.	.	584.76
prupen	986.80	765.49	.	.	221.31
tilame	5.09	4.03	.	.	1.06
STRATUM TOTAL	7475.34	6072.55	.	.	1402.79

STAND=46 YEAR=93 STRATUM=1

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
abibal	1422.43	867.06	555.37	380.54	174.84
acerub	94356.77	72873.20	21483.58	20417.09	1066.48
acesac	331.71	275.13	56.59	51.37	5.22
betall	64312.23	52161.63	12150.60	11622.65	527.96
faggra	83071.14	65139.47	17931.67	16871.58	1060.09
picgla	74.65	44.87	29.78	17.23	12.55
pinstr	2844.09	2583.76	260.32	192.40	67.92
tsucan	26471.10	20807.23	5663.87	4214.06	1449.81
STRATUM TOTAL	272884.13	214752.34	58131.79	53766.91	4364.88

STAND=46 YEAR=93 STRATUM=2

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
abibal	266.96	199.47	.	.	67.49
acerub	97.13	78.57	.	.	18.56
acesac	4.20	3.24	.	.	0.96
betall	23.06	19.40	.	.	3.67
faggra	1496.60	1265.00	.	.	231.60
loncan	7.50	4.22	.	.	3.27
picgla	19.29	14.98	.	.	4.31
pinstr	68.49	55.57	.	.	12.92
sorame	0.55	0.46	.	.	0.09
tsucan	6.98	4.77	.	.	2.20
STRATUM TOTAL	1990.75	1645.68	.	.	345.07

------------------ STAND=47 YEAR=92 STRATUM=1 ------------------------------------

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
abibal	3841.82	2148.65	1693.17	1108.14	585.04
acerub	5331.67	4038.49	1293.18	1188.58	104.61
acesac	2690.54	1960.61	729.93	665.77	64.16
betall	305.30	241.14	64.15	58.02	6.13
betpap	2141.81	1607.67	534.14	481.34	52.80
fraame	318.40	256.02	62.38	50.44	11.94
franig	88.40	68.27	20.13	16.75	3.38
ostvir	147.28	120.91	26.38	16.25	10.13
picgla	1301.12	720.85	580.27	330.54	249.73
popbal	91.69	81.88	9.81	7.47	2.34
popgra	784.34	699.97	84.36	64.45	19.91
poptre	71677.01	62817.57	8859.43	7423.07	1436.37
salspp	47.47	42.90	4.57	3.04	1.54
STRATUM TOTAL	88766.84	74804.92	13961.92	11413.86	2548.06

------------------ STAND=48 YEAR=92 STRATUM=1 ------------------------------------

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
abibal	12105.31	7161.15	4944.17	3394.82	1549.35
acerub	35674.98	28203.36	7471.62	6882.59	589.02
acesac	11449.61	8999.80	2449.81	2257.36	192.45
amespp	9.22	7.56	1.67	0.82	0.85
betall	11473.35	9170.24	2303.11	2141.15	161.96
betpap	16300.27	13099.64	3200.64	2908.32	292.32
corcor	148.22	76.01	72.21	66.89	5.32
faggra	3725.18	2933.79	791.39	723.54	67.85
fraame	1645.84	1390.72	255.12	226.24	28.88
picgla	2462.24	1378.26	1083.98	616.77	467.22
popgra	1807.16	1568.31	238.85	207.70	31.15
poptre	38248.30	32803.68	5444.62	4868.79	575.82
prupen	31.99	26.29	5.70	3.84	1.86
tsucan	60.17	23.80	36.38	24.69	11.69
STRATUM TOTAL	135141.85	106842.60	28299.25	24323.50	3975.75

------------------ STAND=48 YEAR=92 STRATUM=2 ------------------------------------

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
abibal	1510.79	1151.52	.	.	359.27
acerub	356.03	286.71	.	.	69.31
acesac	202.49	161.08	.	.	41.40
amespp	8.55	7.66	.	.	0.89
betall	120.18	102.38	.	.	17.80
betpap	6.49	5.30	.	.	1.19
corcor	41.45	33.29	.	.	8.16
faggra	21.17	17.66	.	.	3.51
fraame	14.09	11.23	.	.	2.87
franig	0.88	0.70	.	.	0.19
ilever	0.49	0.35	.	.	0.14
picgla	9.39	6.76	.	.	2.63
popgra	0.24	0.17	.	.	0.07
poptre	10.74	8.99	.	.	1.75
thuocc	4.10	2.98	.	.	1.12

tsucan	26.64	20.40	.	.	6.24
STRATUM TOTAL	2333.71	1817.20	.	.	516.51

------------------ STAND=49 YEAR=92 STRATUM=1 ------------------------------------

SPECIES	**TOTAL**	**BOLE**	**CROWN**	**BRANCH**	**FOLIAGE**
amespp	39.74	32.72	7.03	4.36	2.66
popgra	115.22	103.87	11.35	7.83	3.52
poptre	485.16	438.07	47.09	31.72	15.37
STRATUM TOTAL	640.13	574.66	65.47	43.91	21.56

------------------ STAND=49 YEAR=92 STRATUM=2 ------------------------------------

SPECIES	**TOTAL**	**BOLE**	**CROWN**	**BRANCH**	**FOLIAGE**
acerub	94.59	73.38	.	.	21.21
acesac	133.20	102.27	.	.	30.93
amespp	319.79	286.48	.	.	33.31
popgra	1321.39	1016.11	.	.	305.28
poptre	5011.13	4165.91	.	.	845.22
prupen	3430.44	2659.81	.	.	770.63
pruser	390.98	303.18	.	.	87.80
pruvir	26.29	20.38	.	.	5.91
sampub	13.04	7.64	.	.	5.41
STRATUM TOTAL	10740.85	8635.15	.	.	2105.70

------------------ STAND=49 YEAR=94 STRATUM=1 ------------------

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
acerub	75.98	41.88	34.10	31.93	2.17
amespp	251.73	204.65	47.08	22.80	24.28
faggra	136.96	99.02	37.94	32.66	5.28
popgra	1020.72	920.12	100.60	69.36	31.24
poptre	5137.22	4635.57	501.66	340.28	161.37
prupen	544.17	443.23	100.94	46.51	54.43
STRATUM TOTAL	7166.78	6344.47	822.32	543.54	278.77

------------------ STAND=49 YEAR=94 STRATUM=2 ------------------

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
acerub	121.78	94.04	.	.	27.74
acesac	362.90	279.15	.	.	83.75
amespp	1617.51	1478.98	.	.	138.53
lonspp	15.67	6.88	.	.	8.78
popgra	1318.67	1015.74	.	.	302.93
poptre	4482.38	3738.29	.	.	744.09
prupen	3521.93	2729.94	.	.	791.99
pruser	20.57	15.97	.	.	4.61
salspp	24.05	19.90	.	.	4.15
STRATUM TOTAL	11485.46	9378.88	.	.	2106.58

------------------ STAND=50 YEAR=92 STRATUM=1 ------------------------------------

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
acerub	9877.78	7589.71	2288.07	2124.08	163.99
acesac	11924.65	9018.96	2905.69	2702.48	203.21
faggra	3127.71	2412.57	715.14	641.78	73.36
picgla	1285.60	773.39	512.21	280.29	231.92
pinres	69636.82	48767.90	20868.92	13324.62	7544.30
popgra	3012.29	2584.94	427.35	382.27	45.08
poptre	2311.42	1982.68	328.75	294.37	34.38
STRATUM TOTAL	101176.28	73130.15	28046.13	19749.90	8296.23

------------------ STAND=50 YEAR=92 STRATUM=2 ------------------------------------

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
abibal	7.24	5.40	.	.	1.83
acepen	1.02	0.76	.	.	0.25
acerub	358.28	281.18	.	.	77.09
acesac	325.11	269.62	.	.	55.49
amespp	29.64	25.73	.	.	3.91
faggra	37.54	30.41	.	.	7.13
loncan	3.36	1.85	.	.	1.51
pinres	1.15	0.74	.	.	0.41
popgra	76.10	55.76	.	.	20.34
poptre	13.12	10.26	.	.	2.86
pruser	7.63	5.92	.	.	1.70
STRATUM TOTAL	860.20	687.65	.	.	172.55

------------------ STAND=51 YEAR=92 STRATUM=1 -----------------------------------

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
acerub	365.75	235.43	130.32	120.14	10.18
betpap	383.06	261.23	121.83	99.15	22.68
pinban	6157.07	4140.05	2017.02	1489.81	527.21
pinres	28338.62	16011.31	12327.31	9805.67	2521.64
pinsyl	20.28	12.78	7.50	4.69	2.81
popgra	34.27	30.87	3.40	2.37	1.03
poptre	7.77	7.02	0.75	0.51	0.25
querub	64.97	38.22	26.75	22.50	4.25
STRATUM TOTAL	35371.80	20736.92	14634.88	11544.84	3090.04

------------------ STAND=51 YEAR=92 STRATUM=2 -----------------------------------

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
acerub	763.62	621.11	.	.	142.51
amespp	17.61	15.41	.	.	2.20
betpap	15.26	12.30	.	.	2.96
pinban	268.05	210.92	.	.	57.13
pinres	242.79	195.30	.	.	47.49
pinstr	15.11	11.62	.	.	3.48
popgra	266.51	205.45	.	.	61.06
poptre	68.36	55.93	.	.	12.43
prupen	67.41	52.34	.	.	15.07
STRATUM TOTAL	1724.71	1380.38	.	.	344.32

------------------ STAND=51 YEAR=94 STRATUM=1 ------------------

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
acerub	89.92	64.22	25.70	23.19	2.52
betpap	52.60	34.42	18.19	13.22	4.97
pinban	3778.98	2972.69	806.29	596.74	209.55
pinres	44080.96	33000.99	11079.97	7377.83	3702.15
STRATUM TOTAL	48002.48	36072.32	11930.16	8010.97	3919.19

------------------ STAND=51 YEAR=94 STRATUM=2 ------------------

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
acerub	731.96	597.59	.	.	134.36
acesac	122.85	99.20	.	.	23.64
amespp	2.78	2.39	.	.	0.39
betpap	5.65	4.51	.	.	1.14
pinban	105.63	82.93	.	.	22.70
pinres	287.49	231.68	.	.	55.80
pinstr	26.82	20.69	.	.	6.13
popgra	161.45	125.42	.	.	36.03
poptre	11.06	8.96	.	.	2.09
STRATUM TOTAL	1455.67	1173.38	.	.	282.30

------------------ STAND=52 YEAR=93 STRATUM=1 ------------------

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
pinban	22593.81	17115.86	5477.95	3844.94	1633.01
pinband	12128.02	9004.13	3123.89	2156.77	967.12
pinres	42765.90	27364.12	15401.78	10327.41	5074.37
STRATUM TOTAL	77487.73	53484.11	24003.62	16329.12	7674.50

------------------ STAND=52 YEAR=93 STRATUM=2 ------------------

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
amespp	4.10	3.69	.	.	0.41
pinban	97.88	78.59	.	.	19.29
pinband	87.81	70.44	.	.	17.37
STRATUM TOTAL	189.79	152.72	.	.	37.07

------------------ STAND=53 YEAR=93 STRATUM=1 ------------------

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
abibal	1474.54	847.98	626.56	418.20	208.37
acerub	34876.81	27242.88	7633.93	7013.27	620.66
acesac	6369.55	5055.31	1314.25	1197.53	116.72
amespp	46.53	38.18	8.35	4.56	3.79
betpap	9632.67	7549.63	2083.04	1863.03	220.01
picgla	2399.48	1216.39	1183.09	682.66	500.42
pinban	1924.92	1444.92	479.99	321.12	158.87
pinband	1326.31	1031.78	294.53	192.71	101.83
pinres	280.94	191.85	89.09	63.92	25.17
pinstr	3361.79	2972.44	389.35	276.80	112.56
popgra	61535.80	52986.75	8549.05	7588.66	960.39
poptre	5423.92	4704.76	719.17	625.92	93.24
pruser	3.34	2.68	0.67	0.23	0.44
querub	284.69	200.97	83.72	70.60	13.12
STRATUM TOTAL	128941.30	105486.52	23454.78	20319.19	3135.59

------------------ STAND=53 YEAR=93 STRATUM=2 ------------------

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
abibal	811.10	631.26	.	.	179.83
acerub	422.79	349.54	.	.	73.25
acesac	76.70	61.55	.	.	15.14
amespp	100.76	90.37	.	.	10.39
corcor	54.99	43.11	.	.	11.88
faggra	0.21	0.15	.	.	0.06
picgla	52.65	41.82	.	.	10.83
pinban	7.87	5.90	.	.	1.97
pinstr	131.00	107.14	.	.	23.86
popgra	1.67	1.24	.	.	0.43
poptre	38.13	31.85	.	.	6.28
querub	8.25	6.93	.	.	1.32
salspp	1.57	1.24	.	.	0.33
STRATUM TOTAL	1707.68	1372.10	.	.	335.58

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
pinban	13197.53	10728.23	.	.	2469.30
STRATUM TOTAL	13197.53	10728.23	.	.	2469.30

------------------ STAND=54 YEAR=93 STRATUM=1 ----------------------------------

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
pinban	272.55	156.06	116.49	99.08	17.41
STRATUM TOTAL	272.55	156.06	116.49	99.08	17.41

------------------ STAND=54 YEAR=93 STRATUM=2 ----------------------------------

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
pinban	11239.53	9159.72	.	.	2079.80
pinband	199.23	163.58	.	.	35.66
STRATUM TOTAL	11438.76	9323.30	.	.	2115.46

------------------ STAND=54 YEAR=94 STRATUM=1 ----------------------------------

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
pinban	1773.91	1084.75	689.16	582.45	106.72
STRATUM TOTAL	1773.91	1084.75	689.16	582.45	106.72

------------------ STAND=54 YEAR=94 STRATUM=2 ----------------------------------

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
pinban	8946.84	7289.79	.	.	1657.05
STRATUM TOTAL	8946.84	7289.79	.	.	1657.05

------------------ STAND=55 YEAR=93 STRATUM=1 ----------------------------------

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
pinban	129.07	75.38	53.69	45.73	7.97
STRATUM TOTAL	129.07	75.38	53.69	45.73	7.97

------------------ STAND=55 YEAR=93 STRATUM=2 ----------------------------------

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
pinban	14010.16	11286.48	.	.	2723.68
pinband	16.74	12.70	.	.	4.03
STRATUM TOTAL	14026.90	11299.18	.	.	2727.71

------------------ STAND=55 YEAR=94 STRATUM=1 ----------------------------------

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
pinban	863.07	552.27	310.80	260.04	50.76
STRATUM TOTAL	863.07	552.27	310.80	260.04	50.76

------------------ STAND=55 YEAR=94 STRATUM=2 ----------------------------------

------------------ STAND=56 YEAR=93 STRATUM=1 ------------------------------------

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
pinban	14539.31	9492.61	5046.70	3831.13	1215.57
pinres	935.87	552.90	382.97	269.53	113.43
STRATUM TOTAL	15475.18	10045.51	5429.66	4100.66	1329.00

------------------ STAND=56 YEAR=93 STRATUM=2 ------------------------------------

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
amespp	0.36	0.31	.	.	0.06
pinban	114.21	88.57	.	.	25.63
STRATUM TOTAL	114.57	88.88	.	.	25.69

------------------ STAND=57 YEAR=93 STRATUM=1 ------------------------------------

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
abibal	556.44	321.55	234.89	156.73	78.16
acerub	38613.30	30362.45	8250.84	7550.06	700.79
acesac	8803.68	7028.15	1775.54	1615.50	160.04
amespp	132.55	107.78	24.77	15.47	9.30
betpap	17256.21	13672.77	3583.44	3168.08	415.36
picgla	8812.46	5142.56	3669.90	2069.56	1600.34
pinban	1345.94	1089.89	256.05	169.94	86.11
pinres	3451.78	2491.32	960.46	600.02	360.44
pinstr	4203.13	3398.24	804.88	537.93	266.95
popgra	42240.51	36412.24	5828.28	5161.78	666.50
poptre	4551.24	3962.84	588.40	507.56	80.84
querub	11461.24	8454.04	3007.20	2833.10	174.10
STRATUM TOTAL	141428.49	112443.85	28984.65	24385.73	4598.91

------------------ STAND=57 YEAR=93 STRATUM=2 ------------------------------------

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
abibal	253.86	199.18	.	.	54.68
acepen	10.09	7.90	.	.	2.19
acerub	240.05	193.17	.	.	46.88
acesac	19.02	15.26	.	.	3.76
amespp	228.30	201.89	.	.	26.41
betpap	128.38	115.16	.	.	13.22
corcor	279.15	222.82	.	.	56.32
faggra	0.28	0.20	.	.	0.08
loncan	6.44	3.23	.	.	3.21
picgla	240.73	189.93	.	.	50.80
pinres	42.81	34.20	.	.	8.60
pinstr	1362.17	1076.97	.	.	285.21
popgra	164.87	136.37	.	.	28.50
poptre	0.62	0.49	.	.	0.13
querub	270.71	226.59	.	.	44.12
vibspp	0.81	0.34	.	.	0.47
STRATUM TOTAL	3248.29	2623.71	.	.	624.58

------------------ STAND=58 YEAR=93 STRATUM=2 ------------------

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
pinban	8296.61	6705.14	.	.	1591.48
STRATUM TOTAL	8296.61	6705.14	.	.	1591.48

------------------ STAND=58 YEAR=94 STRATUM=2 ------------------

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
pinban	13827.69	11175.23	.	.	2652.46
STRATUM TOTAL	13827.69	11175.23	.	.	2652.46

------------------ STAND=59 YEAR=93 STRATUM=1 ------------------

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
pinban	4113.93	2276.60	1837.32	1564.23	273.09
STRATUM TOTAL	4113.93	2276.60	1837.32	1564.23	273.09

------------------ STAND=59 YEAR=93 STRATUM=2 ------------------

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
amespp	18.24	16.31	.	.	1.92
pinban	5583.42	4555.22	.	.	1028.19
pinband	57.39	44.19	.	.	13.20
pinres	64.28	49.82	.	.	14.46
STRATUM TOTAL	5723.33	4665.54	.	.	1057.79

------------------ STAND=59 YEAR=94 STRATUM=1 ------------------

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
pinban	6315.92	3846.16	2469.76	2051.71	418.05
STRATUM TOTAL	6315.92	3846.16	2469.76	2051.71	418.05

------------------ STAND=59 YEAR=94 STRATUM=2 ------------------

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
pinban	3253.94	2660.86	.	.	593.08
STRATUM TOTAL	3253.94	2660.86	.	.	593.08

------------------ STAND=60 YEAR=93 STRATUM=1 ------------------

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
pinban	7002.47	4079.89	2922.58	2426.34	496.24
pinres	4249.16	2188.92	2060.24	1676.24	384.00
STRATUM TOTAL	11251.63	6268.81	4982.82	4102.58	880.24

------------------ STAND=60 YEAR=93 STRATUM=2 ------------------

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
amespp	32.69	29.56	.	.	3.13
pinban	3163.62	2607.92	.	.	555.70
pinband	77.15	62.66	.	.	14.49
pinres	833.08	703.77	.	.	129.32
STRATUM TOTAL	4106.54	3403.91	.	.	702.63

------------------ STAND=61 YEAR=93 STRATUM=1 ------------------

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
pinban	57387.21	42921.11	14466.11	10360.89	4105.21
pinband	3493.19	2583.44	909.75	683.36	226.39
pinres	1363.50	820.06	543.44	341.84	201.60
STRATUM TOTAL	62243.90	46324.60	15919.30	11386.09	4533.21

------------------ STAND=61 YEAR=93 STRATUM=2 ------------------

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
pinban	150.82	121.95	.	.	28.86
pinband	24.12	18.88	.	.	5.23
STRATUM TOTAL	174.93	140.84	.	.	34.09

------------------ STAND=62 YEAR=93 STRATUM=1 ------------------

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
pinban	37625.91	26953.92	10671.99	8202.69	2469.30
pinband	1614.77	1084.64	530.13	431.82	98.31
pinres	1134.86	678.62	456.24	293.70	162.54
STRATUM TOTAL	40375.54	28717.19	11658.35	8928.21	2730.14

------------------ STAND=62 YEAR=93 STRATUM=2 ------------------

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
amespp	1.88	1.62	.	.	0.26

pinban	453.77	364.78	.	.	89.00
pinband	623.74	500.82	.	.	122.92
STRATUM TOTAL	1079.40	867.22	.	.	212.18

------------------ STAND=63 YEAR=93 STRATUM=1 ------------------

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
pinban	20291.31	13443.98	6847.33	5129.35	1717.98
pinband	4940.75	3309.30	1631.45	1220.19	411.26
pinres	1227.06	553.27	673.80	533.80	139.99
STRATUM TOTAL	26459.13	17306.55	9152.58	6883.34	2269.24

------------------ STAND=63 YEAR=93 STRATUM=2 ------------------

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
amespp	0.73	0.63	.	.	0.10
juncom	427.25	427.25	.	.	.
pinban	1207.40	981.53	.	.	225.87
pinband	72.45	57.01	.	.	15.45
STRATUM TOTAL	1707.83	1466.40	.	.	241.42

------------------ STAND=64 YEAR=93 STRATUM=1 ------------------

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
pinban	25600.09	17403.31	8196.78	5960.23	2236.55
pinband	9677.26	6368.04	3309.23	2414.60	894.63
STRATUM TOTAL	35277.35	23771.34	11506.01	8374.83	3131.18

------------------ STAND=64 YEAR=93 STRATUM=2 ------------------

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
abibal	9.23	6.96	.	.	2.27
pinban	276.63	222.70	.	.	53.93
pinband	68.62	54.42	.	.	14.20
STRATUM TOTAL	354.48	284.08	.	.	70.40

------------------ STAND=65 YEAR=93 STRATUM=1 ------------------

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
pinban	44854.12	32932.47	11921.65	8672.39	3249.26
pinband	5988.14	4359.74	1628.40	1202.94	425.46
pinres	912.84	562.08	350.76	250.62	100.13
STRATUM TOTAL	51755.10	37854.29	13900.80	10125.95	3774.85

------------------ STAND=65 YEAR=93 STRATUM=2 ------------------

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE

acerub	0.23	0.16	.	.	0.06
pinban	24.82	19.36	.	.	5.47
STRATUM TOTAL	25.05	19.52	.	.	5.53

------------------ STAND=66 YEAR=93 STRATUM=2 ------------------

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
amespp	19.16	16.48	.	.	2.68
pinban	427.47	305.53	.	.	121.95
STRATUM TOTAL	446.64	322.01	.	.	124.63

------------------ STAND=66 YEAR=94 STRATUM=2 ------------------

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
amespp	2.85	2.44	.	.	0.41
pinban	1698.86	1229.14	.	.	469.72
STRATUM TOTAL	1701.71	1231.58	.	.	470.12

------------------ STAND=67 YEAR=93 STRATUM=1 ------------------

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
pinban	76720.52	59250.73	17469.80	12216.29	5253.50
pinband	6298.75	4728.03	1570.72	1140.29	430.43
pinres	180.26	89.01	91.25	76.49	14.76
STRATUM TOTAL	83199.53	64067.76	19131.77	13433.07	5698.69

------------------ STAND=67 YEAR=93 STRATUM=2 ------------------

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
acerub	0.72	0.54	.	.	0.17
amespp	1.61	1.39	.	.	0.22
faggra	1.59	1.30	.	.	0.30
pinres	51.14	39.69	.	.	11.45
STRATUM TOTAL	55.06	42.92	.	.	12.14

------------------ STAND=68 YEAR=93 STRATUM=1 ------------------

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
pinban	11937.04	9579.74	2357.30	1613.42	743.88
pinband	1478.01	1167.78	310.23	219.60	90.63
pinres	89653.78	62186.40	27467.38	17646.38	9820.99
STRATUM TOTAL	103068.82	72933.92	30134.90	19479.40	10655.50

------------------ STAND=68 YEAR=93 STRATUM=2 ------------------

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
pinban	3.29	2.37	.	.	0.92

pinres	366.02	302.72	.	.	63.30
STRATUM TOTAL	369.30	305.09	.	.	64.21

------------------ STAND=69 YEAR=93 STRATUM=1 ------------------------------------

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
acerub	135.27	78.51	56.76	51.70	5.06
acesac	225.32	145.82	79.50	71.71	7.79
betpap	42.03	23.38	18.65	13.31	5.34
popgra	728.72	657.06	71.66	49.15	22.50
poptre	2992.35	2695.85	296.49	205.21	91.28
prupen	362.25	294.16	68.10	29.83	38.26
STRATUM TOTAL	4485.94	3894.78	591.16	420.92	170.24

------------------ STAND=69 YEAR=93 STRATUM=2 ------------------------------------

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
abibal	475.51	382.61	.	.	92.89
acerub	1779.73	1413.08	.	.	366.65
acesac	604.32	472.00	.	.	132.33
amespp	386.63	344.18	.	.	42.45
betpap	60.69	50.27	.	.	10.42
corcor	176.26	133.71	.	.	42.54
loncan	2.90	1.30	.	.	1.61
lonspp	8.49	3.64	.	.	4.85
pinstr	28.62	21.72	.	.	6.90
popgra	794.19	616.53	.	.	177.65
poptre	2414.92	2017.79	.	.	397.13
prupen	3968.29	3077.21	.	.	891.08
querub	40.75	34.38	.	.	6.37
sorame	0.97	0.81	.	.	0.15
STRATUM TOTAL	10742.26	8569.24	.	.	2173.02

------------------ STAND=70 YEAR=93 STRATUM=1 -----------------------------------

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
acesac	43.24	26.86	16.38	14.80	1.58
amespp	142.75	116.38	26.38	13.96	12.42
popgra	84.72	76.67	8.05	5.23	2.82
poptre	1409.93	1271.19	138.74	95.37	43.37
STRATUM TOTAL	1680.64	1491.10	189.54	129.36	60.18

------------------ STAND=70 YEAR=93 STRATUM=2 -----------------------------------

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
acerub	100.89	77.29	.	.	23.59
acesac	10.12	7.95	.	.	2.17
amespp	1712.44	1558.88	.	.	153.57
corcor	108.46	84.21	.	.	24.25
popgra	483.24	374.34	.	.	108.90
poptre	4881.38	4098.24	.	.	783.14
prupen	1157.43	897.81	.	.	259.62
querub	45.27	37.70	.	.	7.57
STRATUM TOTAL	8499.23	7136.42	.	.	1362.81

------------------ STAND=71 YEAR=93 STRATUM=1 -----------------------------------

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
pinban	1343.16	798.19	544.97	375.49	169.49
pinres	35911.04	20924.71	14986.33	10497.13	4489.20
STRATUM TOTAL	37254.20	21722.90	15531.31	10872.62	4658.69

------------------ STAND=71 YEAR=93 STRATUM=2 -----------------------------------

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
amespp	0.05	0.04	.	.	0.01
pinres	108.38	89.18	.	.	19.20
STRATUM TOTAL	108.43	89.22	.	.	19.21

STAND=72 YEAR=93 STRATUM=1

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
acerub	55.08	33.00	22.08	20.27	1.81
pinban	1656.94	1112.64	544.30	391.13	153.17
pinband	221.74	152.03	69.71	52.87	16.84
pinres	30071.41	17921.31	12150.10	8388.95	3761.14
STRATUM TOTAL	32005.16	19218.98	12786.19	8853.22	3932.97

STAND=72 YEAR=93 STRATUM=2

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
acerub	60.86	50.52	.	.	10.34
amespp	0.47	0.40	.	.	0.07
pinban	161.89	132.10	.	.	29.79
salspp	2.09	1.67	.	.	0.42
STRATUM TOTAL	225.30	184.69	.	.	40.62

STAND=73 YEAR=93 STRATUM=1

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
acerub	20.61	13.42	7.19	6.56	0.63
pinban	13749.48	10003.78	3745.70	2629.73	1115.98
pinband	5812.97	4168.53	1644.44	1153.11	491.33
pinres	48489.97	28252.84	20237.13	13851.29	6385.84
STRATUM TCTAL	68073.03	42438.57	25634.46	17640.69	7993.78

STAND=73 YEAR=93 STRATUM=2

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
acerub	14.35	11.17	.	.	3.18
amespp	4.81	4.21	.	.	0.60
pinban	265.92	210.59	.	.	55.33
pinband	1.97	1.39	.	.	0.59
pinres	12.54	9.38	.	.	3.17
prupen	0.07	0.05	.	.	0.02
STRATUM TOTAL	299.67	236.79	.	.	62.88

------------------ STAND=74 YEAR=93 STRATUM=1 ------------------------------------

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
acerub	30423.64	25078.02	5345.61	4932.94	412.67
acesac	19509.75	16074.83	3434.92	3180.24	254.69
betall	2255.12	1809.33	445.79	417.84	27.94
betpap	442.98	360.74	82.24	71.20	11.04
faggra	15208.52	12015.62	3192.90	2921.06	271.84
pinstr	89842.38	76553.59	13288.79	9186.28	4102.51
querub	1806.54	1393.04	413.50	385.41	28.09
STRATUM TOTAL	159488.93	133285.18	26203.75	21094.97	5108.79

------------------ STAND=74 YEAR=93 STRATUM=2 ------------------------------------

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
abibal	61.76	48.19	.	.	13.57
acepen	21.24	16.33	.	.	4.91
acerub	170.37	132.84	.	.	37.52
acesac	43.97	34.16	.	.	9.80
amespp	1.58	1.34	.	.	0.24
corcor	61.39	50.47	.	.	10.92
faggra	11.16	8.64	.	.	2.52
lonspp	0.57	0.22	.	.	0.35
pinstr	39.23	31.25	.	.	7.98
querub	8.45	7.05	.	.	1.39
STRATUM TOTAL	419.72	330.50	.	.	89.21

STAND=75 YEAR=93 STRATUM=1

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
acerub	11863.88	9808.19	2055.69	1899.81	155.88
acesac	1727.74	1427.98	299.76	271.68	28.08
faggra	1485.92	1169.99	315.93	290.71	25.22
pinban	3104.45	2637.11	467.34	301.01	166.33
pinstr	142004.40	122142.79	19861.61	13821.72	6039.89
poptre	1151.94	1002.95	148.99	128.53	20.45
STRATUM TOTAL	161338.32	138189.01	23149.31	16713.47	6435.84

STAND=75 YEAR=93 STRATUM=2

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
acerub	39.09	29.63	.	.	9.46
acesac	2.78	2.09	.	.	0.69
amespp	1.17	0.96	.	.	0.21
corcor	20.05	16.02	.	.	4.02
faggra	0.15	0.10	.	.	0.05
poptre	5.08	3.97	.	.	1.11
sorame	0.54	0.45	.	.	0.09
STRATUM TOTAL	68.87	53.24	.	.	15.63

------------------ STAND=76 YEAR=93 STRATUM=1 ------------------

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
acerub	11919.44	9754.97	2164.47	2010.04	154.43
acesac	200305.54	129810.56	70494.98	68160.83	2334.15
amespp	125.15	100.58	24.56	20.21	4.36
betall	582.85	466.43	116.42	108.61	7.82
faggra	694.42	542.74	151.68	136.30	15.38
poptre	3759.90	3181.34	578.57	530.36	48.20
querub	3179.82	2380.18	799.64	769.31	30.33
STRATUM TOTAL	220567.11	146236.80	74330.32	71735.64	2594.68

------------------ STAND=76 YEAR=93 STRATUM=2 ------------------

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
acepen	16.64	13.28	.	.	3.36
acerub	23.98	17.96	.	.	6.02
acesac	167.48	128.68	.	.	38.80
betall	2.72	2.08	.	.	0.64
faggra	121.79	101.02	.	.	20.78
pruser	0.99	0.77	.	.	0.22
querub	0.75	0.58	.	.	0.17
samcan	33.15	19.83	.	.	13.33
STRATUM TOTAL	367.51	284.19	.	.	83.31

STAND=77 YEAR=93 STRATUM=1

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
betpap	145.03	84.72	60.32	45.41	14.91
pinban	5882.28	3893.75	1988.53	1484.54	503.99
pinband	559.61	363.06	196.56	138.78	57.78
pinres	15976.29	8696.23	7280.07	5874.91	1405.15
popgra	3.55	3.22	0.33	0.20	0.13
querub	1351.02	865.41	485.61	451.39	34.22
STRATUM TOTAL	23917.79	13906.38	10011.41	7995.24	2016.17

STAND=77 YEAR=93 STRATUM=2

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
acerub	248.55	205.17	.	.	43.38
betpap	84.63	70.79	.	.	13.84
pinban	1710.64	1397.43	.	.	313.21
pinband	304.71	257.76	.	.	46.95
pinres	1080.80	886.03	.	.	194.77
popgra	151.63	115.84	.	.	35.78
querub	437.91	374.53	.	.	63.38
salspp	2.31	1.81	.	.	0.50
STRATUM TOTAL	4021.17	3309.37	.	.	711.80

STAND=77 YEAR=94 STRATUM=1

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
acerub	3110.35	1791.25	1319.10	1275.41	43.70
betpap	290.32	169.55	120.77	92.09	28.68
pinban	7423.13	5442.54	1980.58	1405.19	575.39
pinres	13328.95	7970.87	5358.07	4117.00	1241.07
STRATUM TOTAL	24152.74	15374.22	8778.53	6889.69	1888.83

STAND=77 YEAR=94 STRATUM=2

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
acerub	83.15	67.79	.	.	15.36
betpap	2.90	2.22	.	.	0.67
pinban	1457.72	1189.02	.	.	268.70
pinres	1018.56	835.11	.	.	183.45
popgra	132.97	102.26	.	.	30.71
querub	614.14	547.56	.	.	66.58

salspp	1.40	1.11	.	.	0.29
STRATUM TOTAL	3310.84	2745.07	.	.	565.77

------------------ STAND=78 YEAR=93 STRATUM=1 ------------------

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
acerub	296.78	193.00	103.78	96.53	7.25
pinres	3905.69	2332.52	1573.17	1034.60	538.57
STRATUM TOTAL	4202.47	2525.52	1676.95	1131.13	545.82

------------------ STAND=78 YEAR=93 STRATUM=2 ------------------

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
acerub	18.81	14.92	.	.	3.89
amespp	9.52	8.17	.	.	1.35
salspp	76.86	59.92	.	.	16.94
STRATUM TOTAL	105.19	83.00	.	.	22.18

------------------ STAND=78 YEAR=94 STRATUM=1 ------------------

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
acerub	483.93	285.31	198.62	186.35	12.27
pinres	5867.55	3703.21	2164.34	1239.19	925.15
STRATUM TOTAL	6351.48	3988.52	2362.96	1425.54	937.42

------------------ STAND=78 YEAR=94 STRATUM=2 ------------------

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
acerub	8.94	6.81	.	.	2.13
amespp	35.37	30.38	.	.	4.99
prupen	6.51	5.06	.	.	1.45
salspp	165.96	133.01	.	.	32.95
STRATUM TOTAL	216.78	175.25	.	.	41.52

----------------- STAND=79 YEAR=93 STRATUM=1 ----------------------------------

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
pinres	563.83	418.48	145.35	85.01	60.33
STRATUM TOTAL	563.83	418.48	145.35	85.01	60.33

----------------- STAND=79 YEAR=93 STRATUM=2 ----------------------------------

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
amespp	1.46	1.28	.	.	0.17
salspp	3.10	2.40	.	.	0.70
STRATUM TOTAL	4.56	3.68	.	.	0.88

----------------- STAND=79 YEAR=94 STRATUM=1 ----------------------------------

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
pinres	1401.10	980.61	420.49	248.00	172.49
STRATUM TOTAL	1401.10	980.61	420.49	248.00	172.49

----------------- STAND=79 YEAR=94 STRATUM=2 ----------------------------------

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
acerub	6.62	5.06	.	.	1.56
prupen	0.12	0.09	.	.	0.03
STRATUM TOTAL	6.73	5.15	.	.	1.58

----------------- STAND=80 YEAR=93 STRATUM=1 ----------------------------------

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
acerub	164.43	110.56	53.87	49.81	4.07
pinres	1949.62	1296.59	653.03	393.59	259.45
STRATUM TOTAL	2114.05	1407.15	706.91	443.39	263.51

----------------- STAND=80 YEAR=94 STRATUM=1 ----------------------------------

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
acerub	367.54	251.23	116.31	107.67	8.64
pinres	3644.66	2413.75	1230.91	739.58	491.33
STRATUM TOTAL	4012.20	2664.98	1347.23	847.25	499.97

------------------ STAND=81 YEAR=93 STRATUM=1 ------------------

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
abibal	23.47	12.03	11.44	7.28	4.16
acerub	813.35	605.57	207.79	194.62	13.17
pinban	12915.22	8652.98	4262.25	3310.08	952.16
pinband	294.60	196.65	97.96	76.89	21.06
pinres	11633.93	6219.53	5414.41	4436.59	977.81
STRATUM TOTAL	25680.58	15686.75	9993.83	8025.47	1968.36

------------------ STAND=81 YEAR=93 STRATUM=2 ------------------

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
acerub	6.27	4.74	.	.	1.53
amespp	290.32	268.12	.	.	22.20
pinban	1070.29	895.67	.	.	174.61
pinband	164.28	134.29	.	.	29.99
pinres	1744.95	1423.26	.	.	321.69
salspp	4.60	3.55	.	.	1.05
STRATUM TOTAL	3280.70	2729.63	.	.	551.07

------------------ STAND=81 YEAR=94 STRATUM=1 ------------------

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
acerub	223.99	170.81	53.19	48.77	4.42
acesac	456.07	366.50	89.57	82.15	7.42
pinban	14760.81	11197.90	3562.91	2616.46	946.45
pinres	12110.39	7962.54	4147.85	3144.81	1003.03
STRATUM TOTAL	27551.26	19697.75	7853.52	5892.20	1961.32

------------------ STAND=81 YEAR=94 STRATUM=2 ------------------

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
acerub	0.99	0.74	.	.	0.25
acesac	13.62	10.66	.	.	2.96
amespp	68.71	61.88	.	.	6.82
pinban	2394.51	2042.45	.	.	352.06
pinres	2023.06	1651.93	.	.	371.13
prupen	0.51	0.40	.	.	0.11
salspp	13.44	10.70	.	.	2.74

STRATUM TOTAL	4514.83	3778.77	.	.	736.07

STAND=82 YEAR=93 STRATUM=1

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
pinban	5917.91	3653.97	2263.94	1818.49	445.45
pinband	554.14	343.44	210.71	169.55	41.16
pinres	4988.95	2494.81	2494.14	2142.12	352.02
STRATUM TOTAL	11461.00	6492.21	4968.79	4130.16	838.63

STAND=82 YEAR=93 STRATUM=2

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
amespp	7.06	6.15	.	.	0.91
pinban	1756.36	1454.19	.	.	302.17
pinband	6.64	4.94	.	.	1.70
pinres	4569.79	3783.36	.	.	786.44
STRATUM TOTAL	6339.86	5248.64	.	.	1091.22

STAND=82 YEAR=94 STRATUM=1

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
pinban	8583.97	5972.46	2611.51	2019.14	592.37
pinres	6273.30	3526.62	2746.68	2280.63	466.05
STRATUM TOTAL	14857.27	9499.08	5358.19	4299.77	1058.43

STAND=82 YEAR=94 STRATUM=2

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
amespp	26.51	23.75	.	.	2.77
pinban	1828.77	1515.35	.	.	313.42
pinres	3579.93	2952.90	.	.	627.03
STRATUM TOTAL	5435.21	4491.99	.	.	943.21

------------------ STAND=83 YEAR=93 STRATUM=1 ------------------------------------

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
pinban	1033.47	618.76	414.71	345.76	68.95
pinres	367.81	177.83	189.98	165.95	24.03
pinstr	1210.88	1025.28	185.61	131.51	54.09
poptre	128.55	114.78	13.77	10.50	3.27
STRATUM TOTAL	2740.72	1936.65	804.07	653.72	150.34

------------------ STAND=83 YEAR=93 STRATUM=2 ------------------------------------

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
abibal	26.78	21.05	.	.	5.73
acerub	63.76	50.71	.	.	13.05
amespp	19.04	16.80	.	.	2.24
betpap	57.62	47.10	.	.	10.52
pinban	3556.70	2903.47	.	.	653.23
pinres	14007.82	11588.74	.	.	2419.08
popgra	409.72	311.96	.	.	97.76
poptre	1.60	1.30	.	.	0.30
prupen	45.40	35.22	.	.	10.18
querub	6.11	5.09	.	.	1.02
salspp	7.30	5.66	.	.	1.64
STRATUM TOTAL	18201.86	14987.10	.	.	3214.76

------------------ STAND=83 YEAR=94 STRATUM=1 ------------------------------------

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
pinban	2486.08	1717.50	768.57	619.36	149.21
pinres	4280.61	2396.98	1883.64	1595.66	287.98
pinstr	1690.30	1481.24	209.06	146.48	62.57
popgra	114.16	101.59	12.57	9.80	2.77
STRATUM TOTAL	8571.16	5697.32	2873.84	2371.30	502.54

------------------ STAND=83 YEAR=94 STRATUM=2 ------------------------------------

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
acerub	28.43	22.11	.	.	6.32
amespp	21.54	18.99	.	.	2.55
betpap	6.22	4.94	.	.	1.28
pinban	1213.42	976.70	.	.	236.72
pinres	8524.50	7042.61	.	.	1481.89
popdel	0.29	0.20	.	.	0.09
popgra	273.97	208.29	.	.	65.68
poptre	3.04	2.47	.	.	0.56
prupen	71.25	55.19	.	.	16.06
pruser	18.16	14.10	.	.	4.06
querub	39.58	34.25	.	.	5.33
salspp	7.02	5.61	.	.	1.41
STRATUM TOTAL	10207.42	8385.45	.	.	1821.97

STAND=85 YEAR=93 STRATUM=1

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
abibal	766.92	457.48	309.45	211.07	98.38
acerub	10449.80	8452.18	1997.63	1841.55	156.08
acesac	91559.87	73292.15	18267.72	16870.35	1397.38
amespp	153.07	123.29	29.78	23.85	5.93
ostvir	4322.37	3189.43	1132.94	1061.18	71.77
picgla	31.42	16.19	15.23	9.10	6.13
prupen	1095.24	811.09	284.16	267.82	16.34
pruser	75451.50	58031.40	17420.10	15809.71	1610.39
sorame	198.23	157.30	40.93	35.15	5.78
STRATUM TOTAL	184028.44	144530.50	39497.94	36129.77	3368.18

STAND=85 YEAR=93 STRATUM=2

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
abibal	227.48	175.38	.	.	52.09
acerub	3.08	2.30	.	.	0.78
acesac	490.84	399.93	.	.	90.92
corcor	0.23	0.17	.	.	0.06
ostvir	0.36	0.31	.	.	0.06
picgla	36.08	27.46	.	.	8.62
pruser	302.73	233.27	.	.	69.47
STRATUM TOTAL	1060.80	838.81	.	.	222.00

------------------ STAND=86 YEAR=93 STRATUM=1 ------------------

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
acerub	104367.14	85664.66	18702.49	17282.93	1419.56
acesac	47443.51	38482.50	8961.01	8241.39	719.62
faggra	31145.40	24488.05	6657.35	6112.97	544.38
sorame	405.92	316.02	89.90	79.98	9.92
STRATUM TOTAL	183361.98	148951.23	34410.75	31717.27	2693.48

------------------ STAND=86 YEAR=93 STRATUM=2 ------------------

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
abibal	89.60	67.61	.	.	21.99
acerub	84.45	66.84	.	.	17.62
acesac	77.38	62.96	.	.	14.42
amespp	5.22	4.46	.	.	0.76
betall	51.63	46.54	.	.	5.09
faggra	390.83	316.84	.	.	73.99
pruser	27.68	21.50	.	.	6.17
STRATUM TOTAL	726.80	586.76	.	.	140.04

------------------ STAND=87 YEAR=93 STRATUM=1 ------------------------------------

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
acespi	31.14	19.19	11.95	10.90	1.06
alnrug	4644.48	3268.31	1376.18	1069.29	306.88
betpap	783.19	549.90	233.29	194.85	38.44
popbal	7444.76	6497.21	947.54	811.18	136.36
poptre	41610.37	36299.51	5310.86	4550.49	760.37
salspp	18.06	16.25	1.81	1.28	0.53
STRATUM TOTAL	54532.01	46650.37	7881.63	6637.99	1243.64

------------------ STAND=87 YEAR=93 STRATUM=2 ------------------------------------

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
acepen	2.64	2.01	.	.	0.63
acerub	128.16	106.48	.	.	21.68
acespi	64.72	52.61	.	.	12.12
alnrug	2222.97	1928.42	.	.	294.55
amespp	4.69	4.23	.	.	0.47
betpap	13.98	11.39	.	.	2.59
corcor	127.78	103.09	.	.	24.69
corsto	228.74	181.66	.	.	47.08
franig	23.81	20.14	.	.	3.67
lonspp	4.74	1.94	.	.	2.80
popbal	418.26	345.80	.	.	72.46
poptre	295.93	245.08	.	.	50.85
pruvir	32.65	25.25	.	.	7.40
salspp	59.61	51.31	.	.	8.30
STRATUM TOTAL	3628.69	3079.40	.	.	549.29

------------------ STAND=88 YEAR=93 STRATUM=1 ------------------

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
abibal	4171.39	2723.53	1447.86	1011.79	436.08
larlar	1509.98	1229.83	280.15	208.28	71.86
picgla	4562.22	3236.08	1326.14	751.62	574.53
picmar	27467.71	22464.49	5003.22	3789.40	1213.81
thuocc	135577.12	83125.08	52452.04	35156.51	17295.53
STRATUM TOTAL	173288.42	112779.01	60509.41	40917.60	19591.81

------------------ STAND=88 YEAR=93 STRATUM=2 ------------------

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
abibal	299.28	223.00	.	.	76.28
acerub	2.28	1.80	.	.	0.48
acespi	0.86	0.66	.	.	0.20
betpap	0.27	0.20	.	.	0.07
lonspp	2.78	1.48	.	.	1.30
sorame	0.47	0.40	.	.	0.07
thuocc	934.10	756.03	.	.	178.06
STRATUM TOTAL	1240.03	983.56	.	.	256.47

------------------ STAND=91 YEAR=93 STRATUM=1 ------------------

SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
abibal	25.00	13.34	11.66	7.46	4.20
acerub	627.12	485.16	141.95	130.82	11.14
acesac	78484.10	61682.45	16801.65	15624.26	1177.39
betall	1262.17	1010.77	251.40	234.86	16.54
faggra	41668.00	32702.77	8965.23	8388.71	576.53
pruser	13.74	11.21	2.53	1.14	1.40
STRATUM TOTAL	122080.13	95905.71	26174.43	24387.25	1787.18

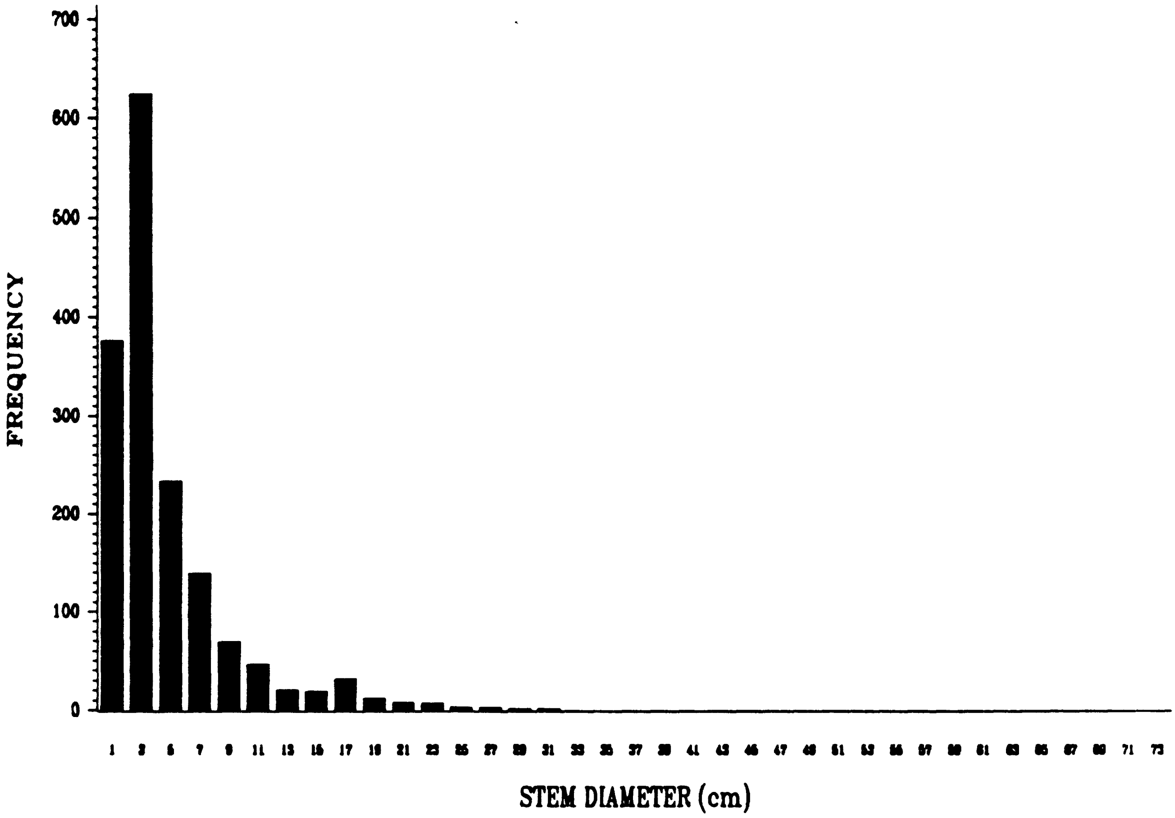
------------------ STAND=91 YEAR=93 STRATUM=2 ------------------

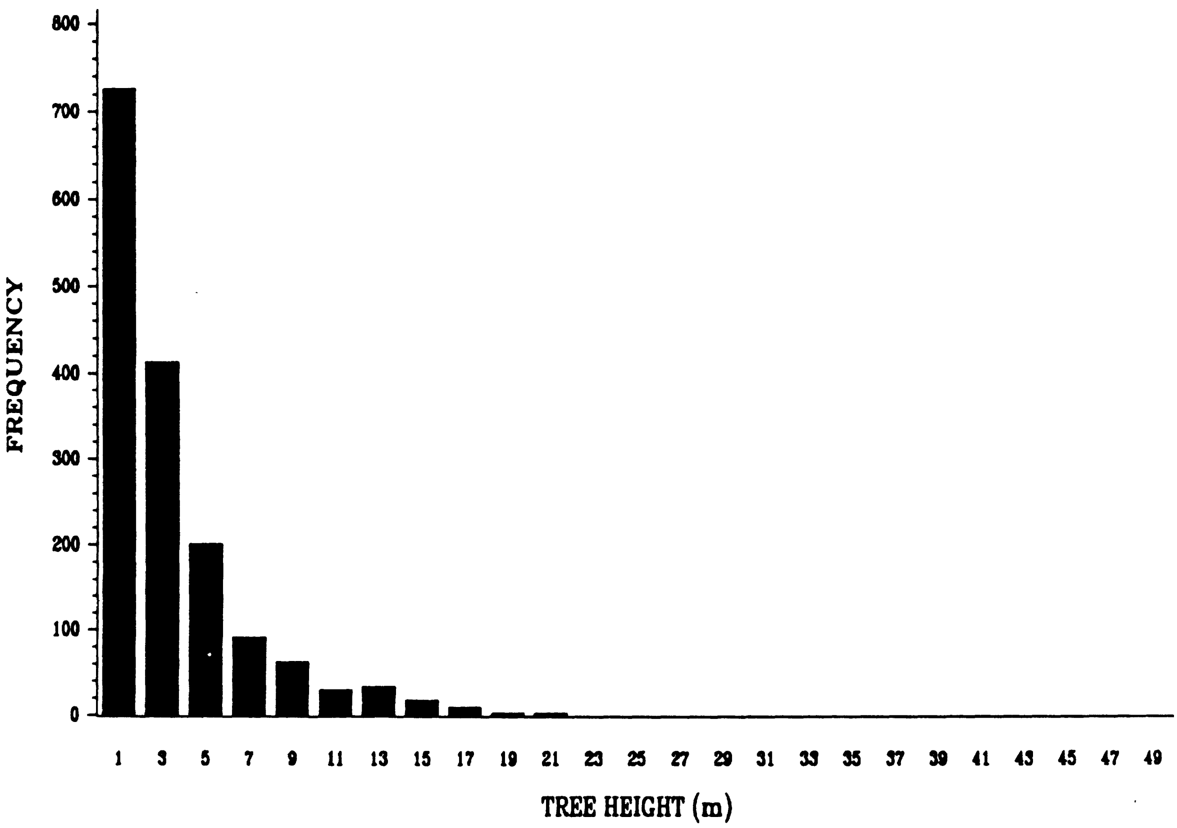
SPECIES	TOTAL	BOLE	CROWN	BRANCH	FOLIAGE
abibal	509.37	389.59	.	.	119.78
acerub	61.83	49.95	.	.	11.88
acesac	403.08	315.17	.	.	87.91
amespp	0.47	0.40	.	.	0.07
faggra	512.62	463.28	.	.	49.34

poptre	3.08	2.49	.	.	0.59
pruser	69.98	54.27	.	.	15.71
STRATUM TOTAL	1560.43	1275.15	.	.	285.28

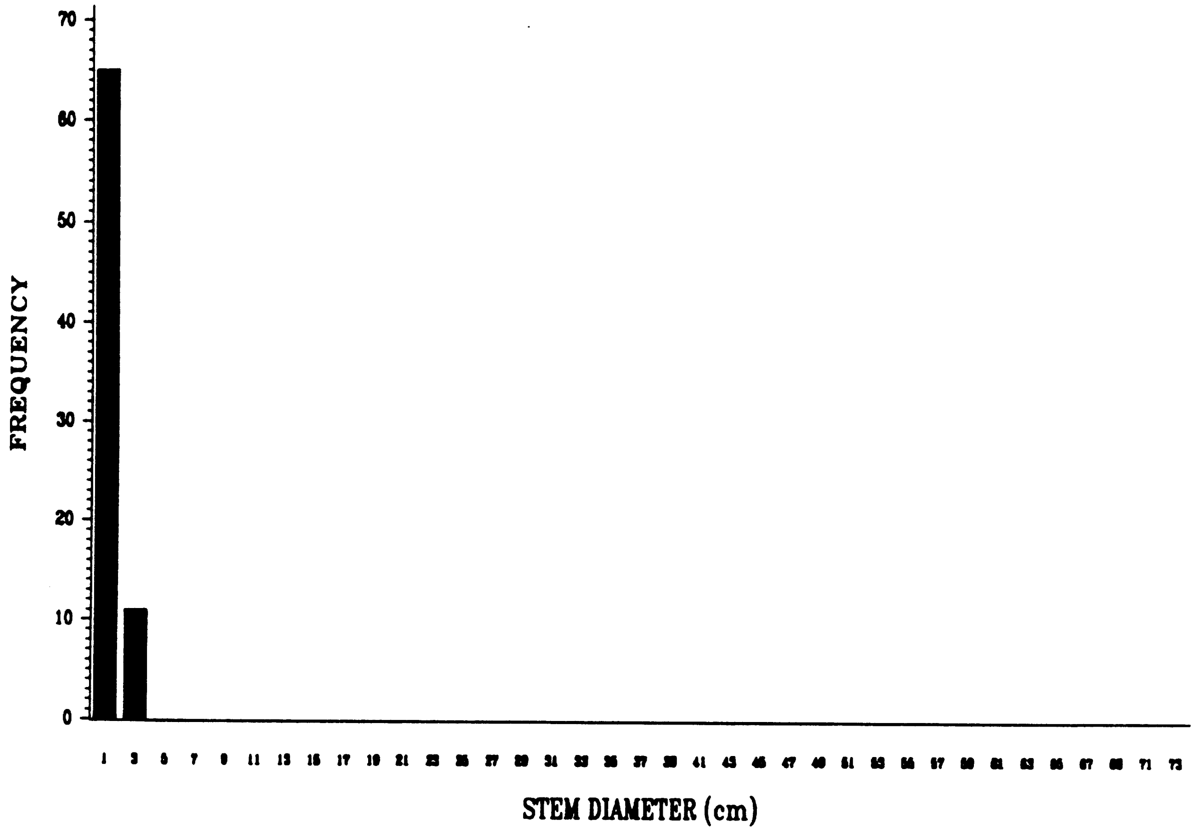
APPENDIX H:
DIAMETER AND HEIGHT HISTOGRAMS BY SPECIES

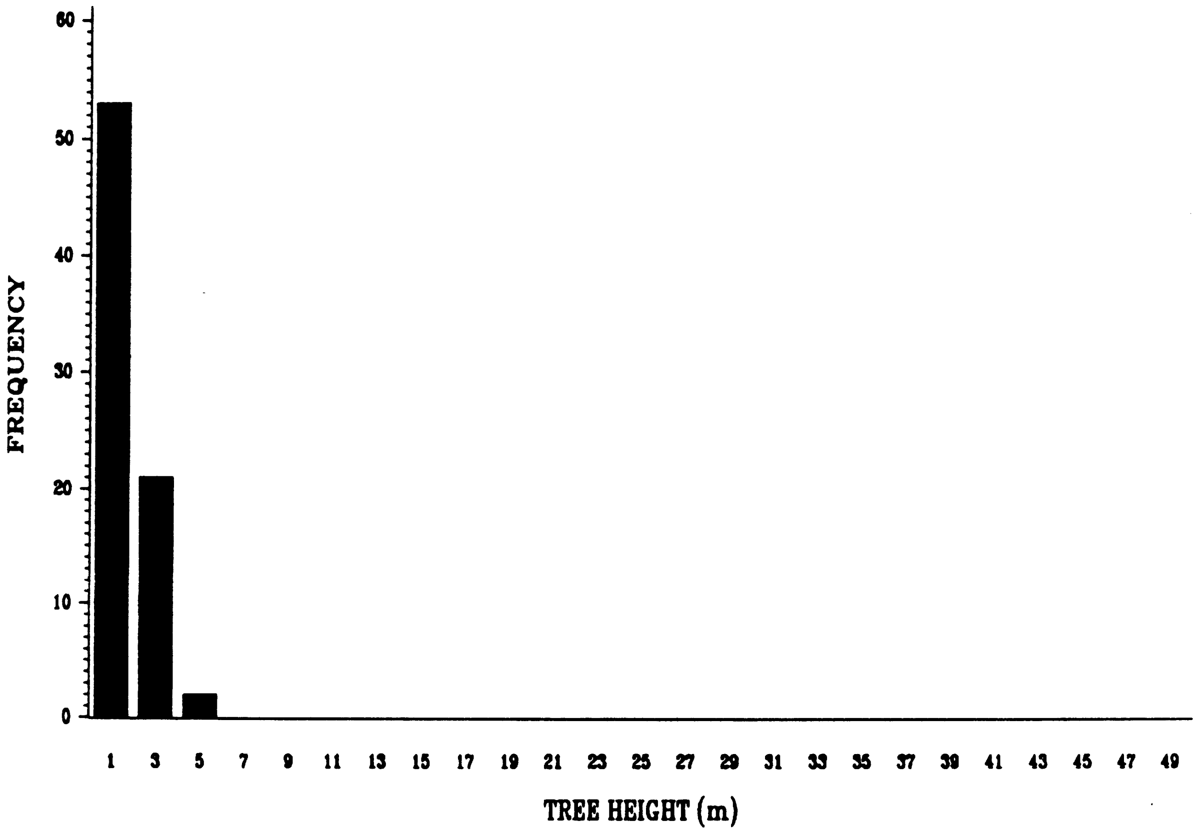
Abies balsamea



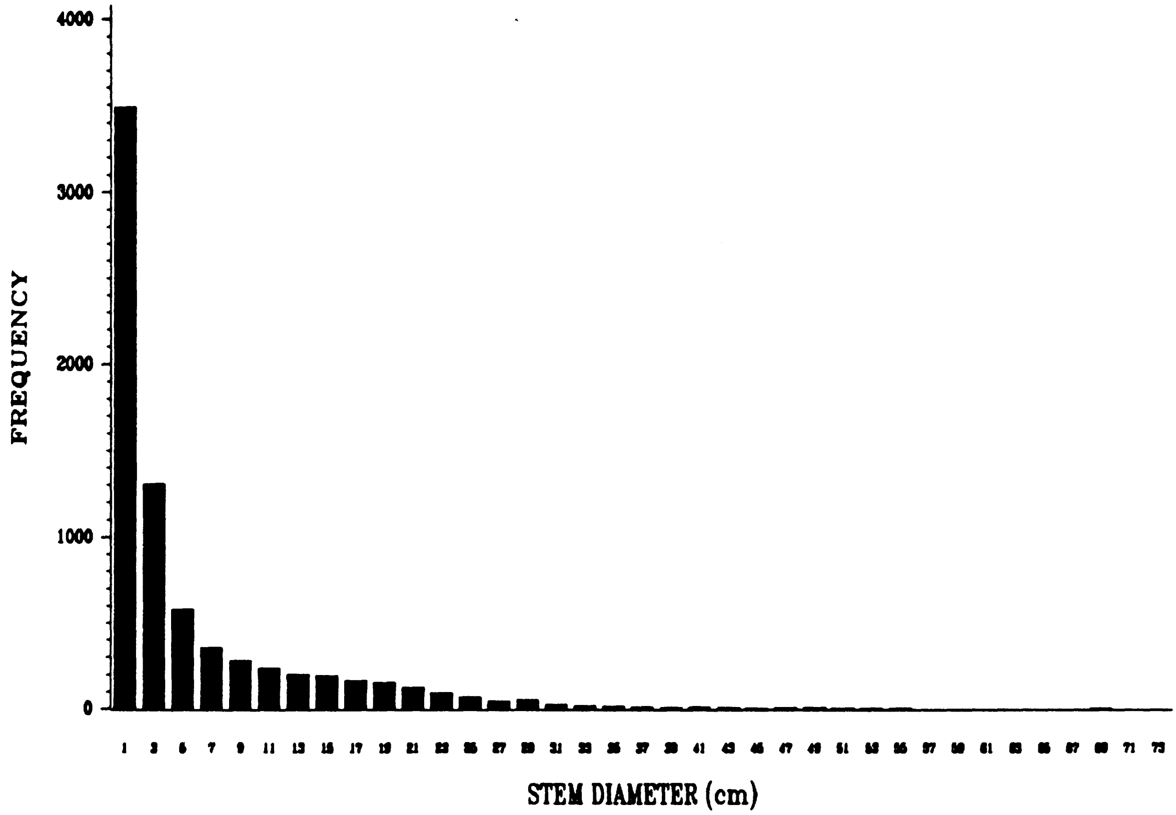


Acer pensylvanicum





Acer rubrum


FREQUENCY
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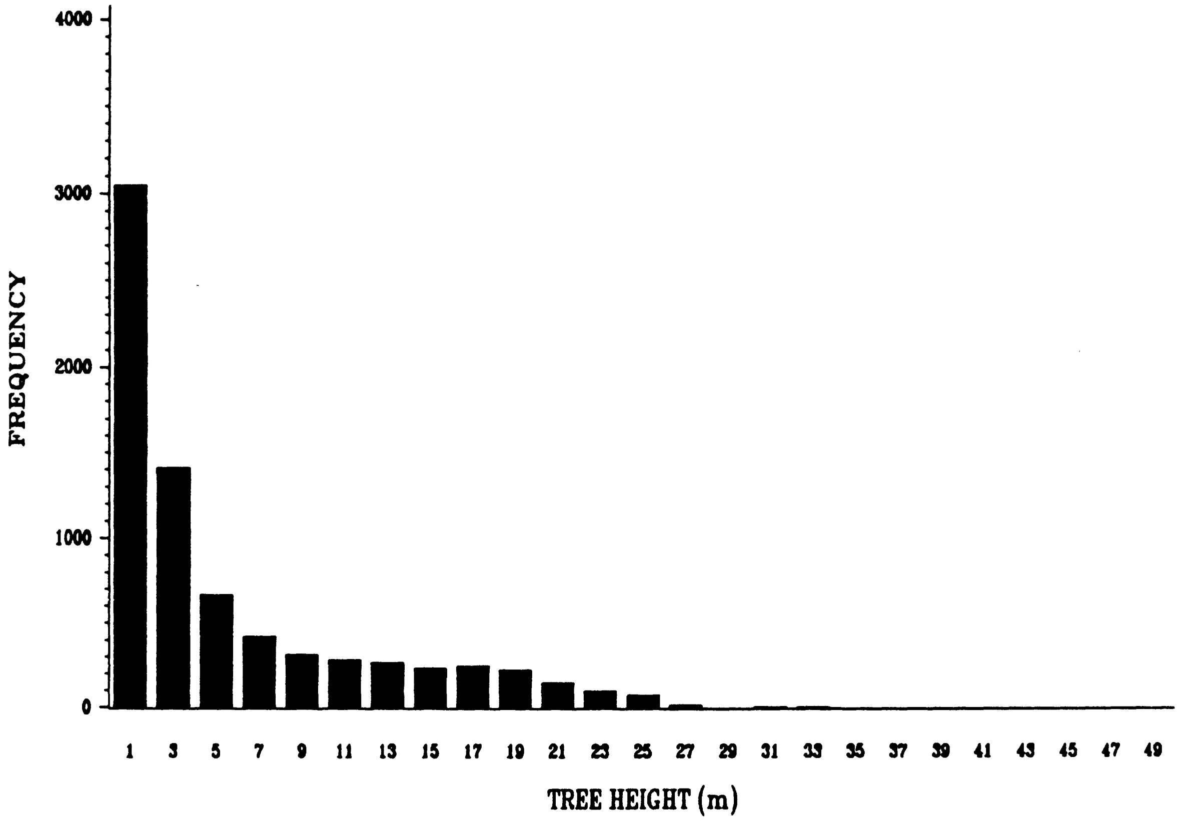
3000
2000
1000
0
STEM DIAMETER (cm)


FREQUENCY
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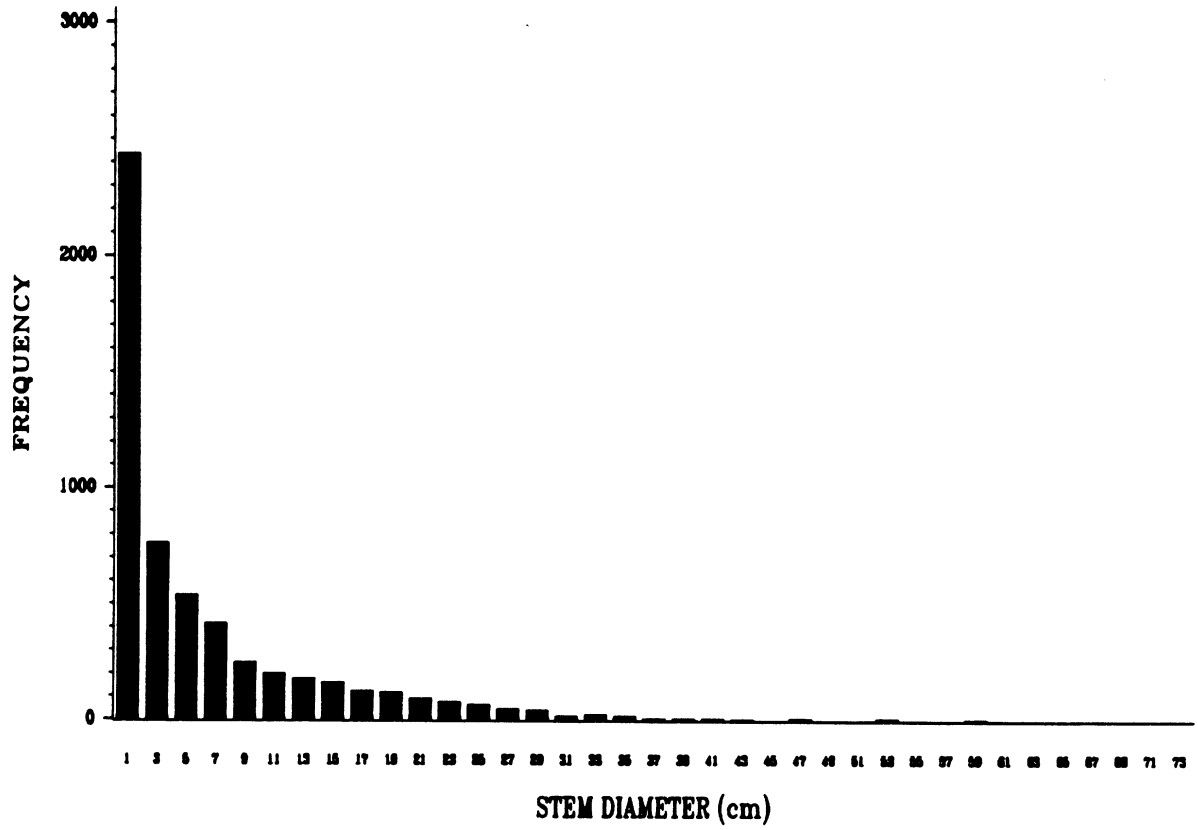
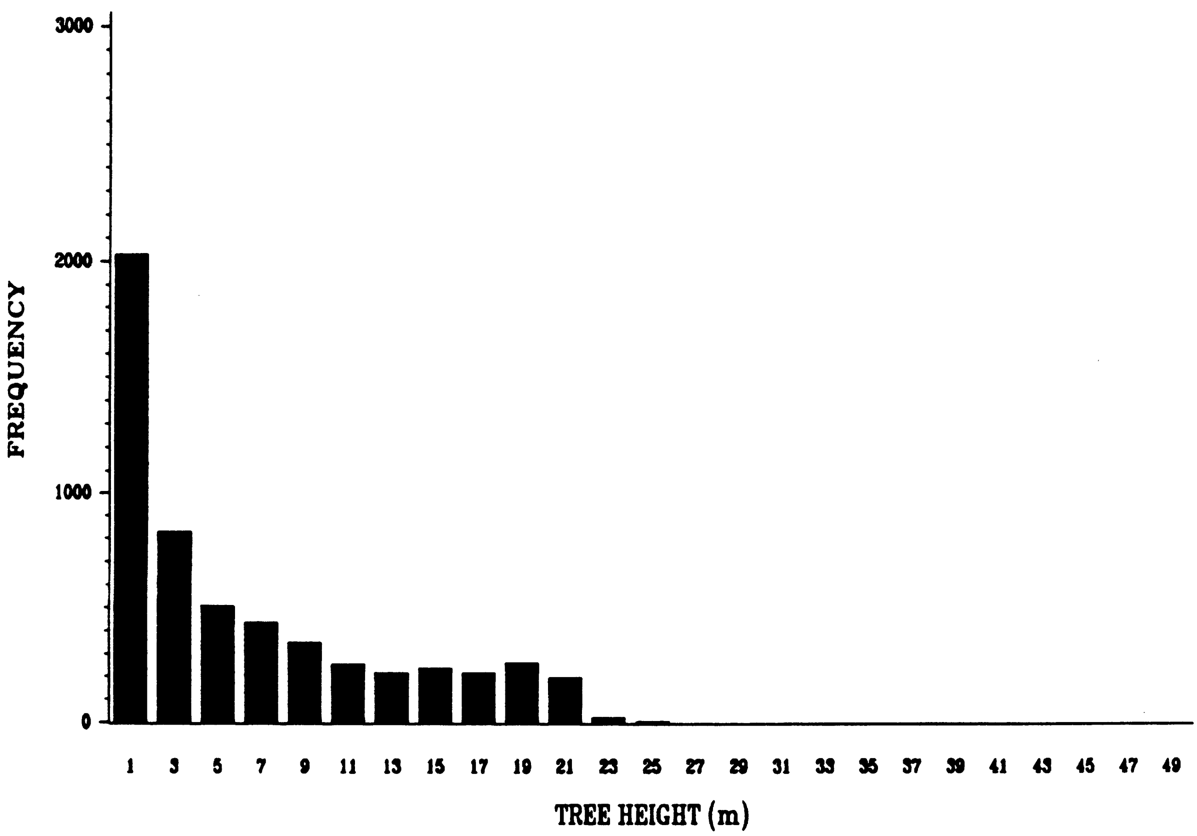
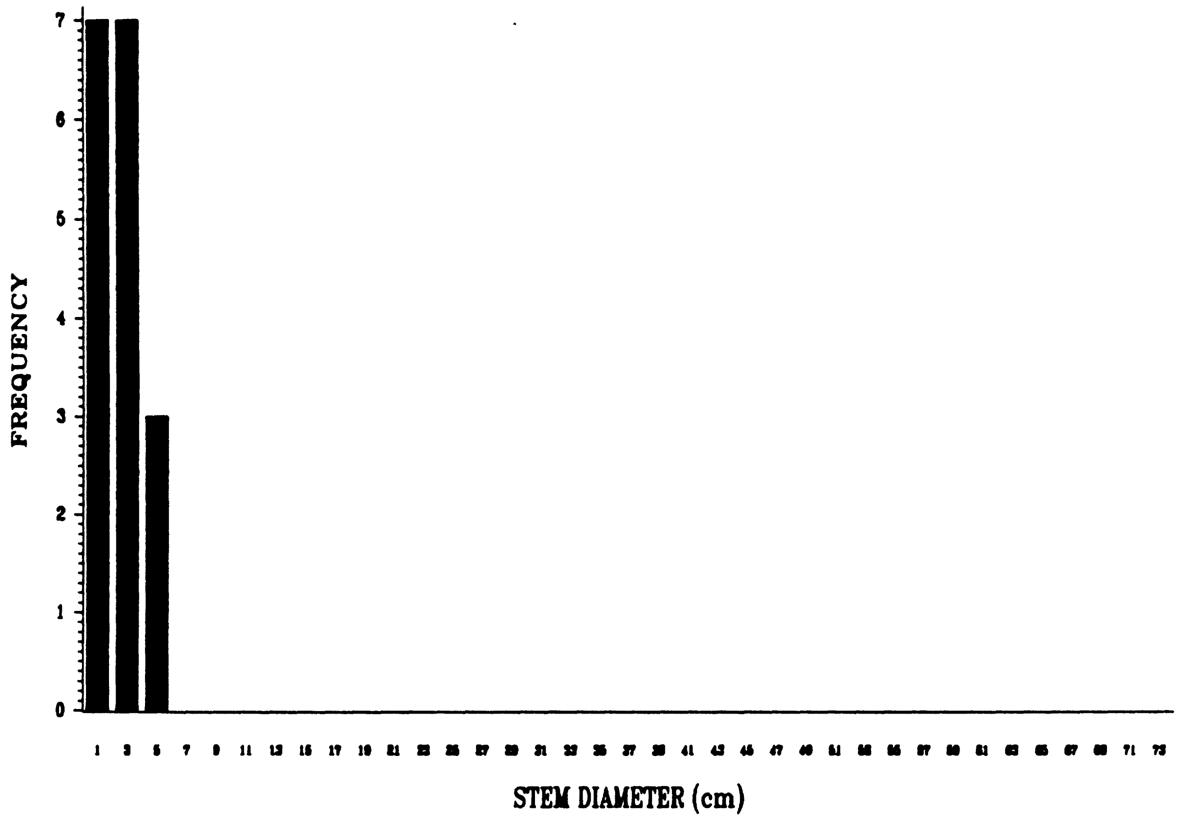
3000
2000
1000
0
1 3 5 7 9 11 13 15 17 19 21 23 25 27 29 31 33 35 37 39 41 43 45 47 49
TREE HEIGHT (m)

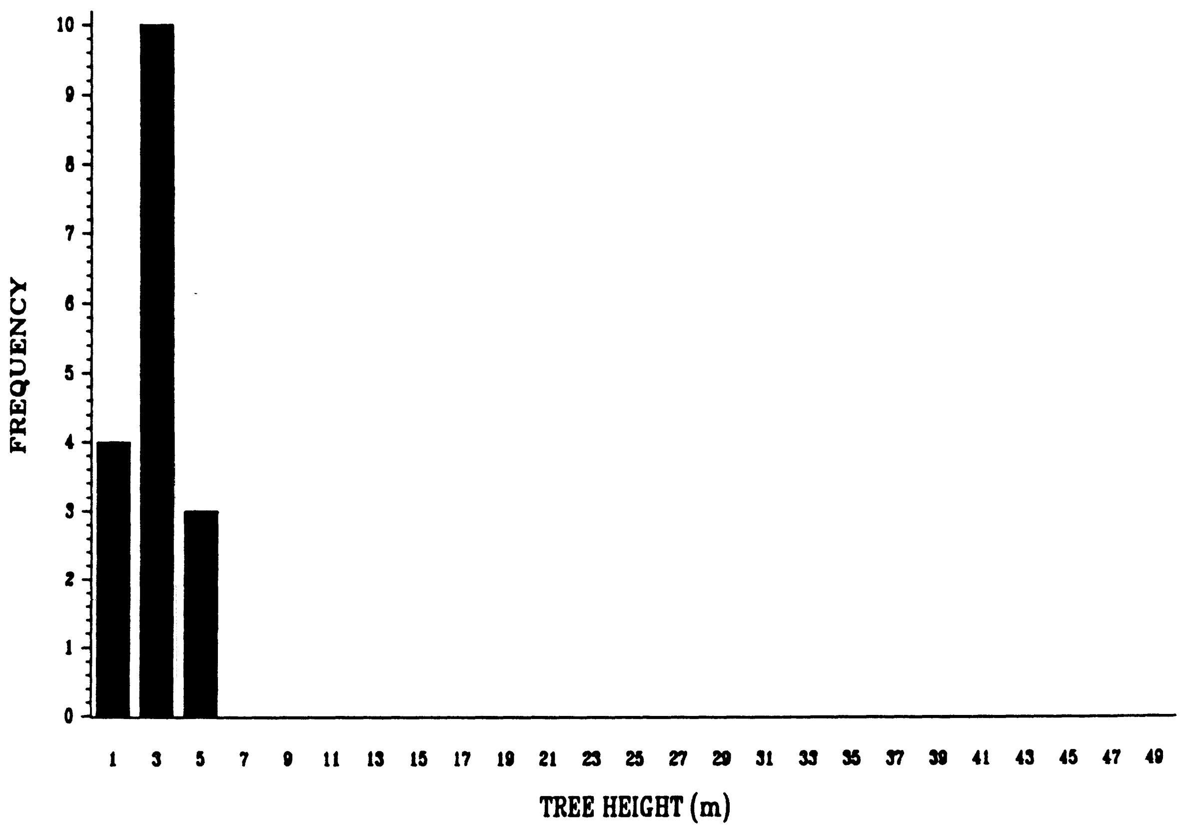
Acer saccharum



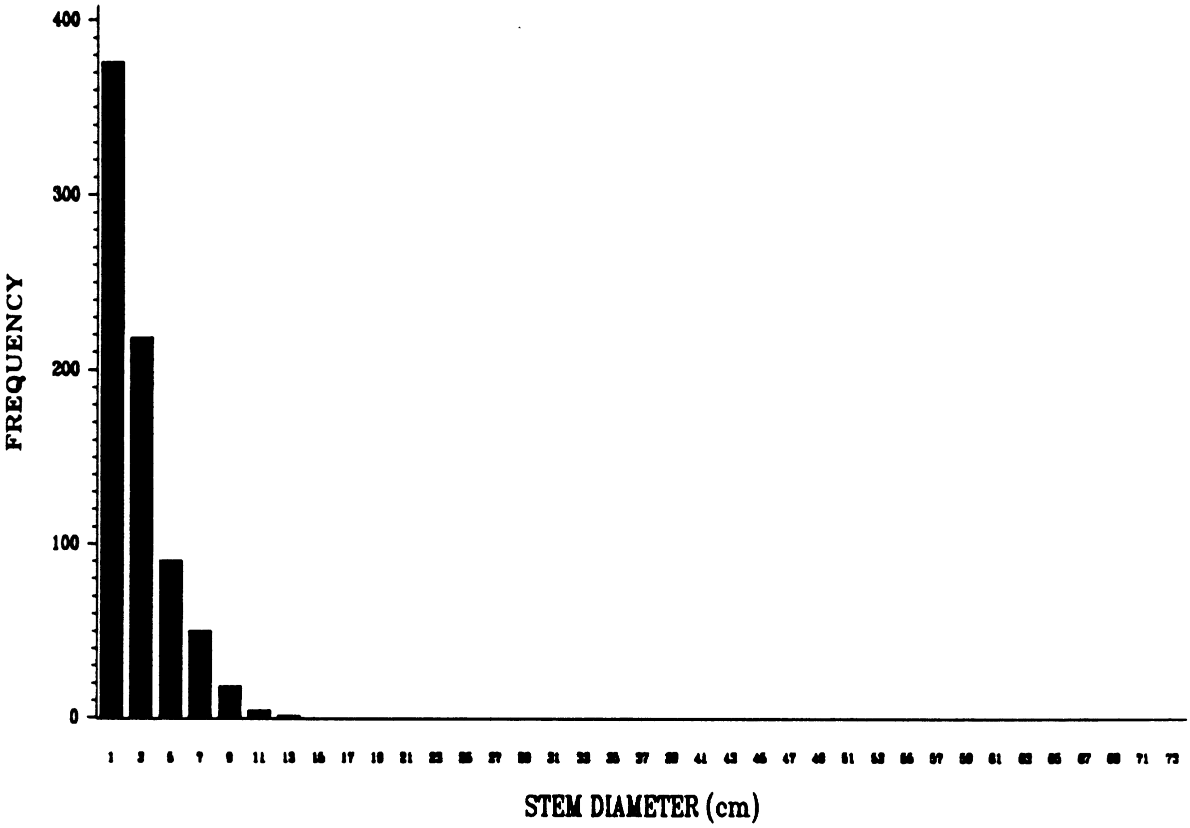


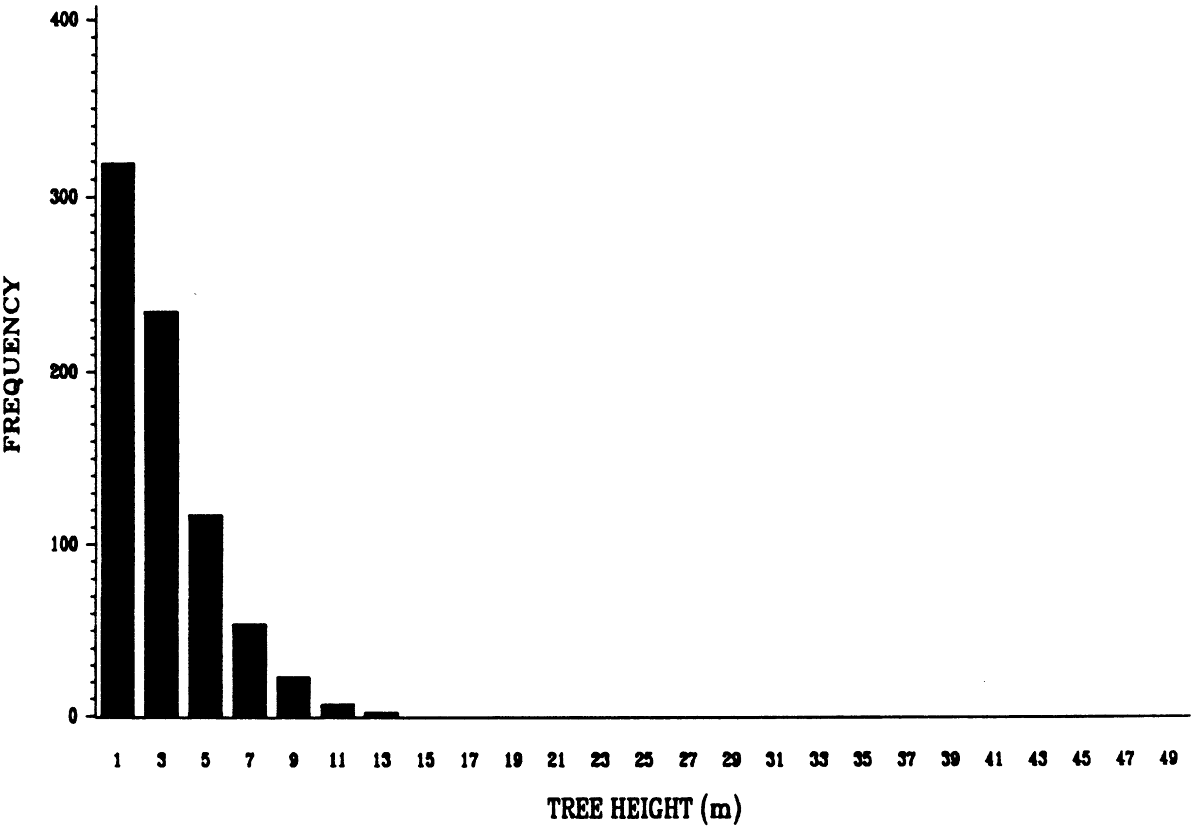
Acer spicatum



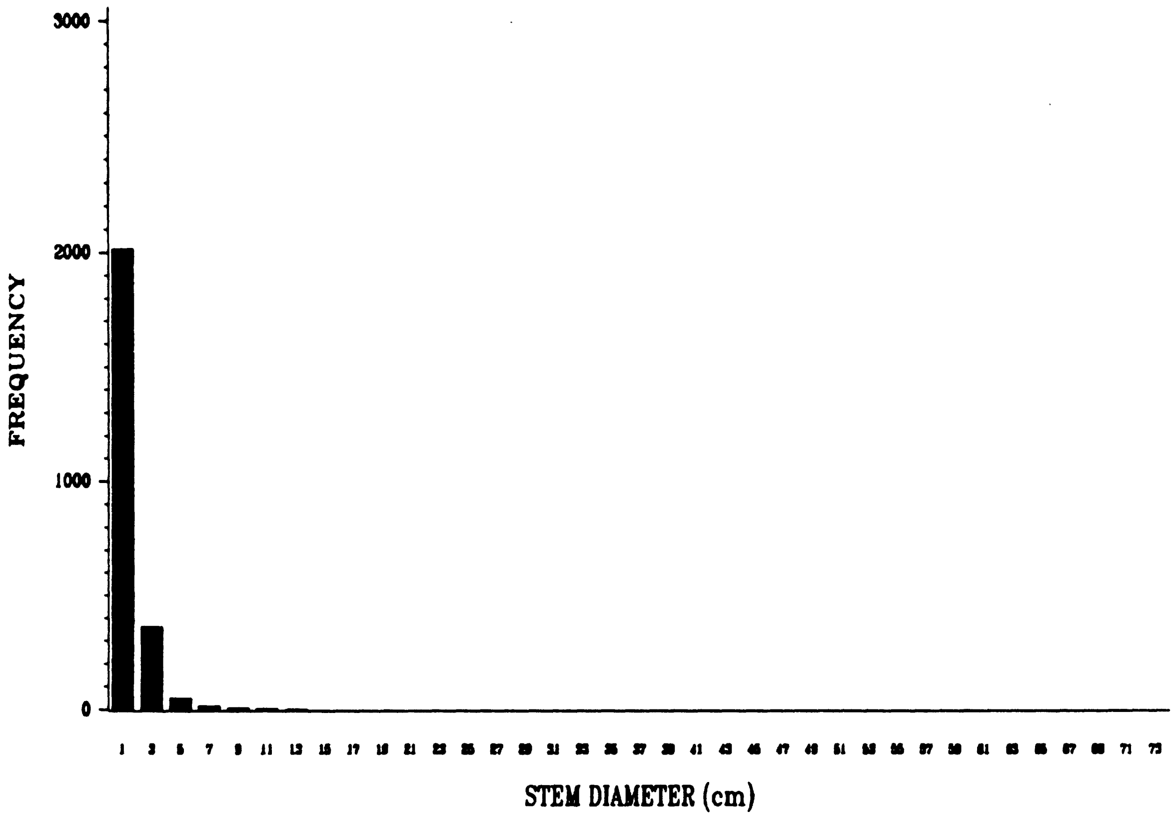


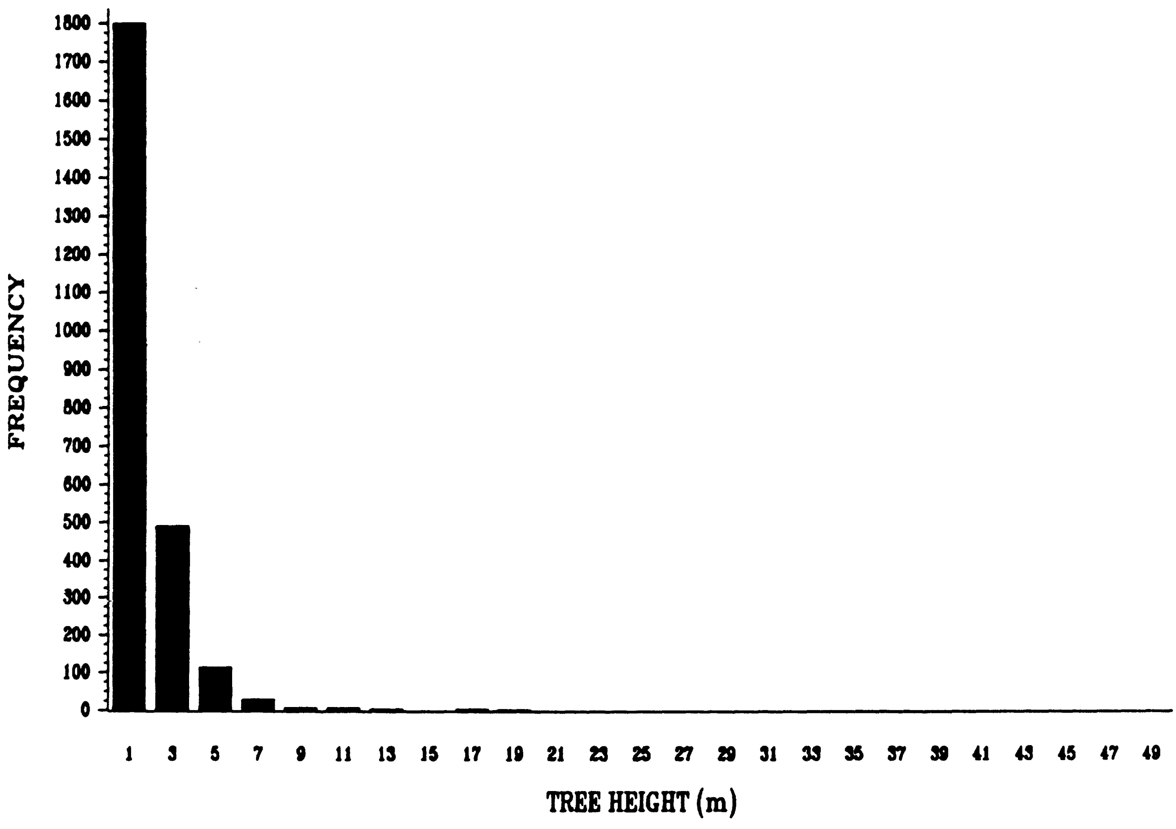
Alnus rugosa



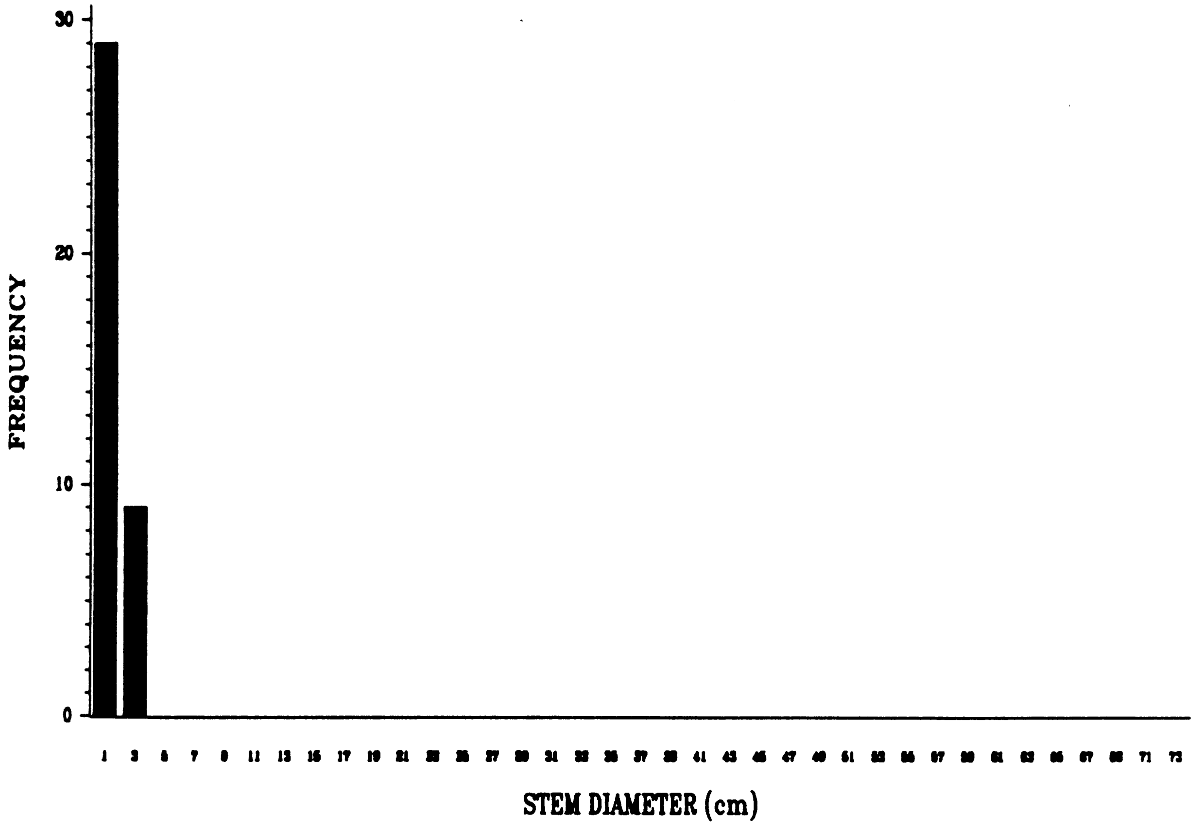


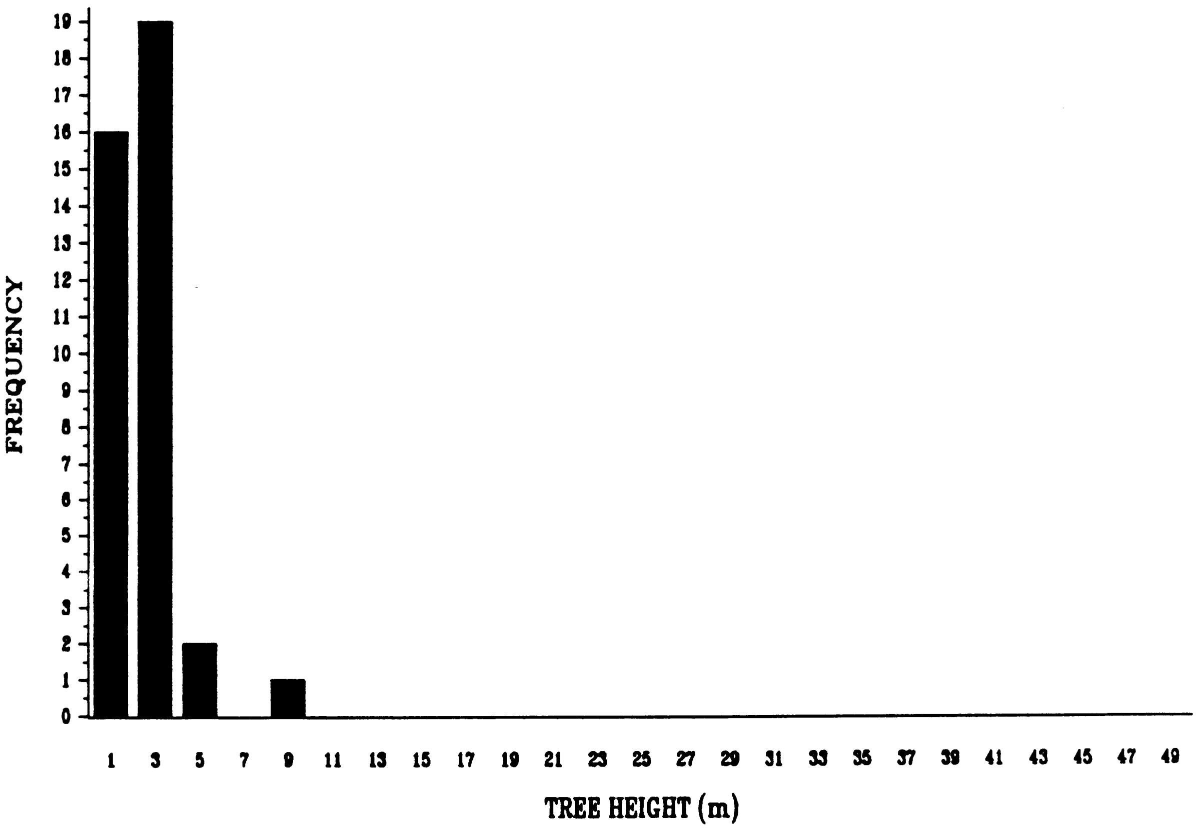
Amelanchier spp.



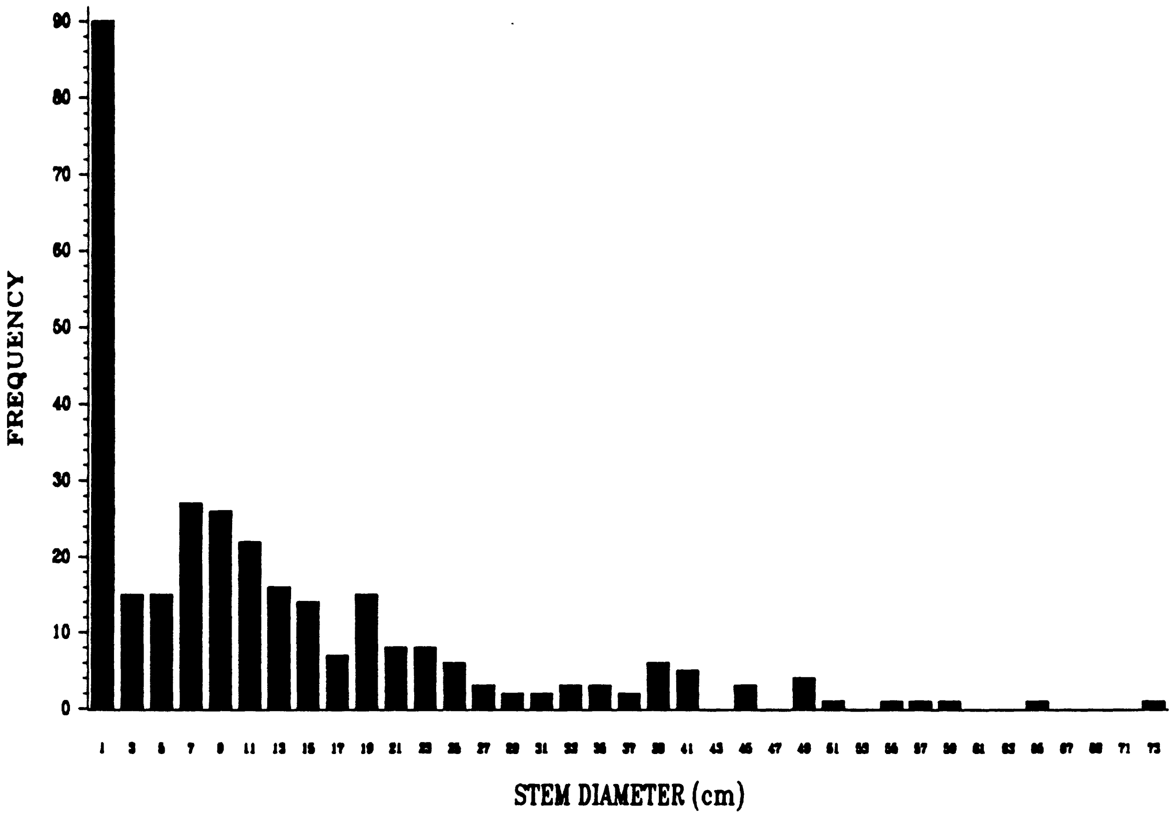


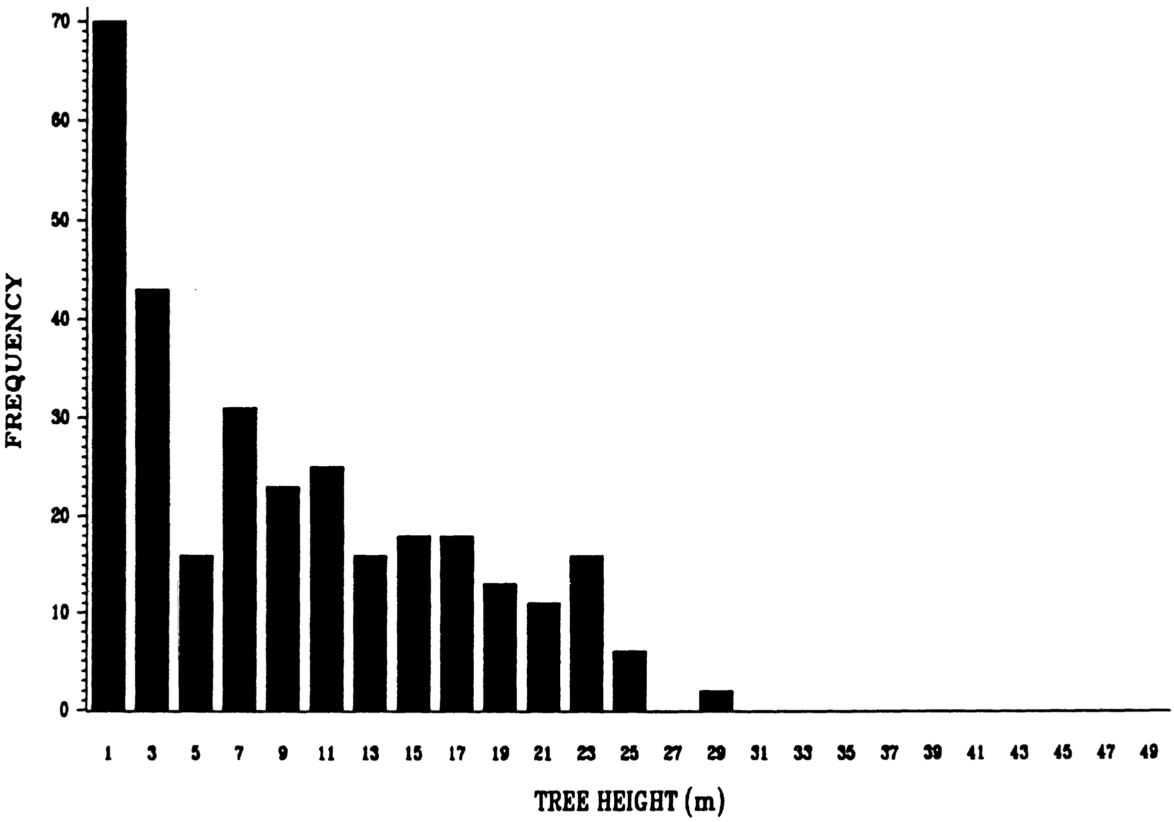
Aronia melanocarpa



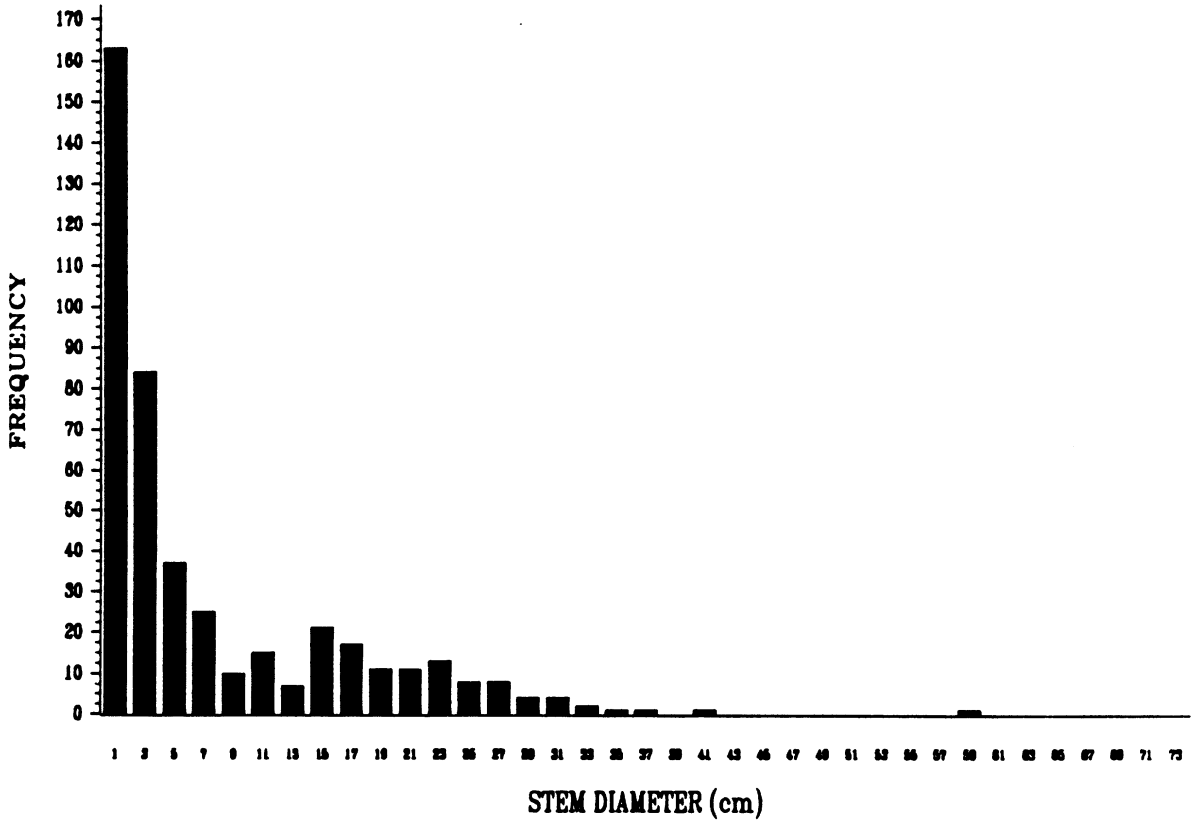


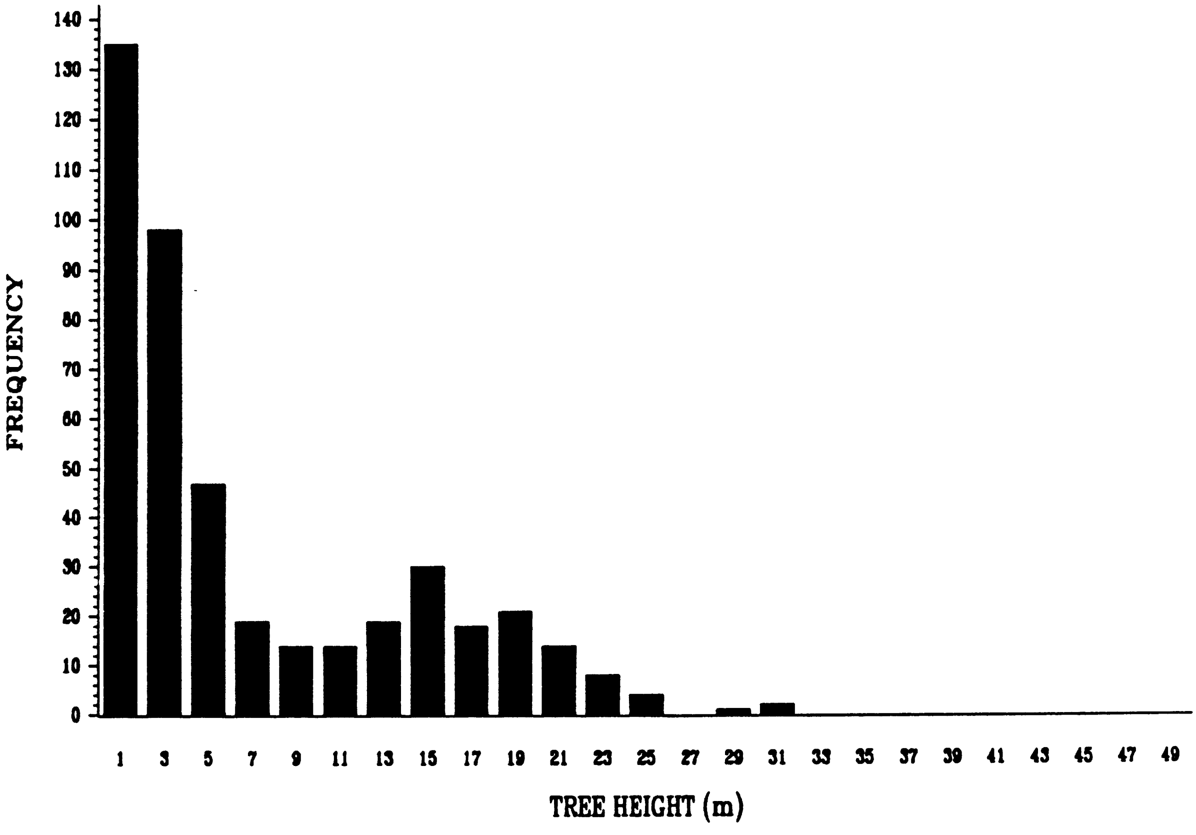
Betula alleganiensis



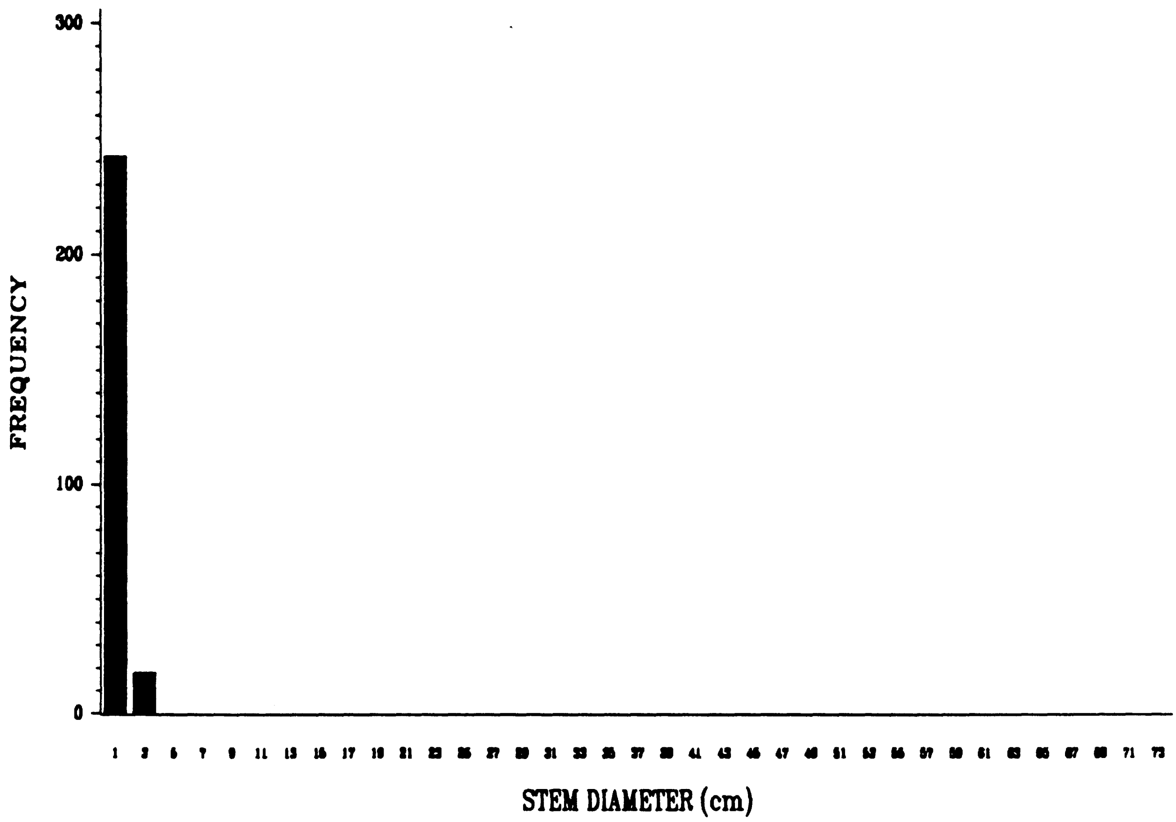


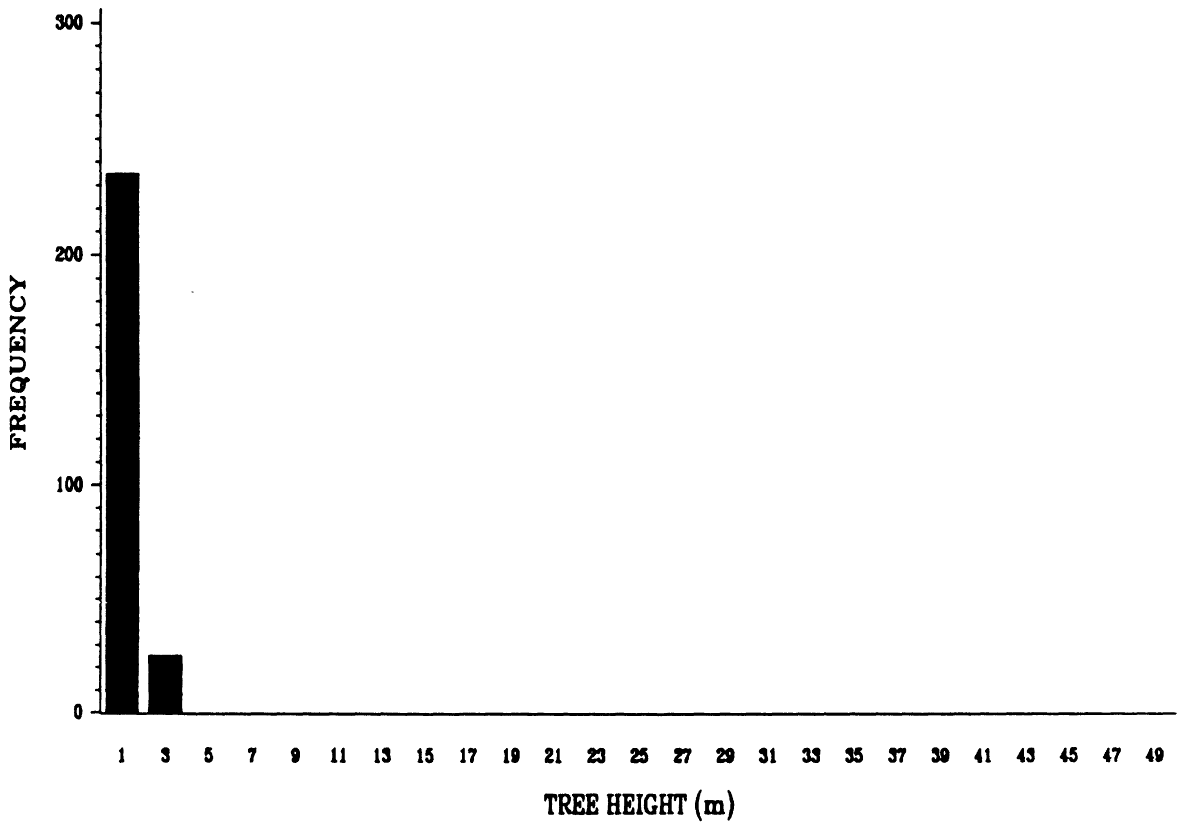
Betula paperifera



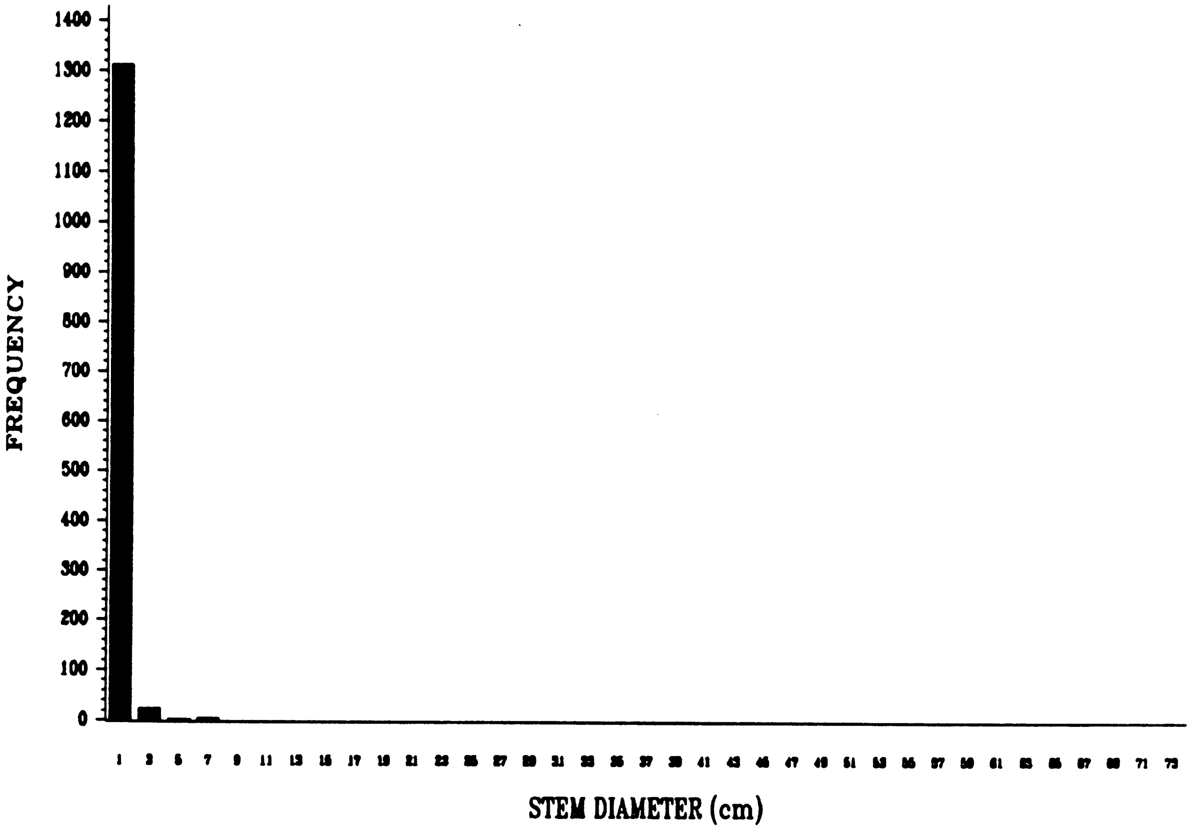


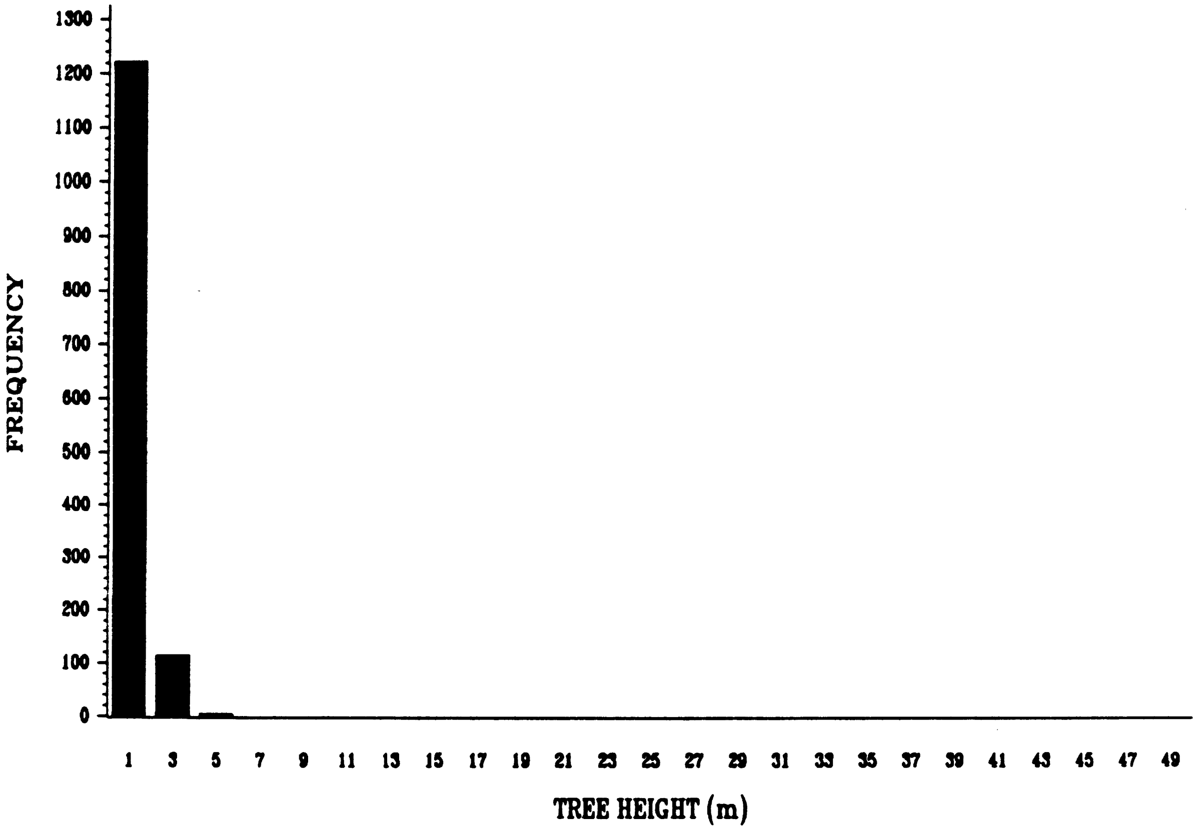
Cornus stolonifera



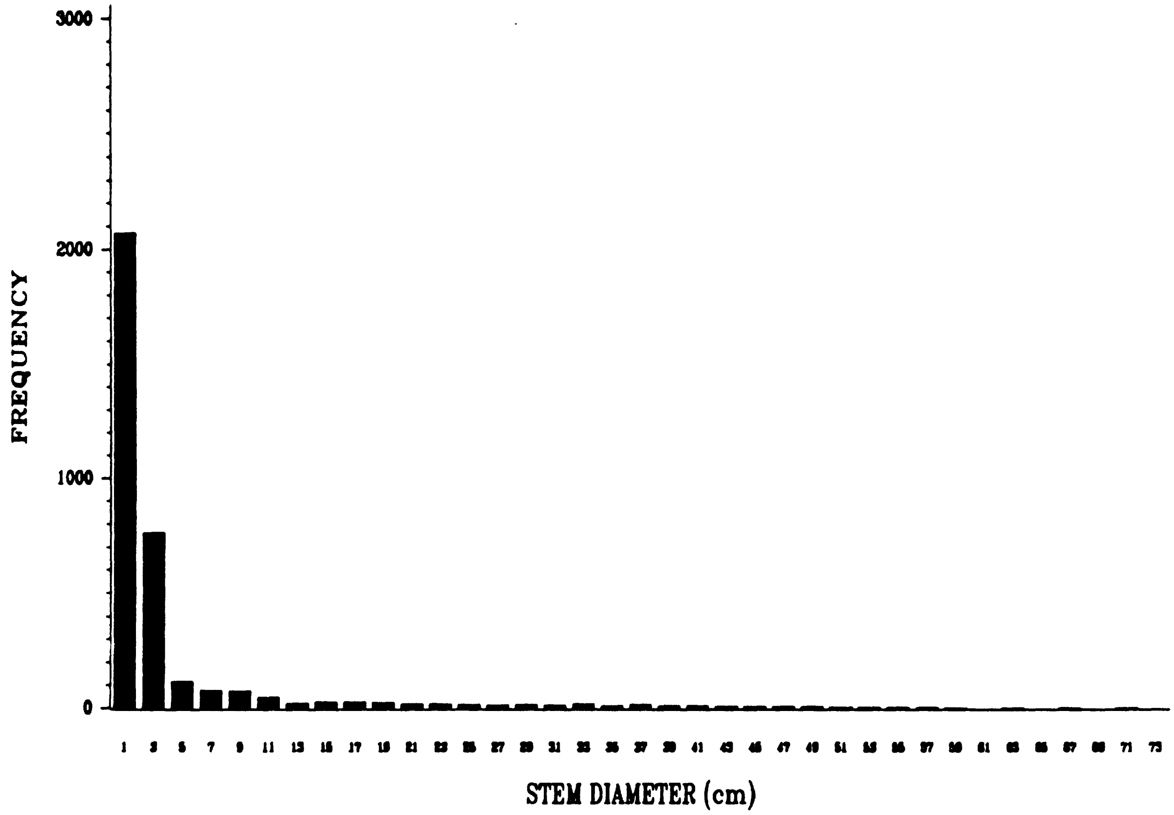


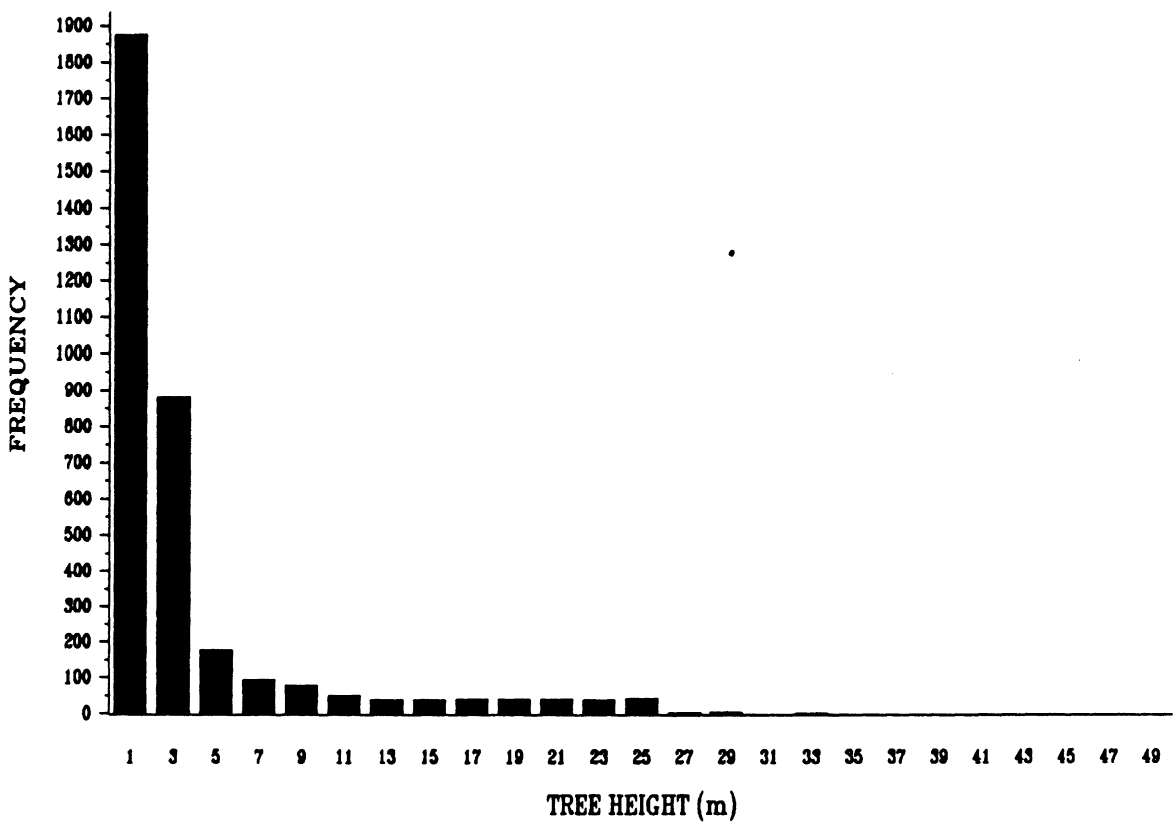
Corylus cornuta



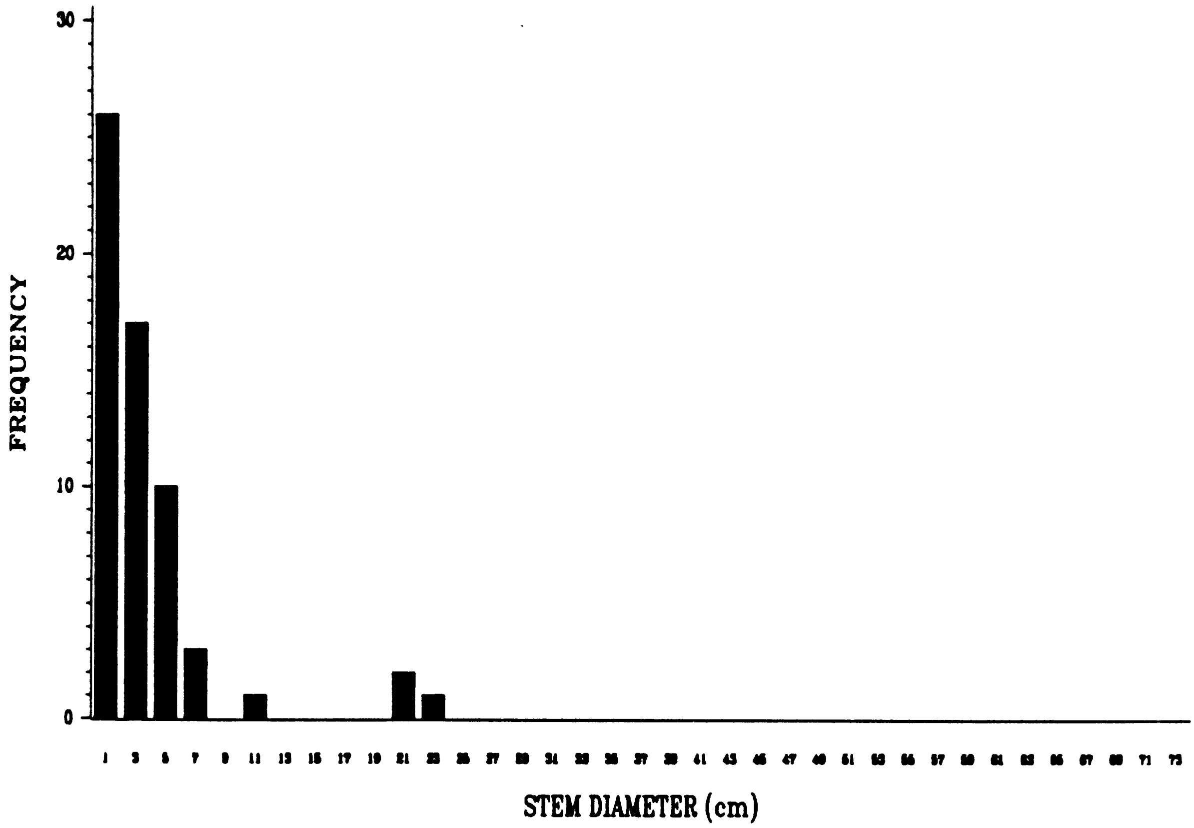


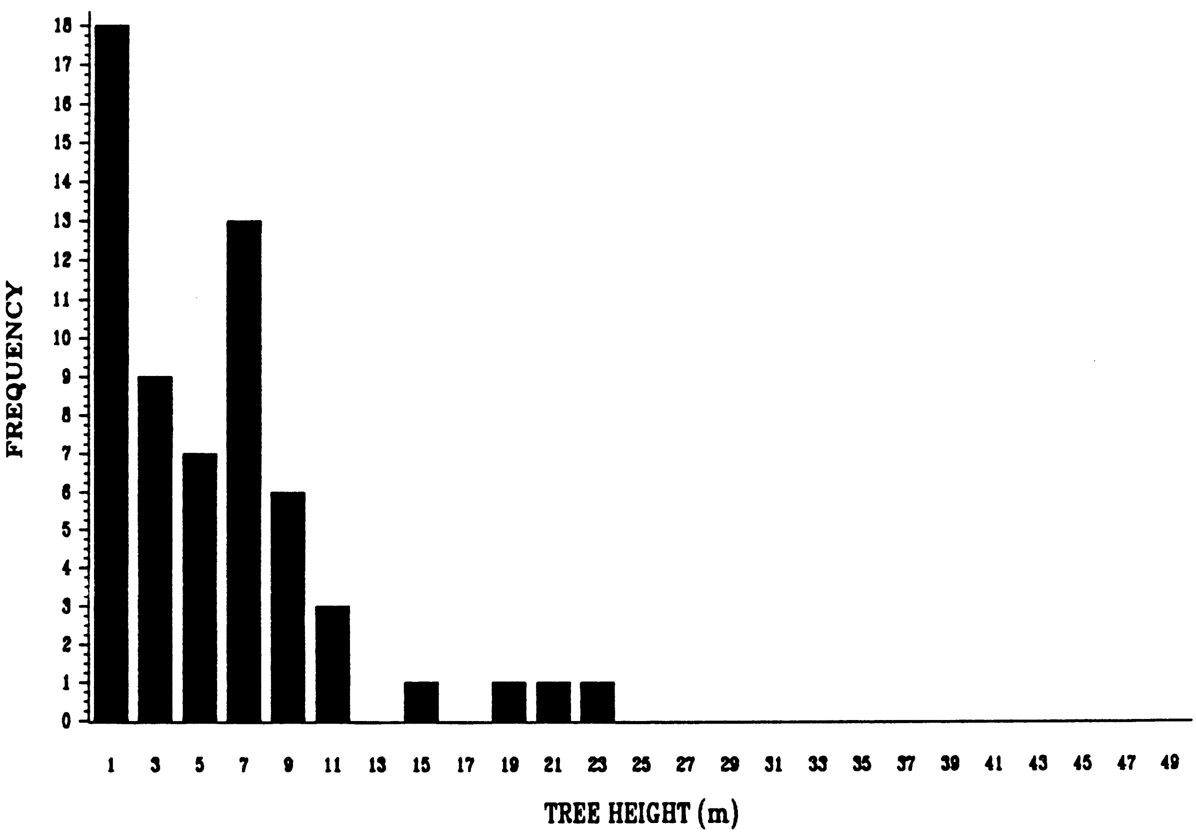
Fagus grandifolia



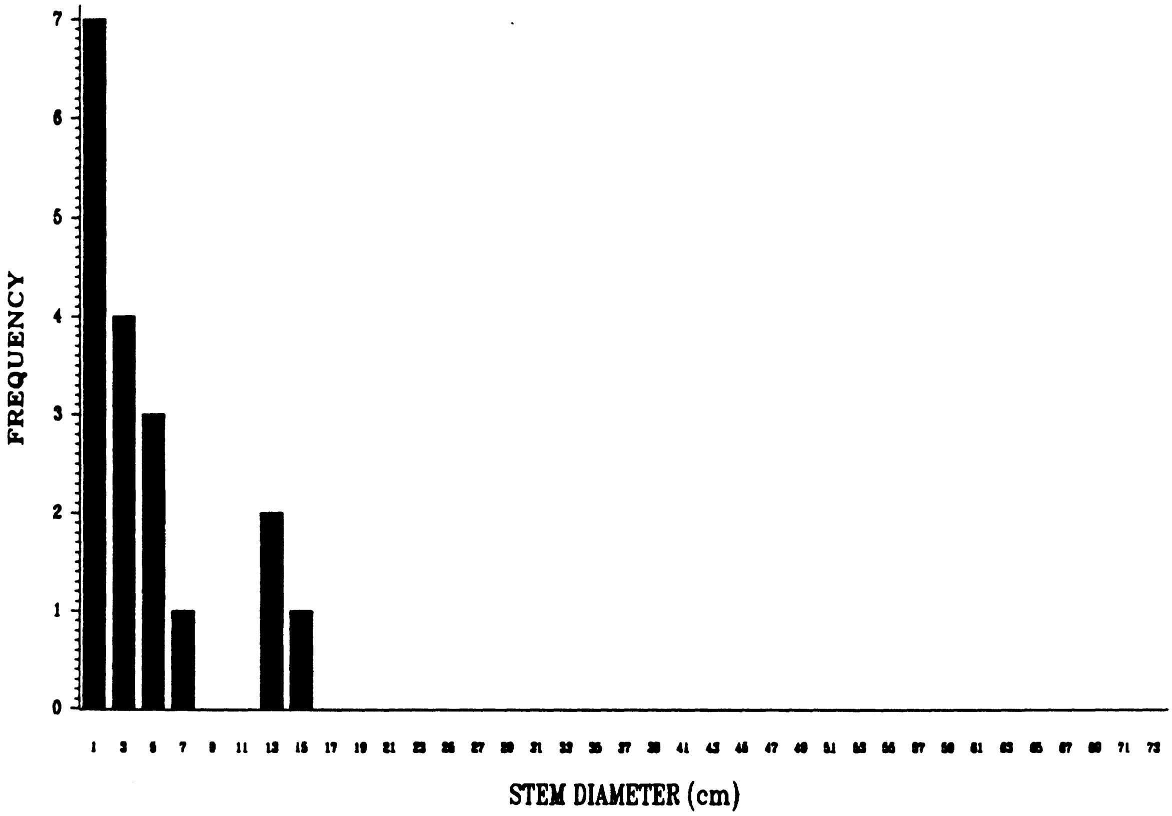


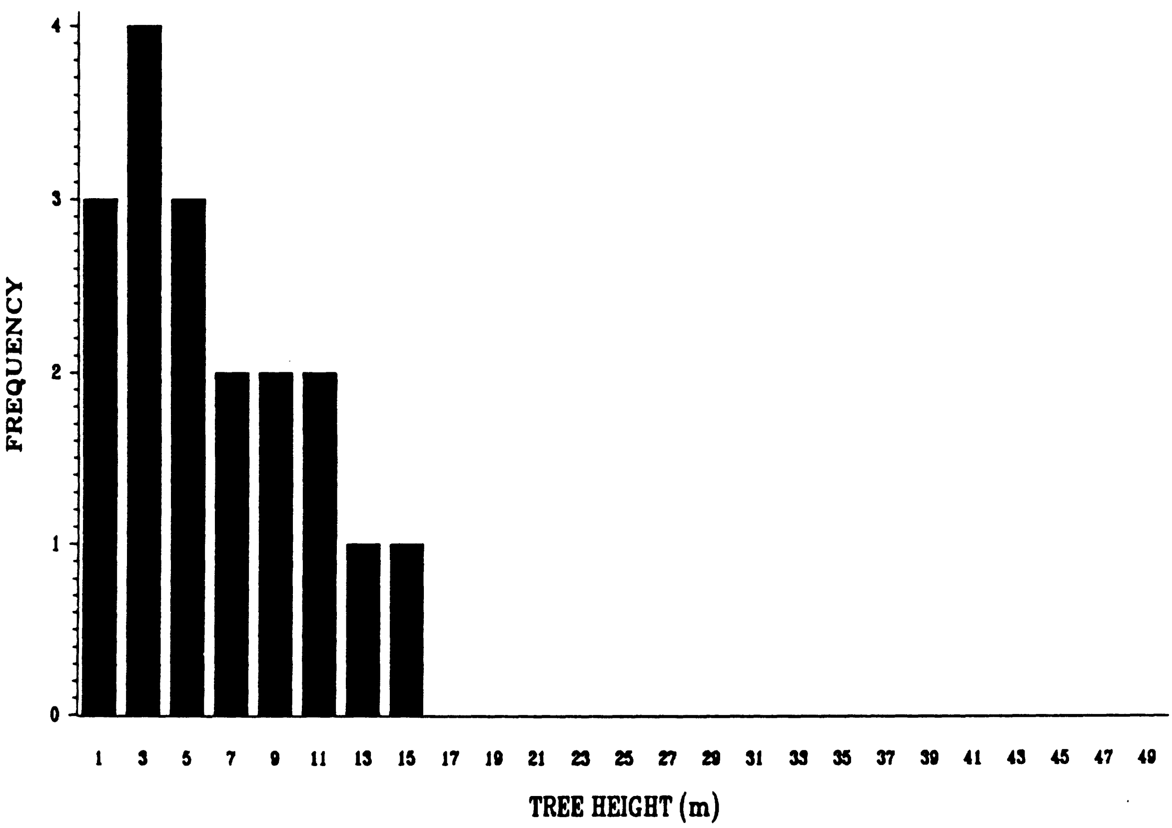
Fraxinus americana



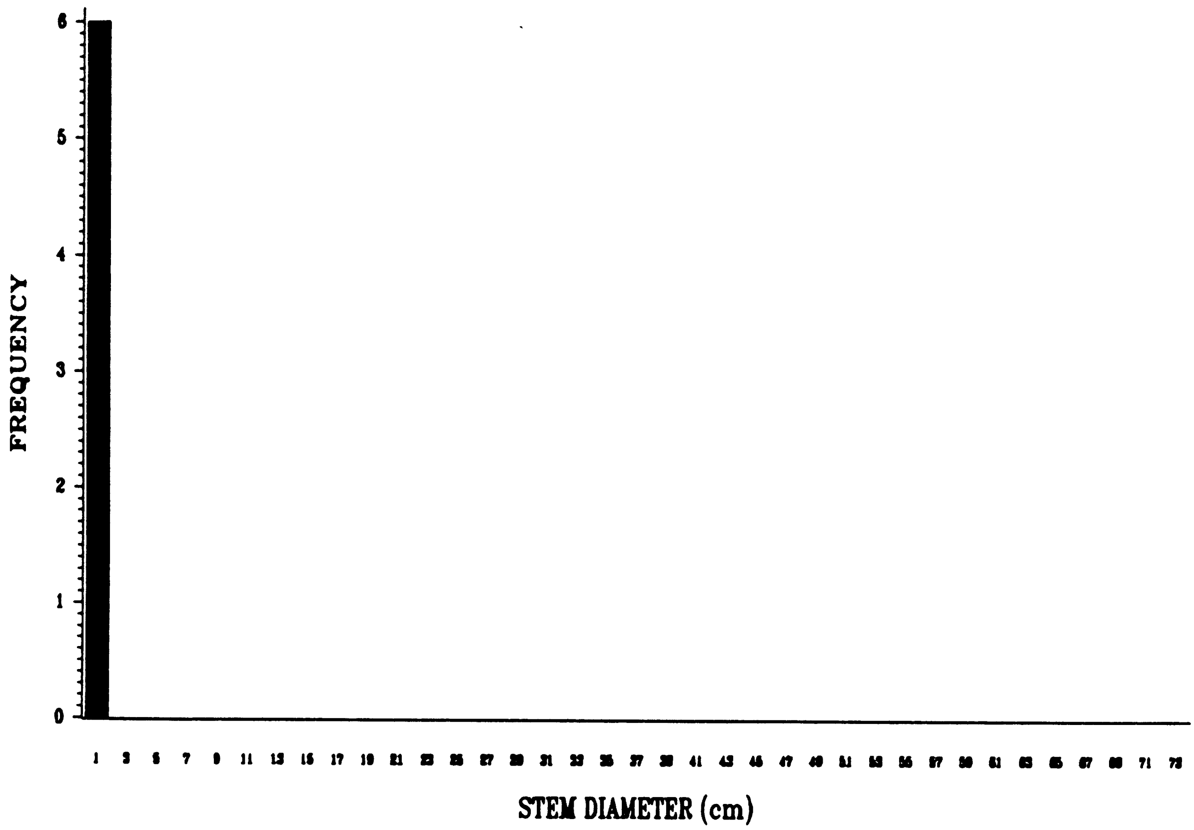


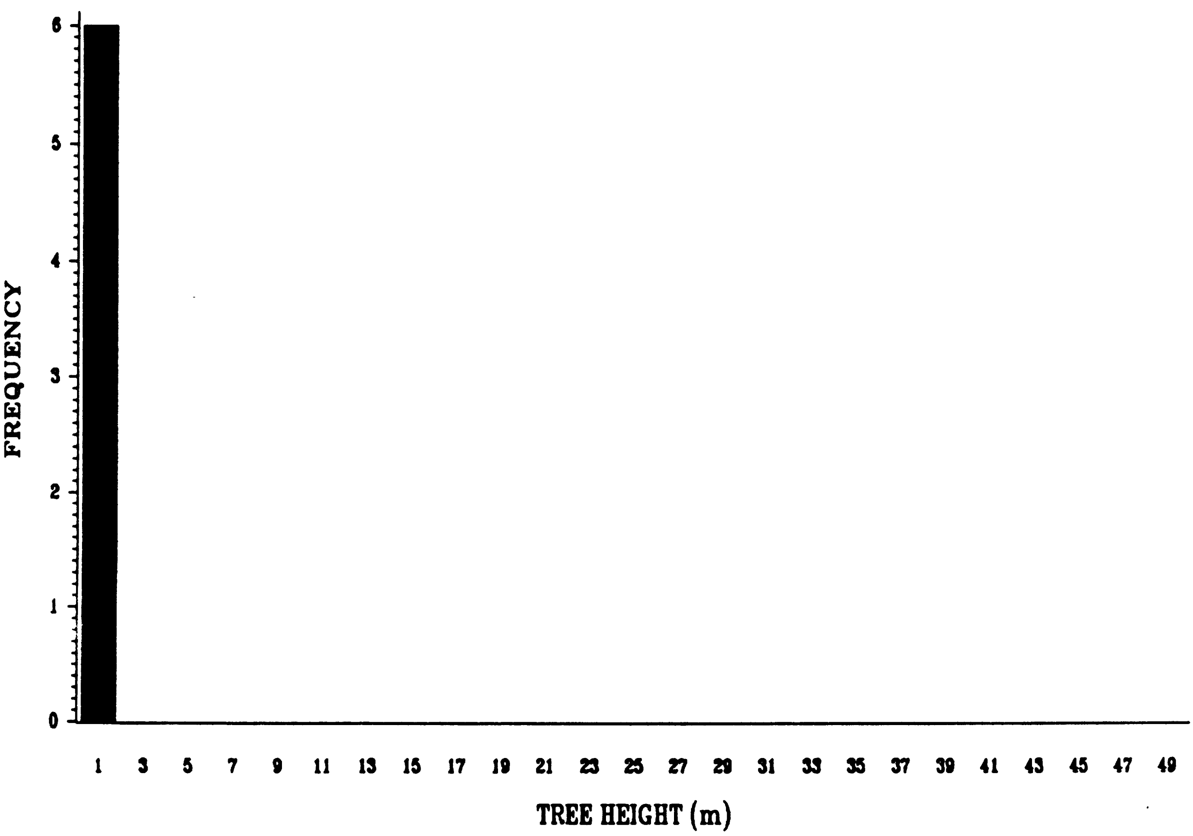
Fraxinus nigra



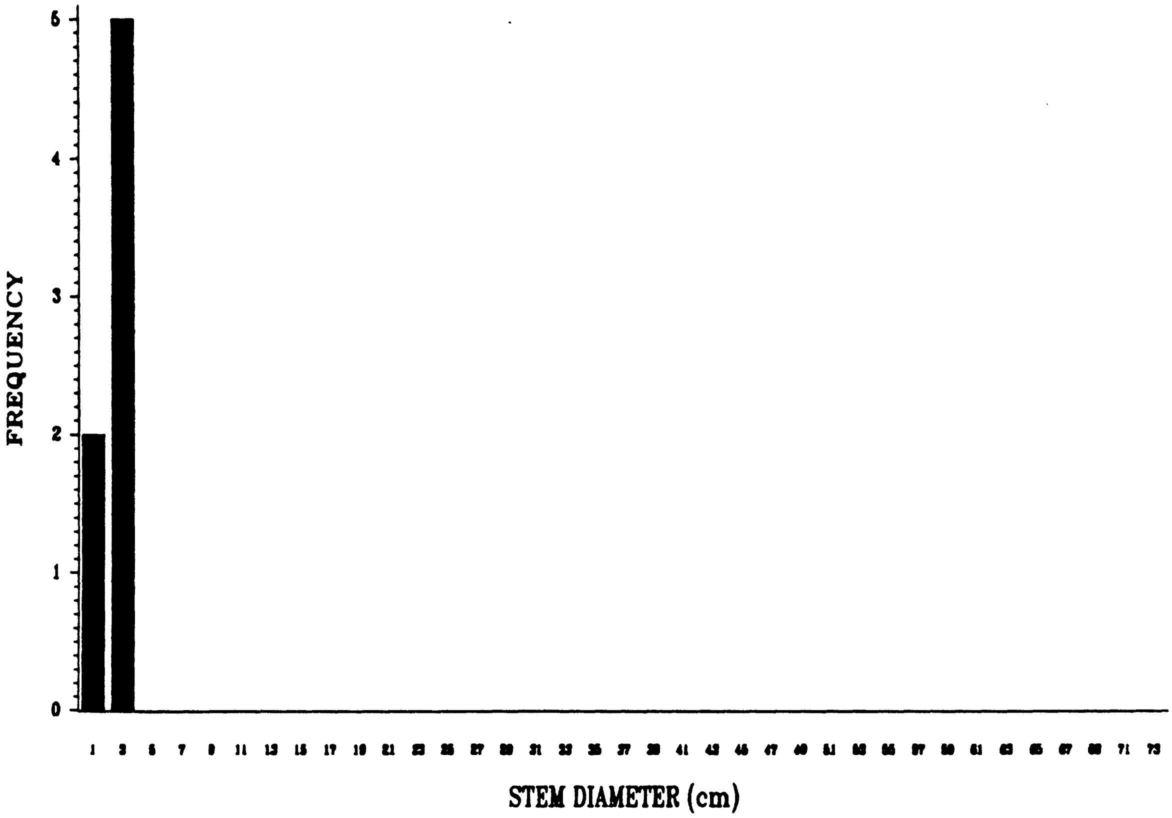


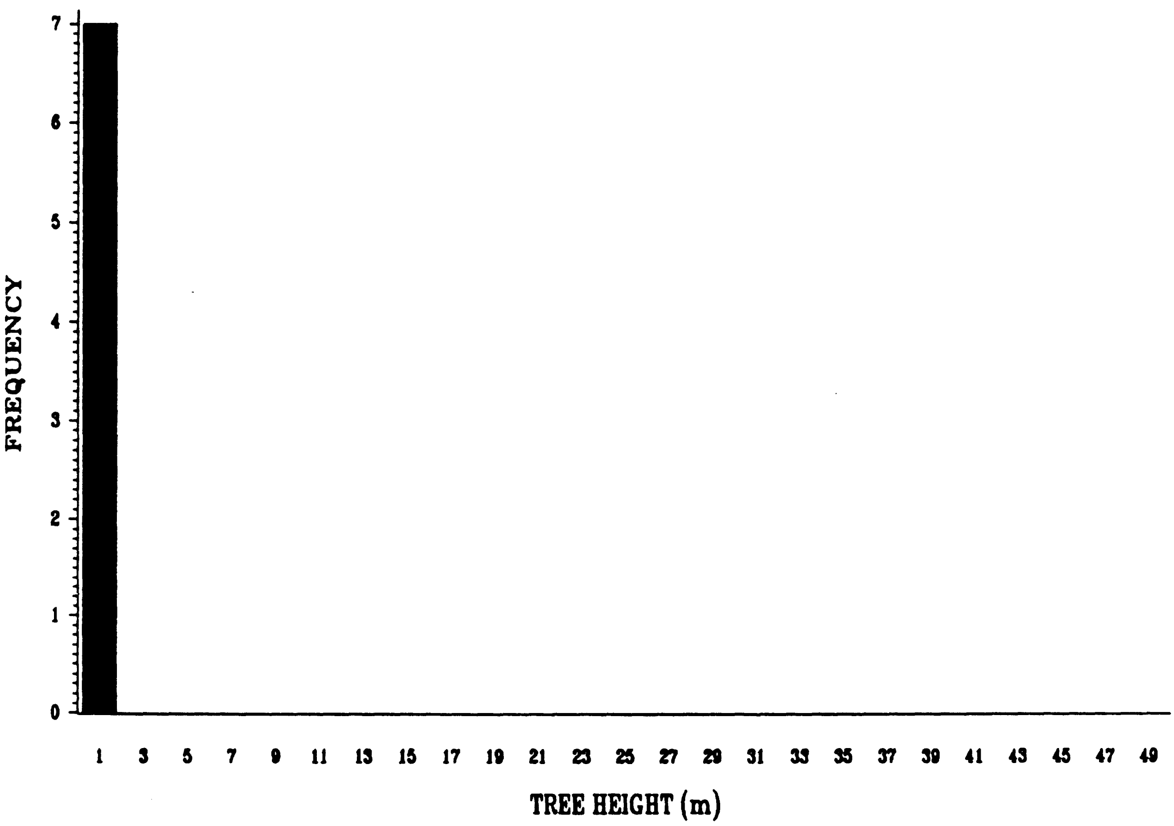
Ilex verticillata



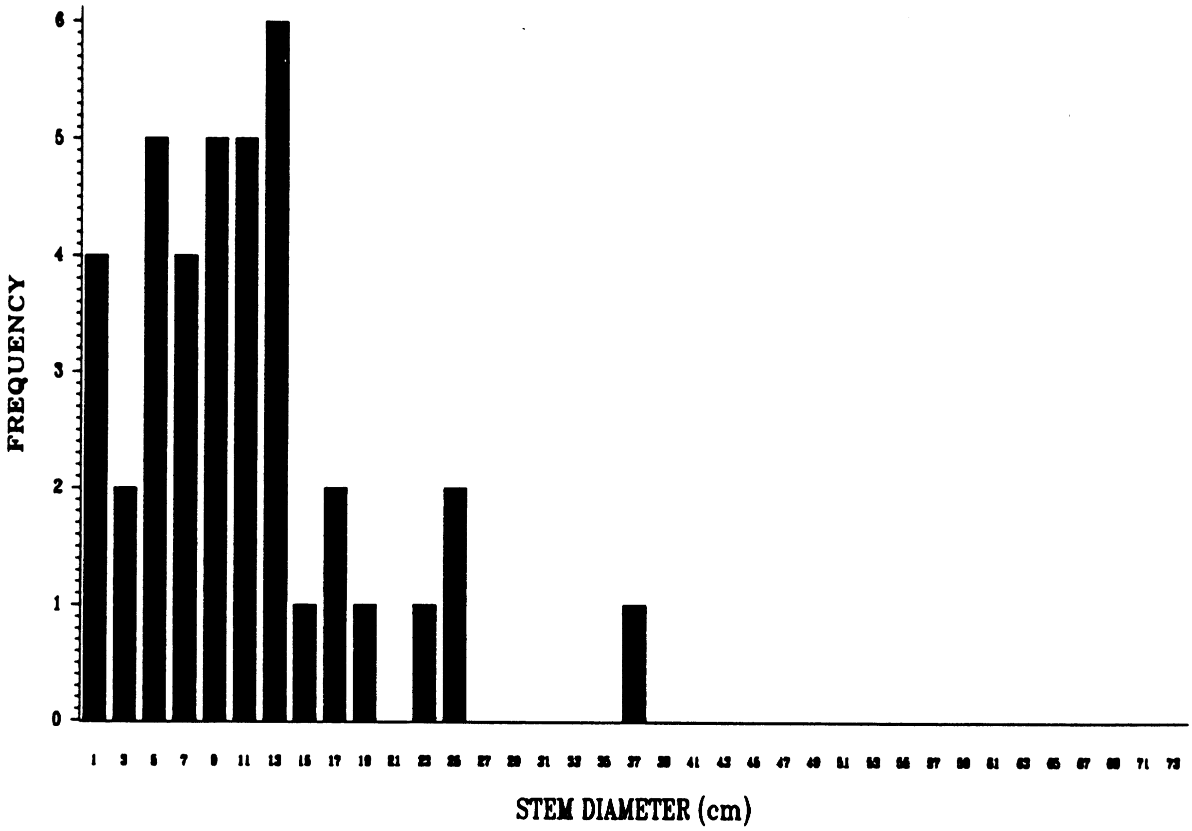


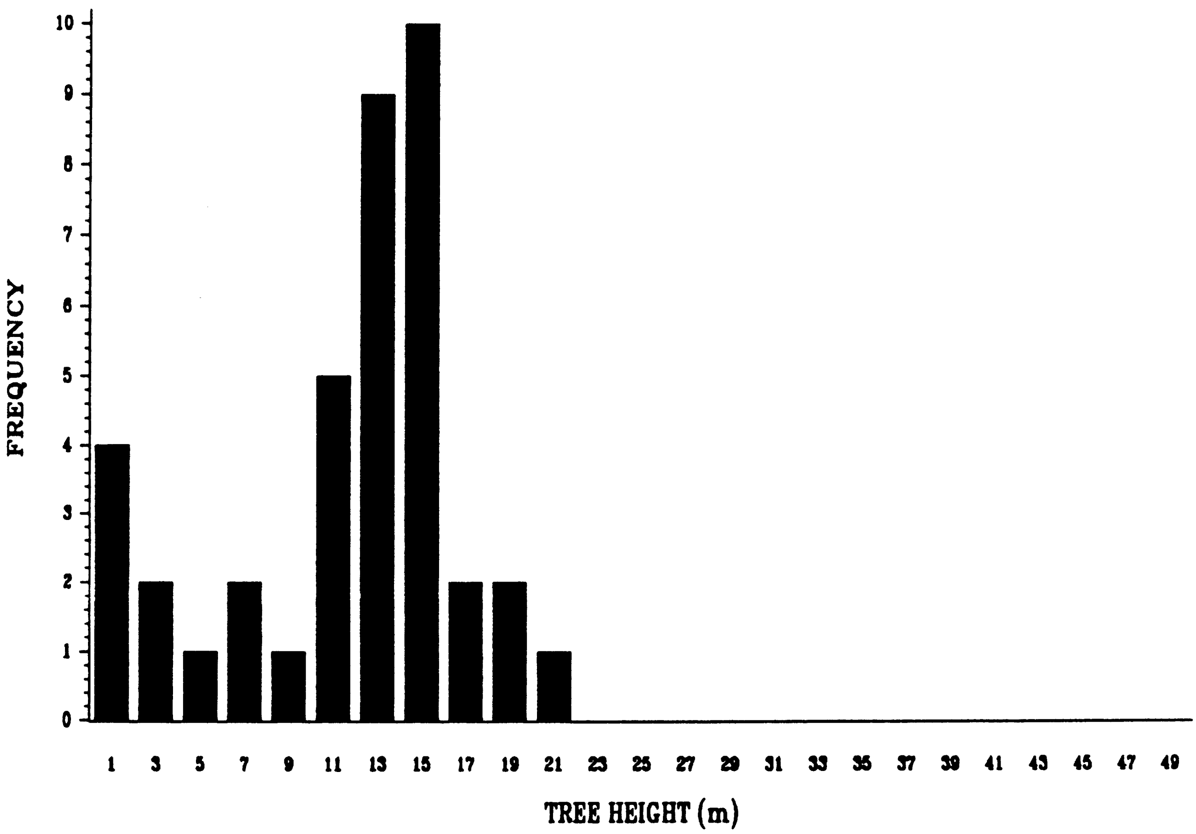
Juncus communis



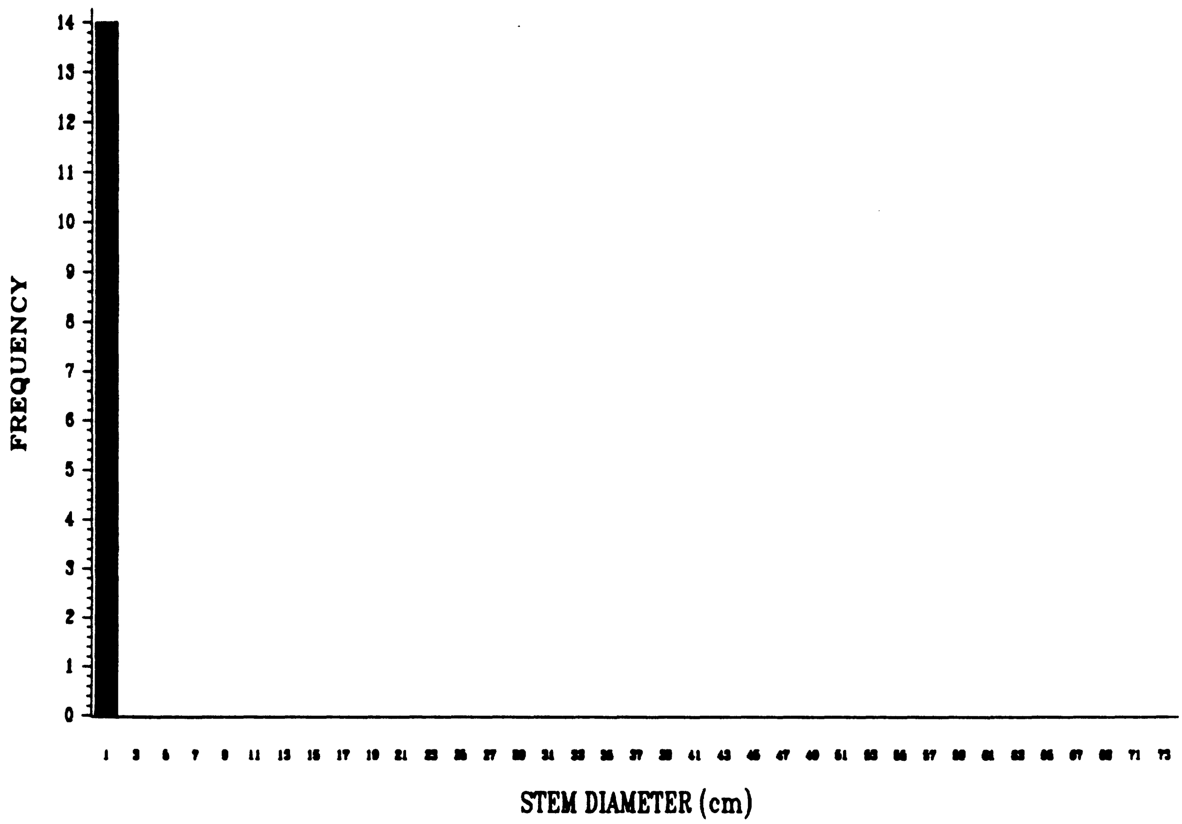


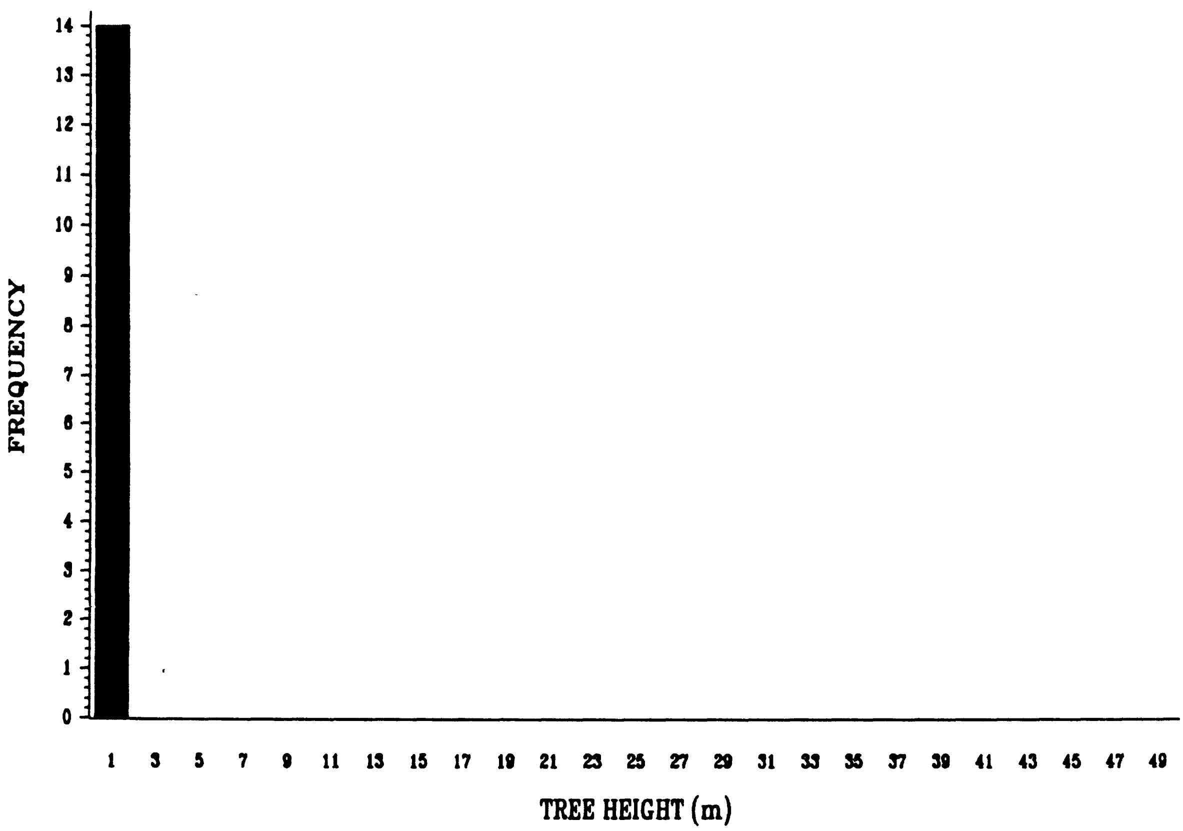
Larix laricina



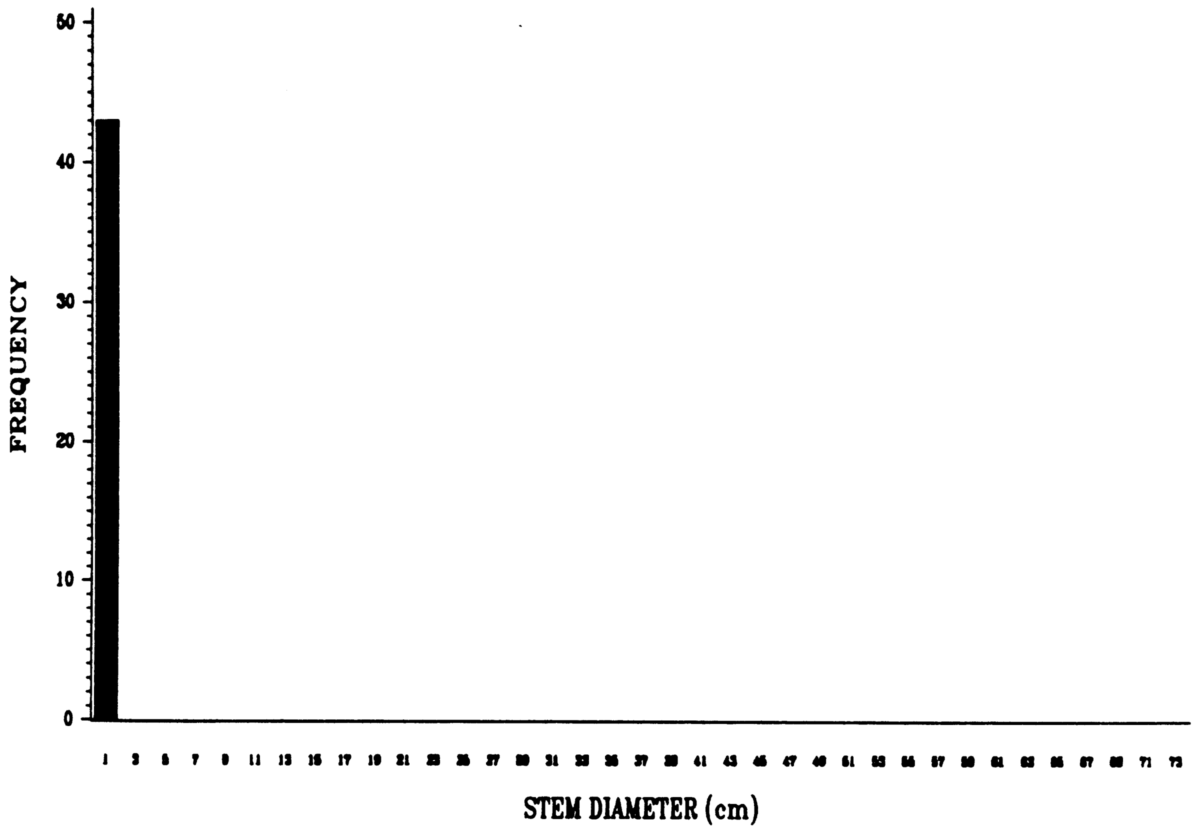


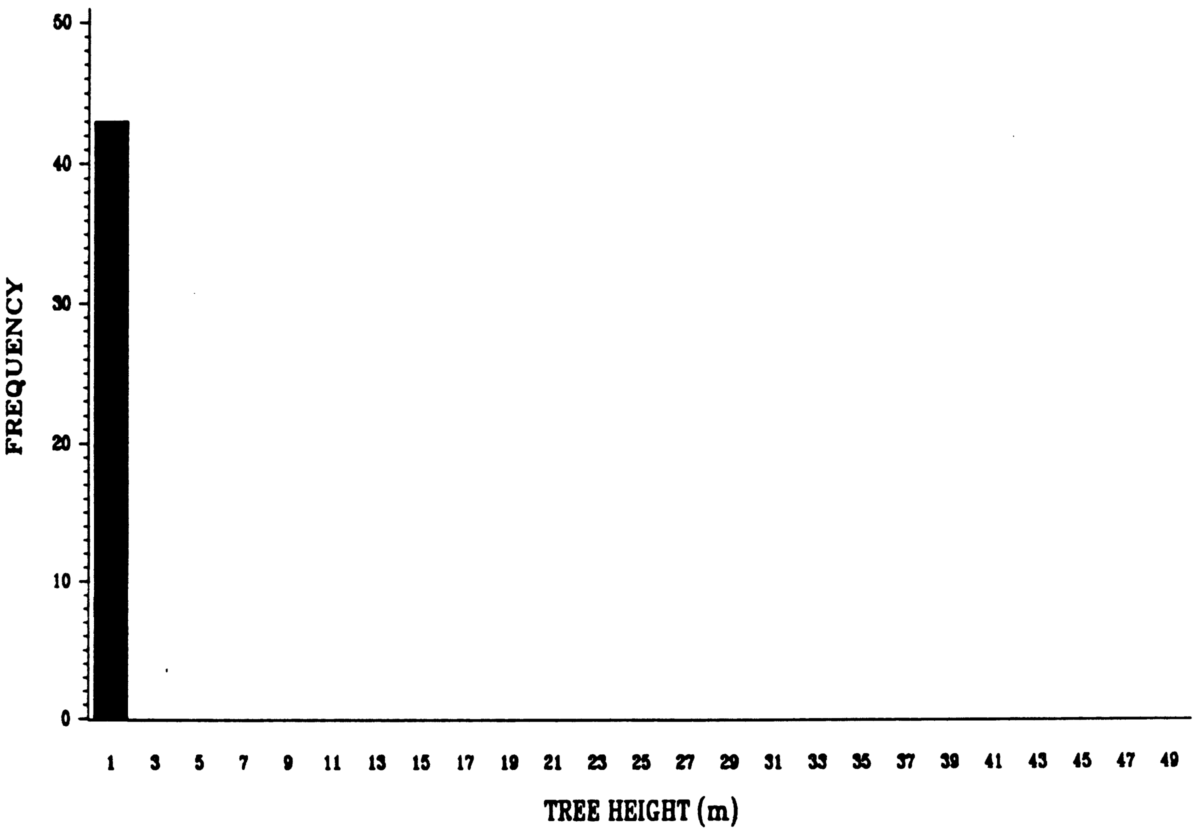
Ledum groenlandicum



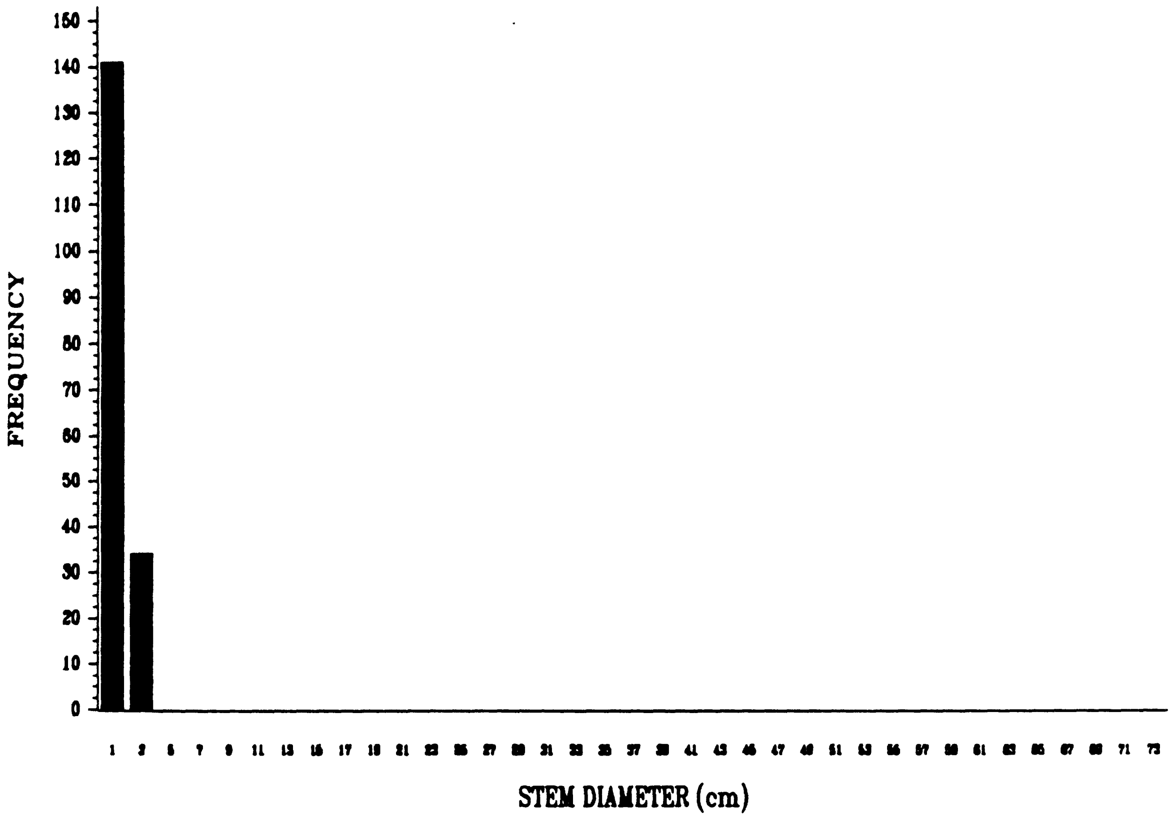


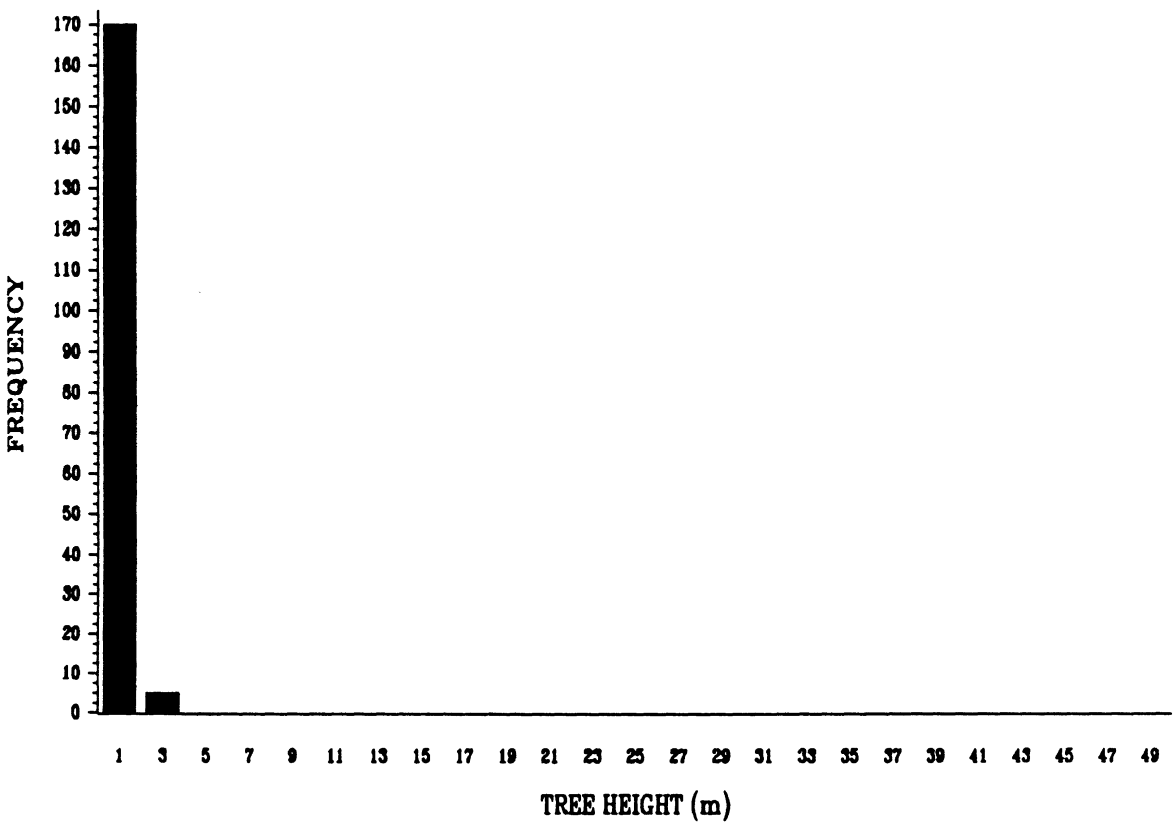
Lonicera spp.



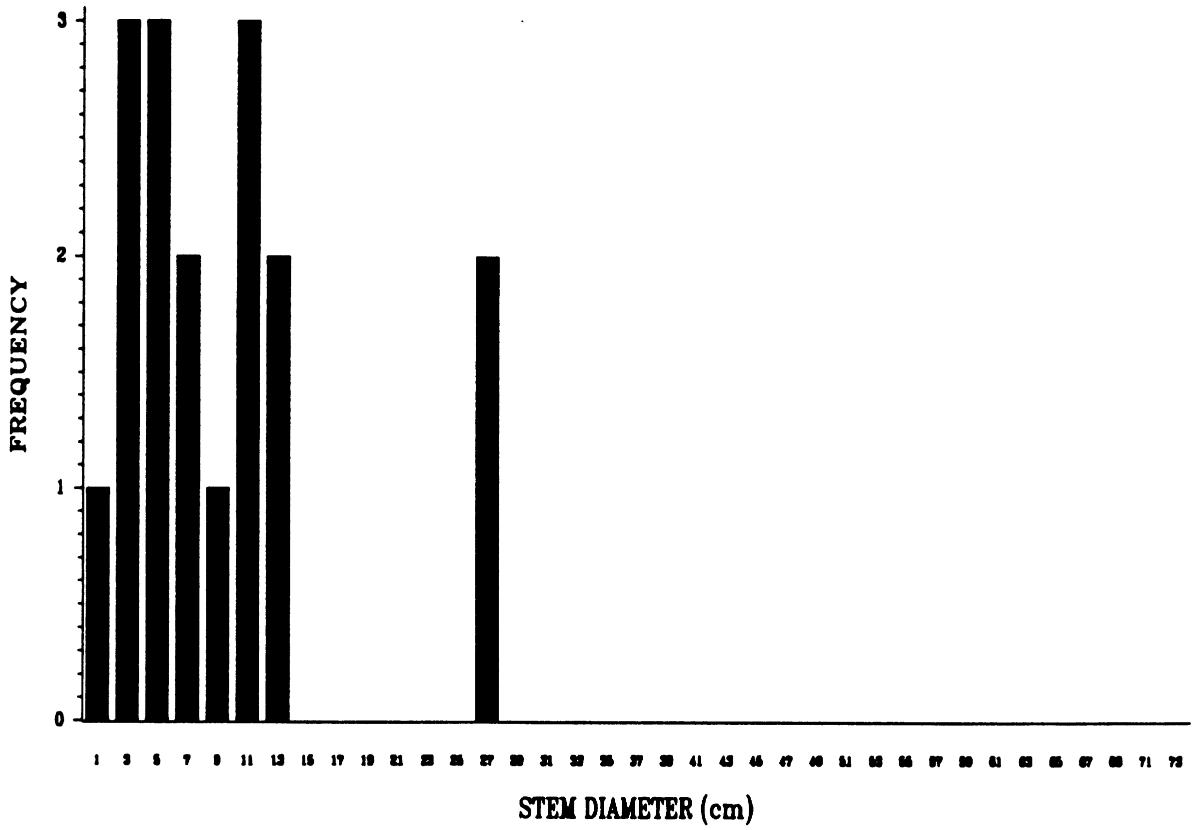


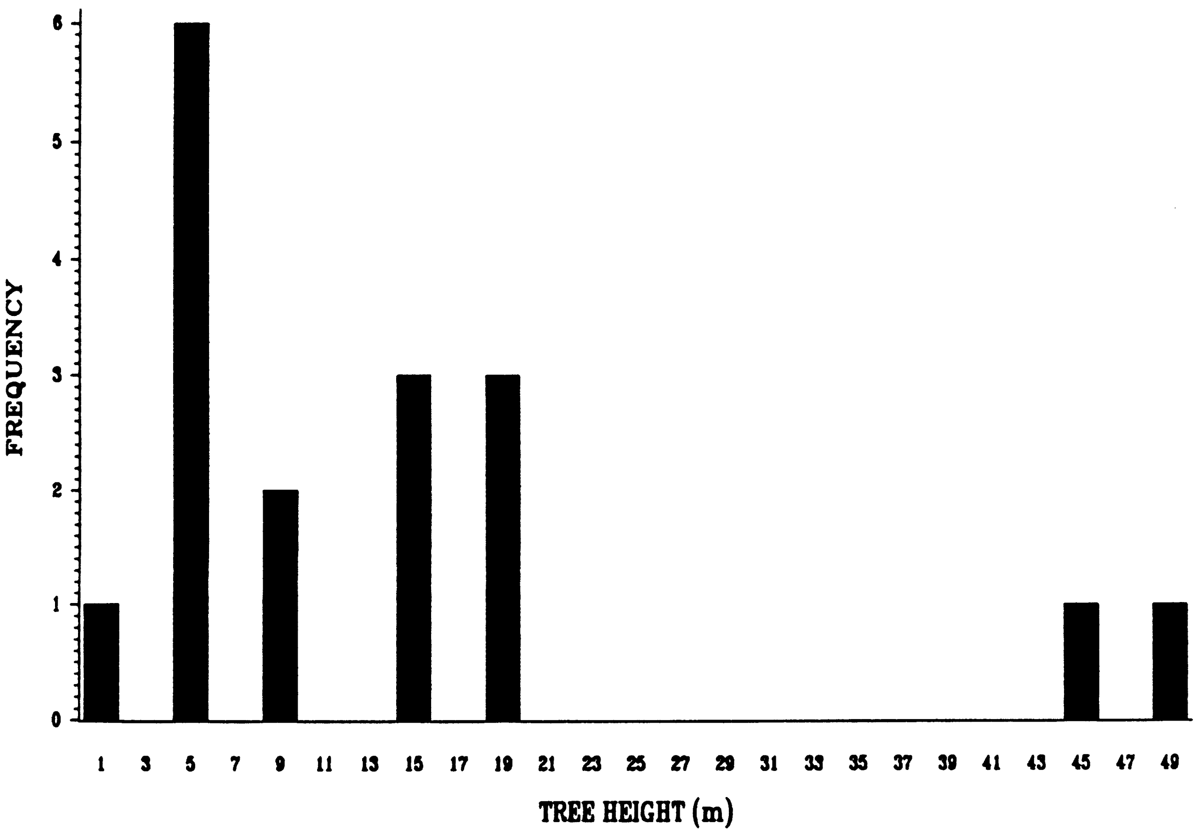
Nemopanthus mucronata



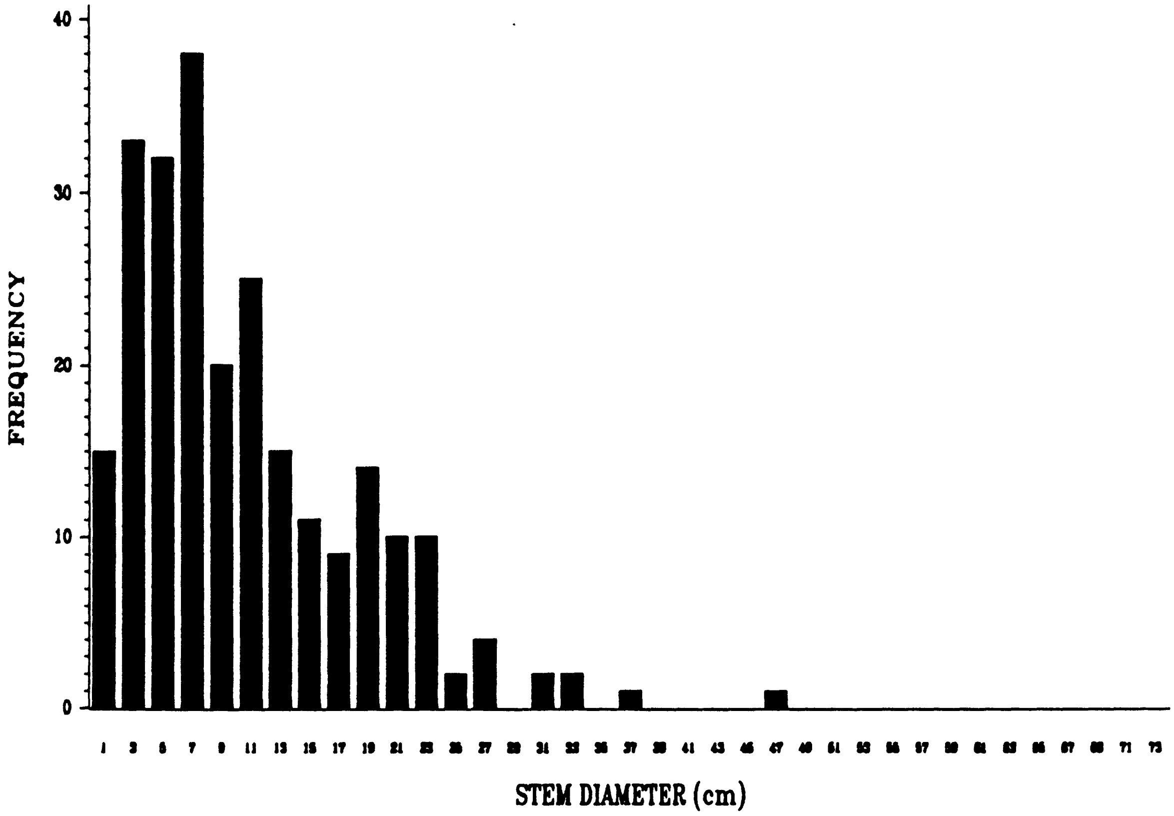


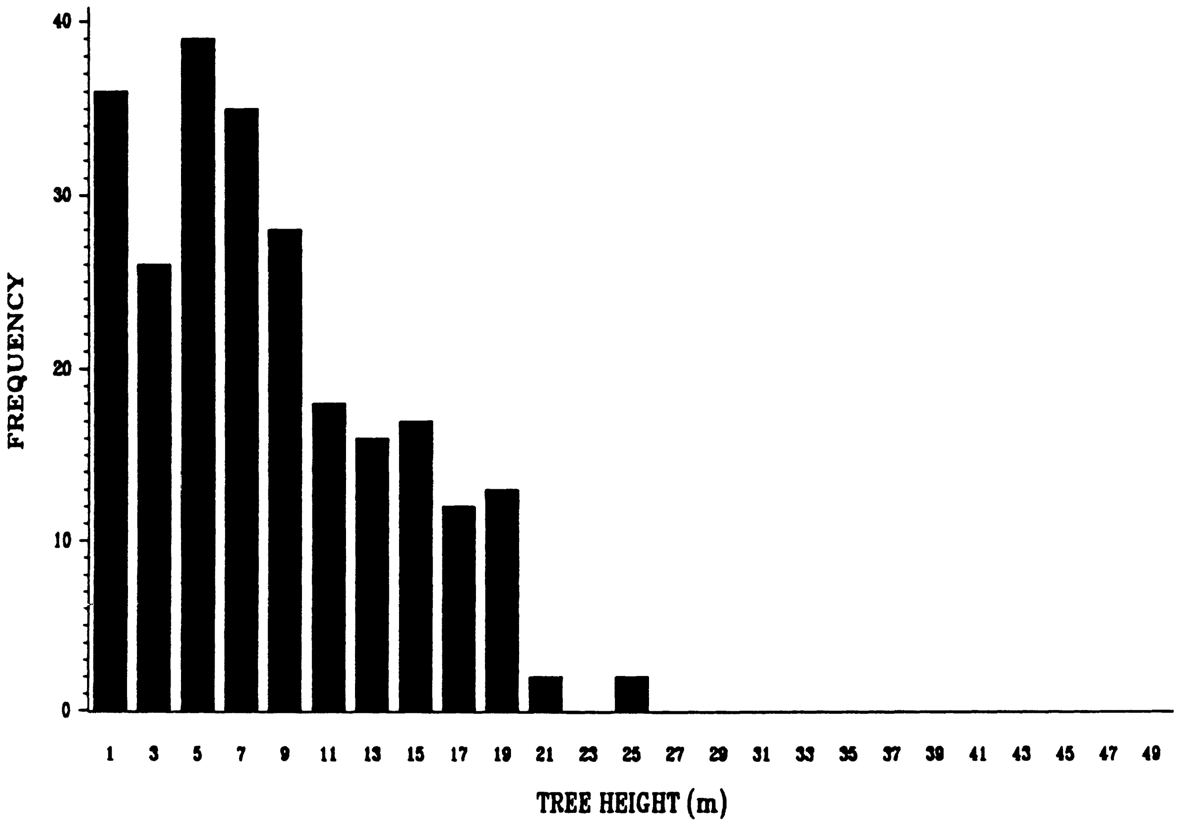
Ostrya virginiana



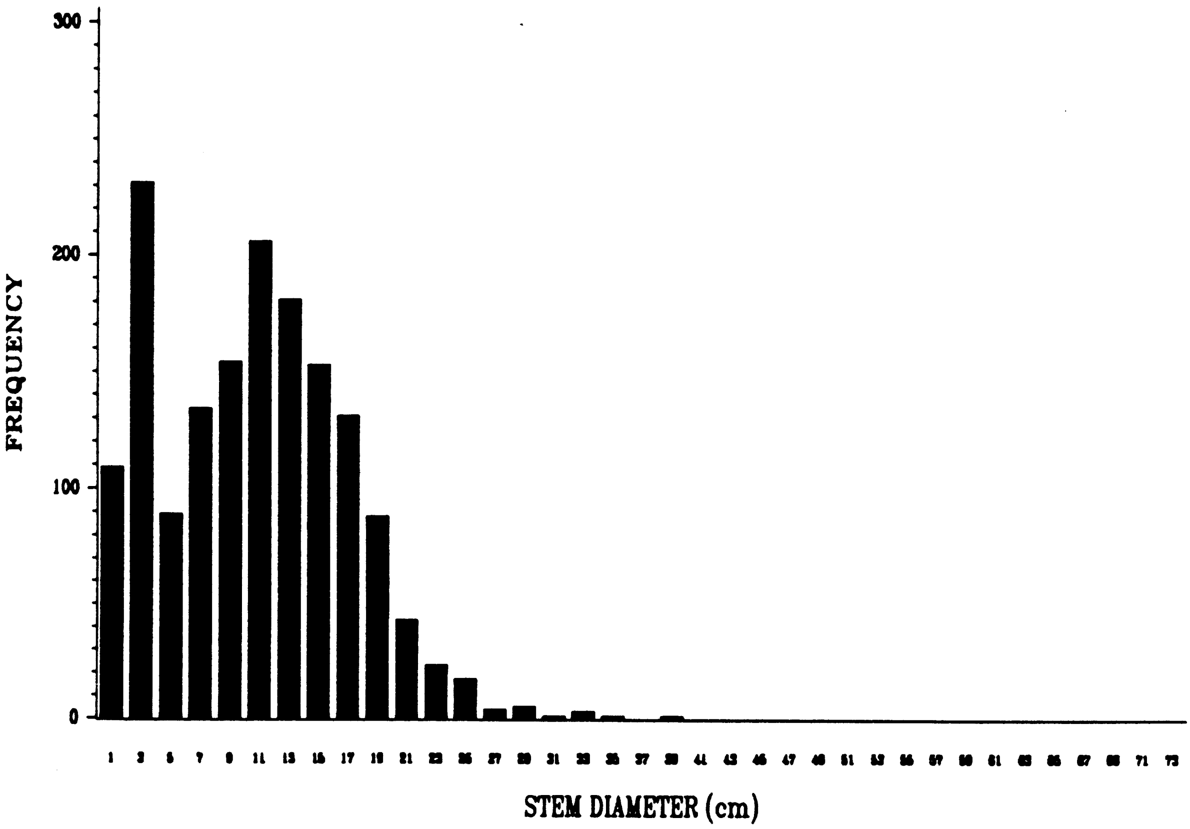


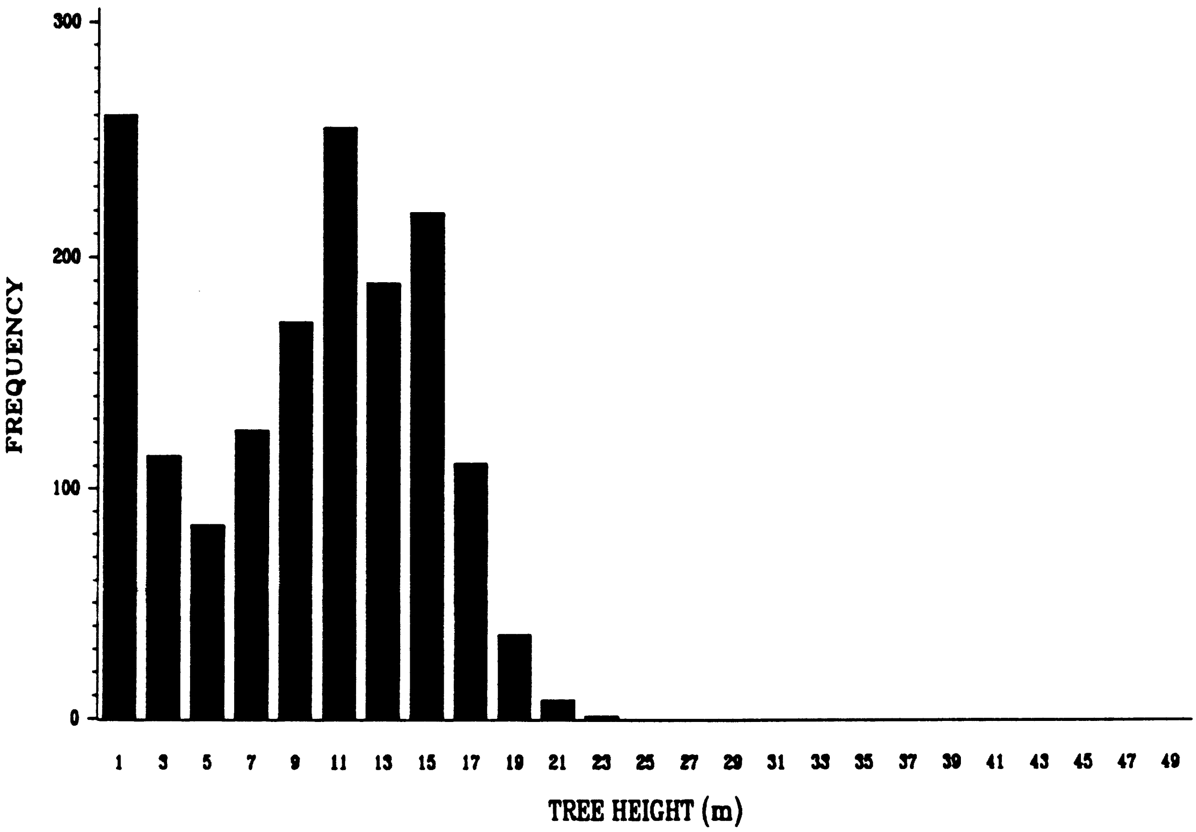
Picea glauca



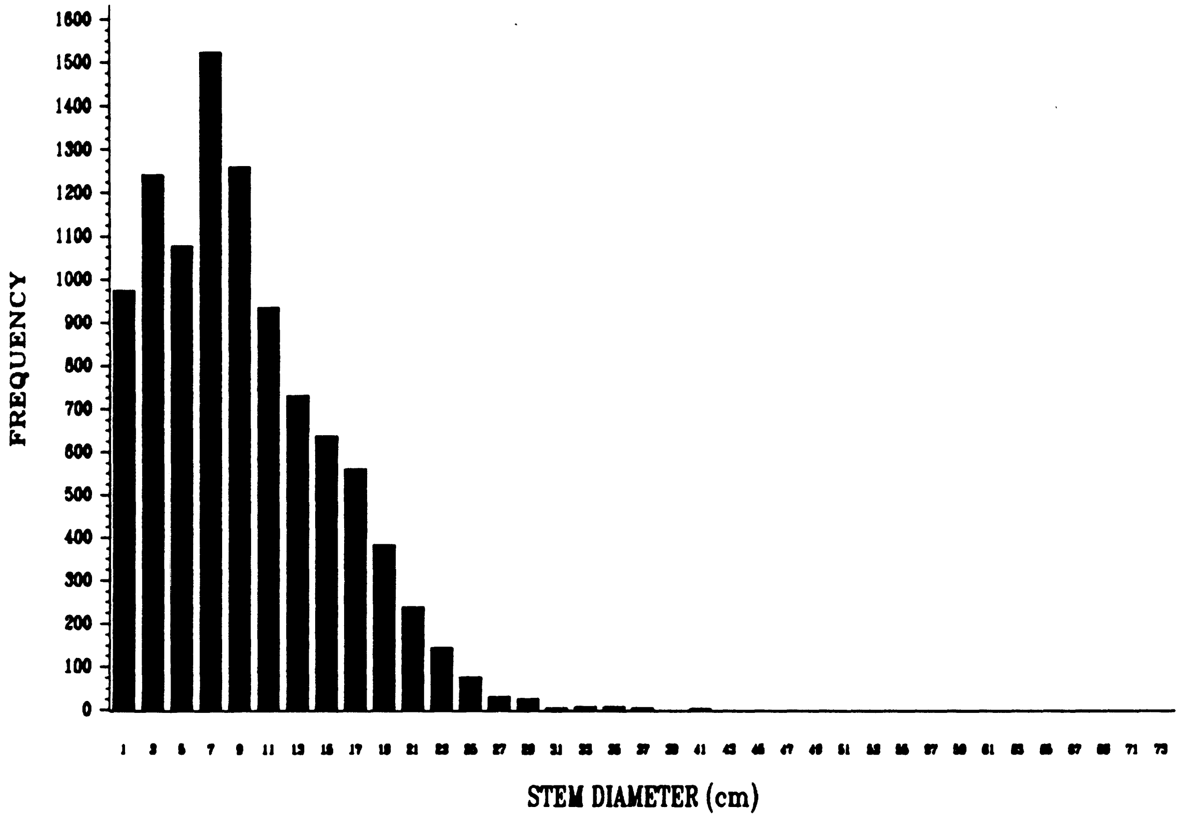


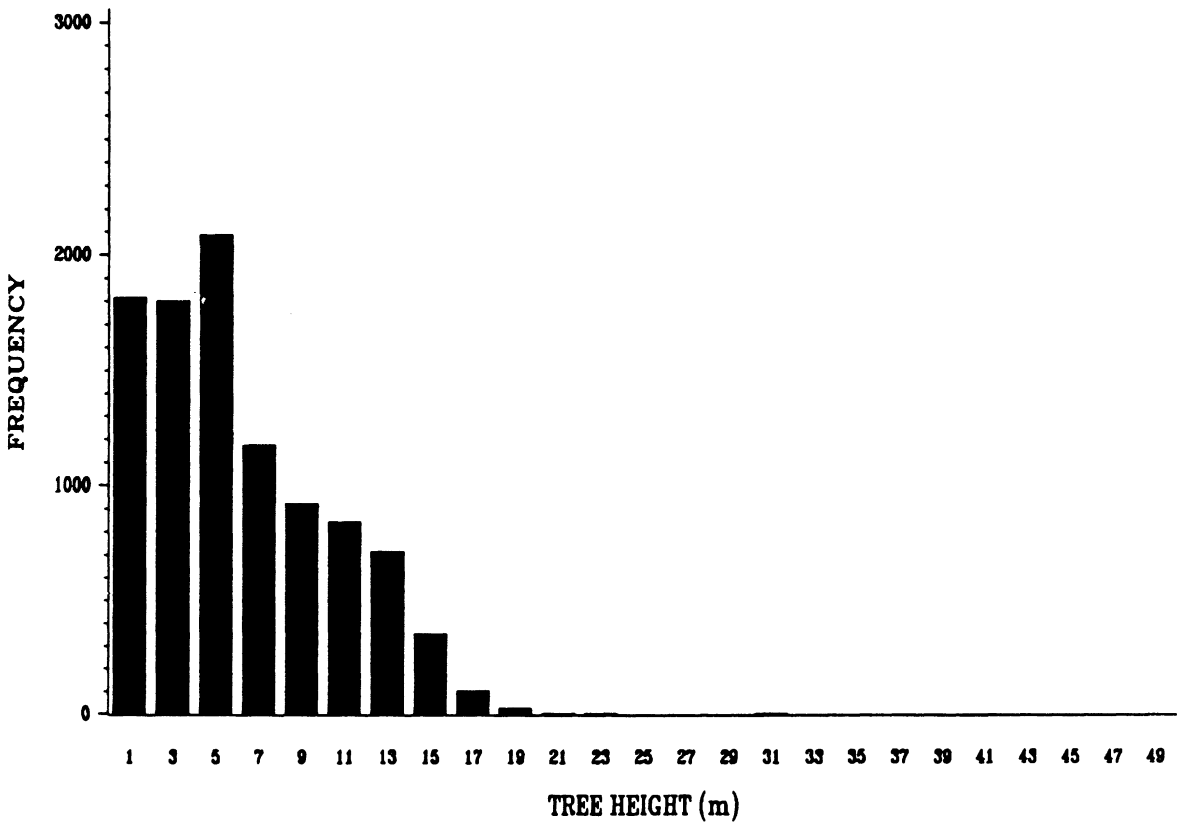
Picea mariana



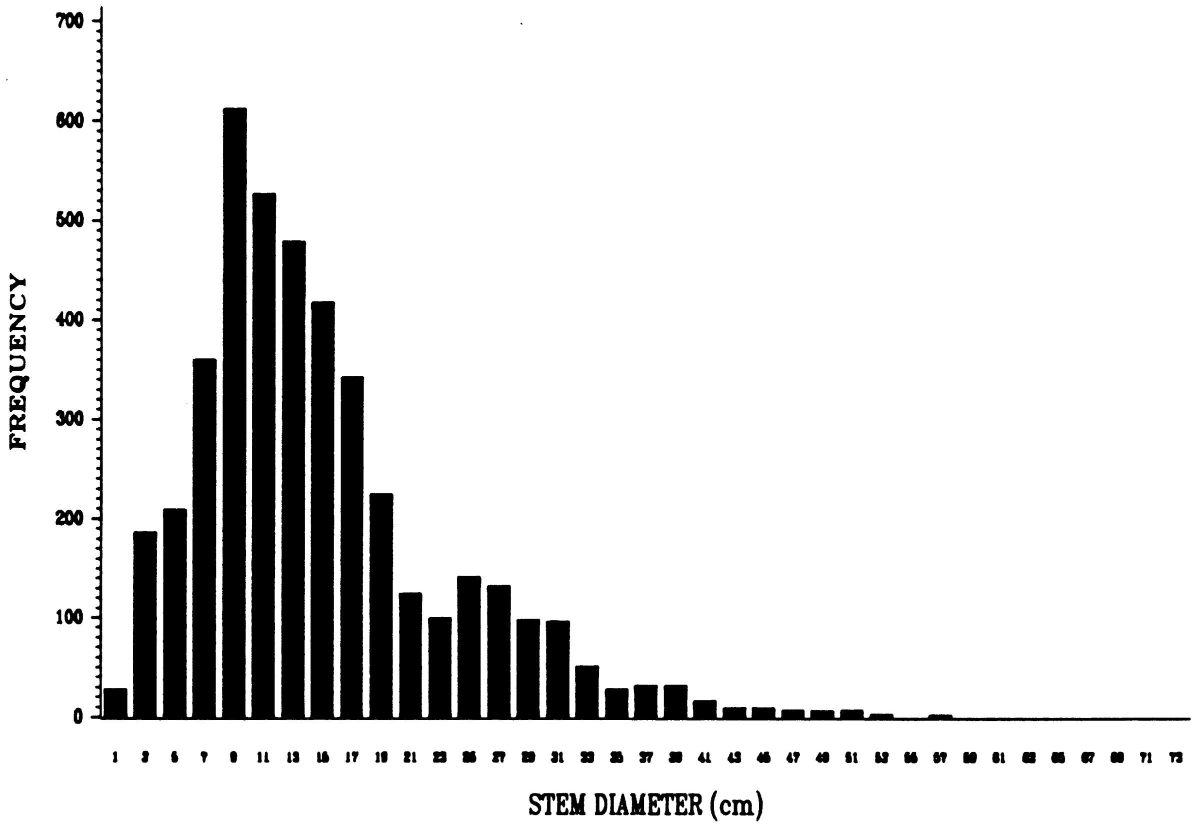


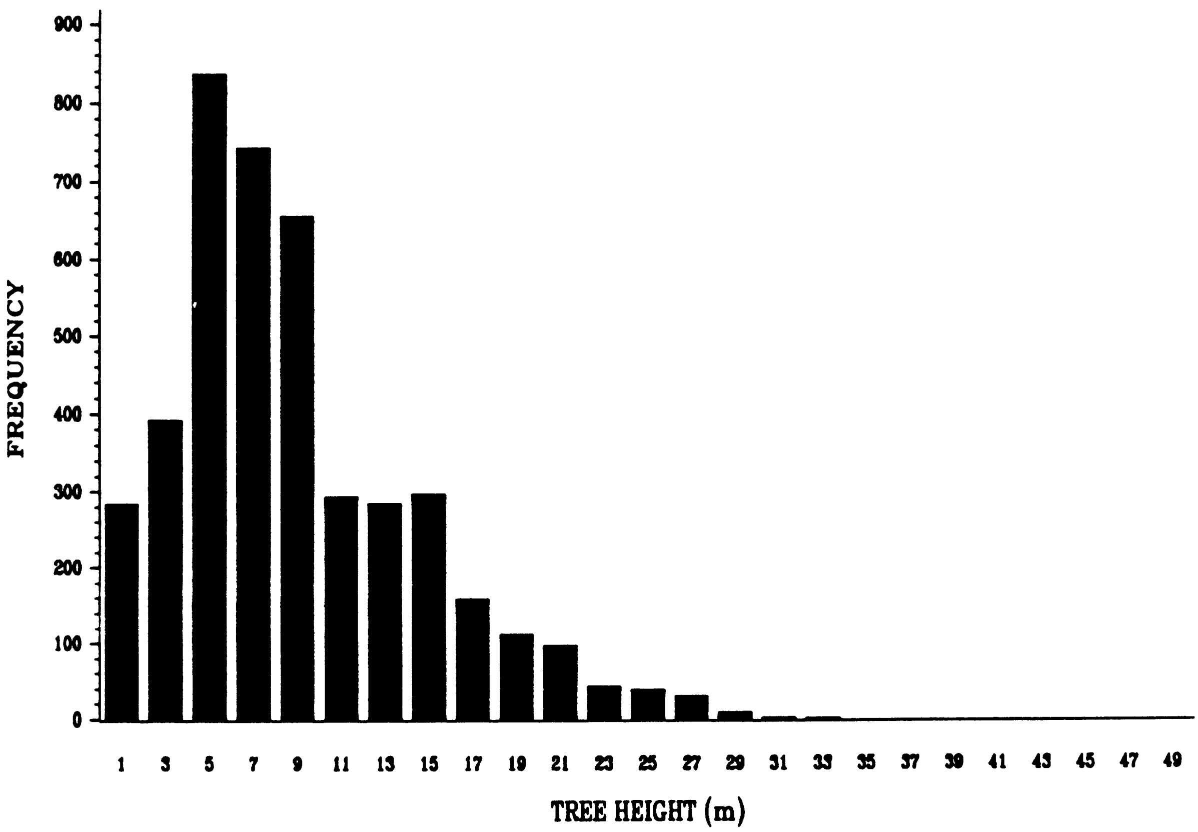
Pinus banksiana



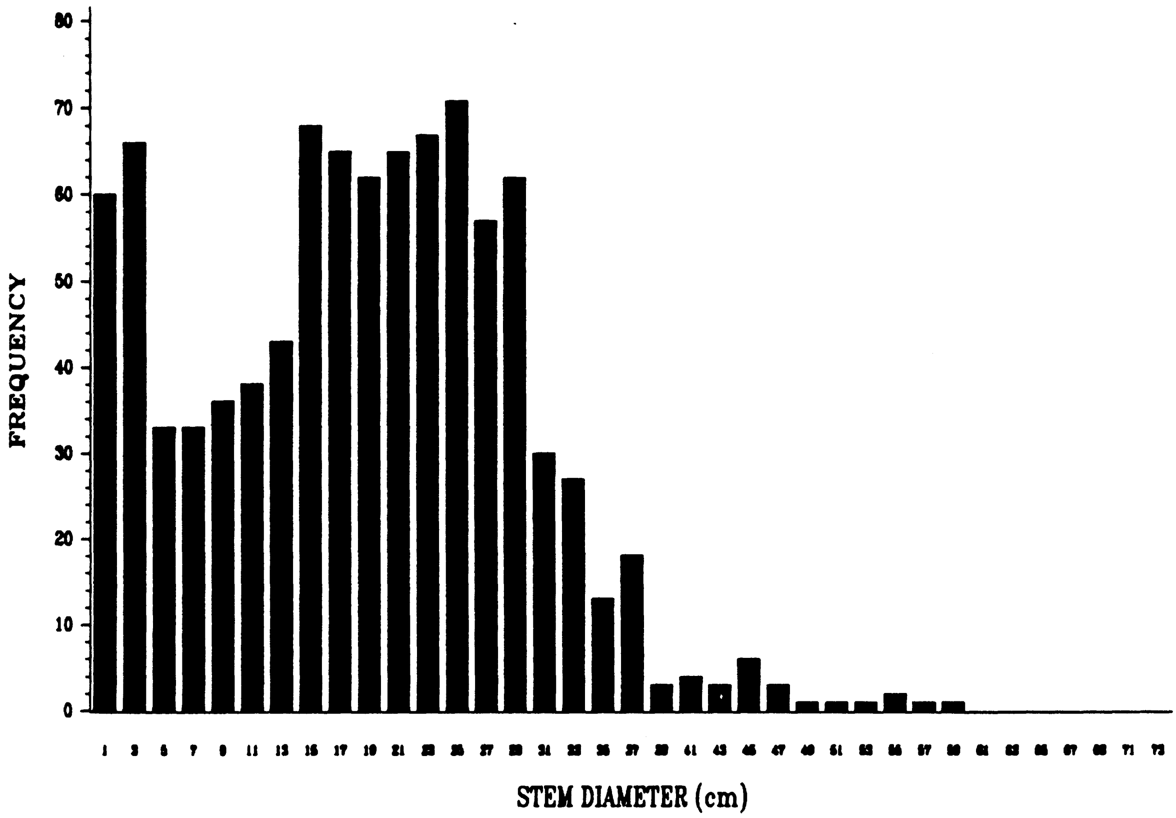


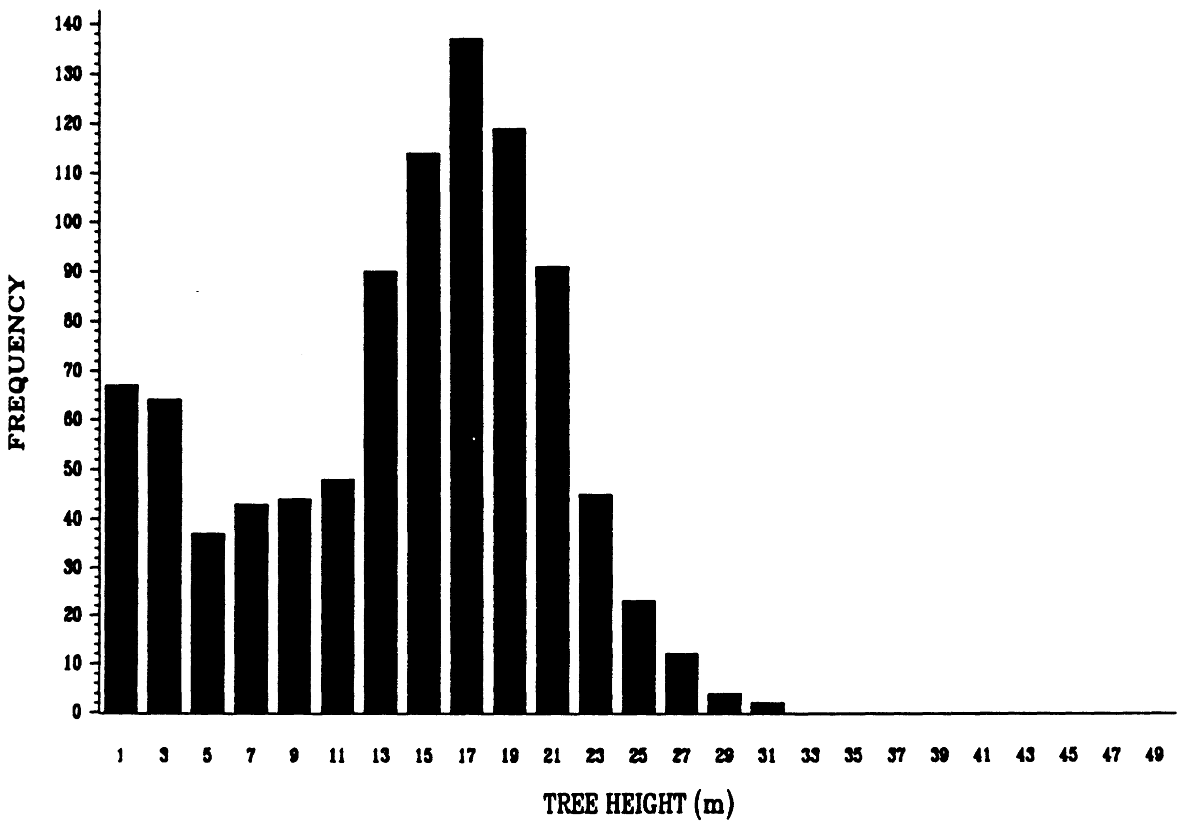
Pinus resinosa



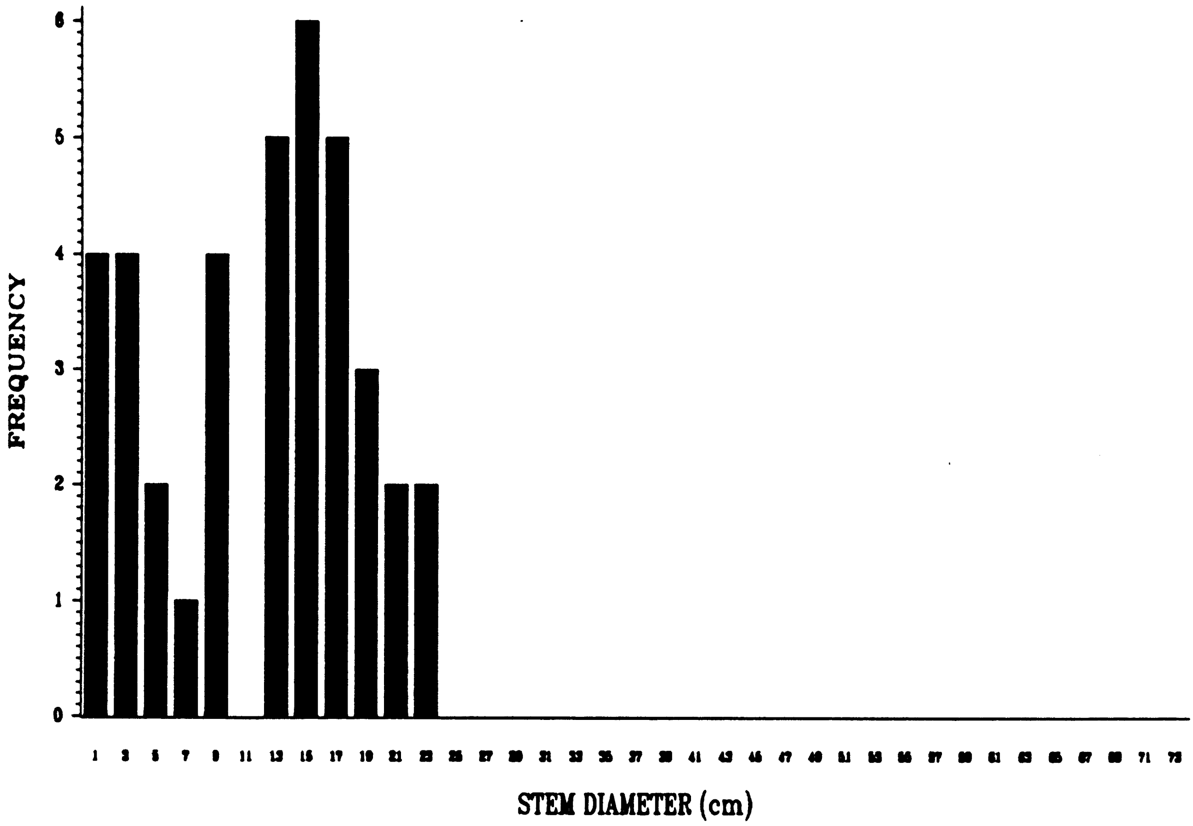


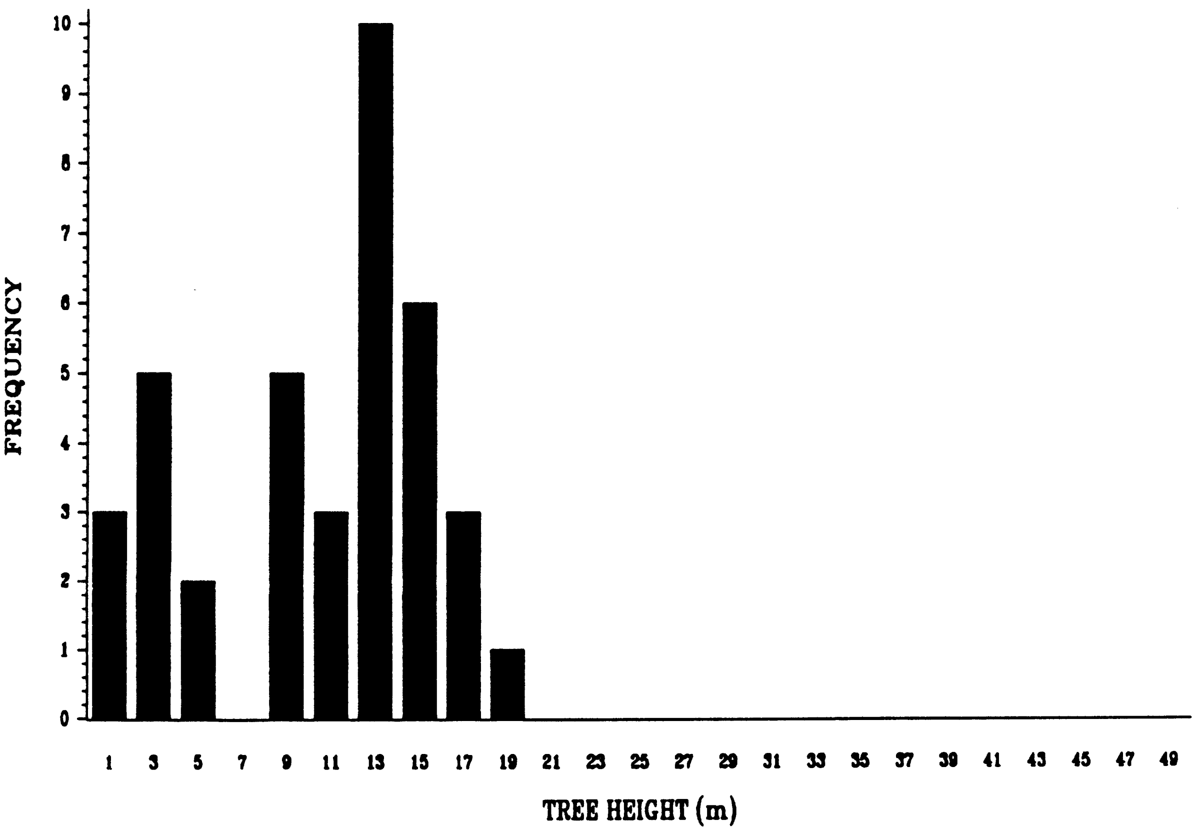
Pinus strobus



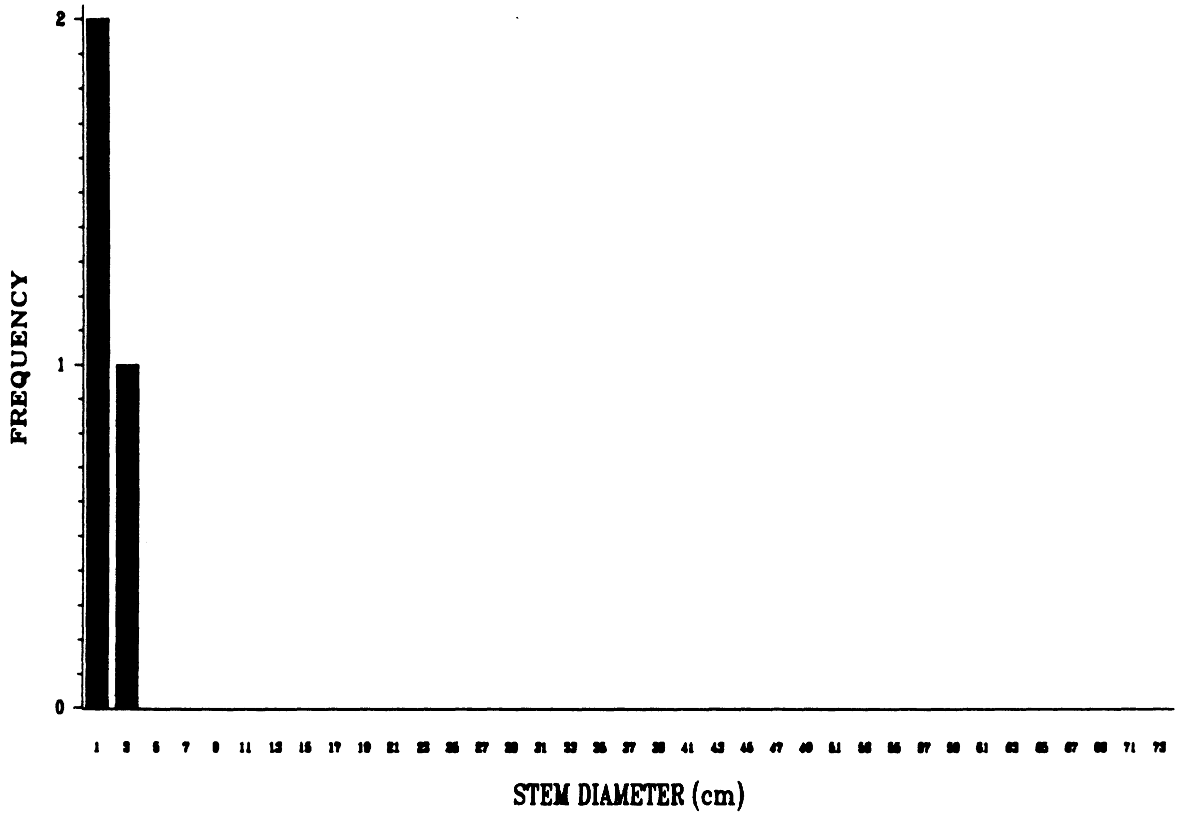


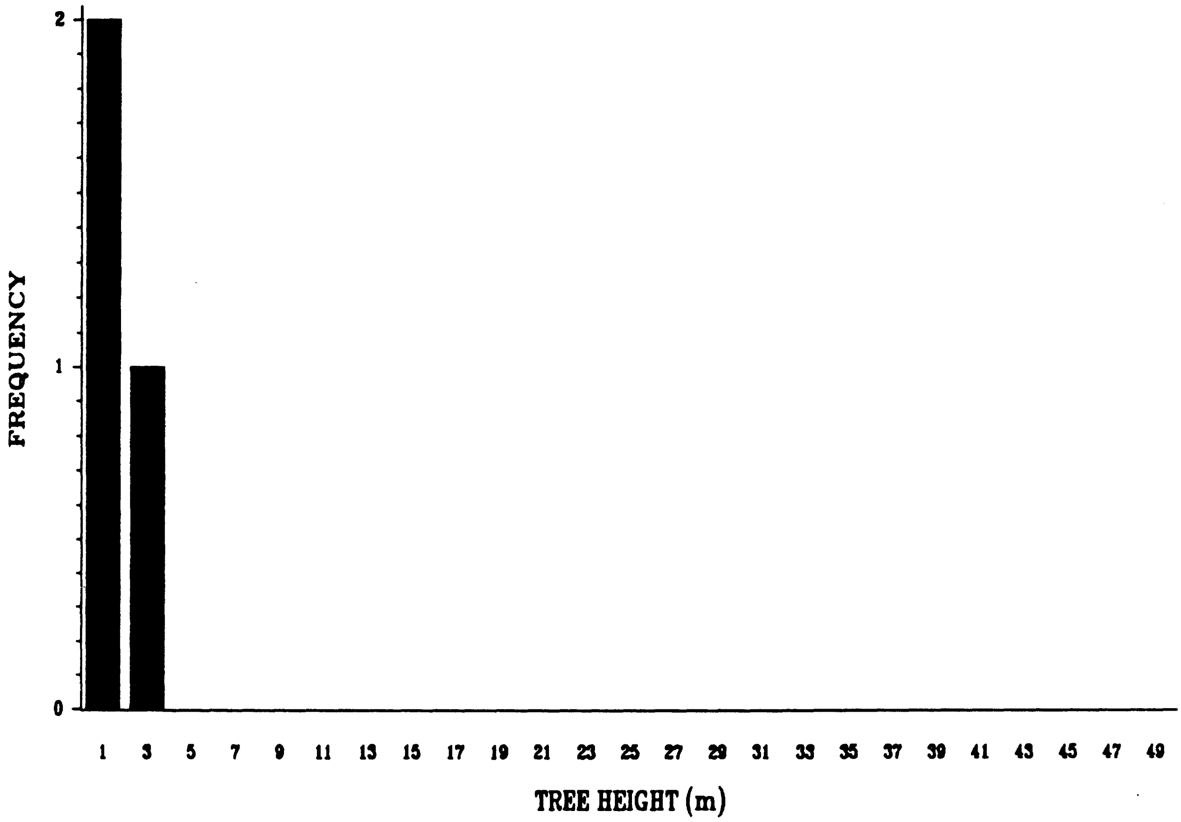
Populus balsamifera



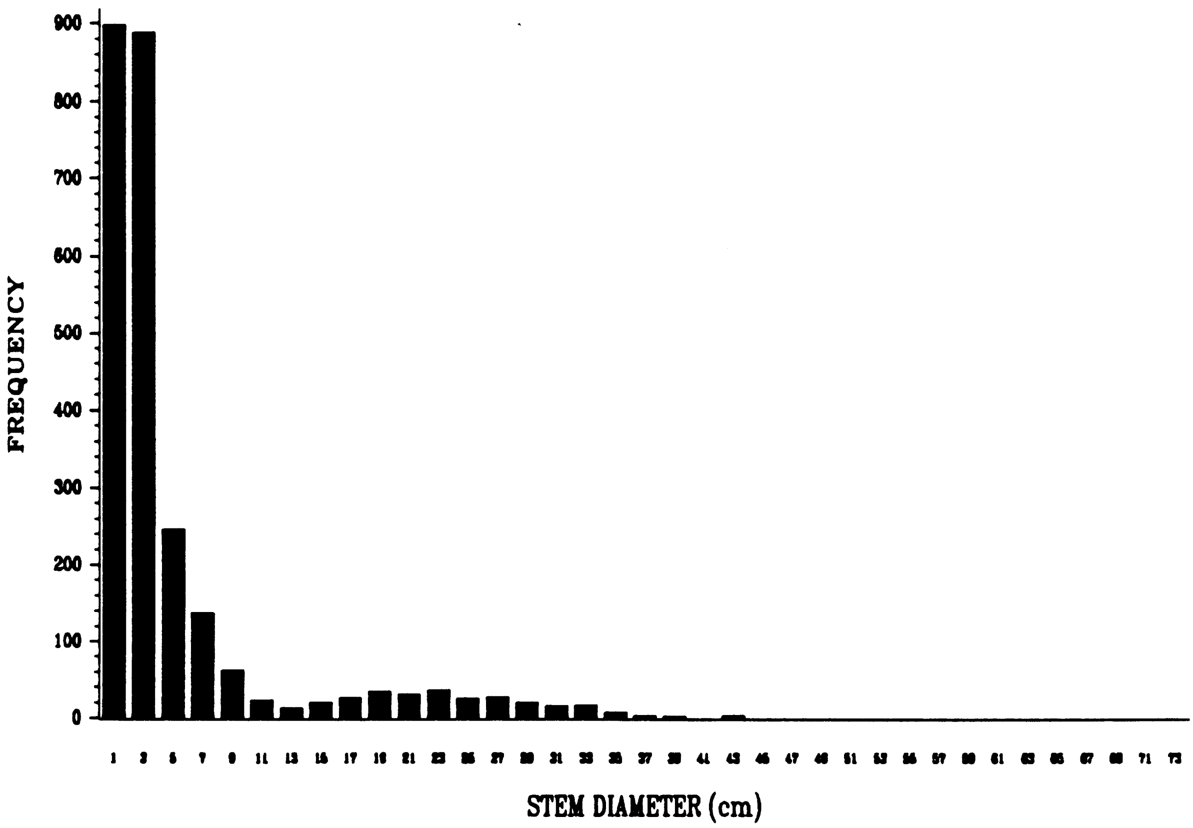


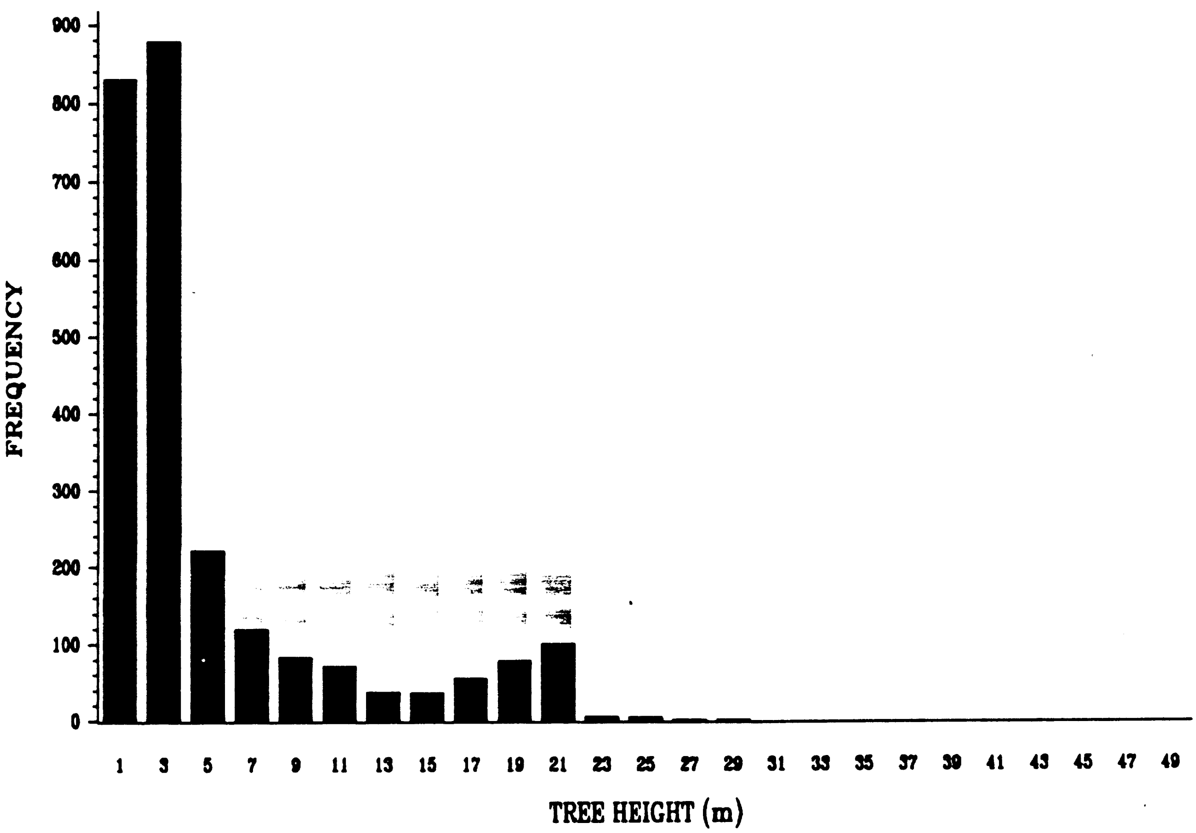
Populus deltoides



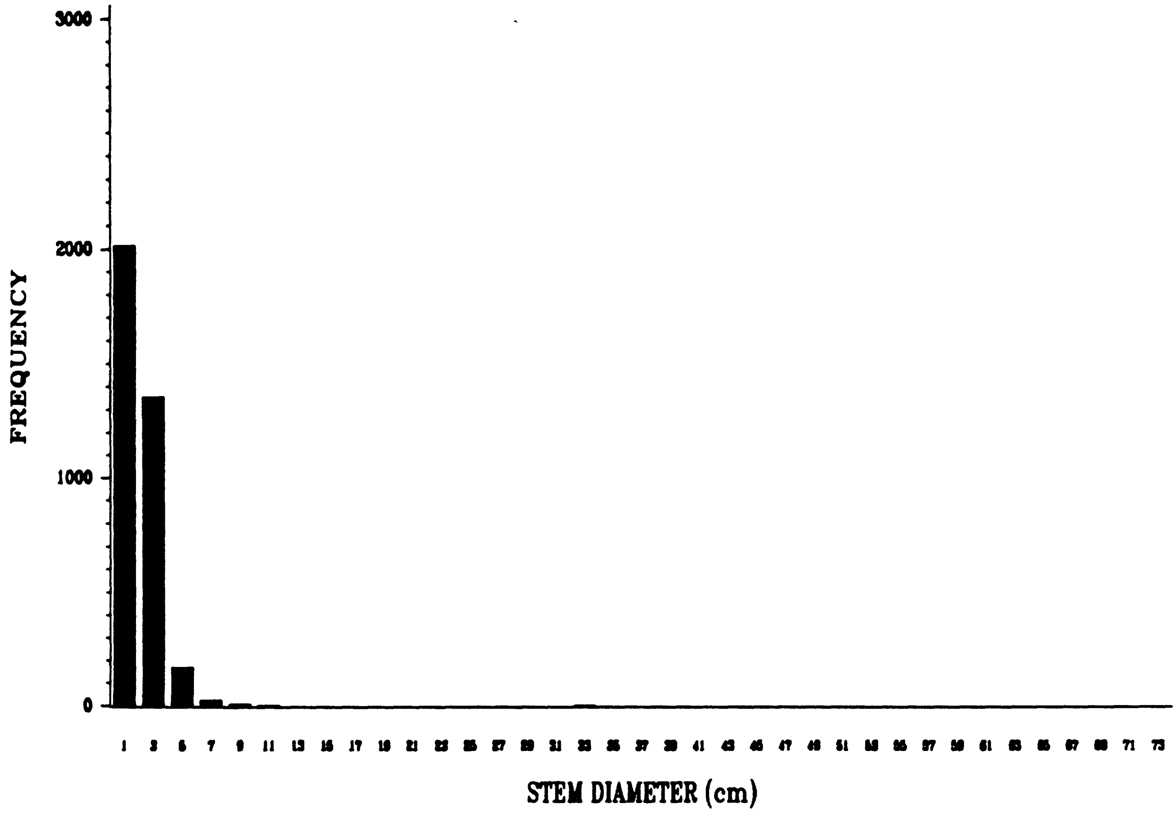


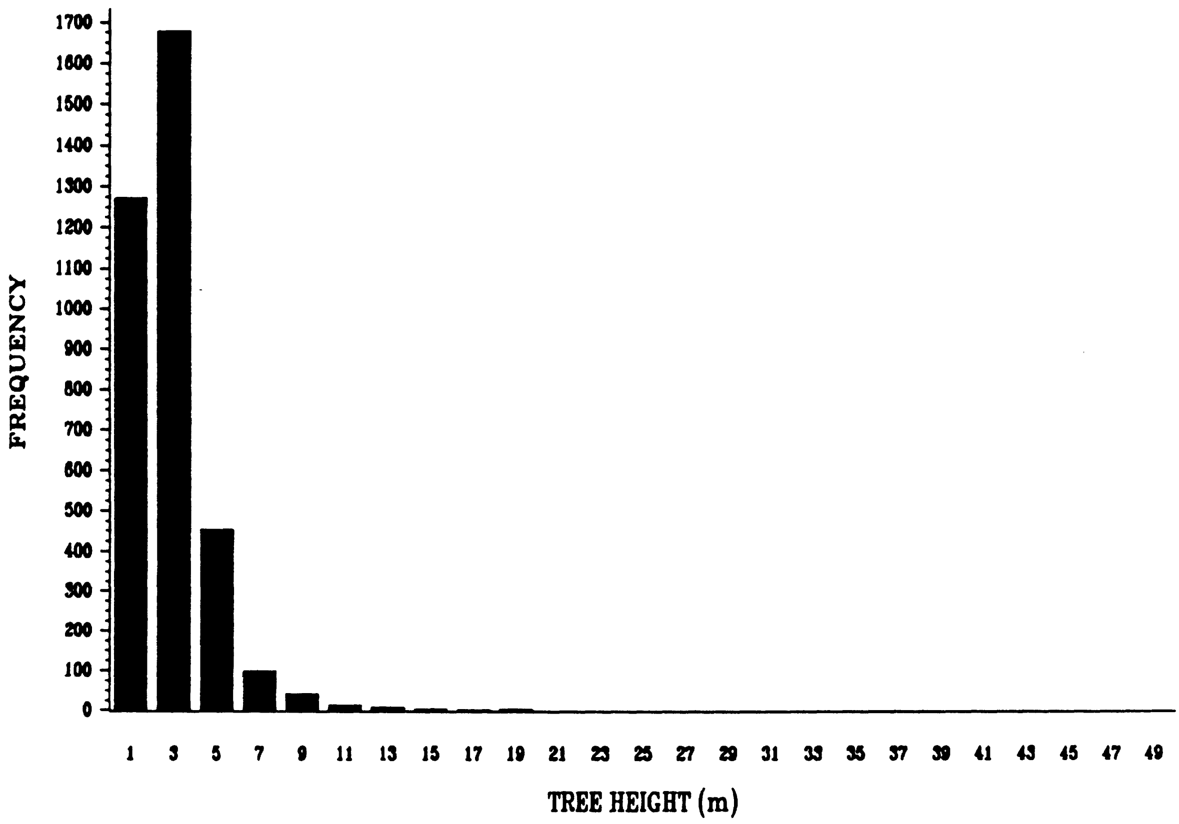
Populus grandidentata



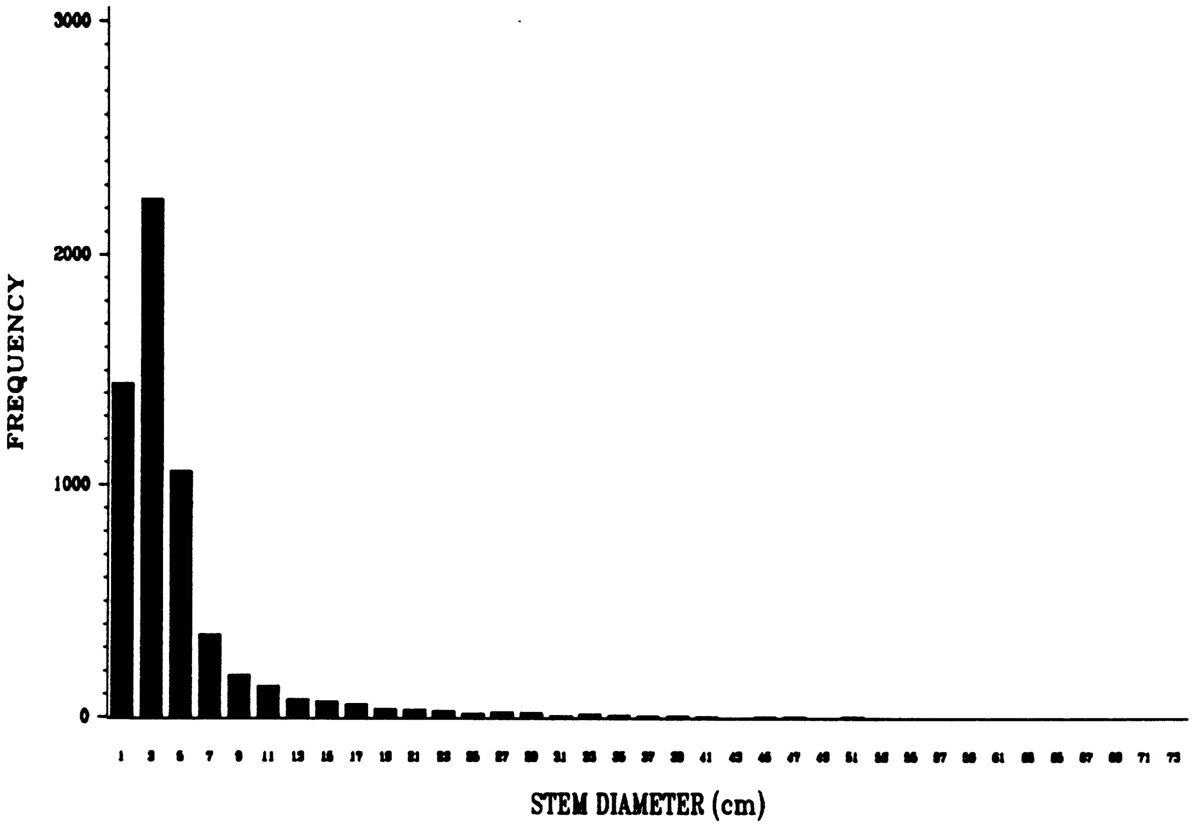


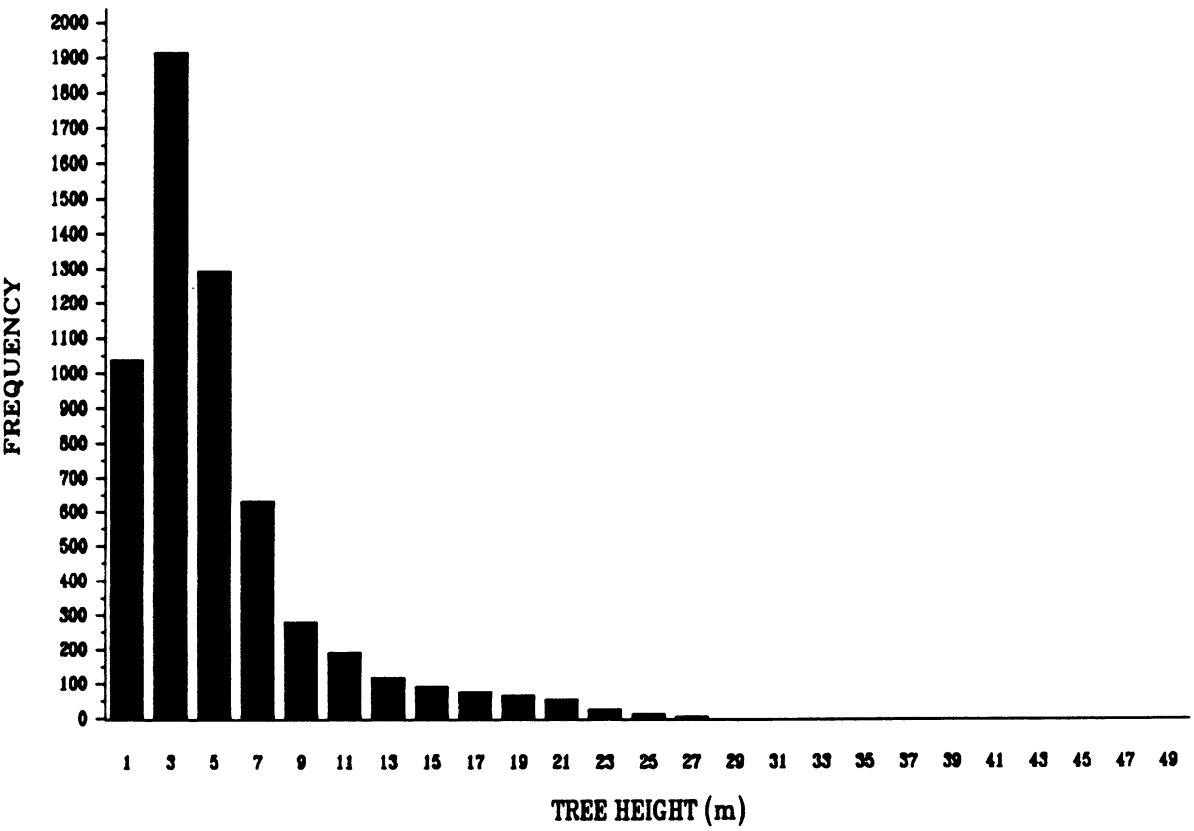
Prunus pensylvanica



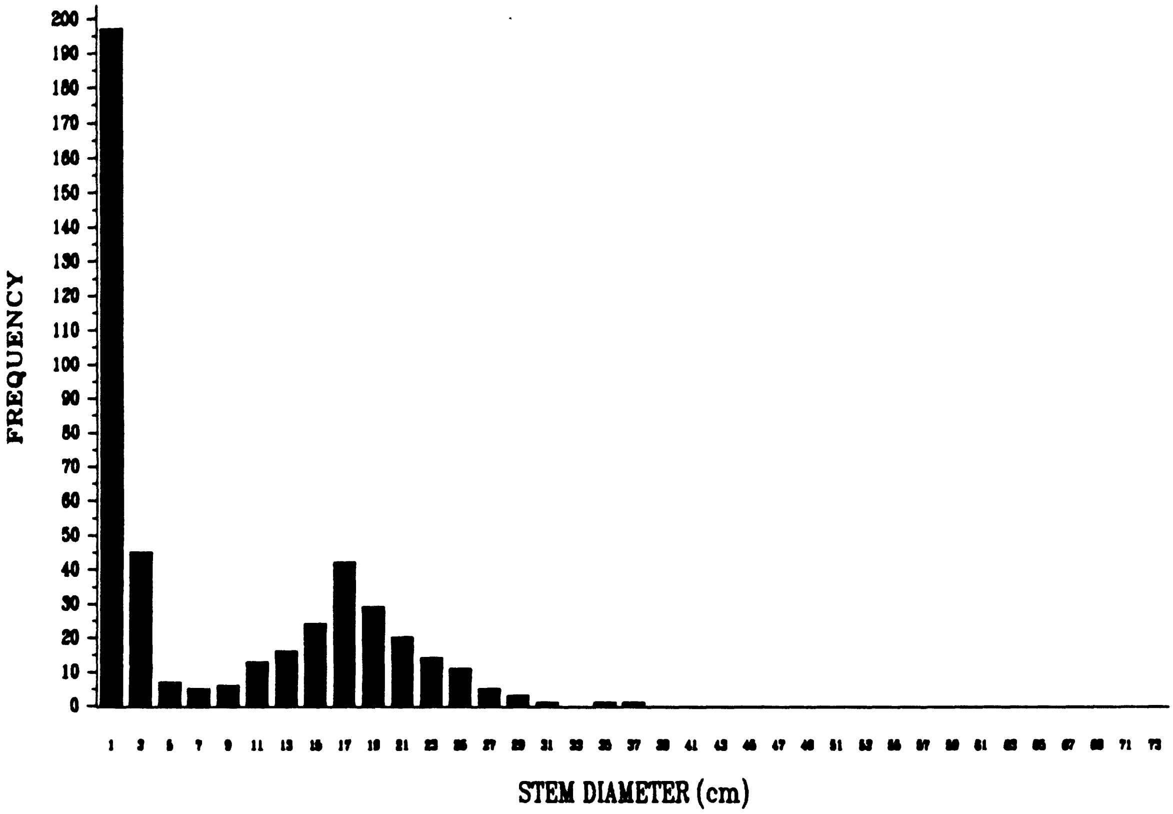


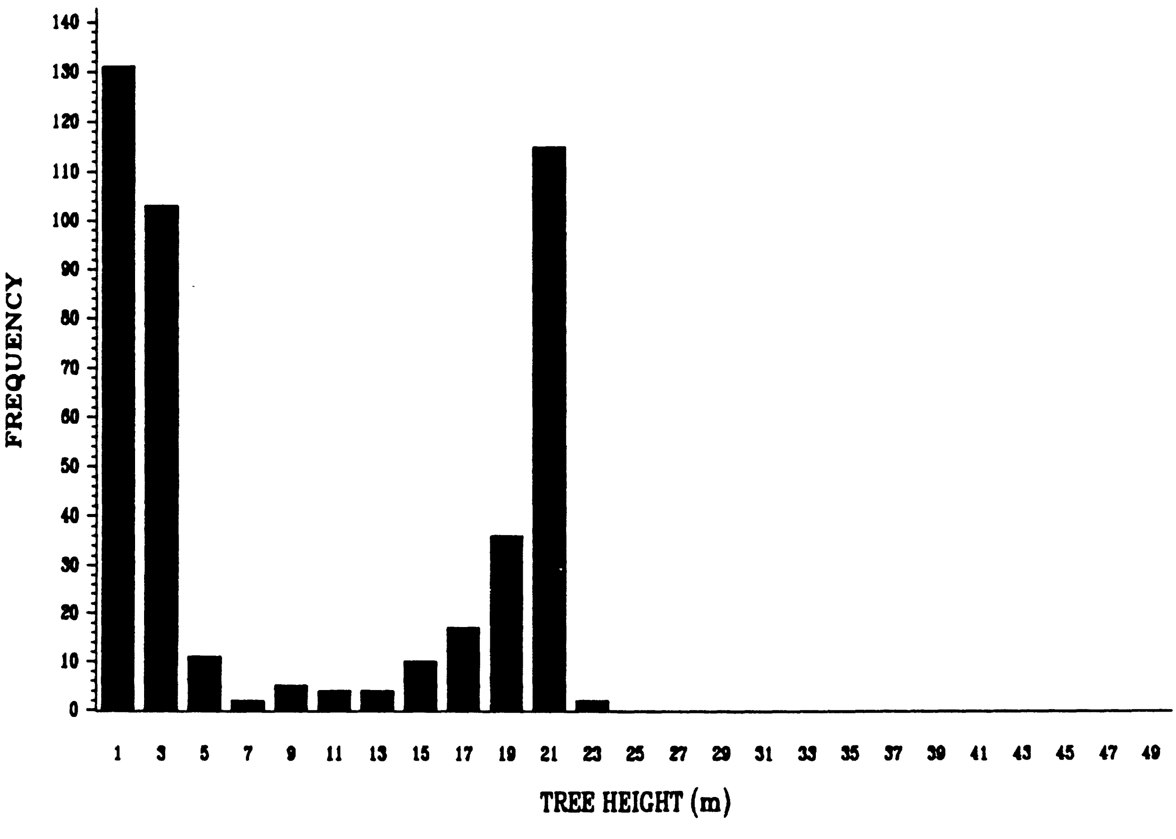
Populus tremuloides



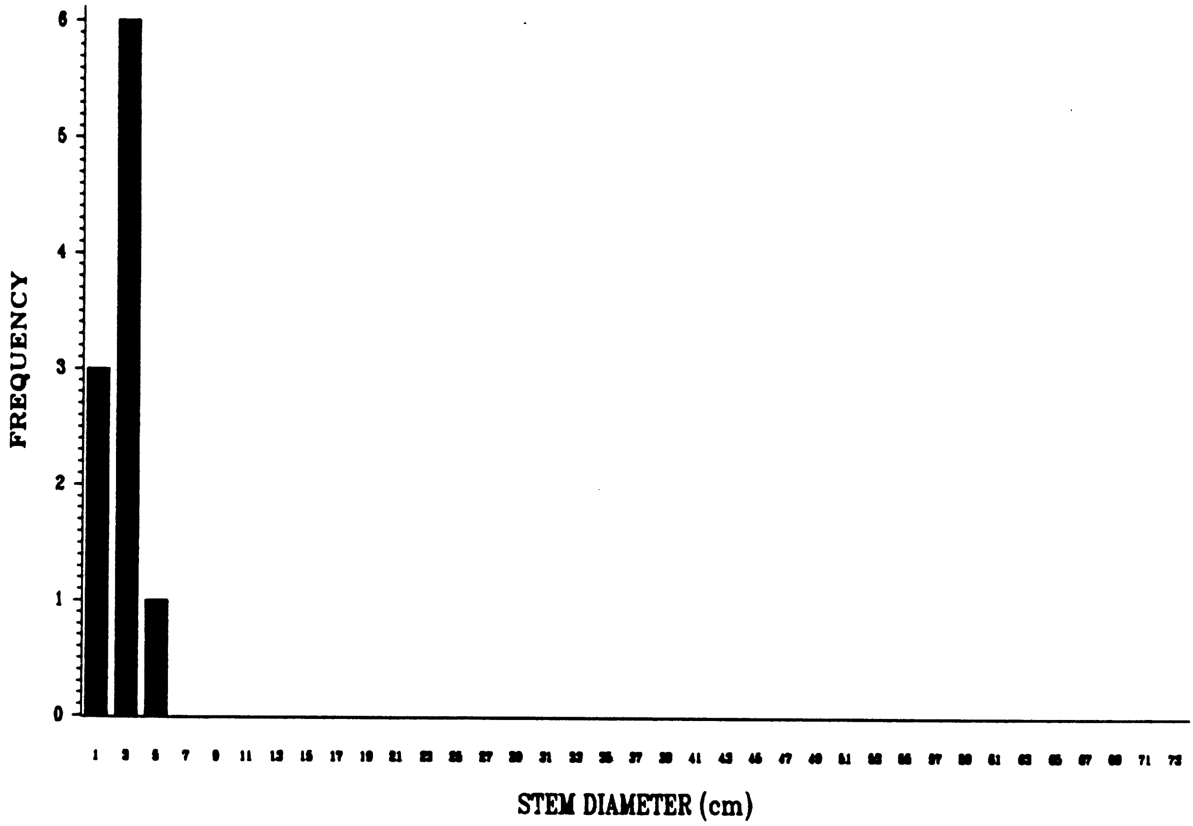


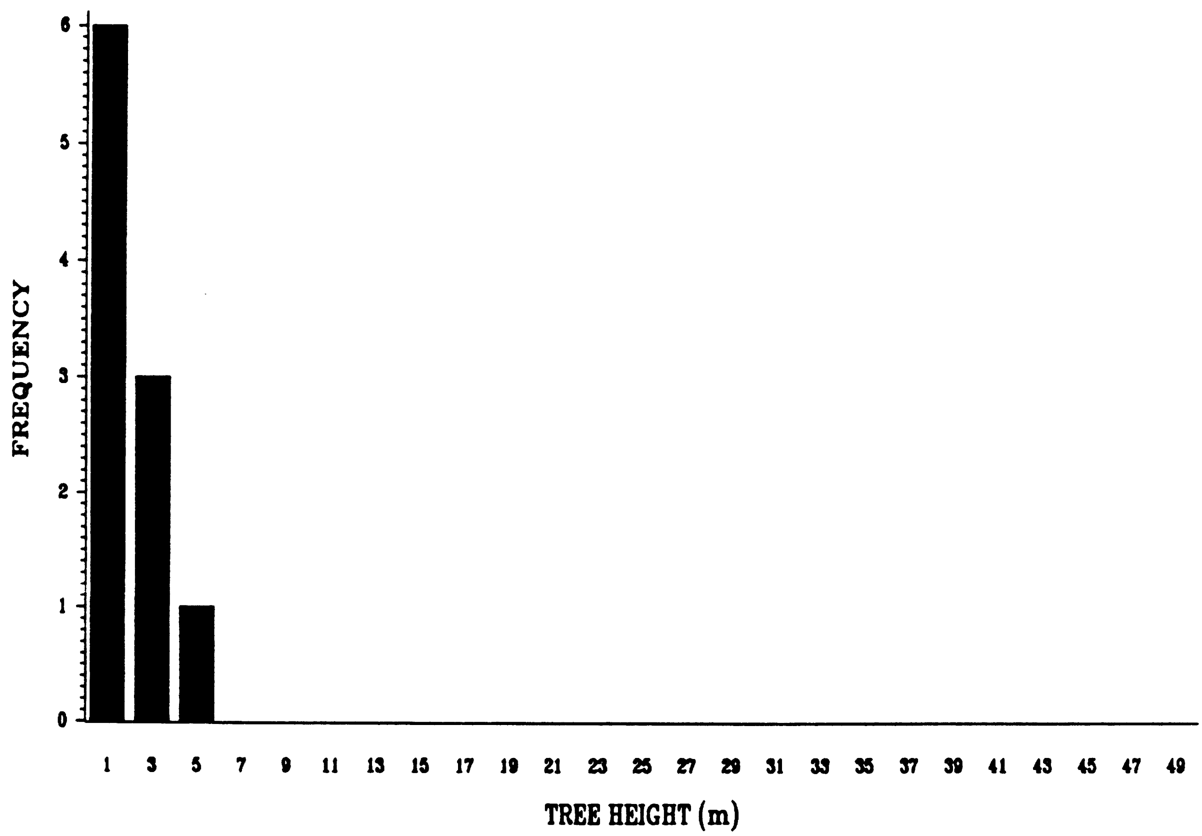
Prunus serotina



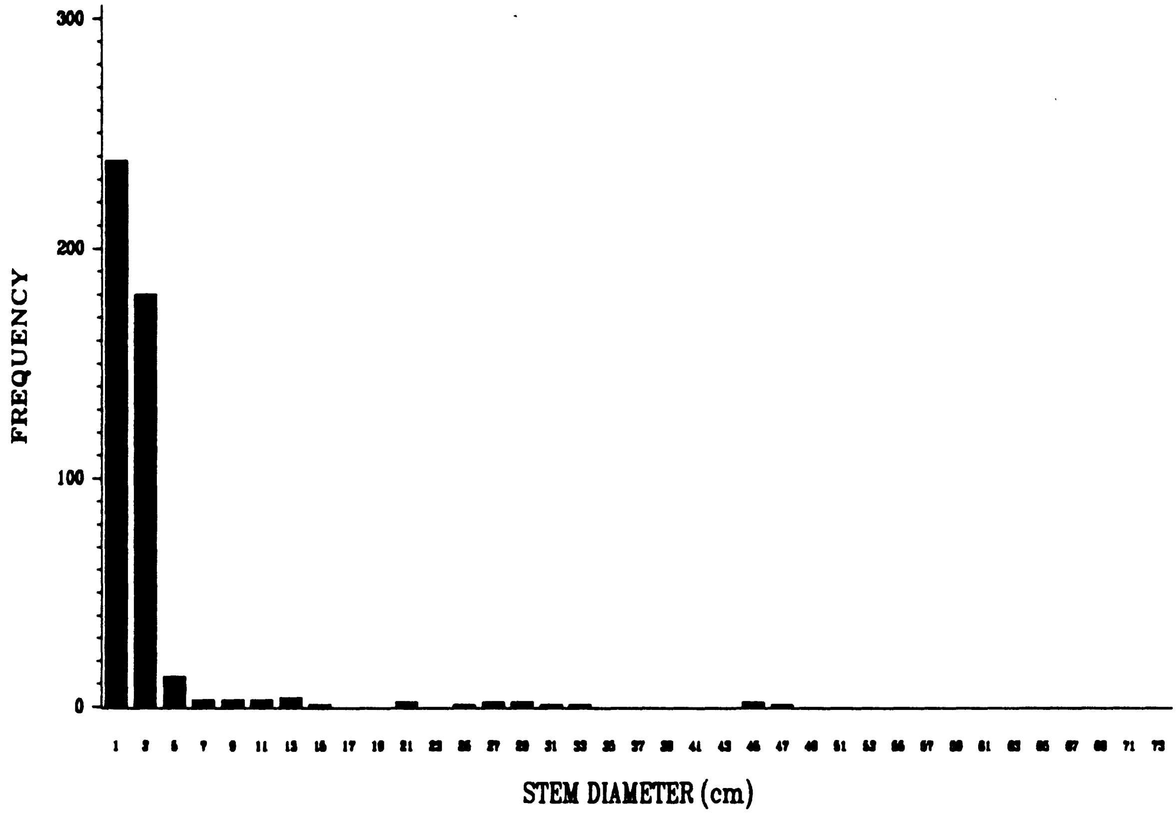


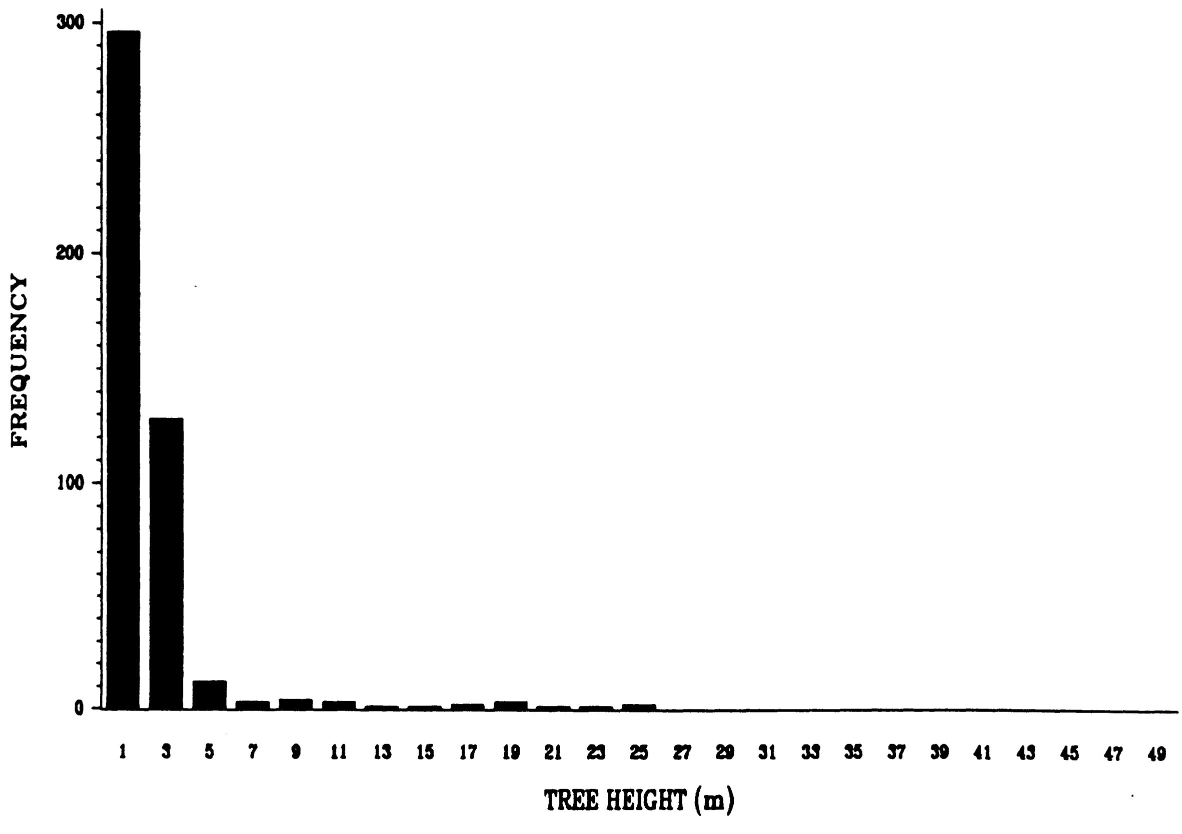
Prunus virginiana



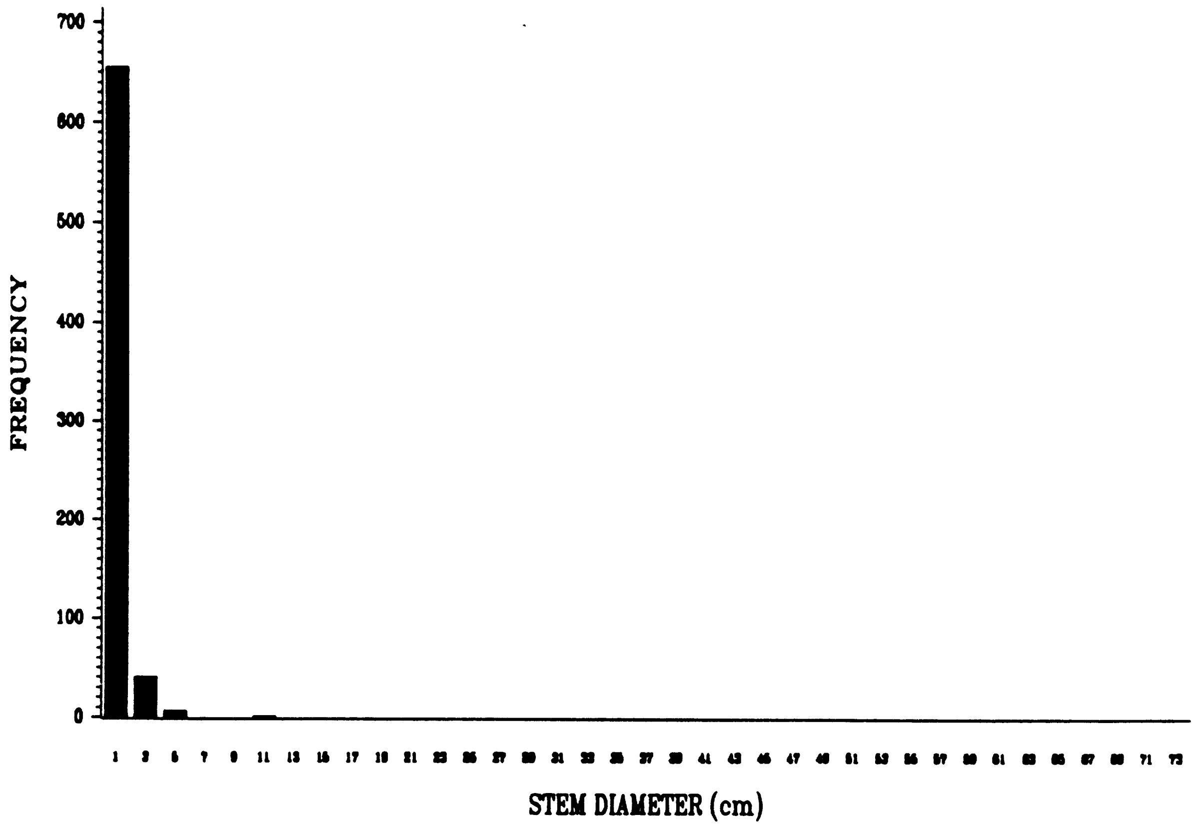


Quercus rubra

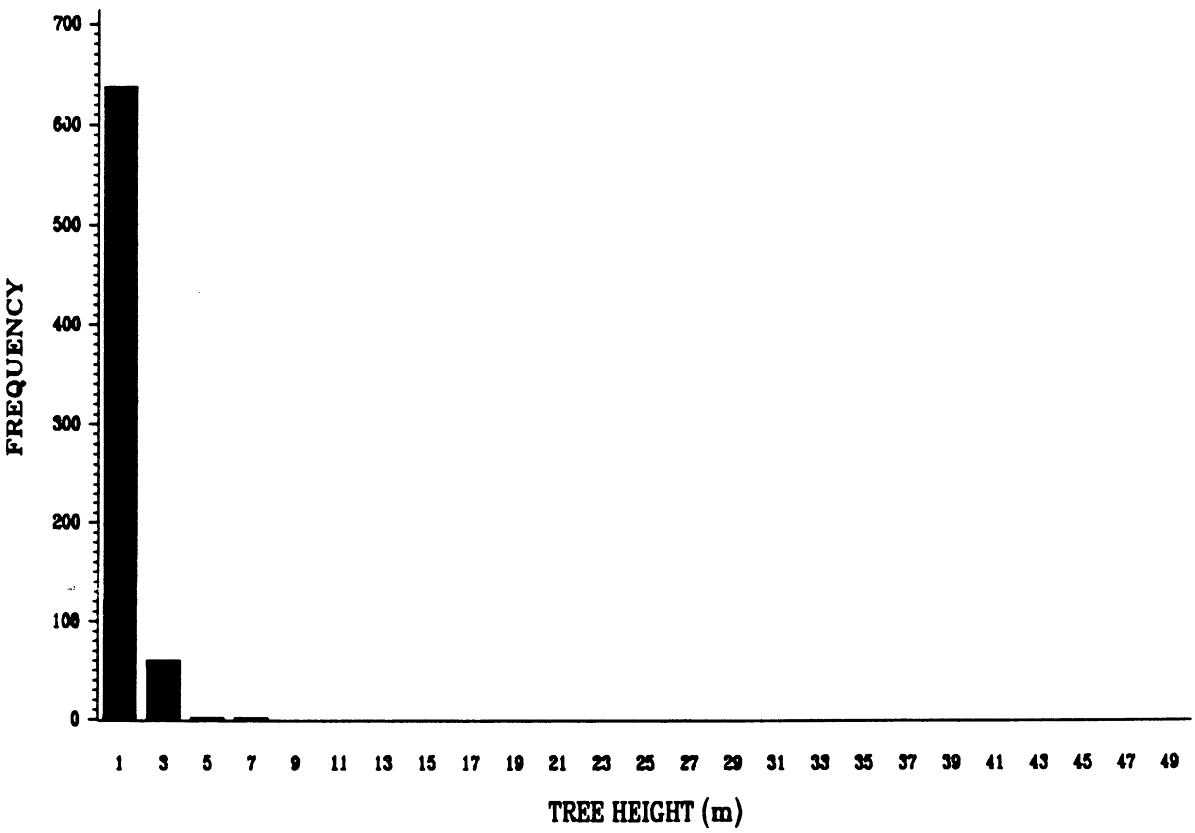




Salix spp.

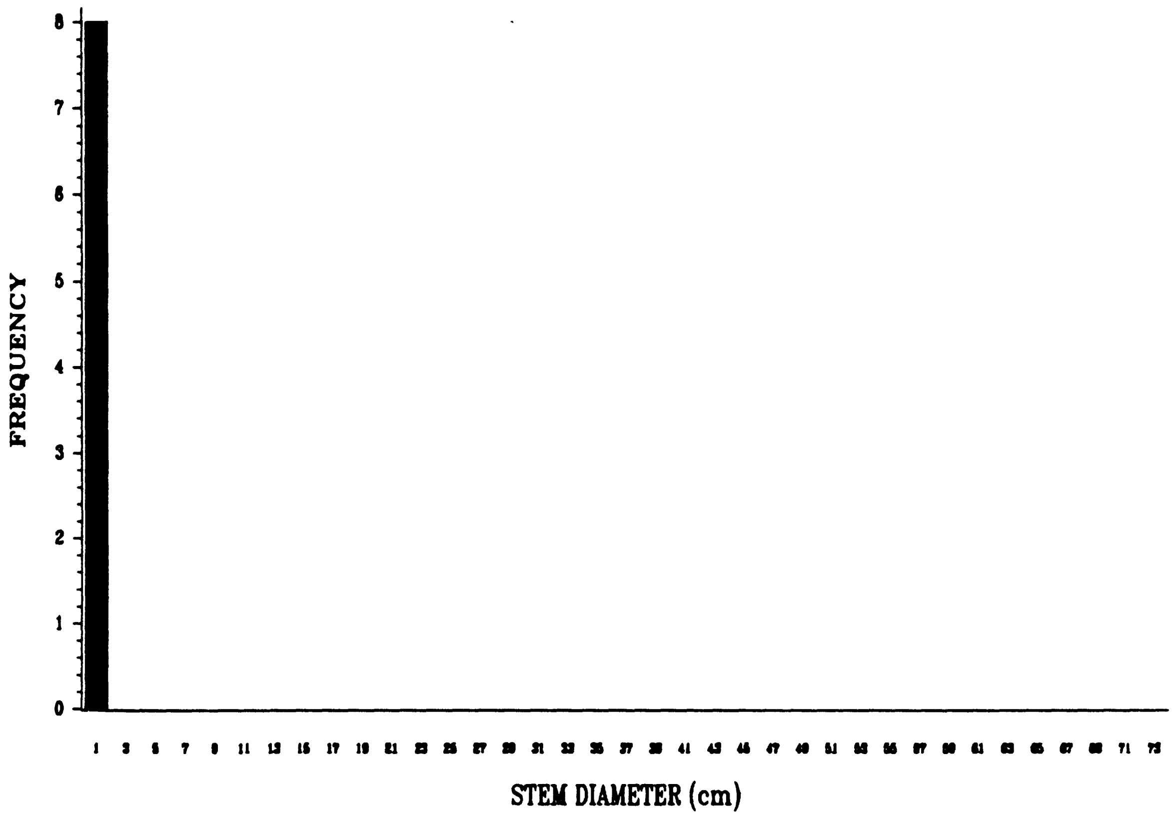


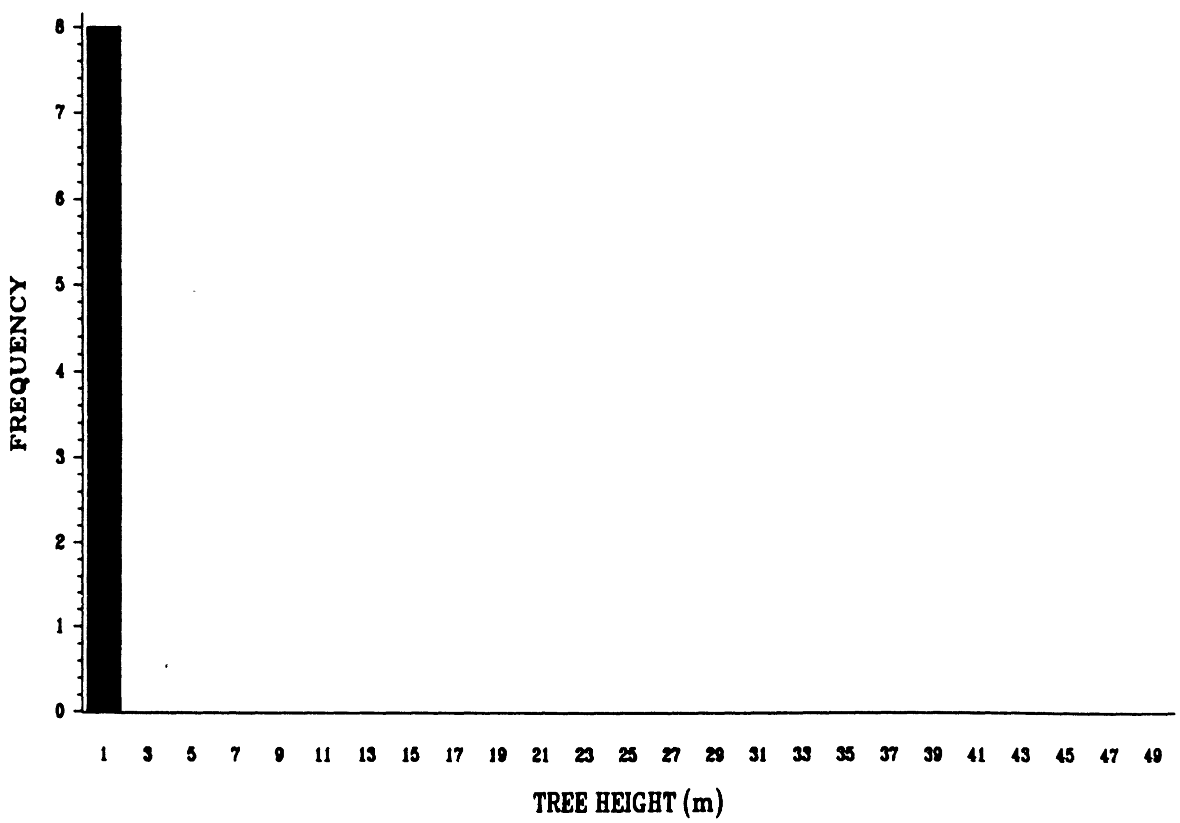
FREQUENCY
700
600
500
400
300
200
100
0
STEM DIAMETER (cm)



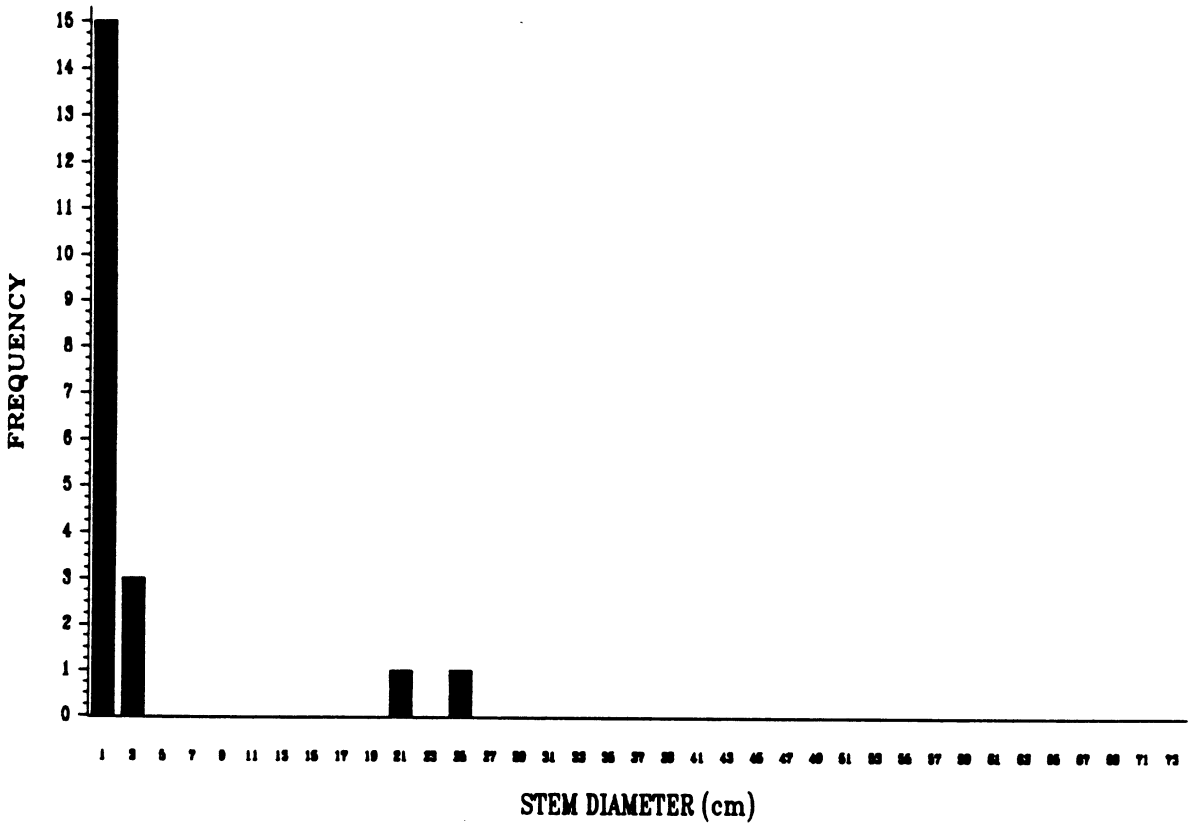
FREQUENCY
700
600
500
400
300
200
100
0
1 3 5 7 9 11 13 15 17 19 21 23 25 27 29 31 33 35 37 39 41 43 45 47 49
TREE HEIGHT (m)

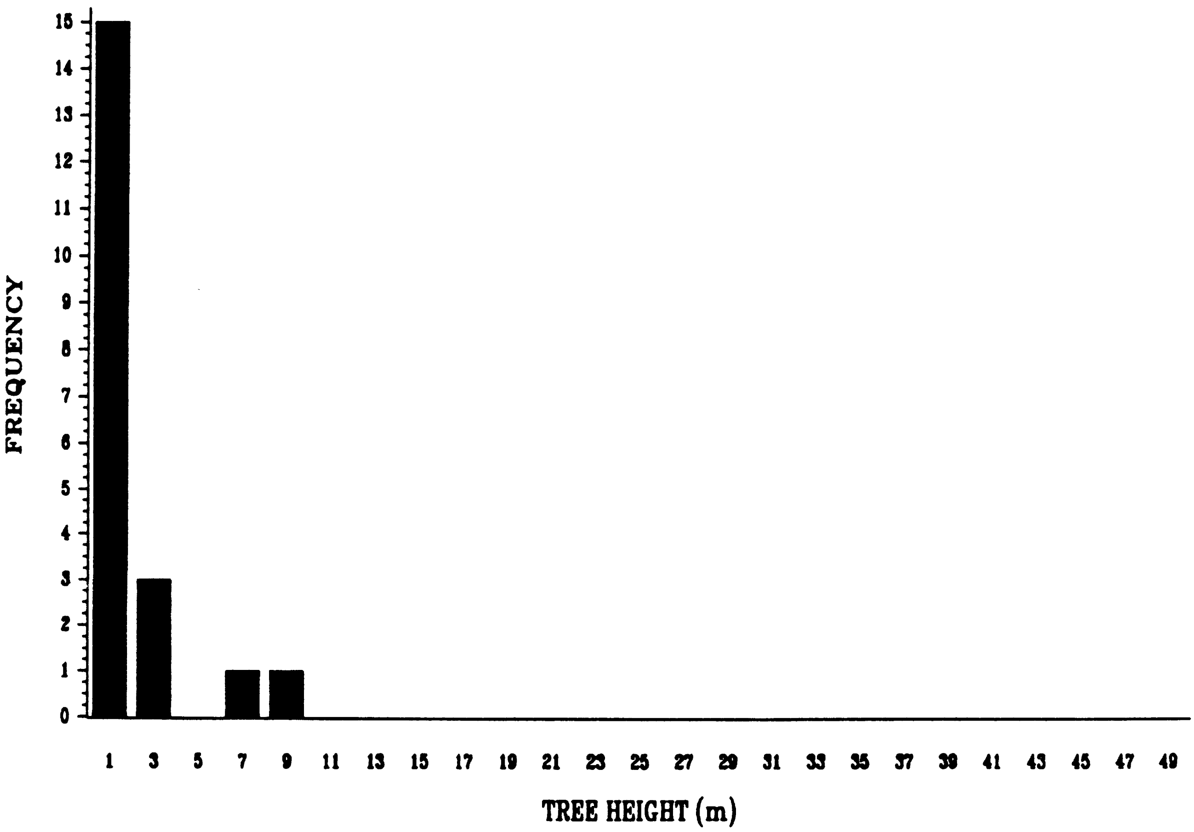
Sambucus spp.



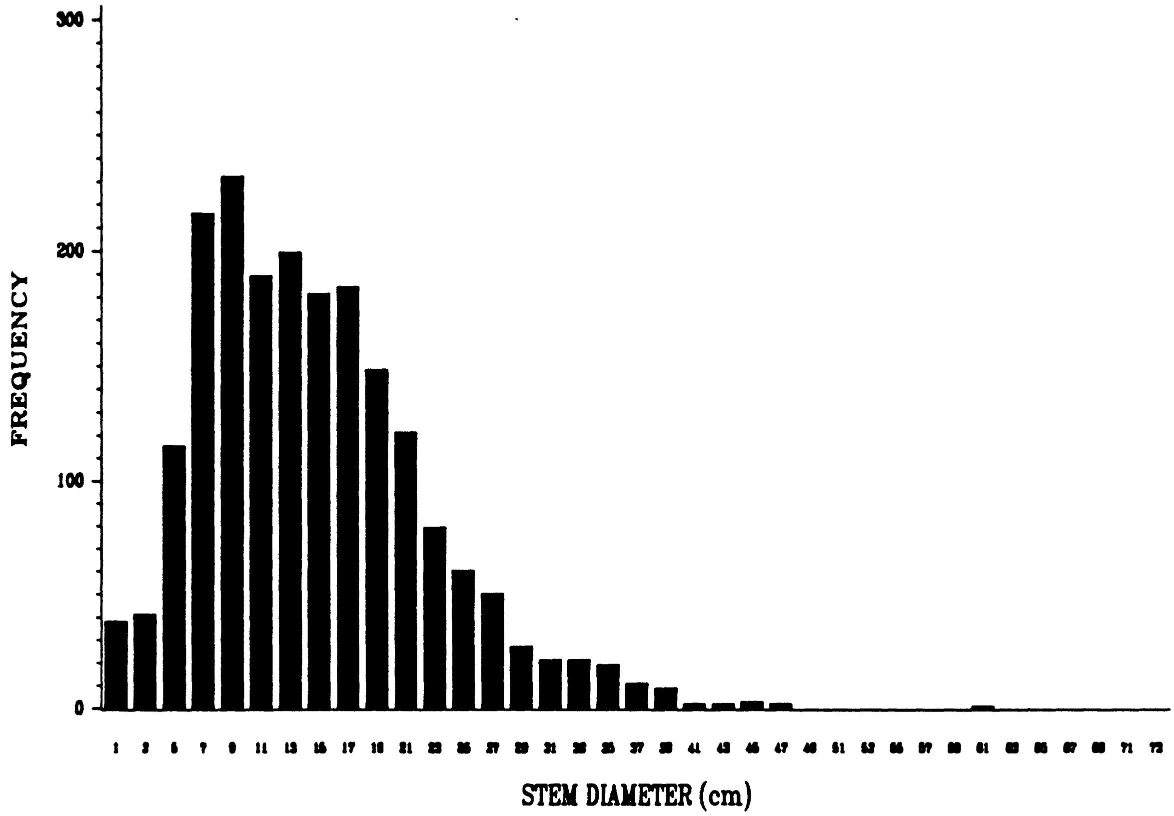


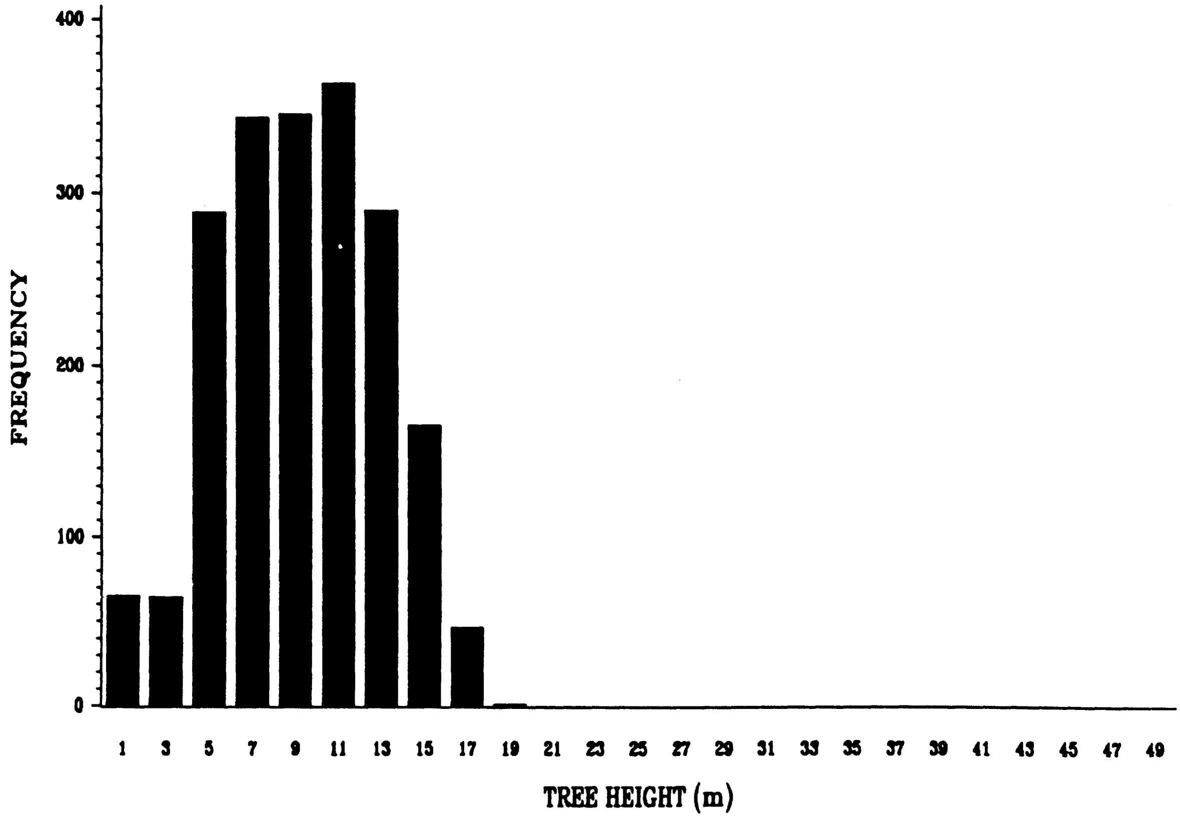
Sorbus americana



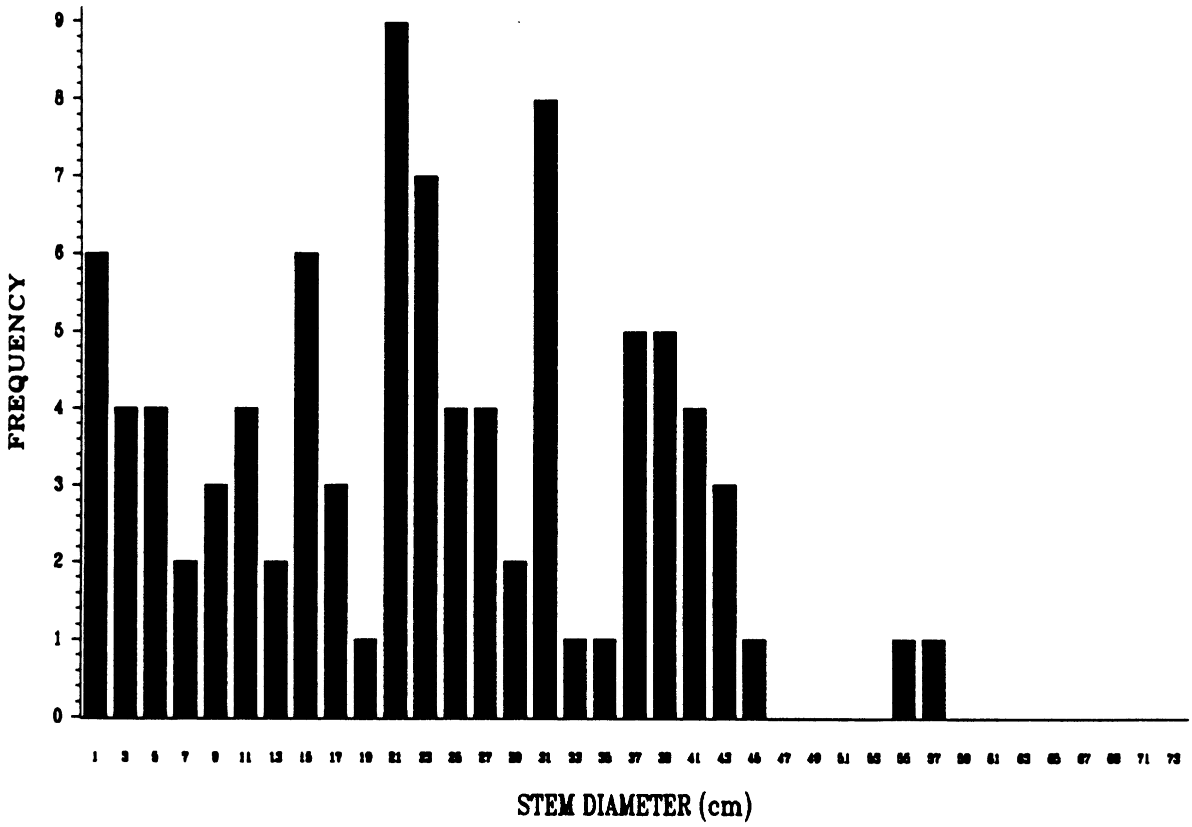


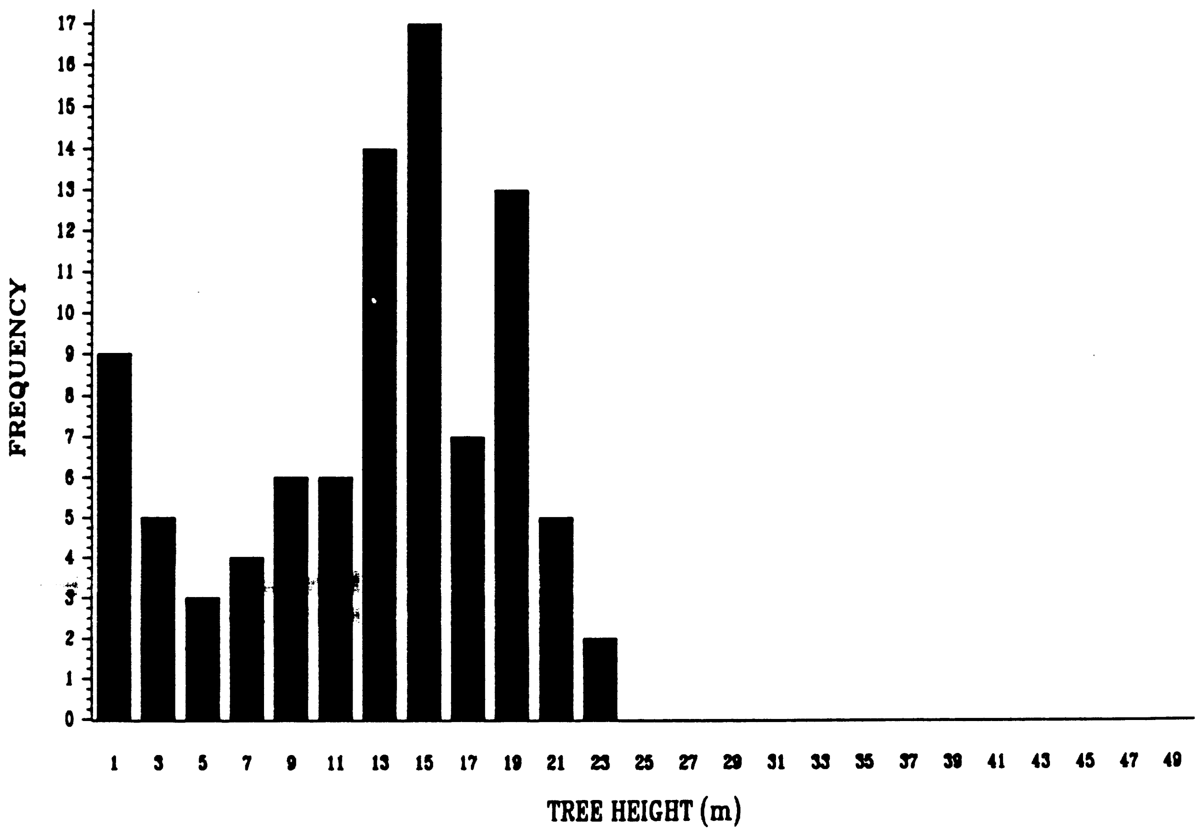
Thuja occidentalis



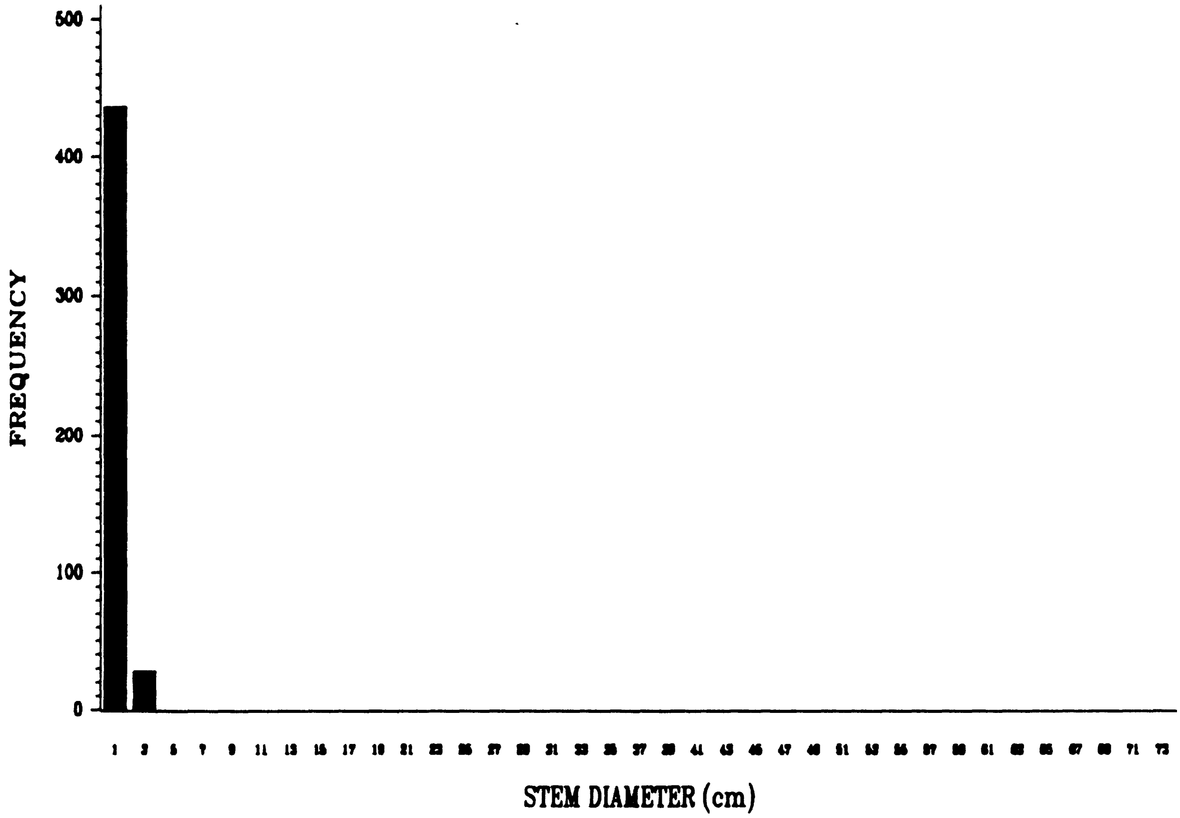


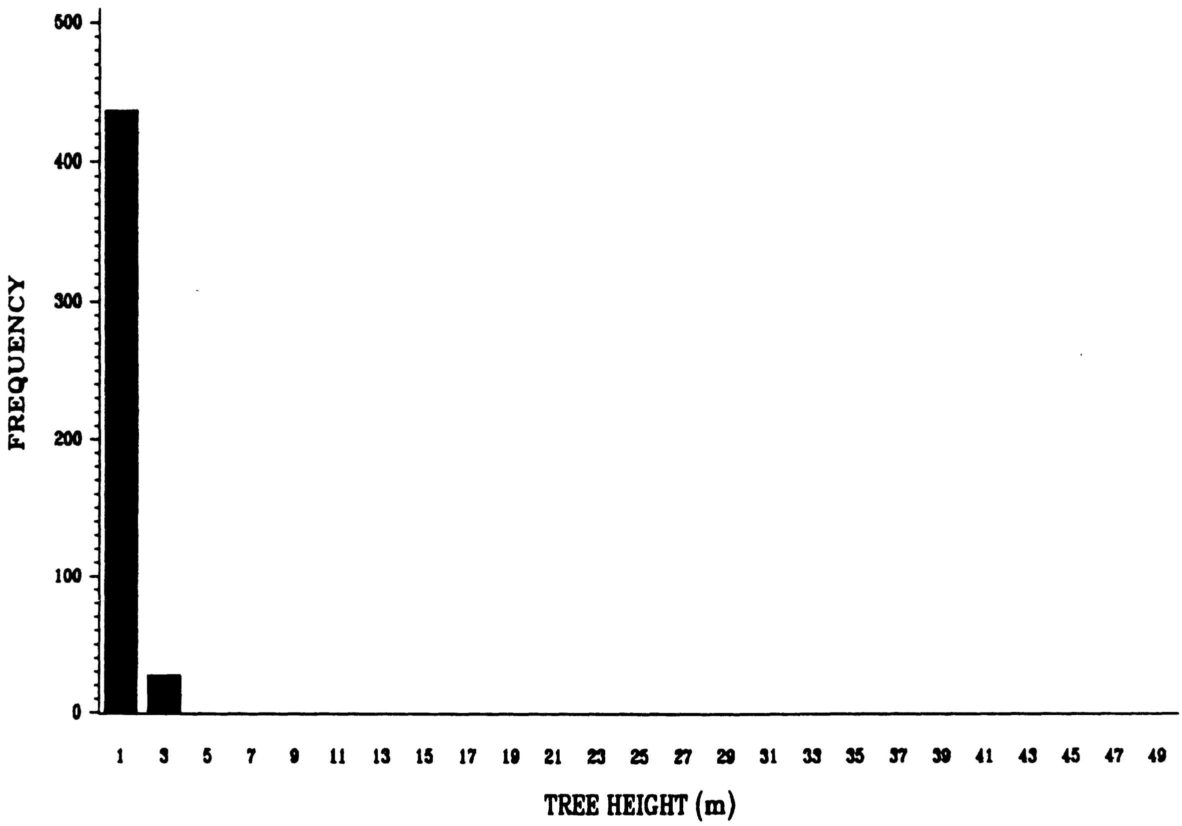
Tsuga canadensis



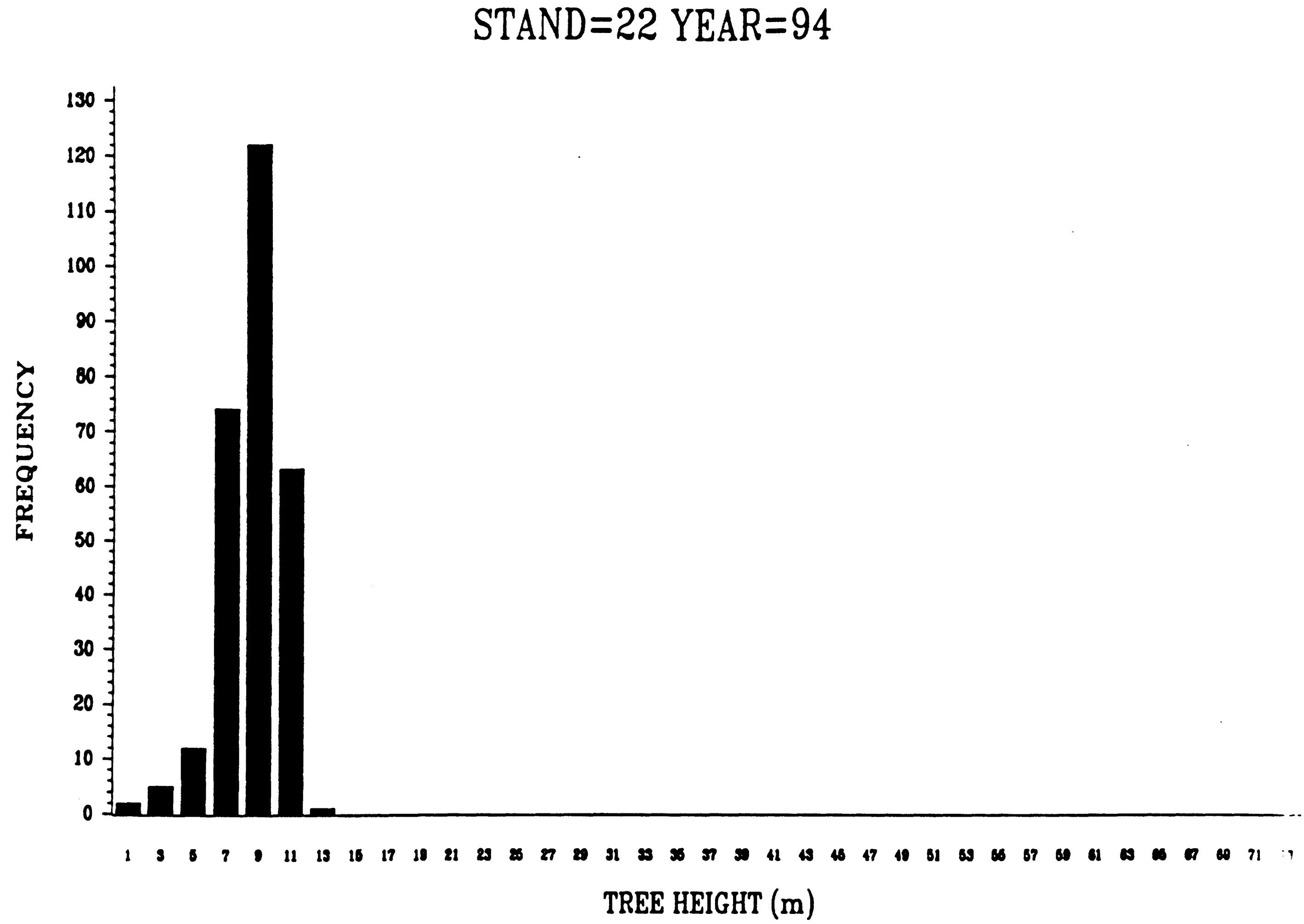


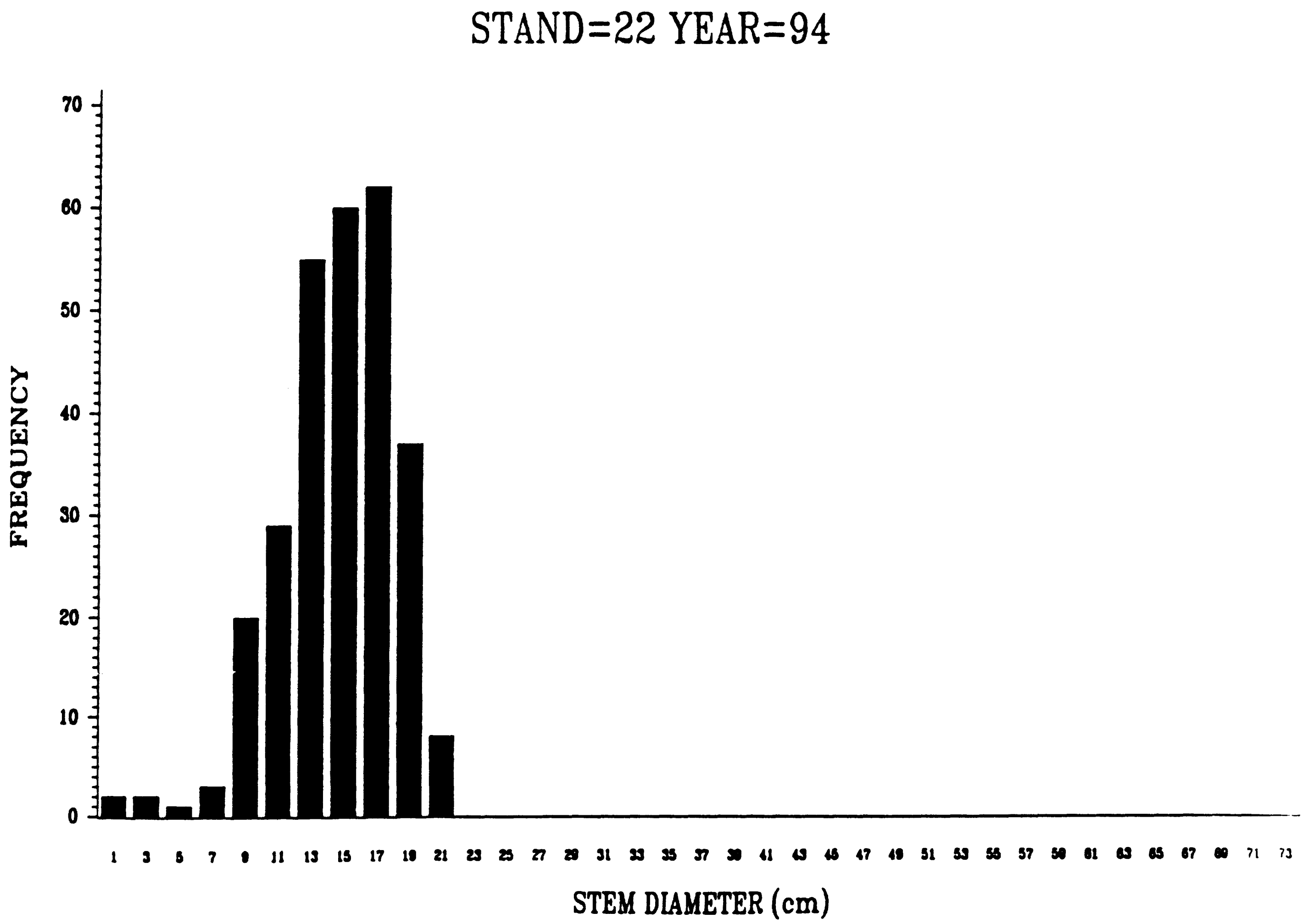
Viburnum spp.



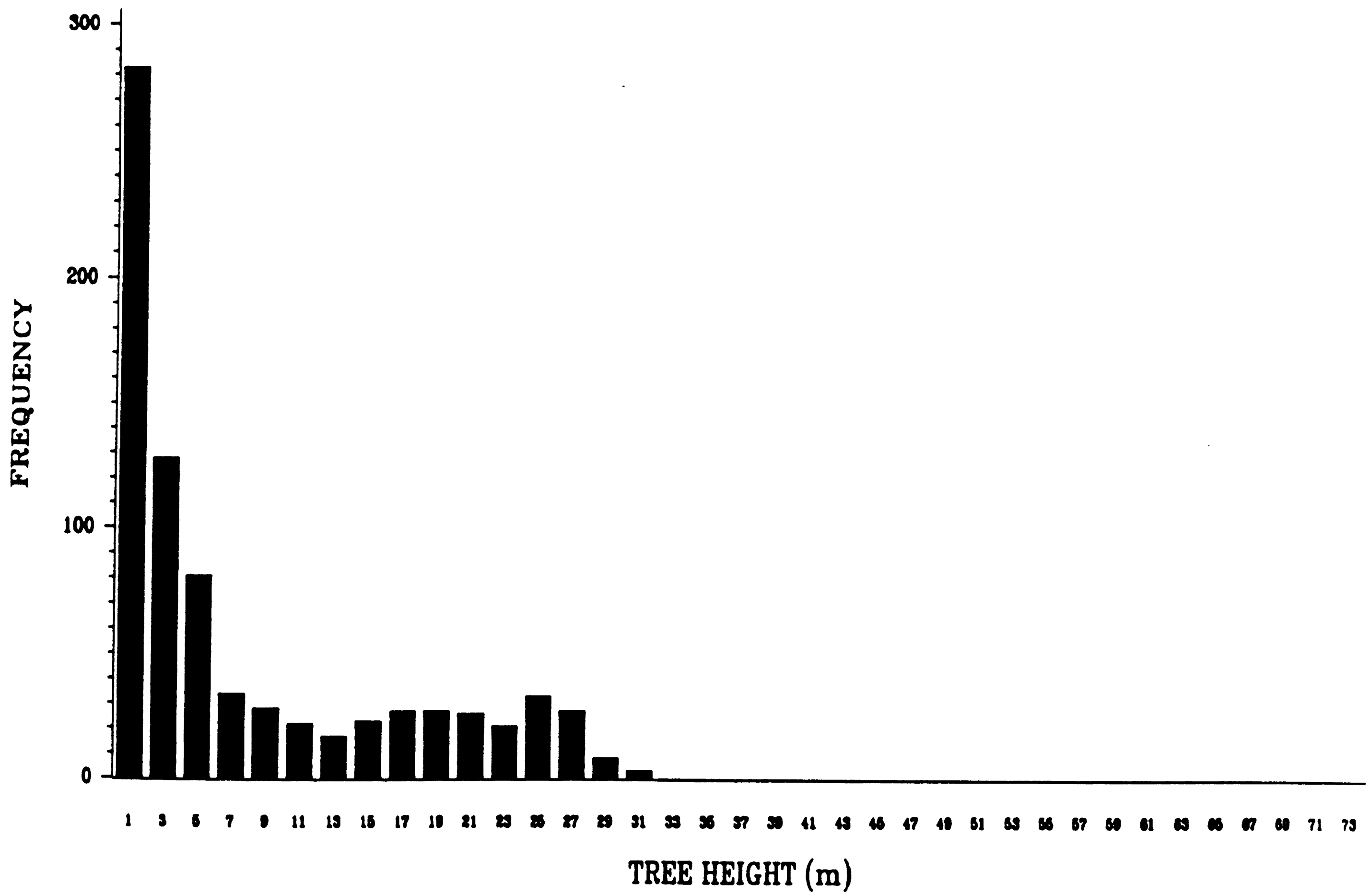


APPENDIX I:
DIAMETER AND HEIGHT HISTOGRAMS BY STAND

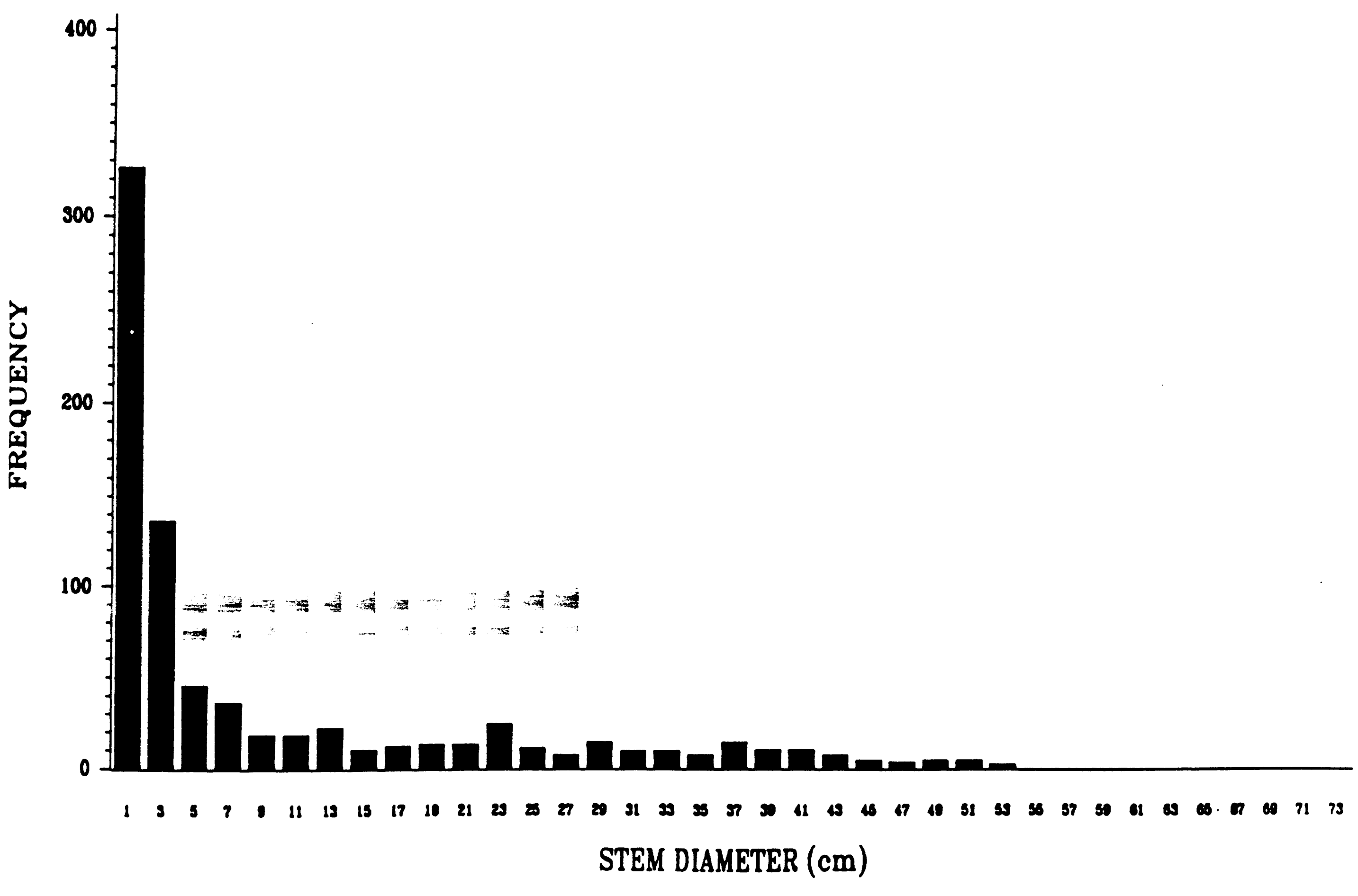

STAND=22 YEAR=94
FREQUENCY
TREE HEIGHT (m)


STAND=22 YEAR=94
FREQUENCY
STEM DIAMETER (cm)

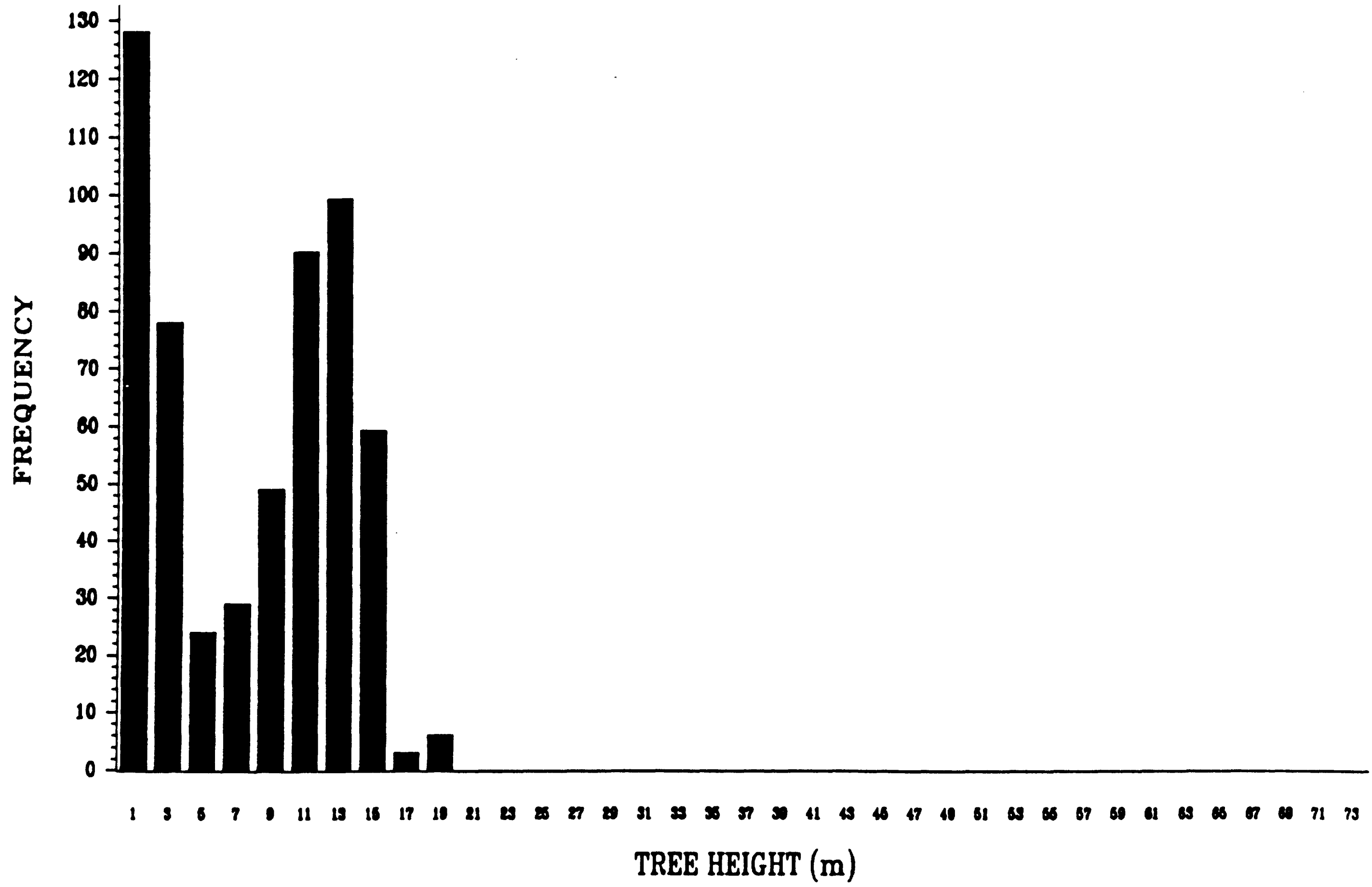
STAND=23



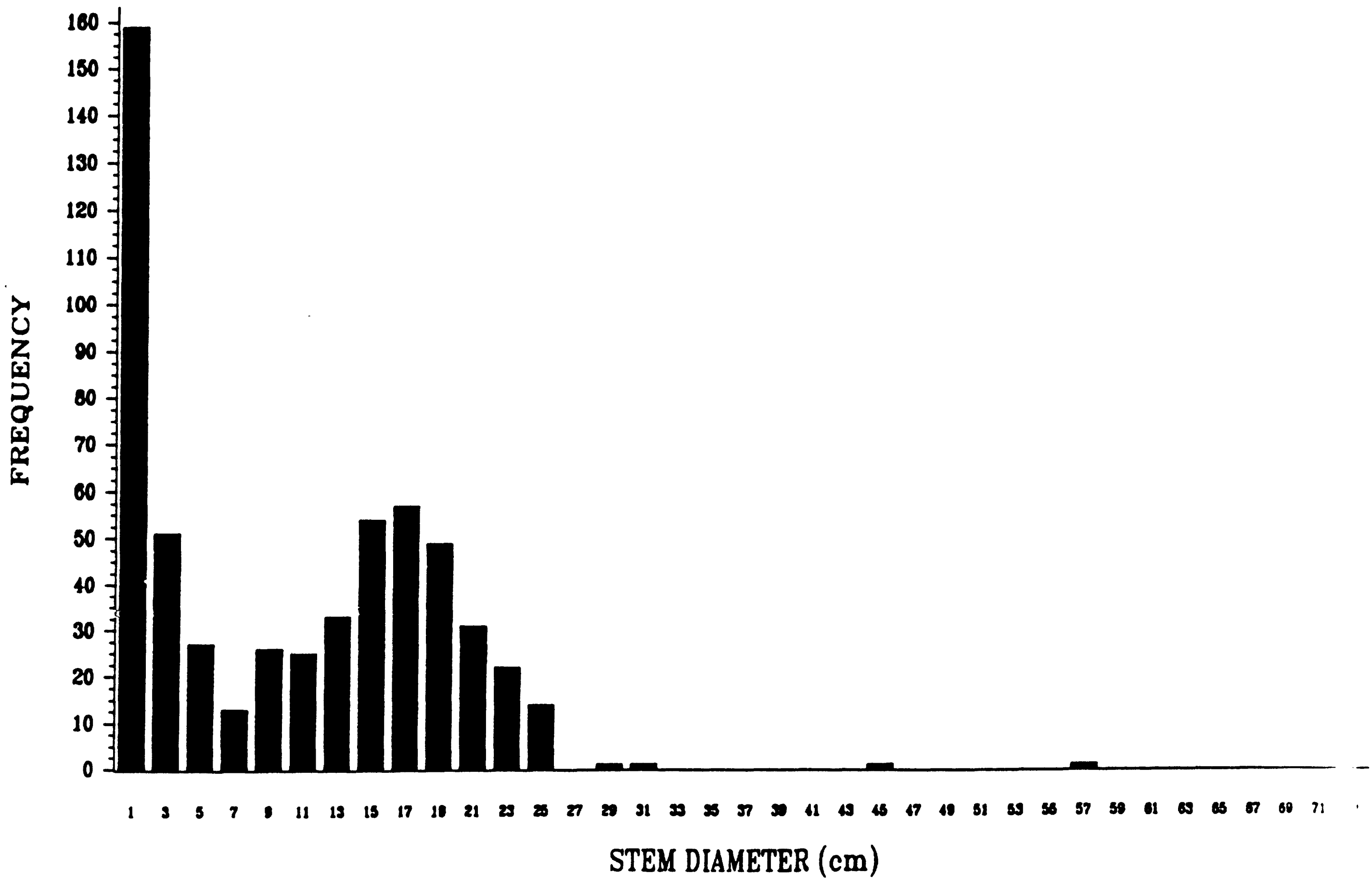
STAND=23



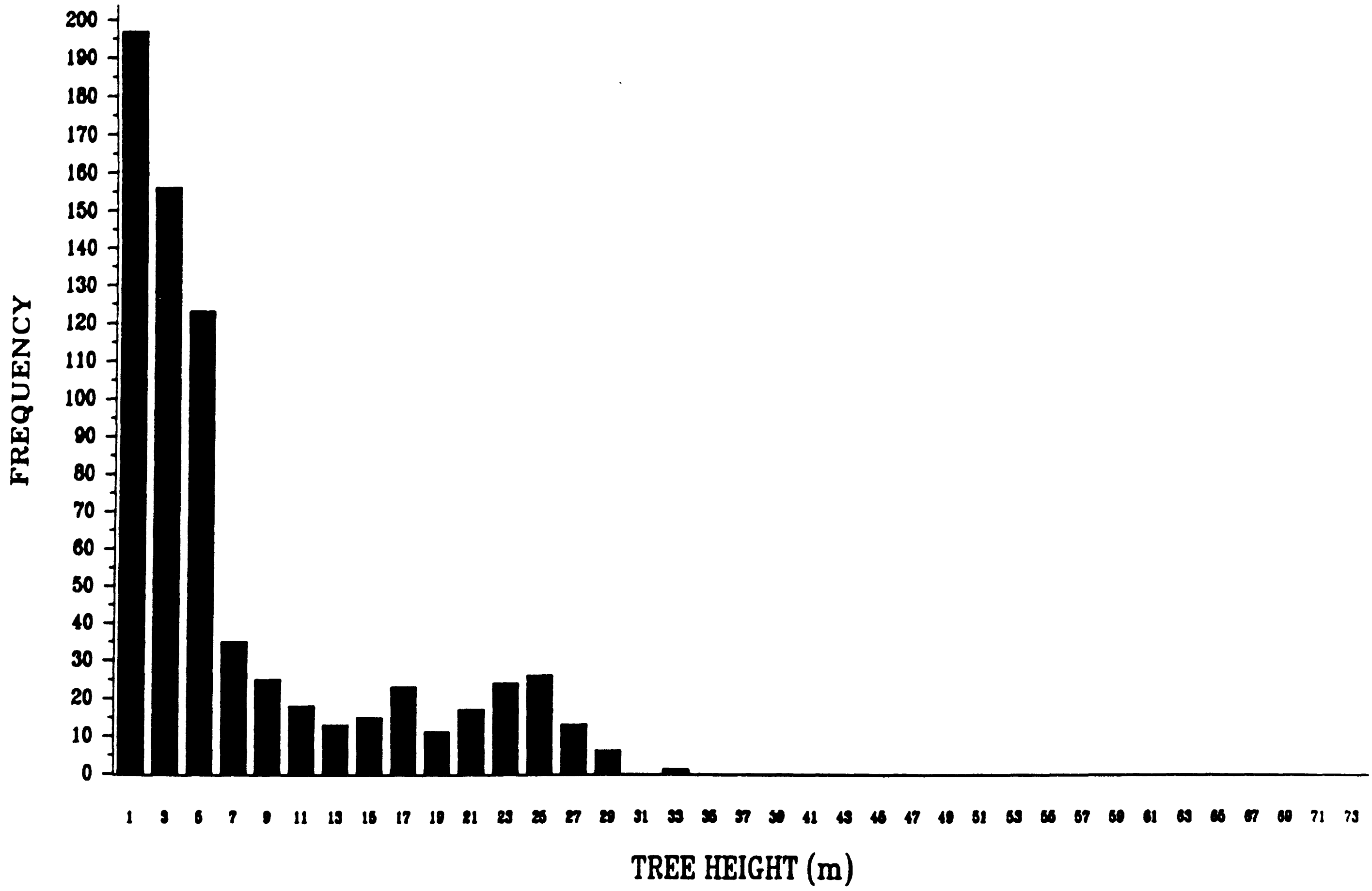
STAND=24



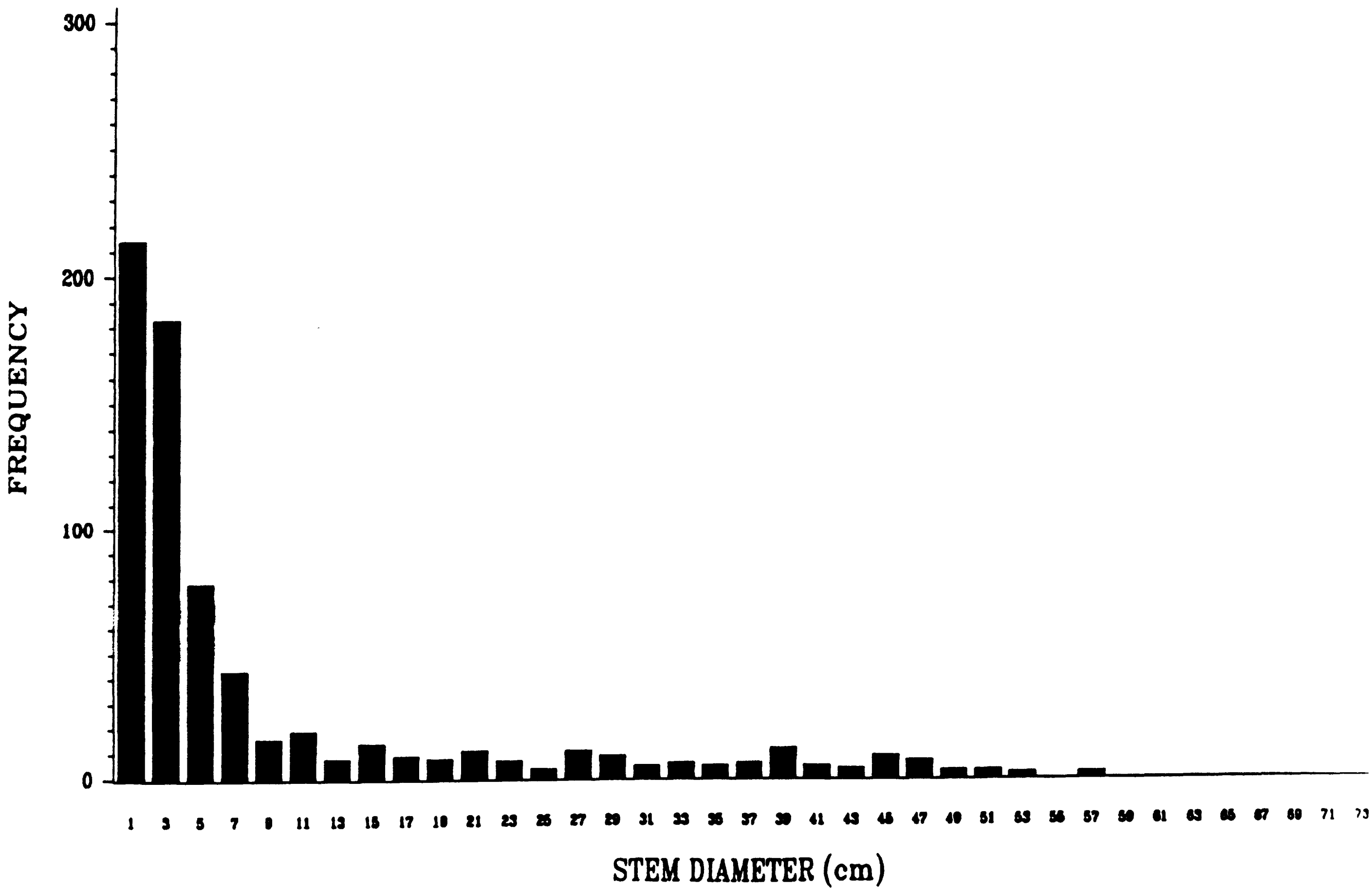
STAND=24



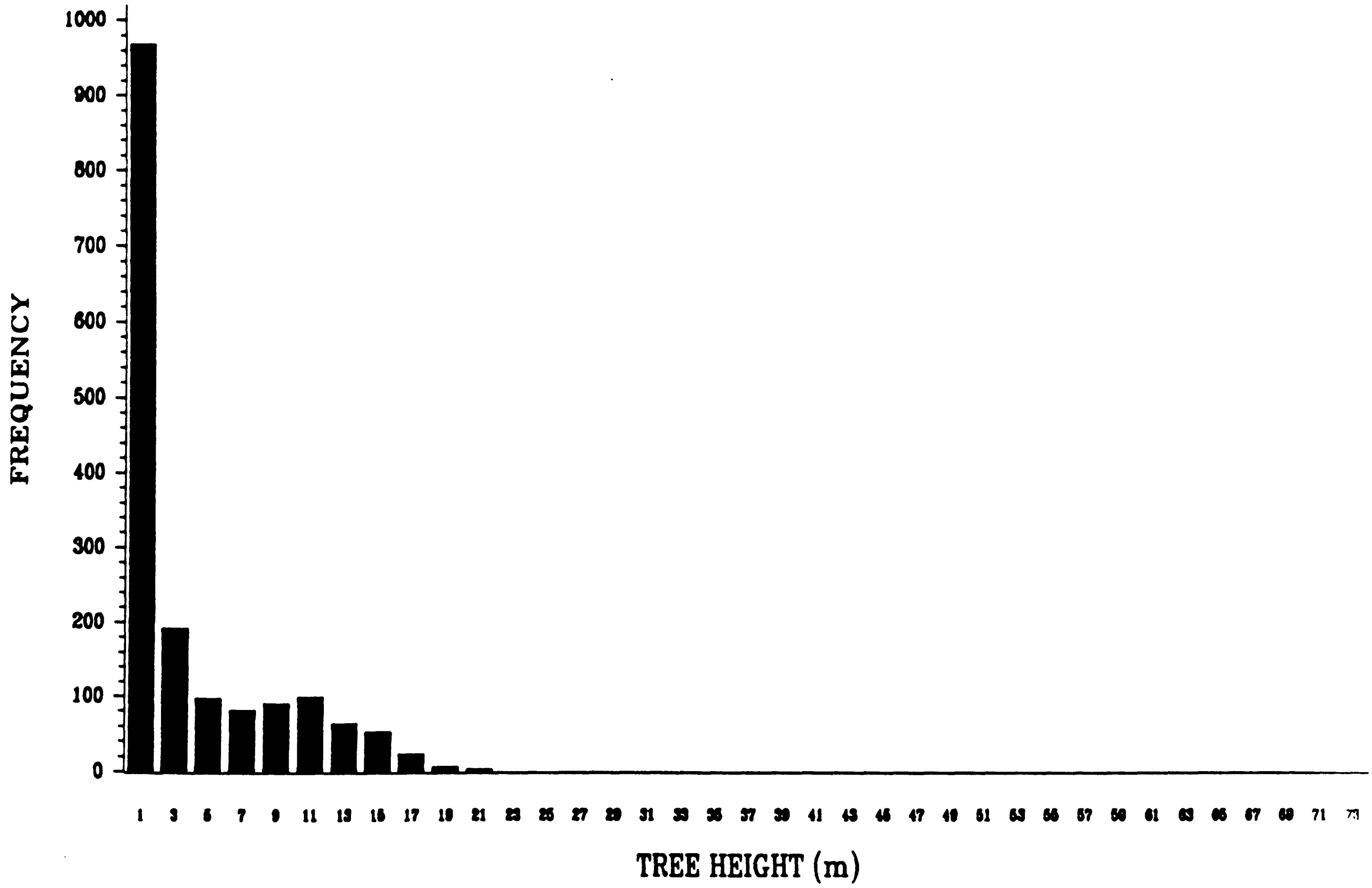
STAND=25



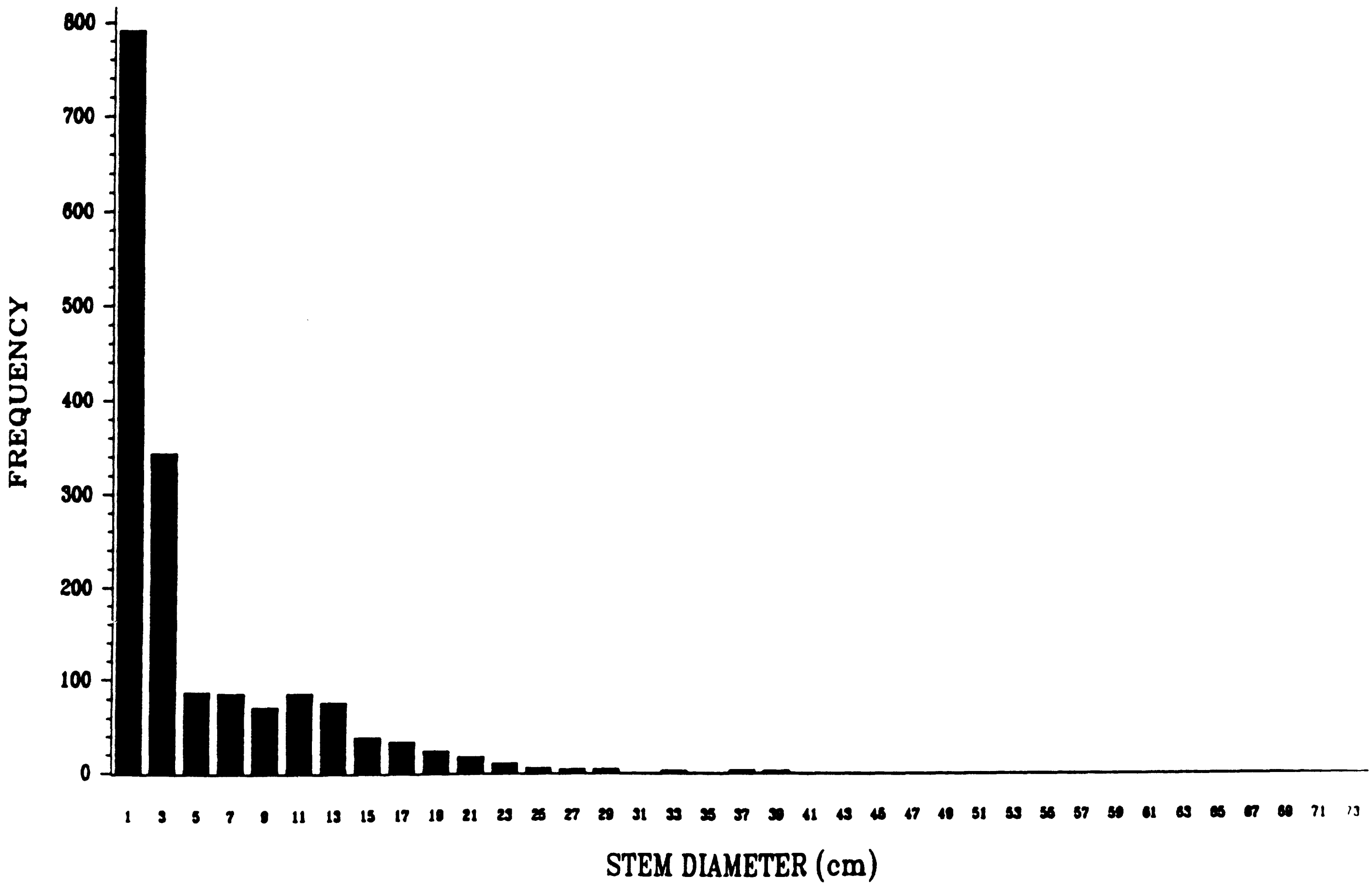
STAND=25

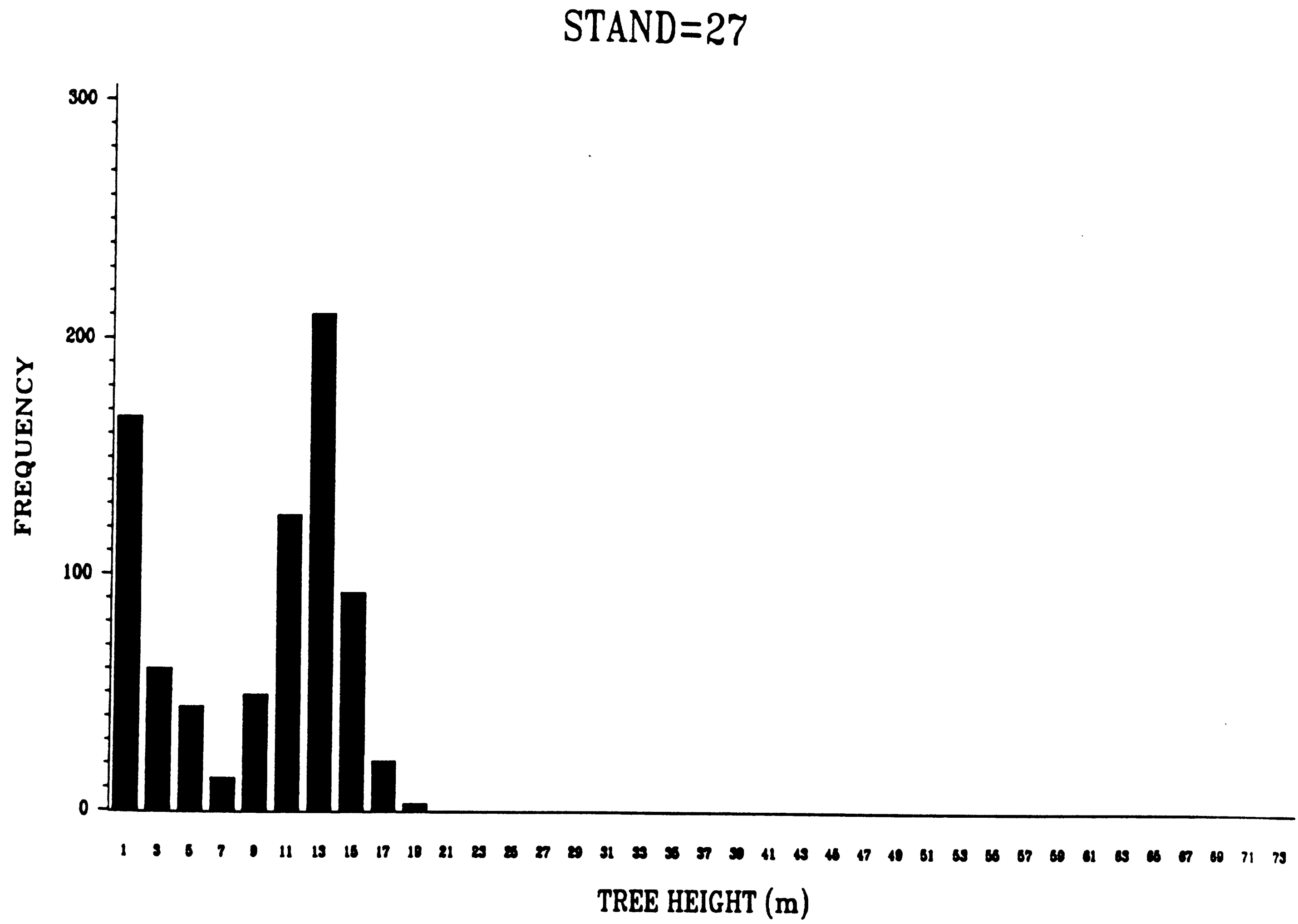


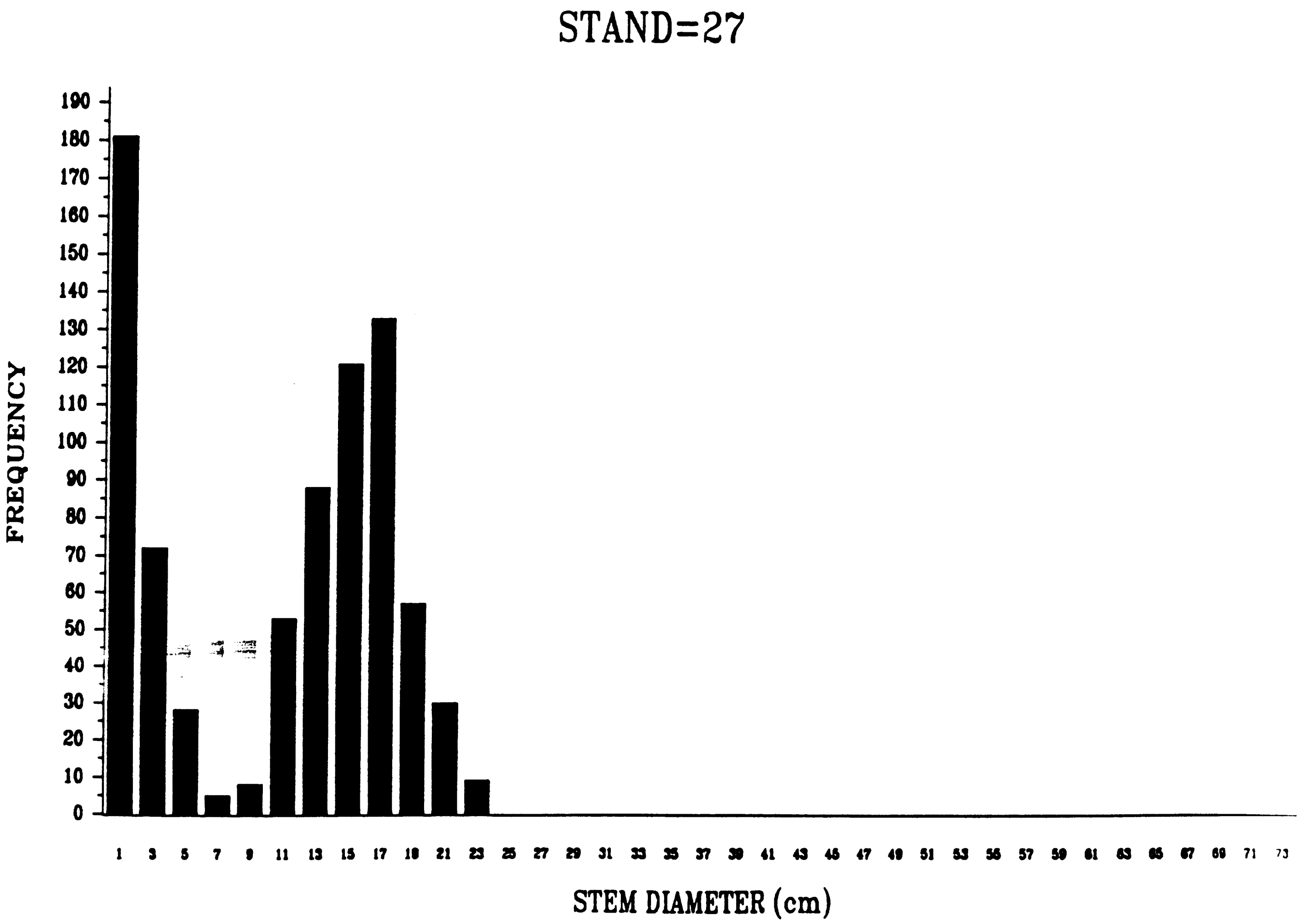
STAND=26

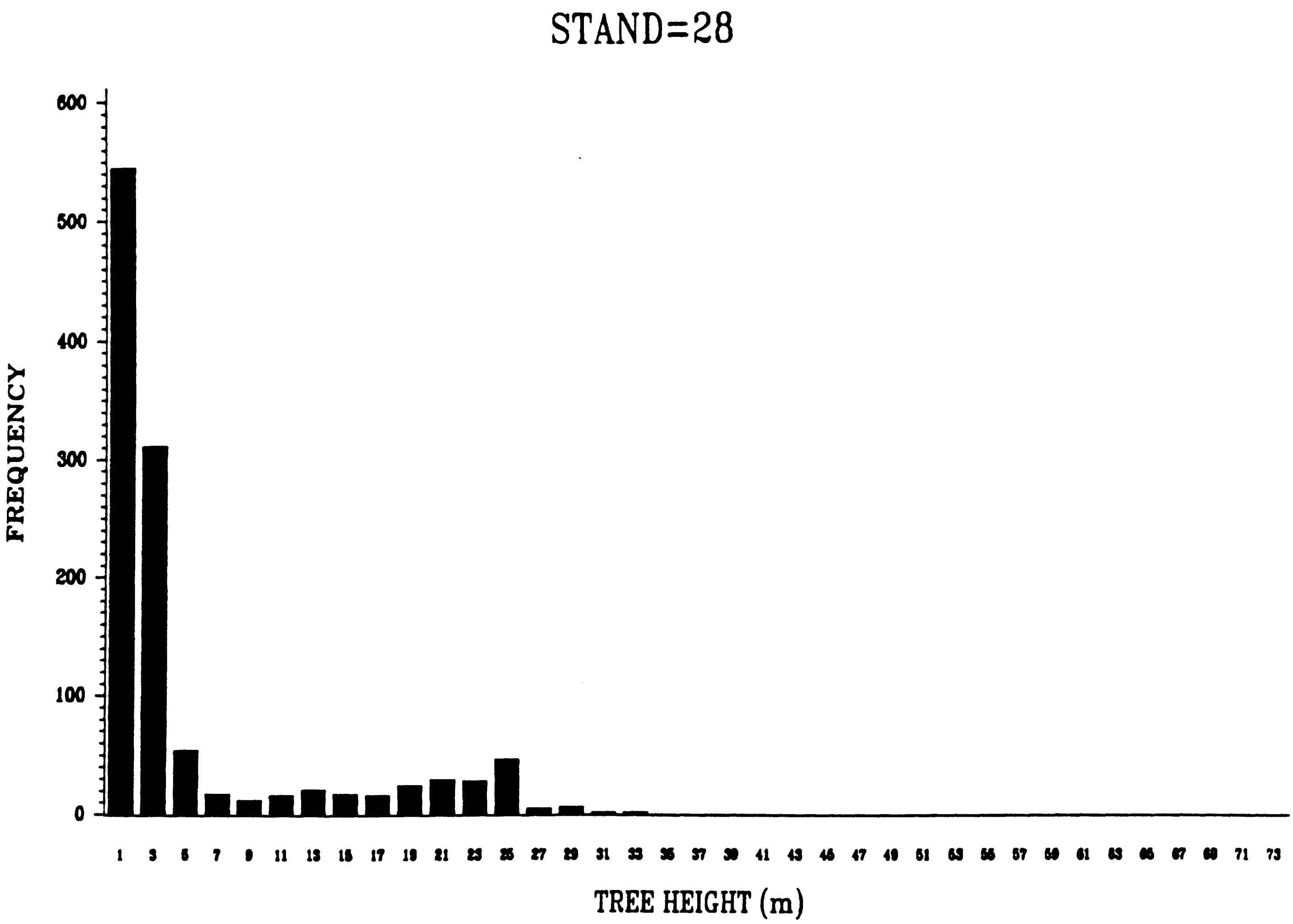


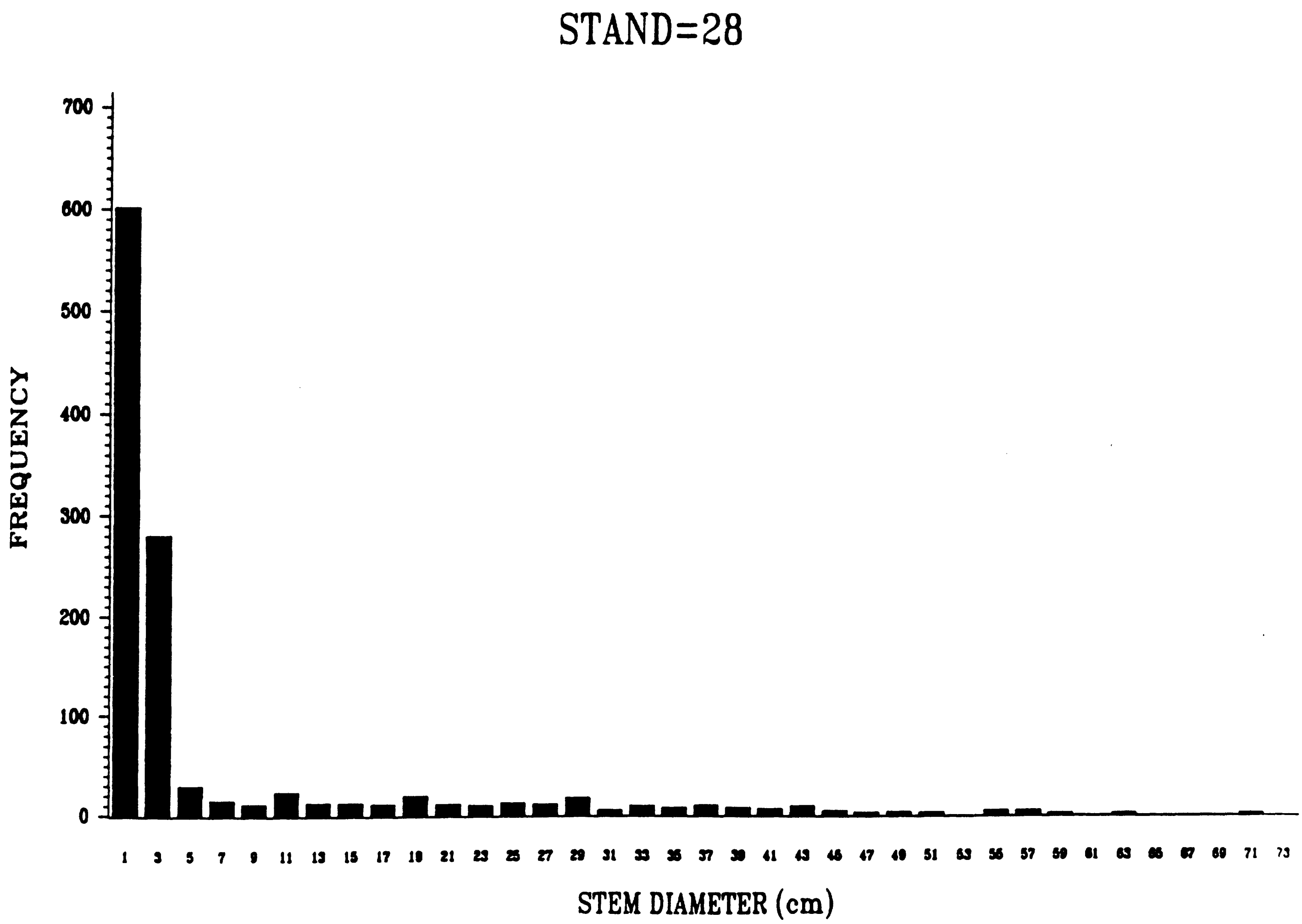
STAND=26



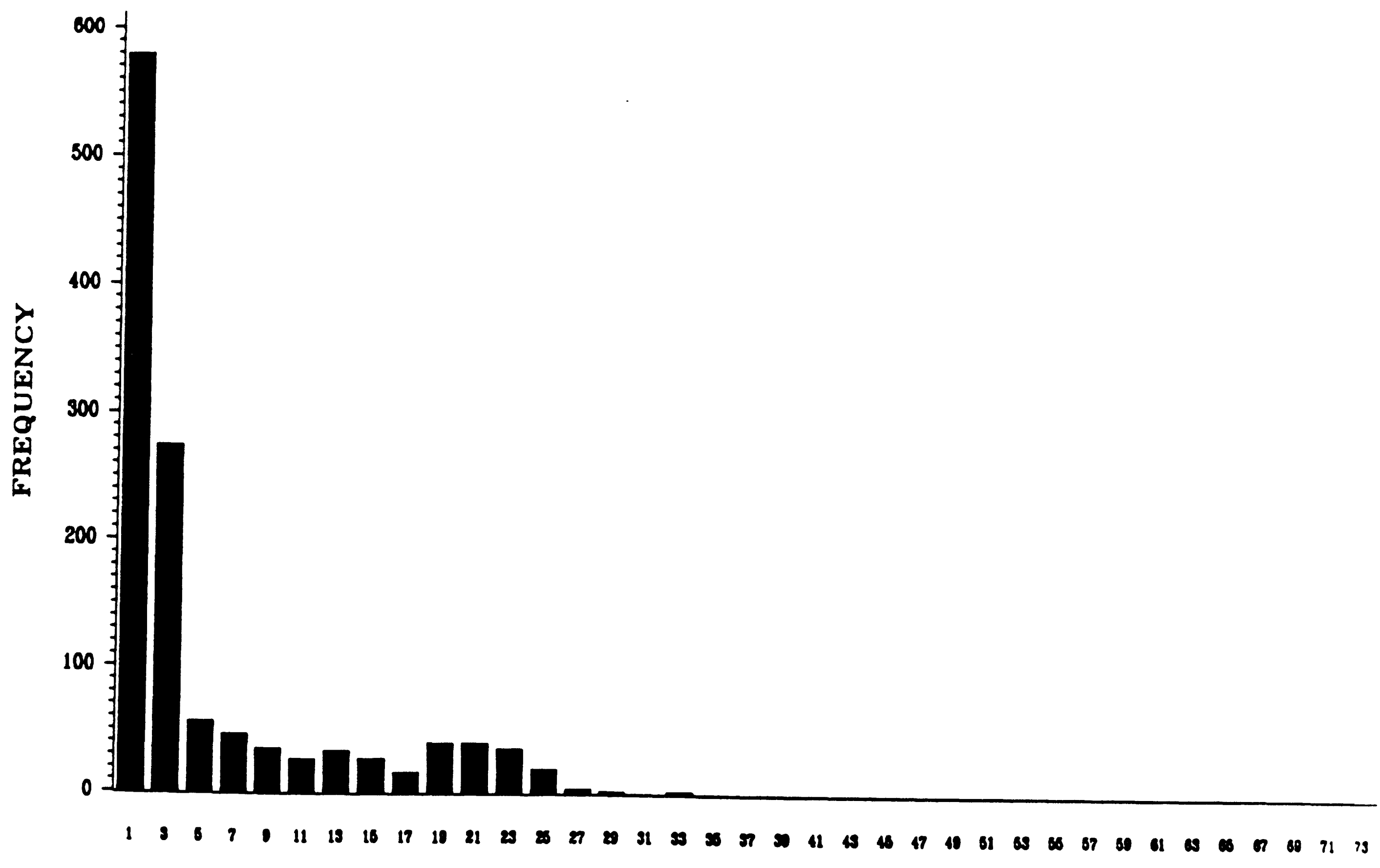

STAND=27
300
200
100
0
FREQUENCY
1 3 5 7 9 11 13 15 17 19 21 23 25 27 29 31 33 35 37 39 41 43 45 47 49 51 53 55 57 59 61 63 65 67 69 71 73
TREE HEIGHT (m)


STAND=27
190
180
170
160
150
140
130
120
110
100
90
80
70
60
50
40
30
20
10
0
FREQUENCY
1 3 5 7 9 11 13 15 17 19 21 23 25 27 29 31 33 35 37 39 41 43 45 47 49 51 53 55 57 59 61 63 65 67 69 71 73
STEM DIAMETER (cm)

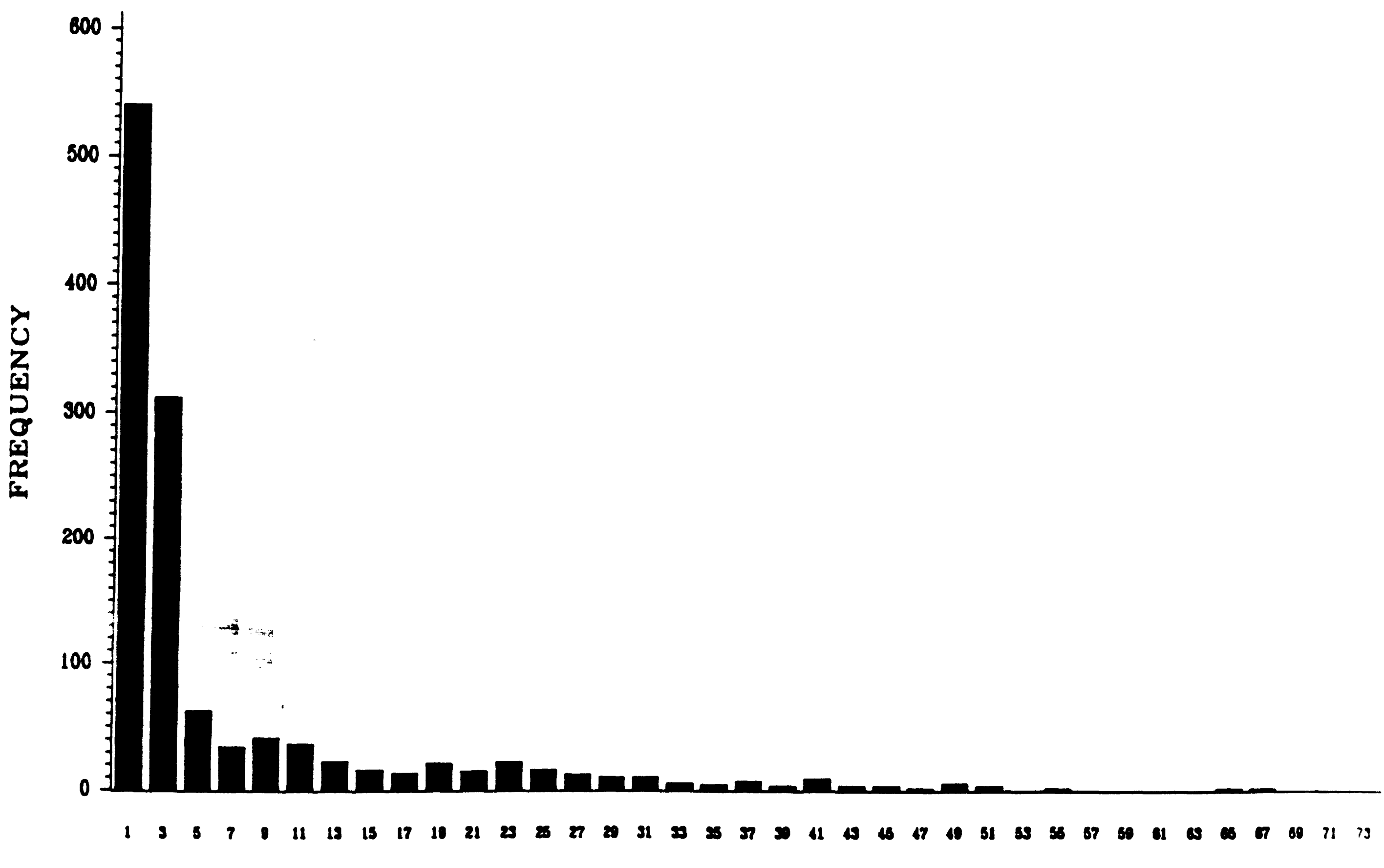

STAND=28
FREQUENCY
TREE HEIGHT (m)

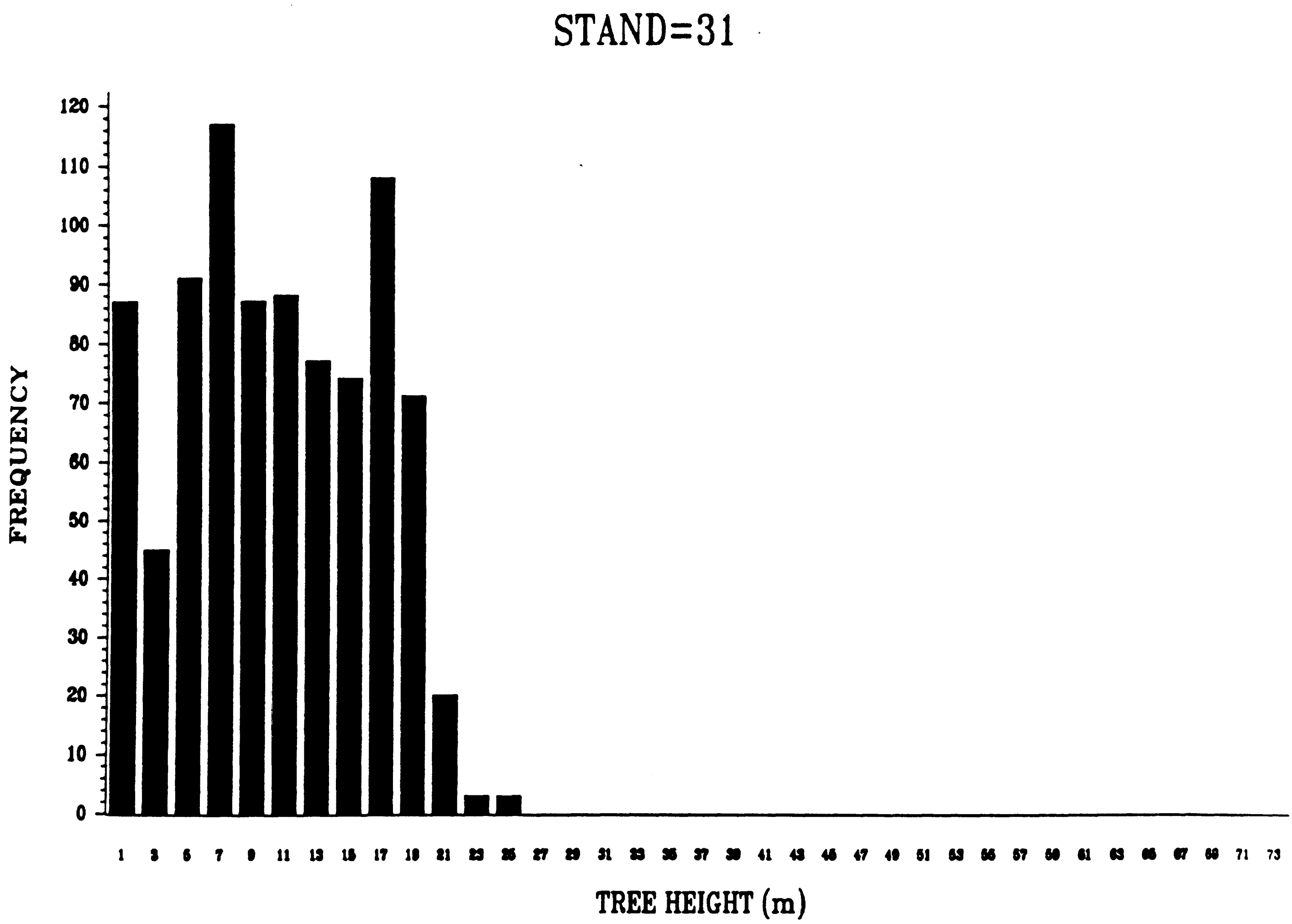

STAND=28
FREQUENCY
STEM DIAMETER (cm)

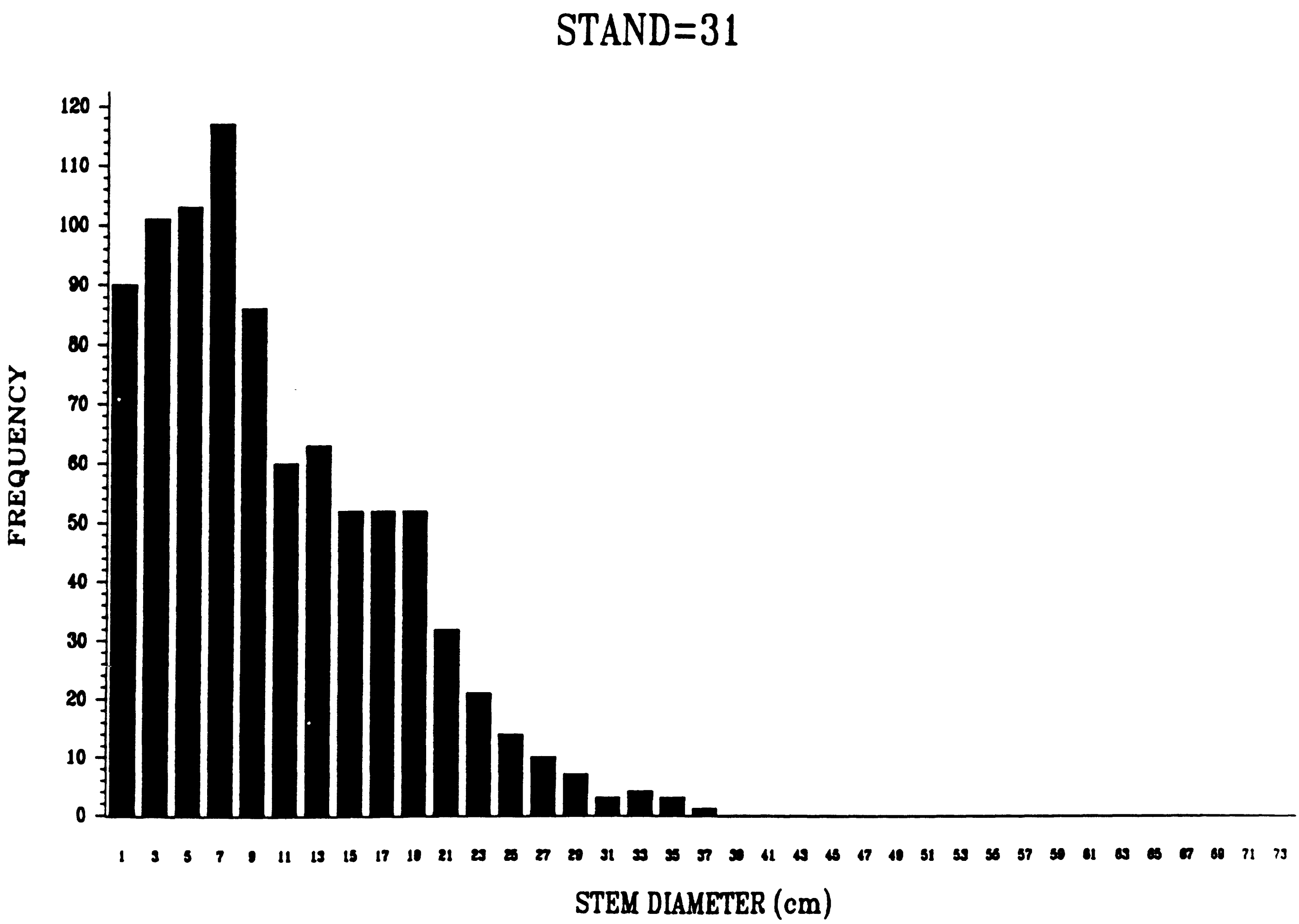
STAND=29



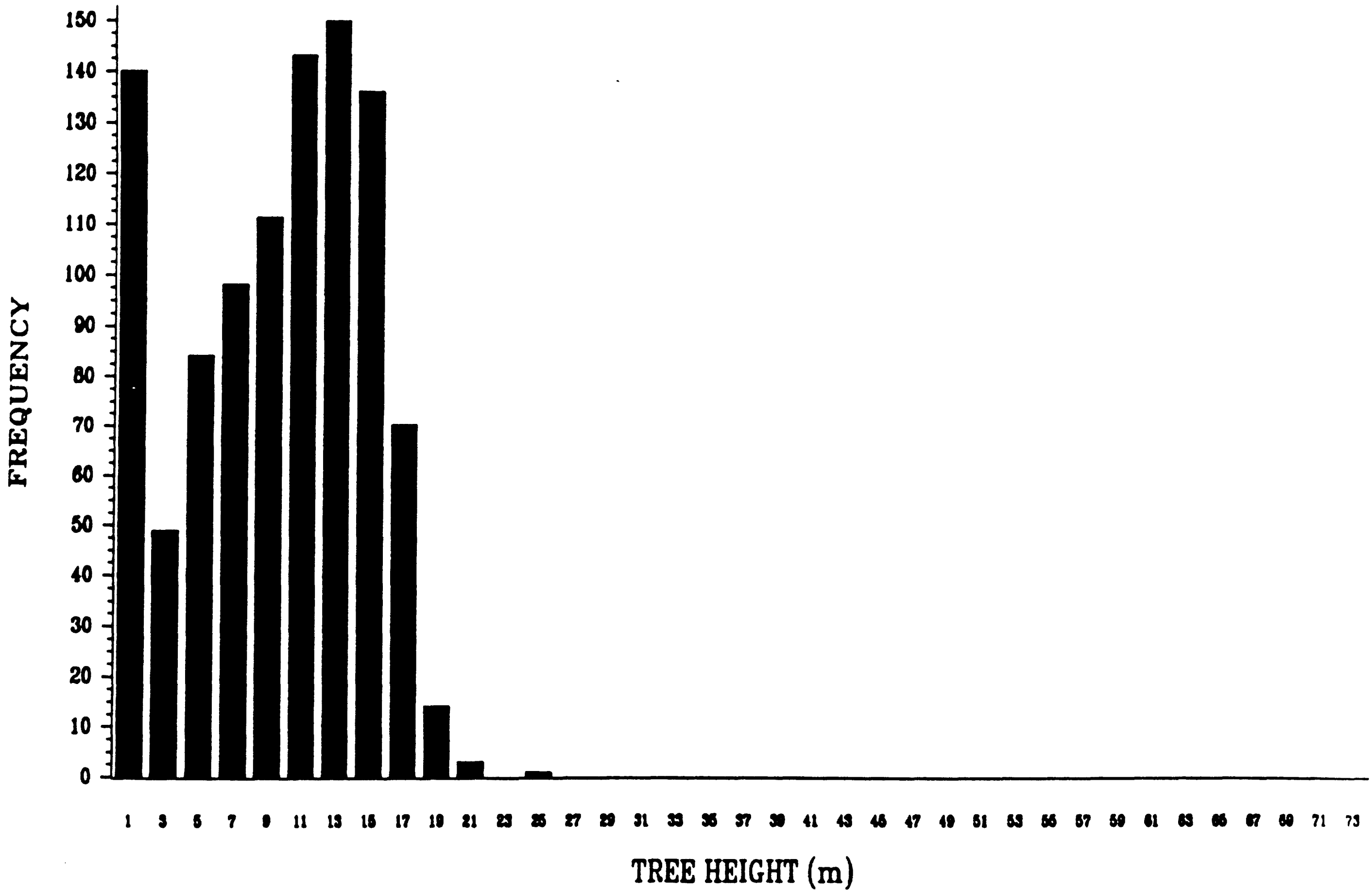
STAND=29



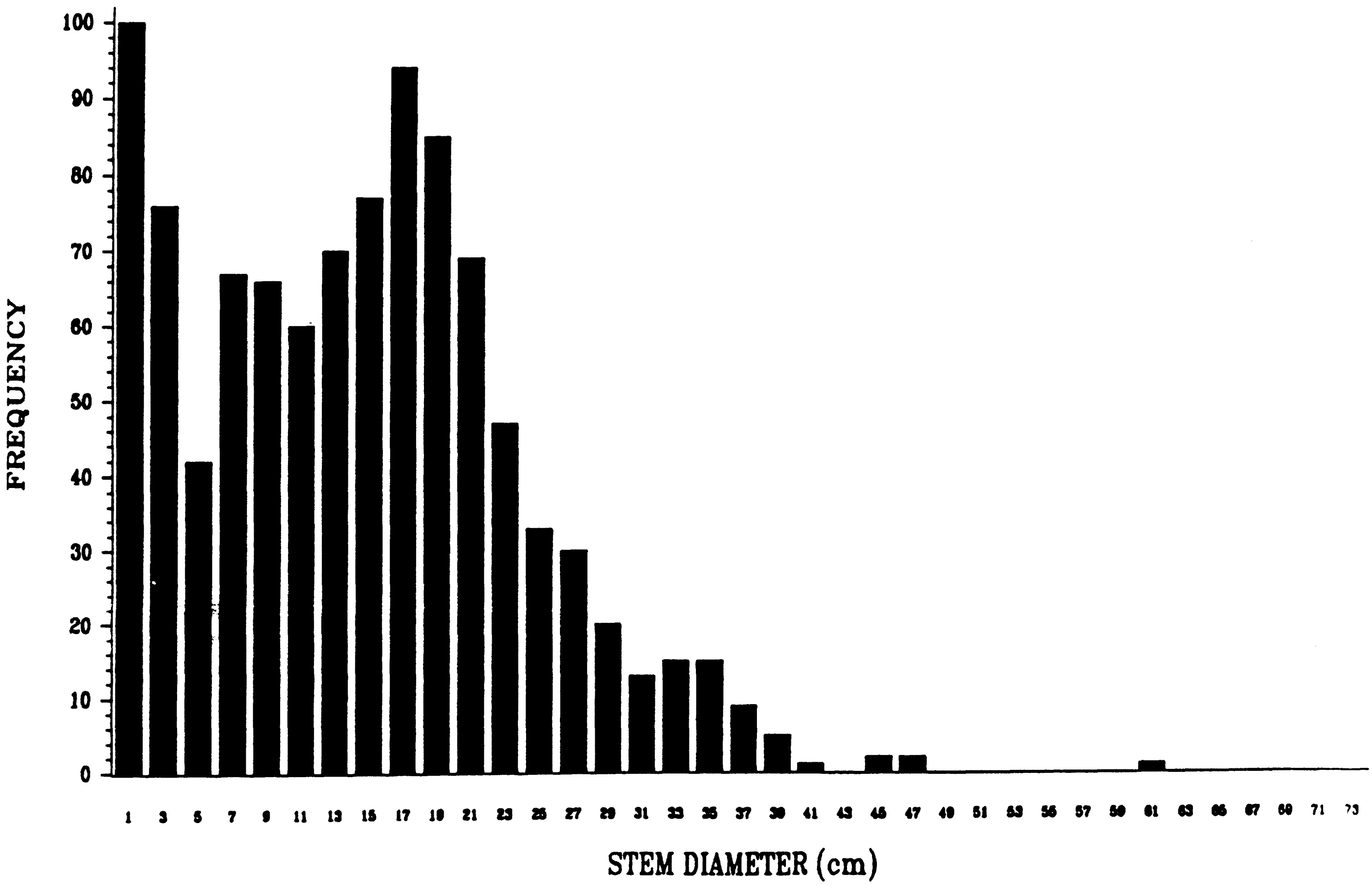

STAND=31
FREQUENCY
TREE HEIGHT (m)


STAND=31
FREQUENCY
STEM DIAMETER (cm)

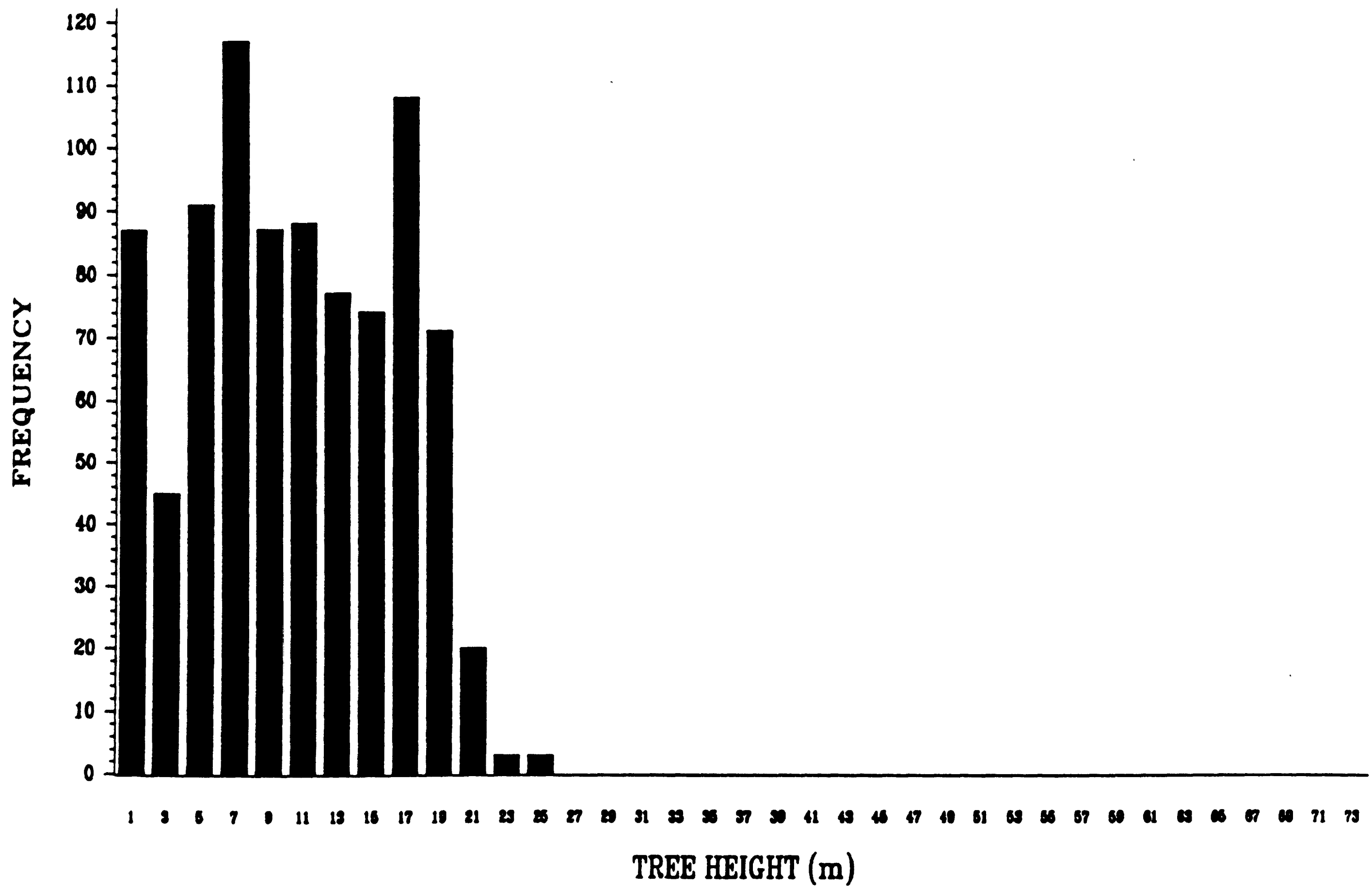
STAND=32



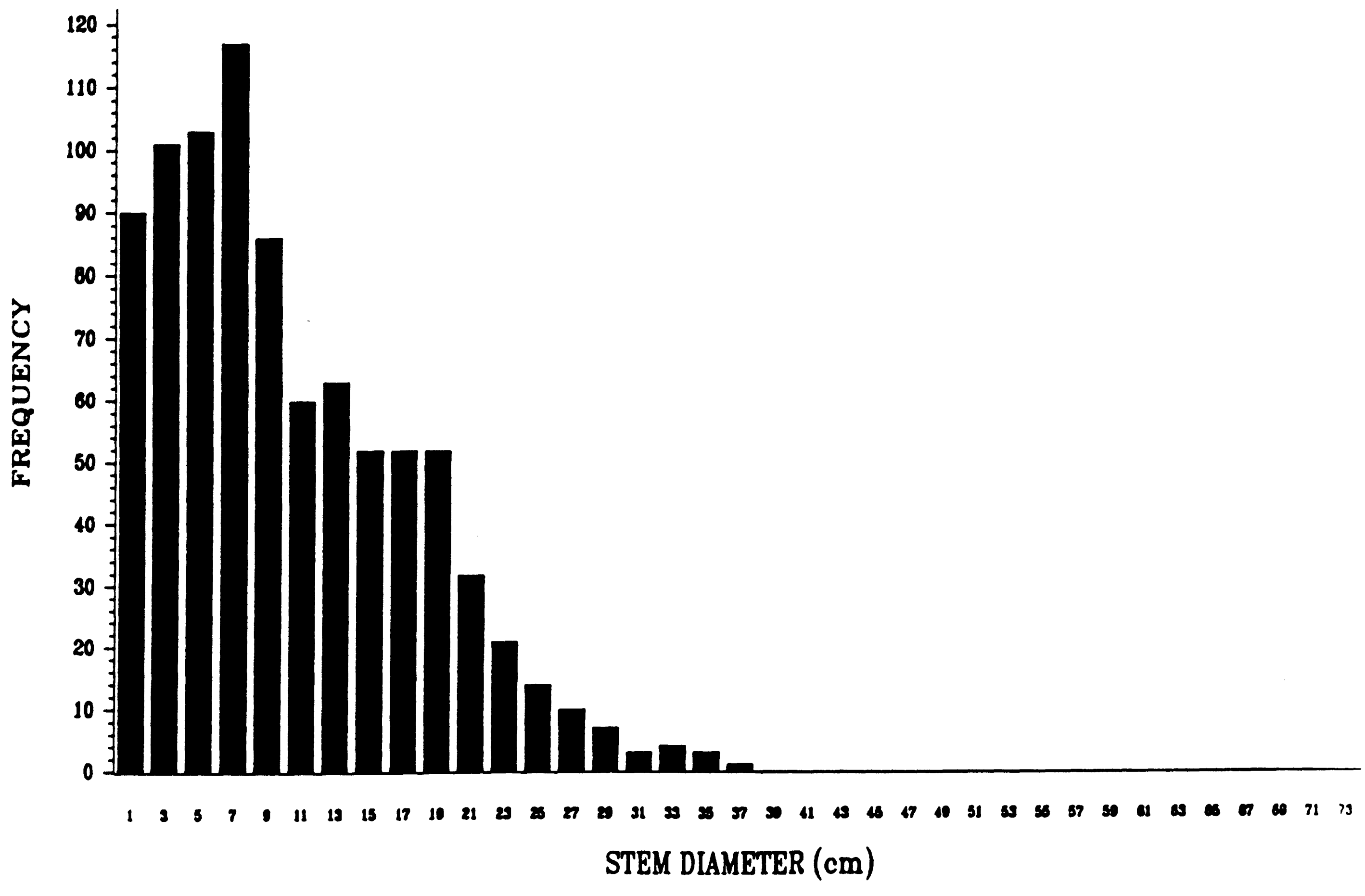
STAND=32



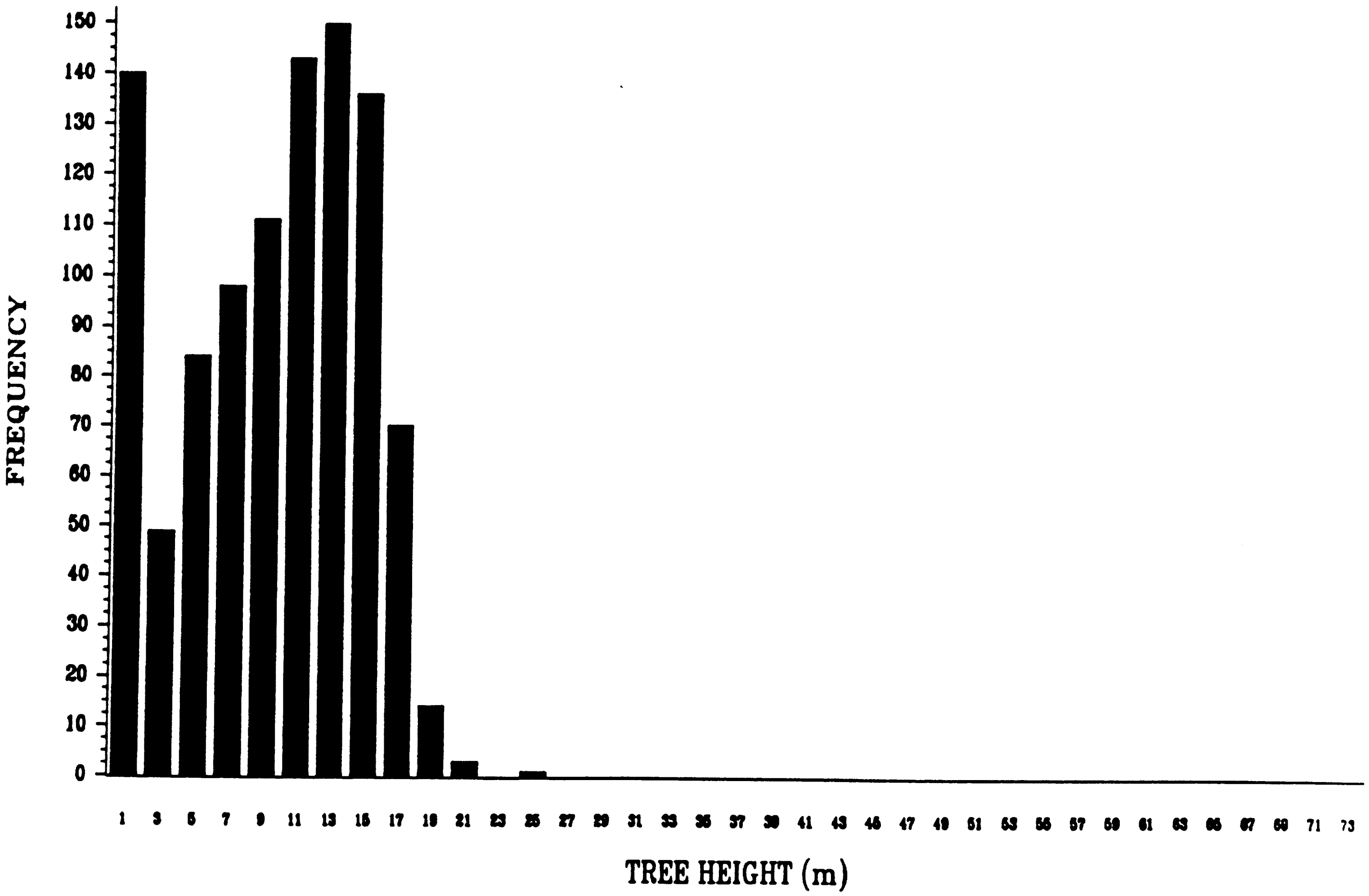
STAND=31



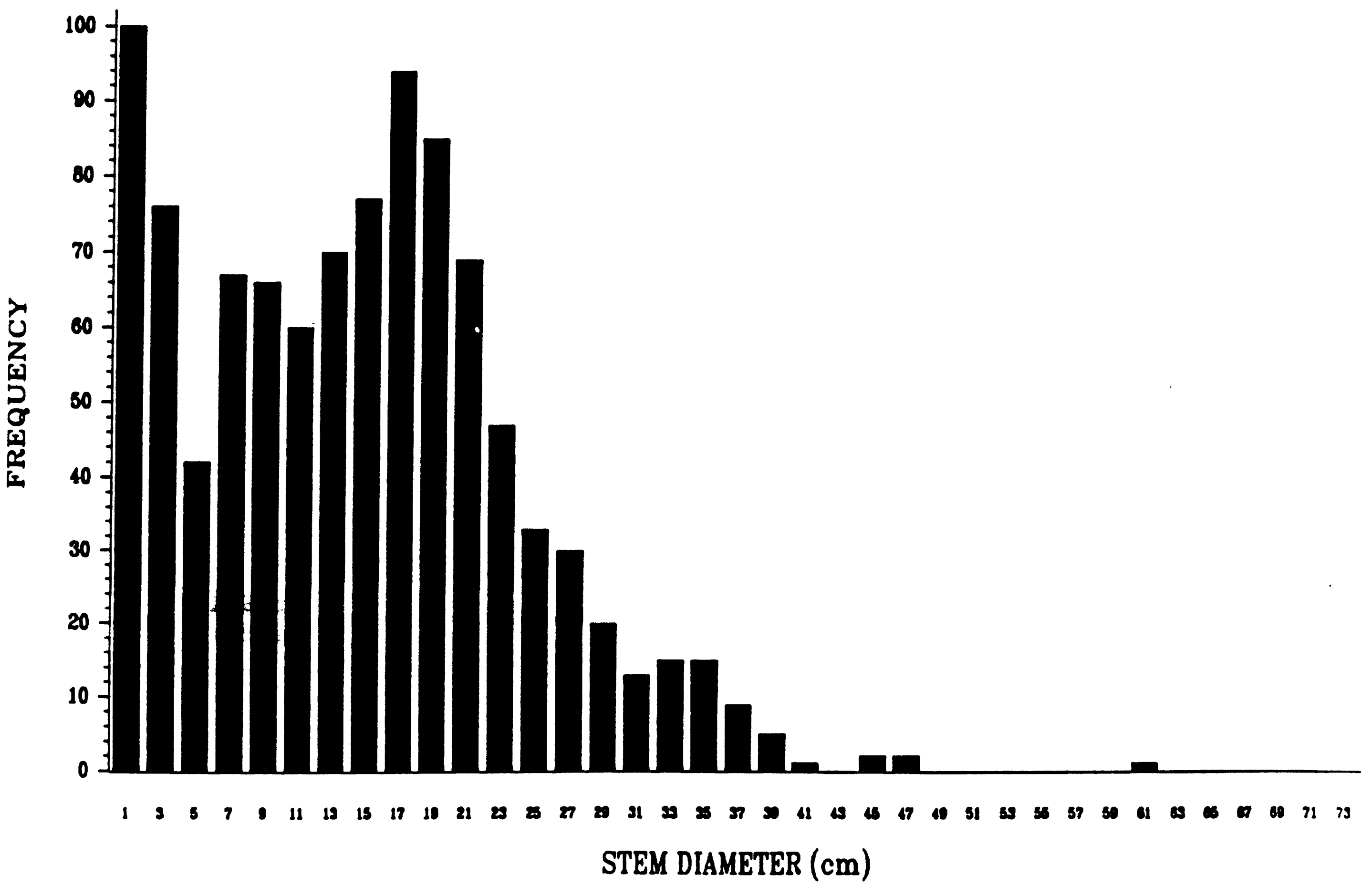
STAND=31



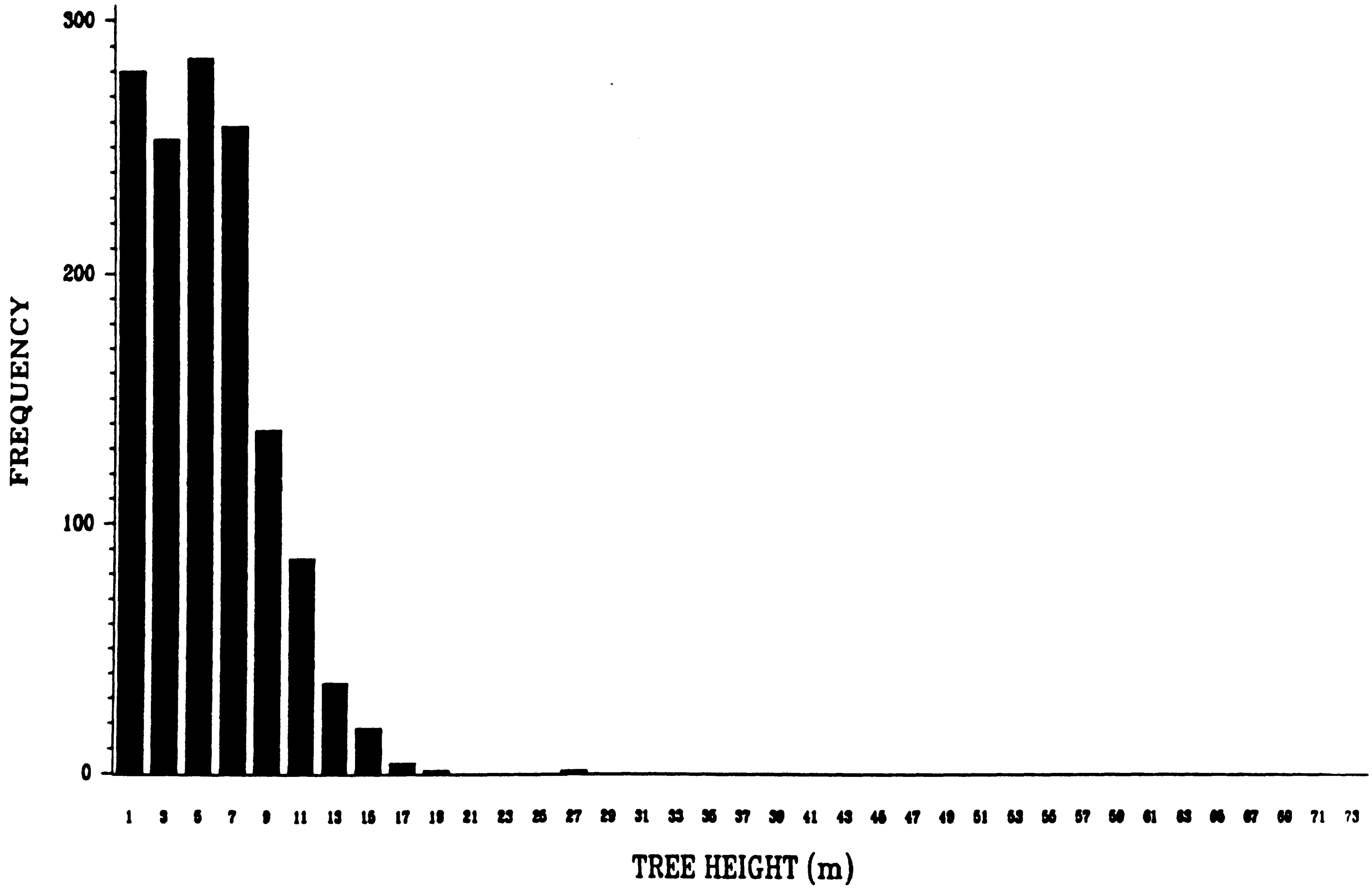
STAND=32



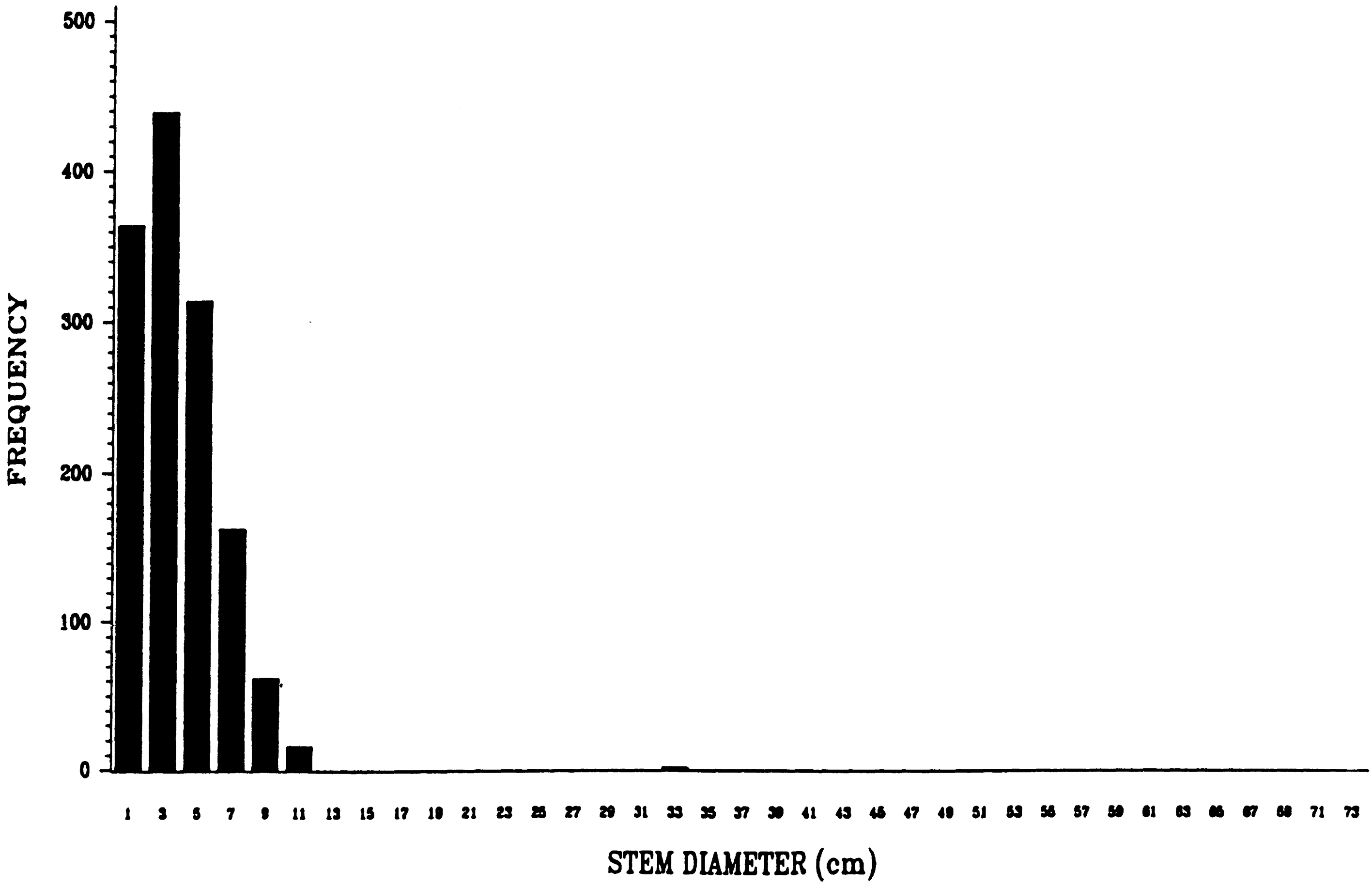
STAND=32



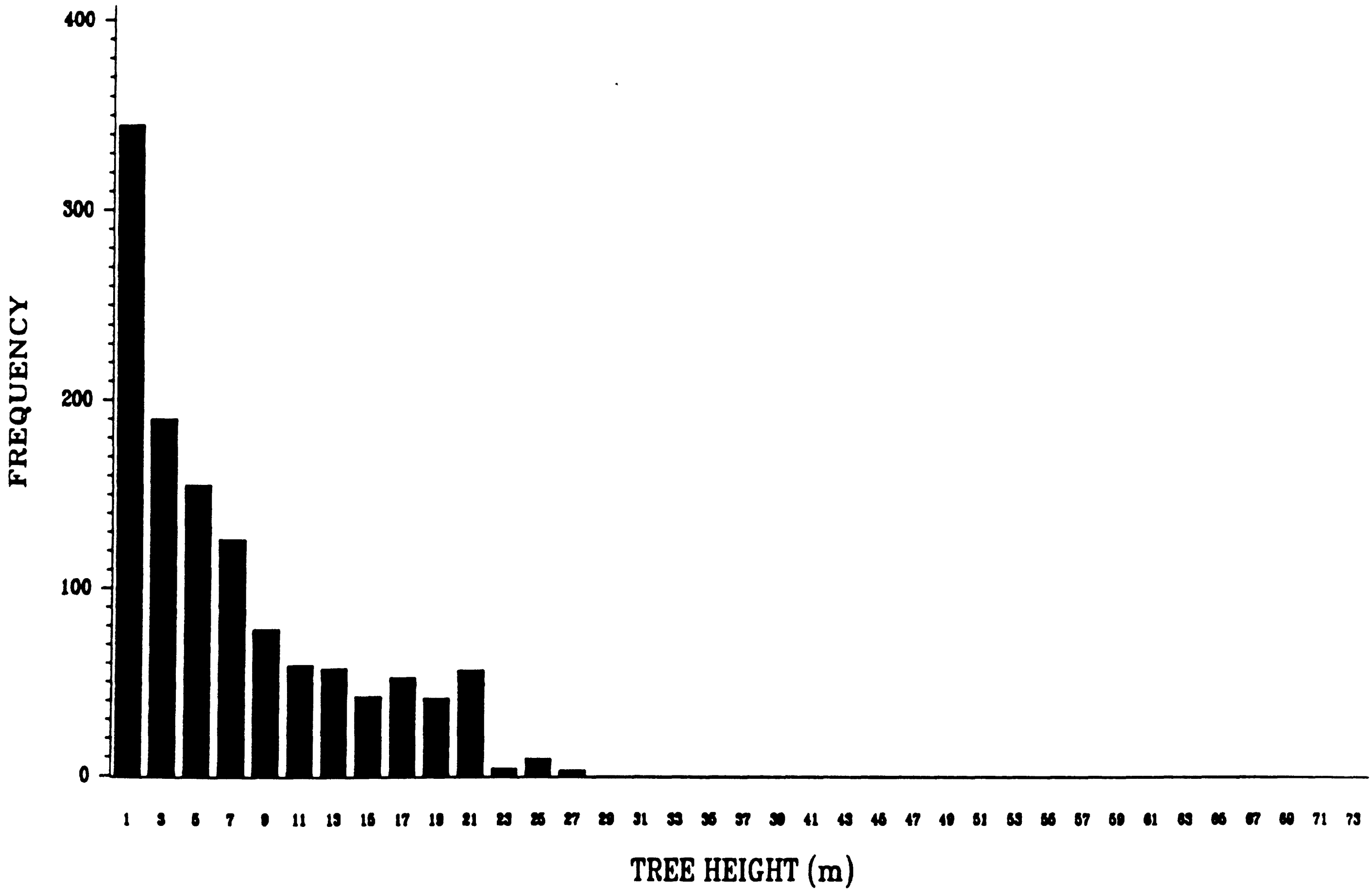
STAND=33 YEAR=94



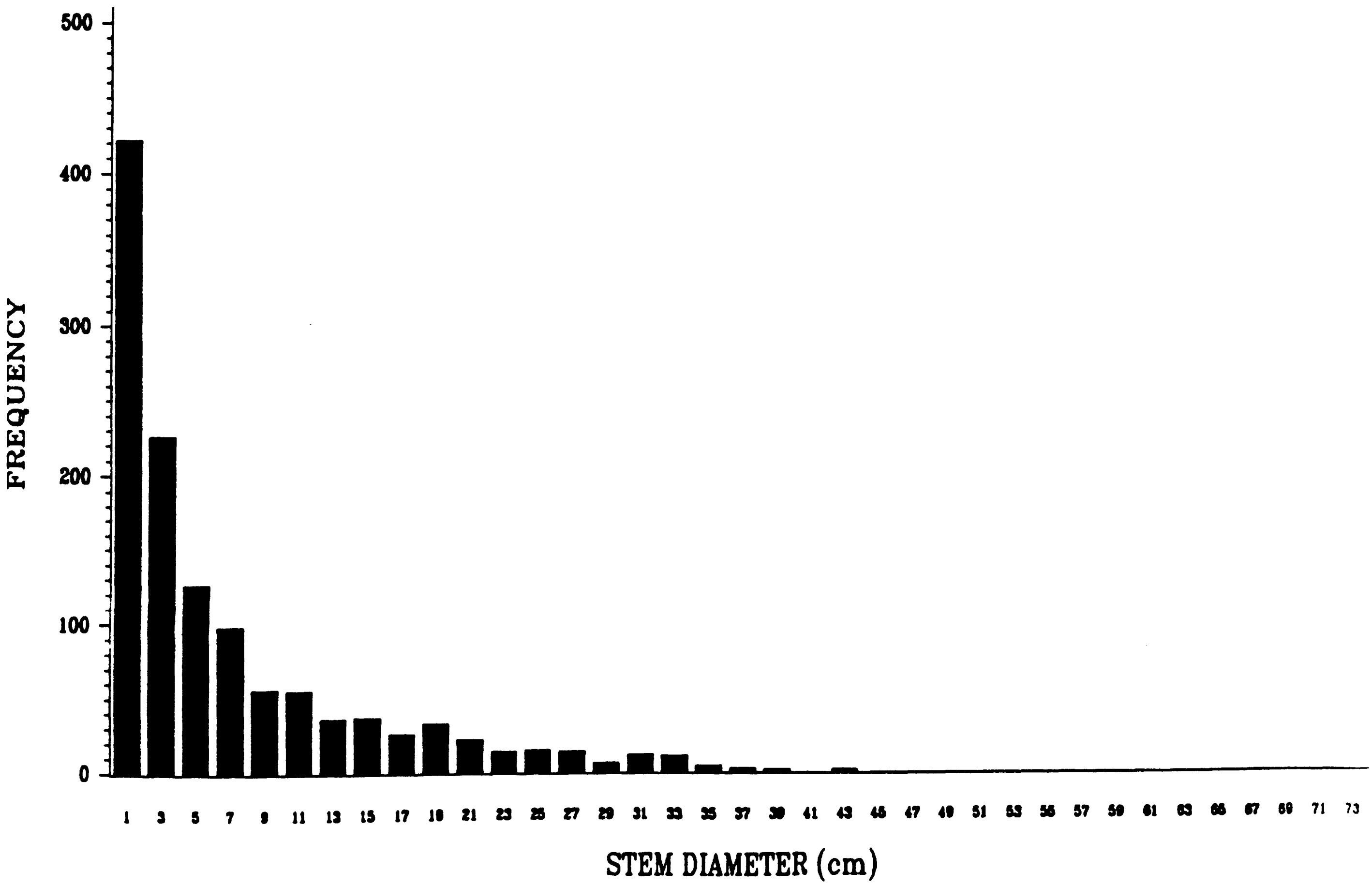
STAND=33 YEAR=94



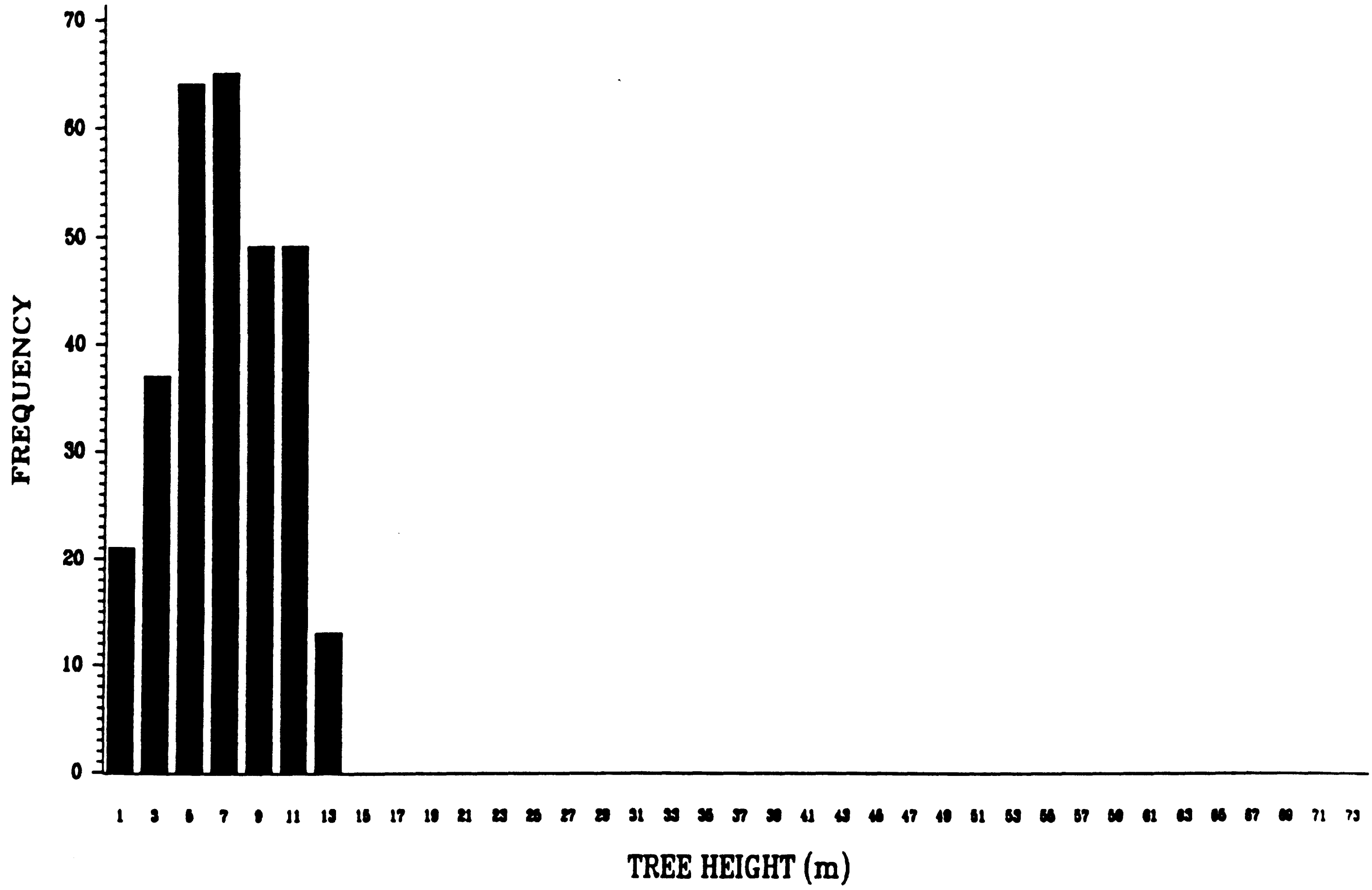
STAND=34



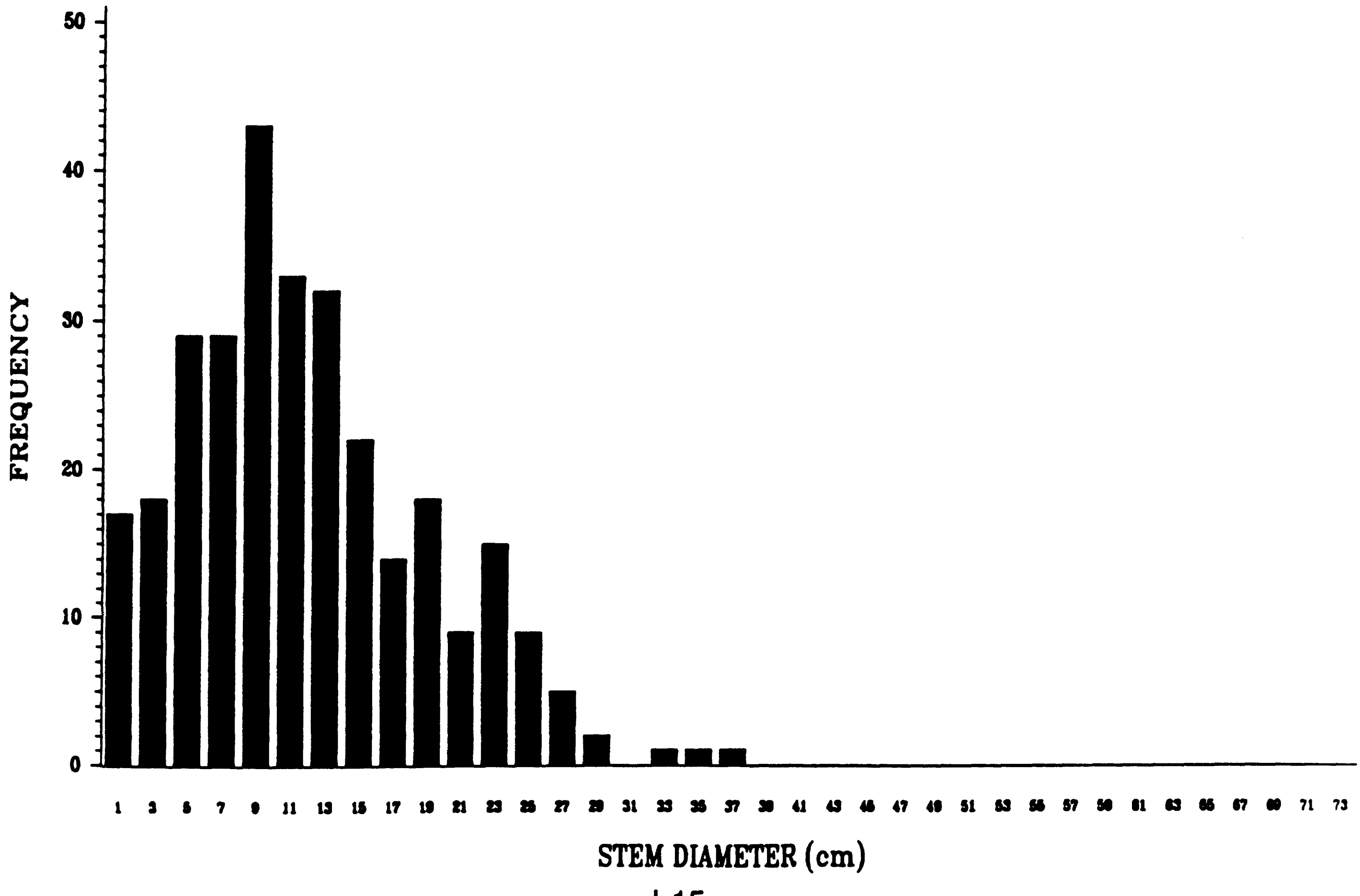
STAND=34

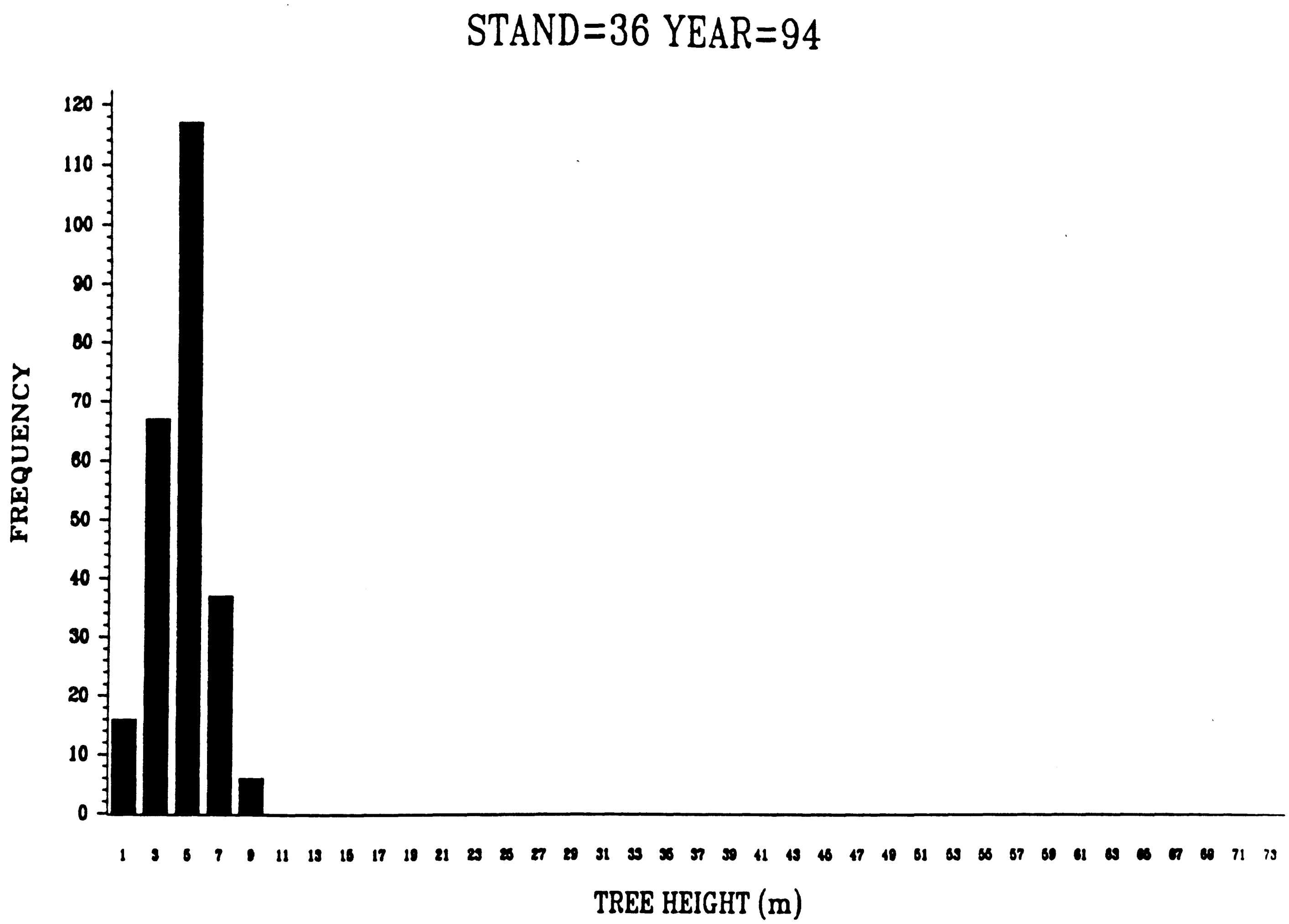


STAND=35

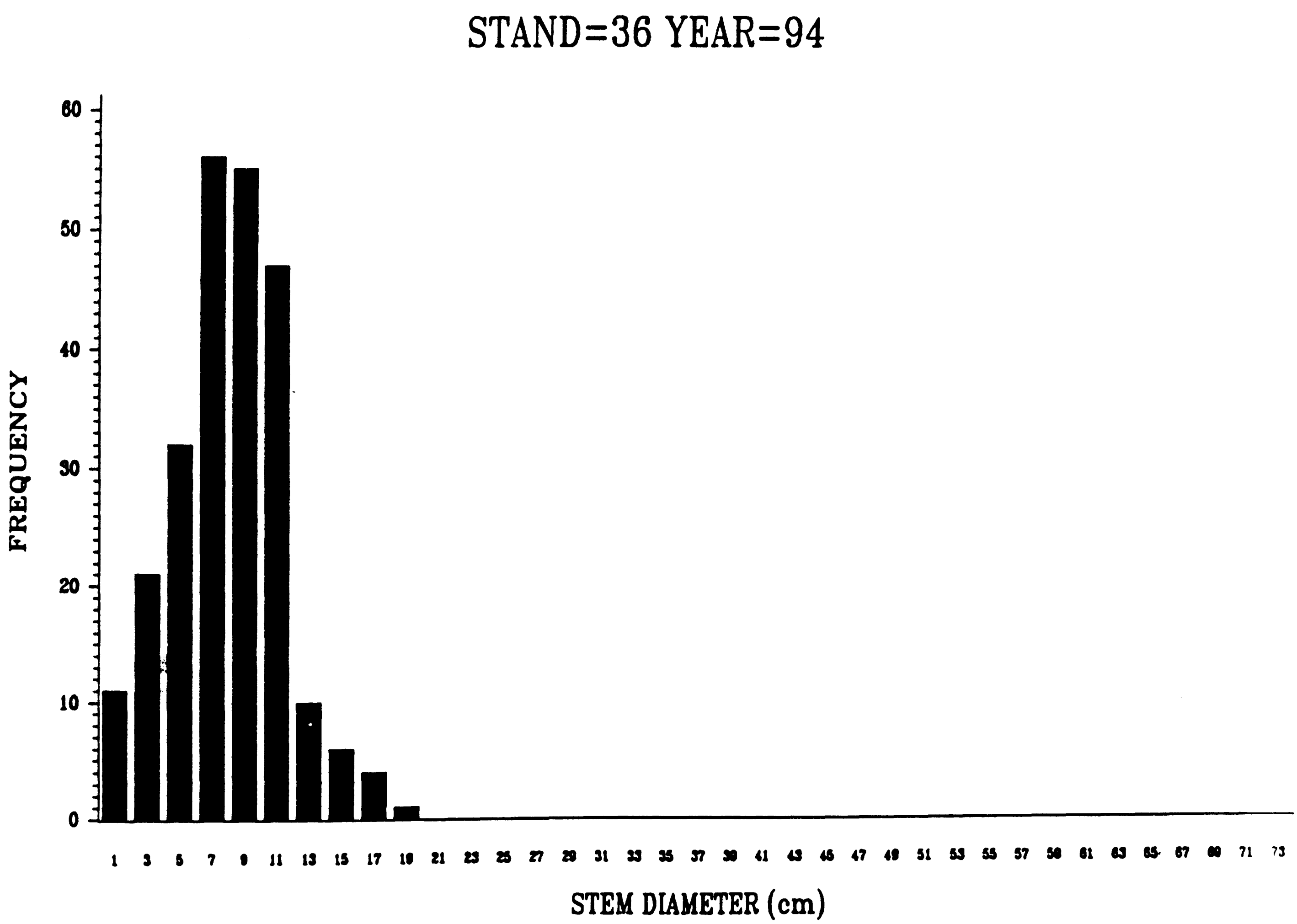


STAND=35

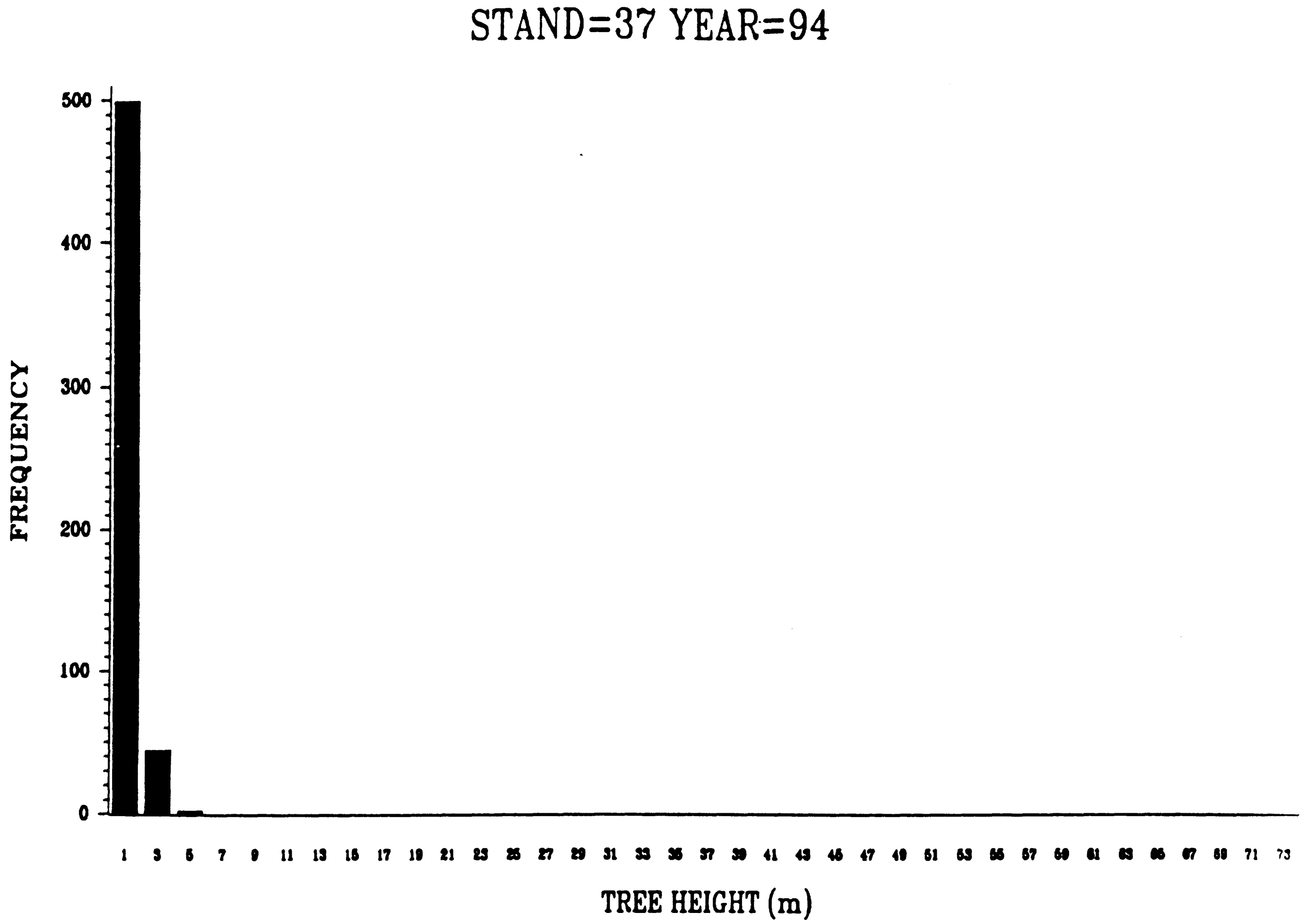


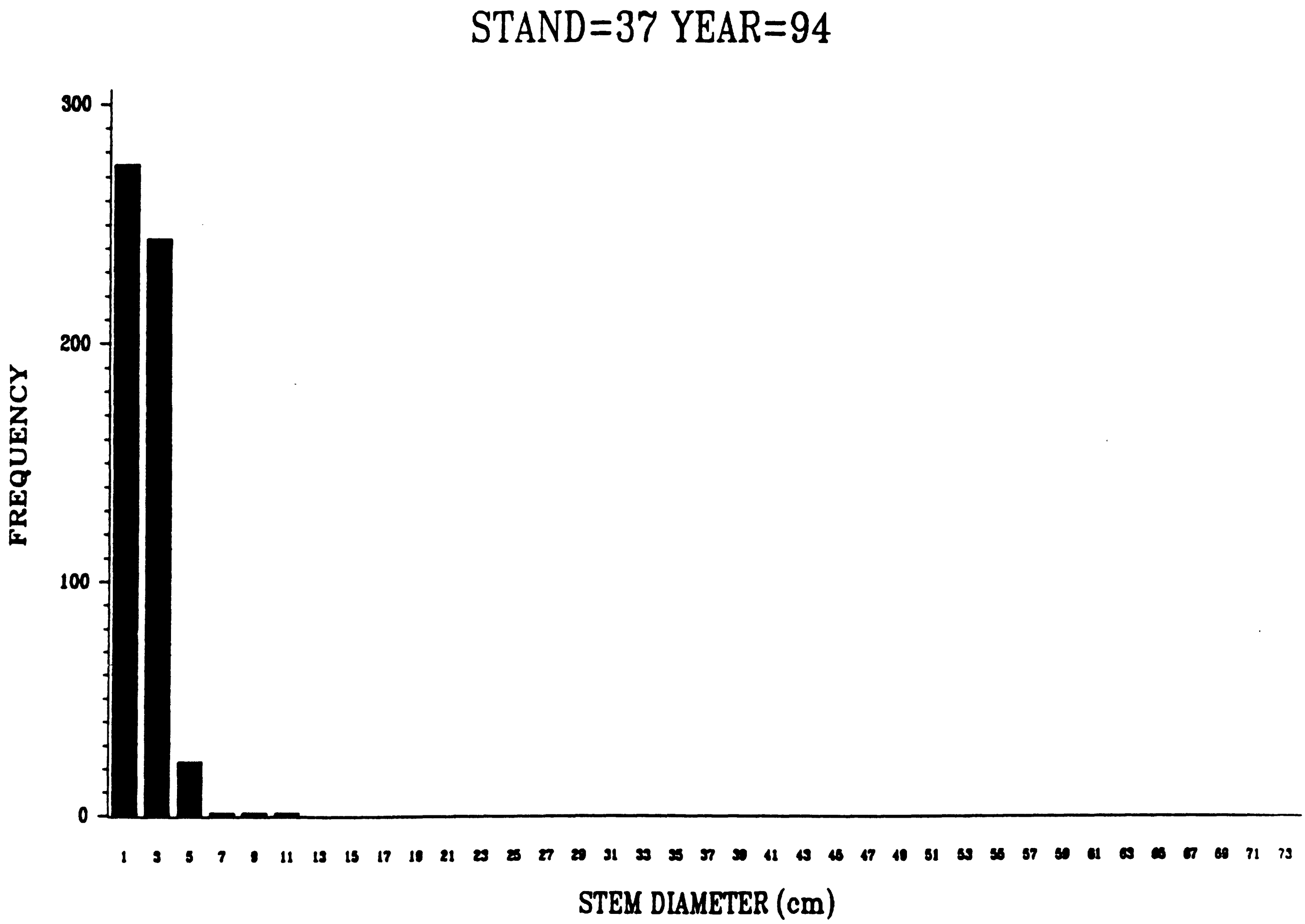


STAND=36 YEAR=94
FREQUENCY
TREE HEIGHT (m)

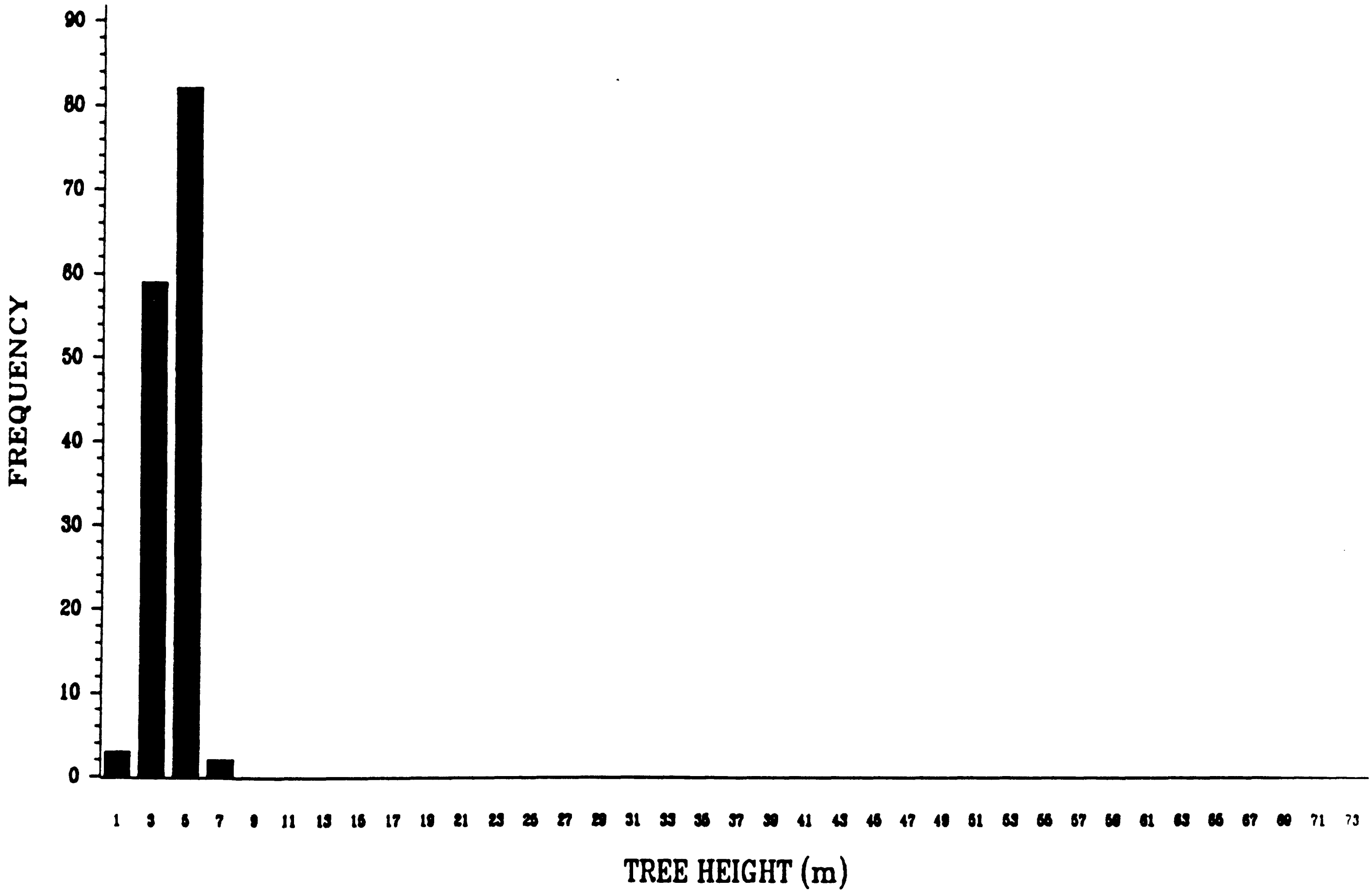


STAND=36 YEAR=94
FREQUENCY
STEM DIAMETER (cm)

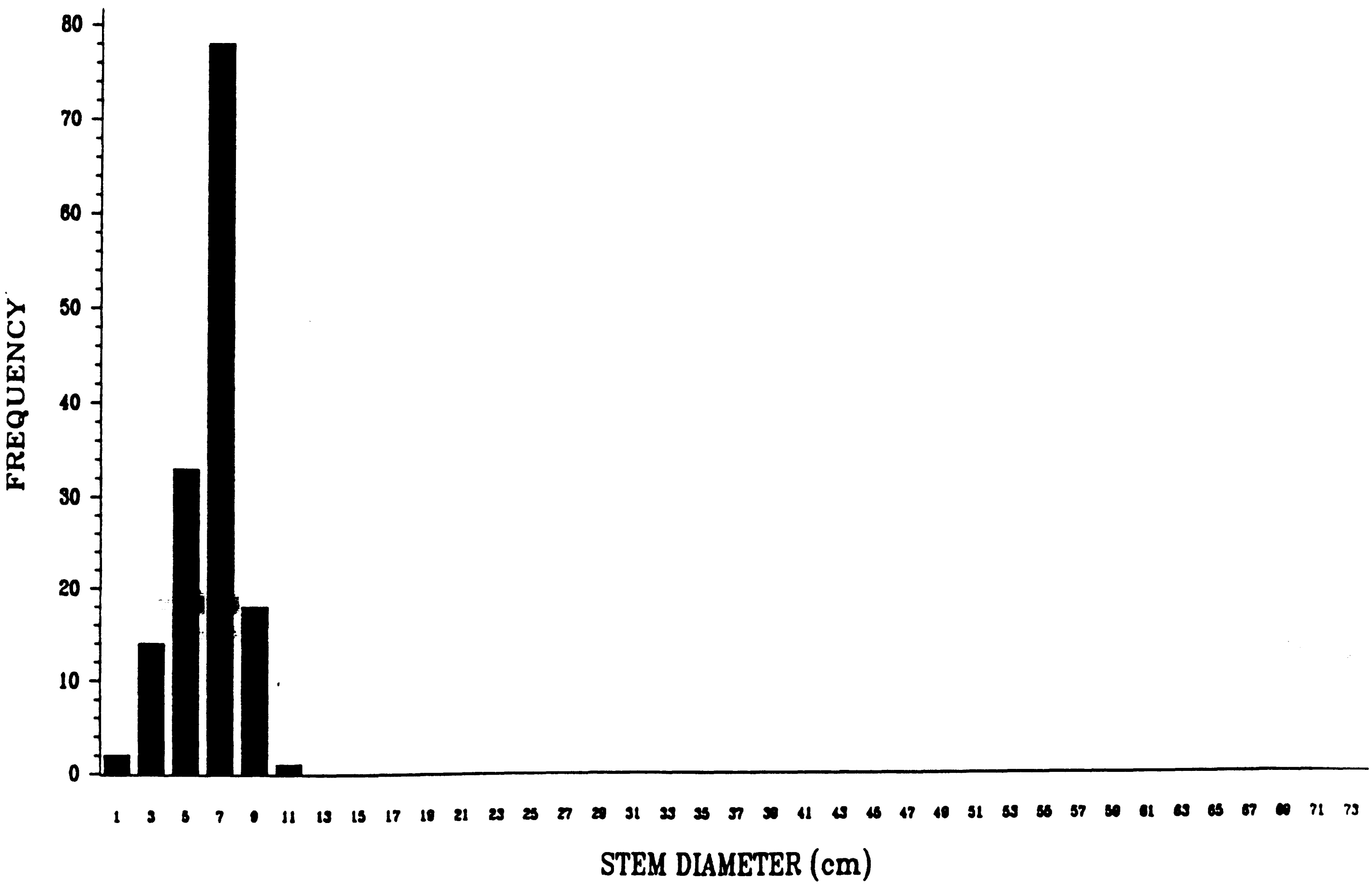

STAND=37 YEAR=94
FREQUENCY
0
100
200
300
400
500
1 3 5 7 9 11 13 15 17 19 21 23 25 27 29 31 33 35 37 39 41 43 45 47 49 51 53 55 57 59 61 63 65 67 69 71 73
TREE HEIGHT (m)


STAND=37 YEAR=94
FREQUENCY
0
100
200
300
1 3 5 7 9 11 13 15 17 19 21 23 25 27 29 31 33 35 37 39 41 43 45 47 49 51 53 55 57 59 61 63 65 67 69 71 73
STEM DIAMETER (cm)

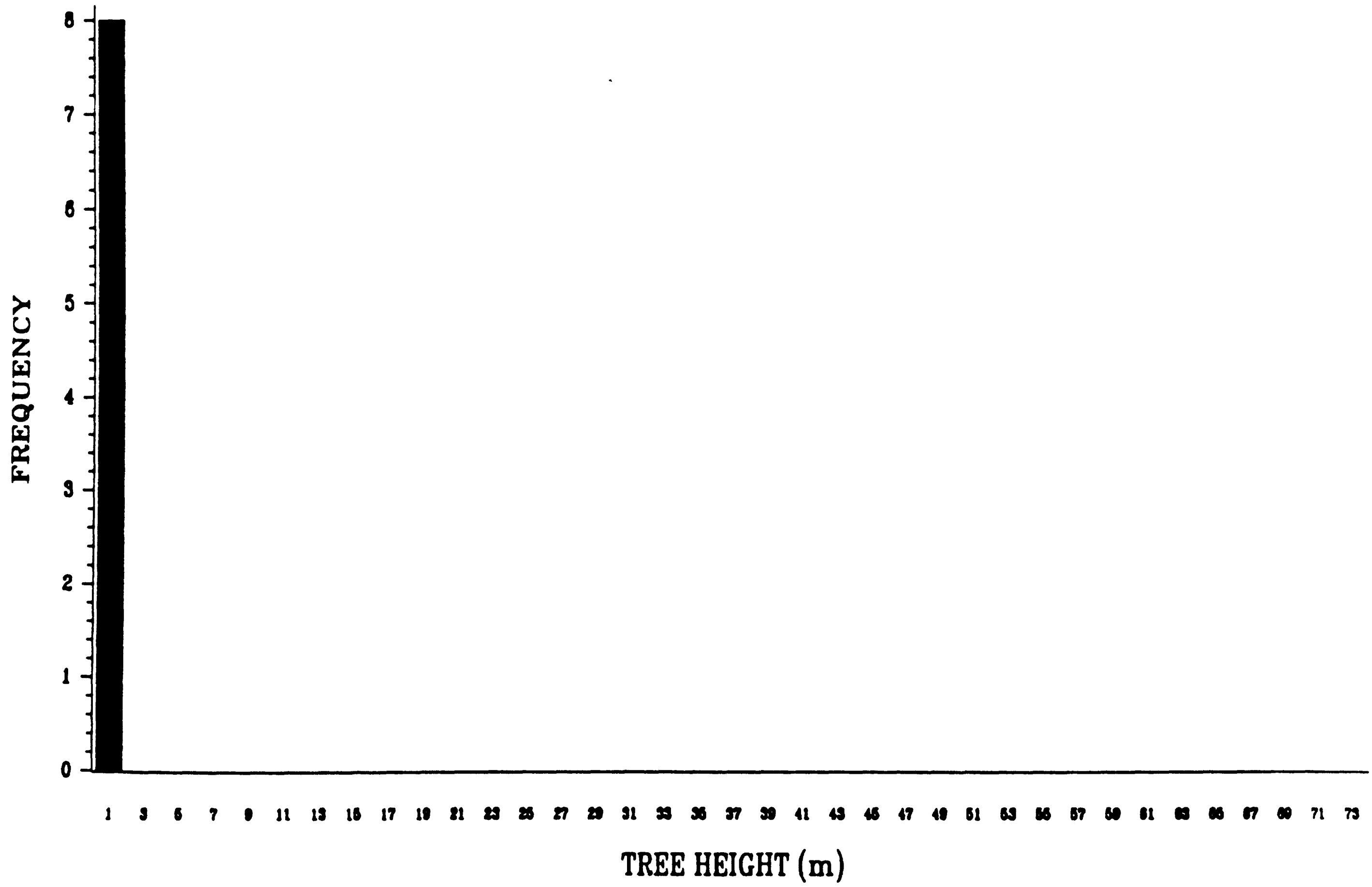
STAND=38 YEAR=94



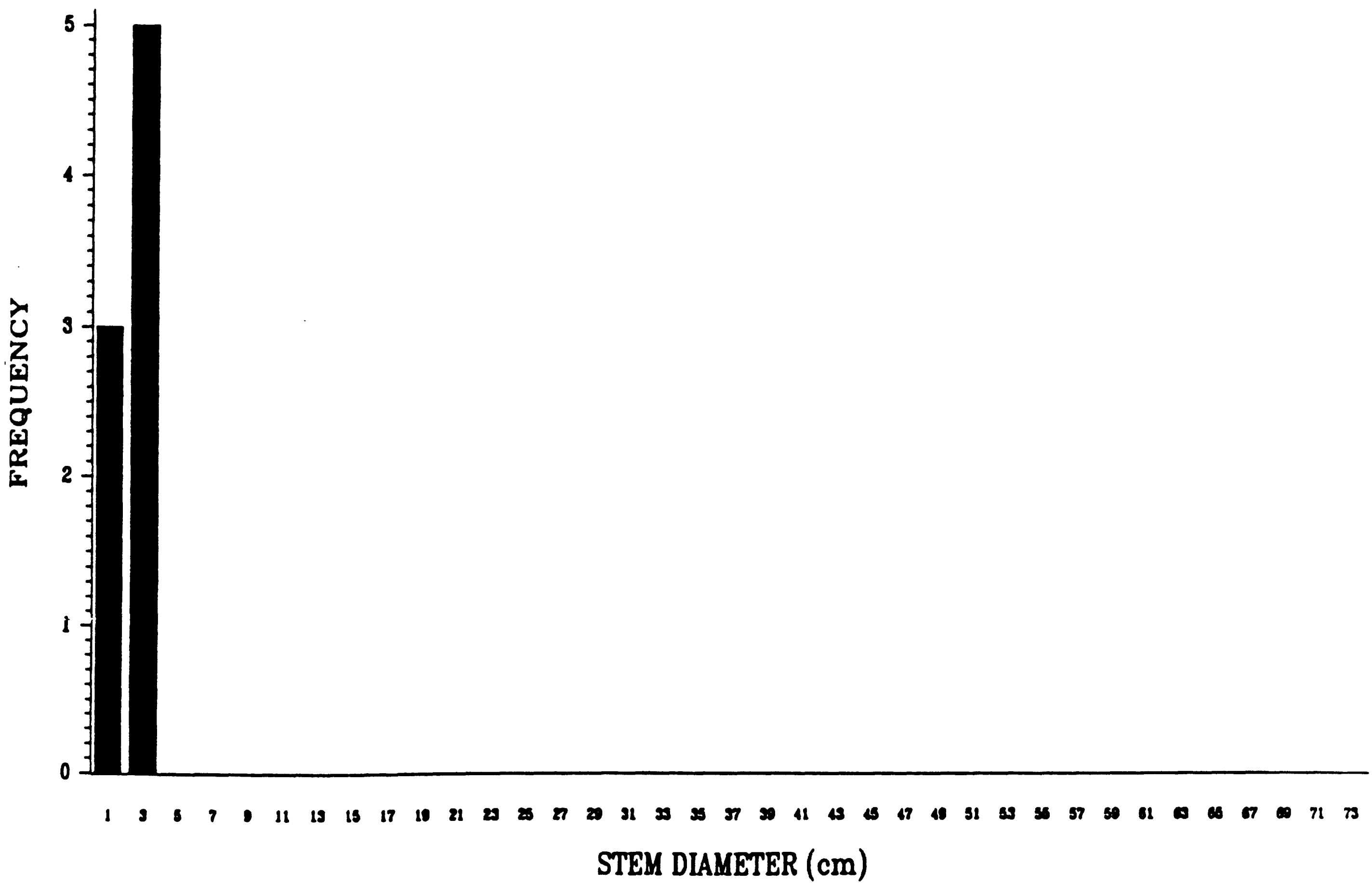
STAND=38 YEAR=94

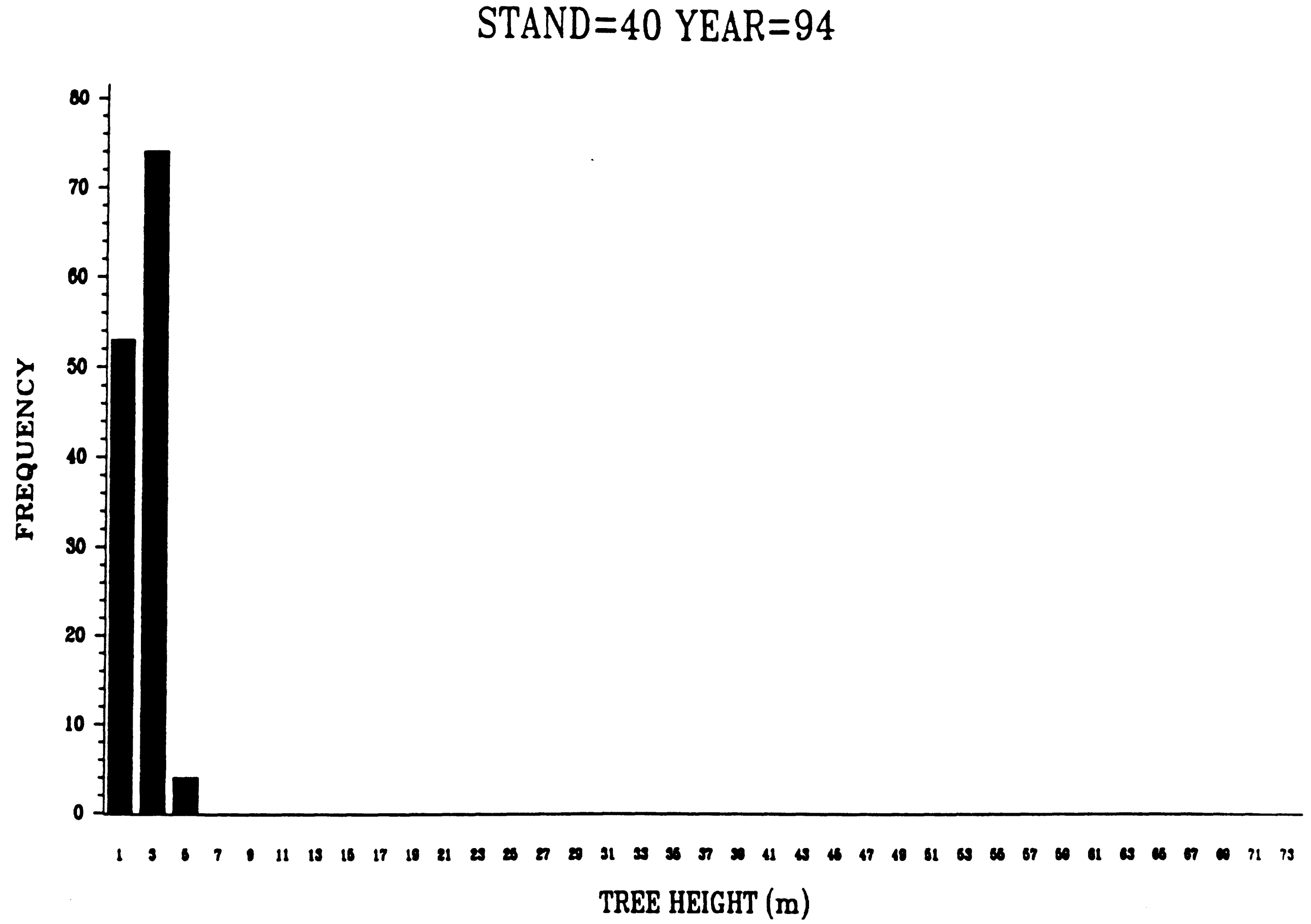


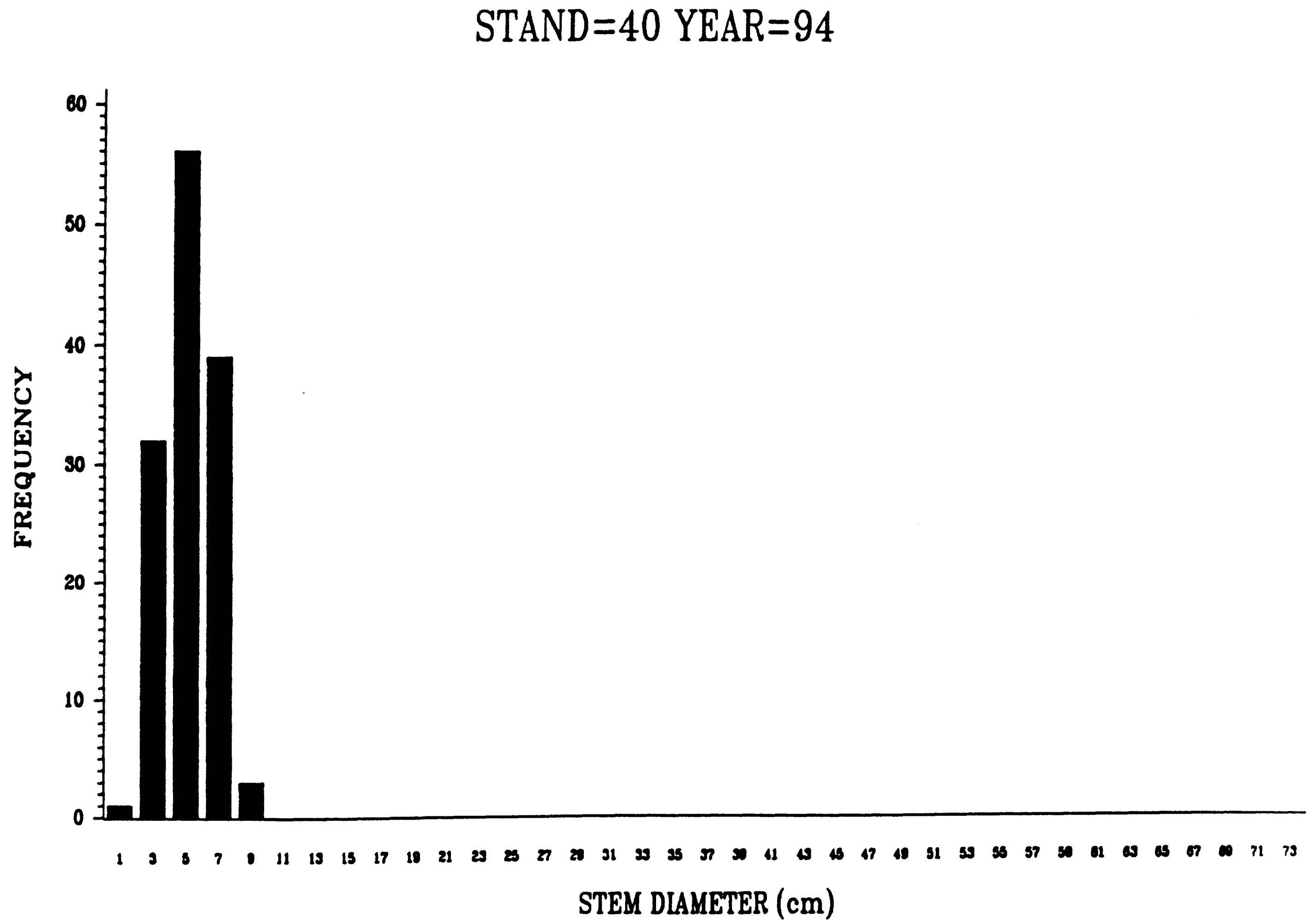
STAND=39 YEAR=94

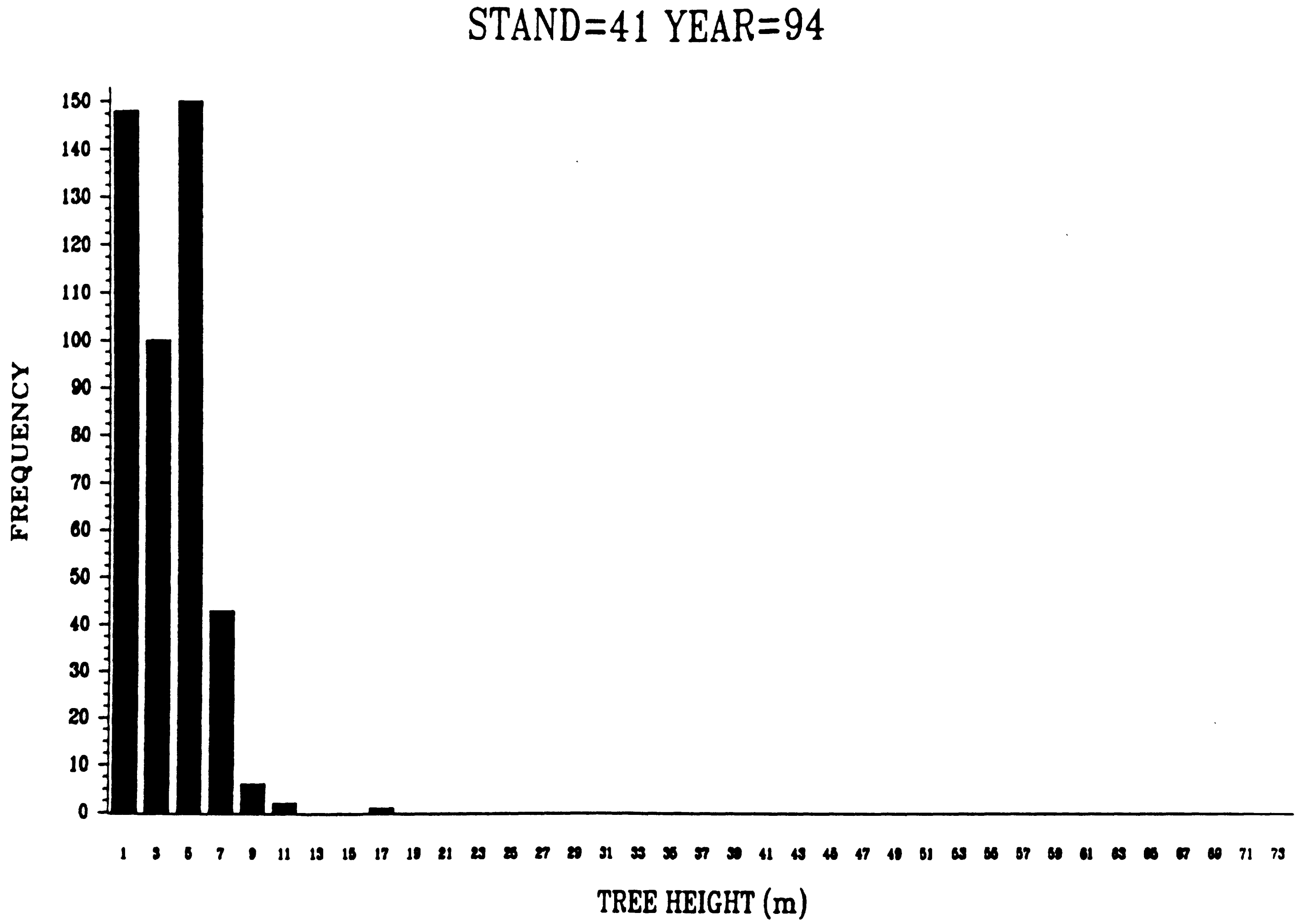


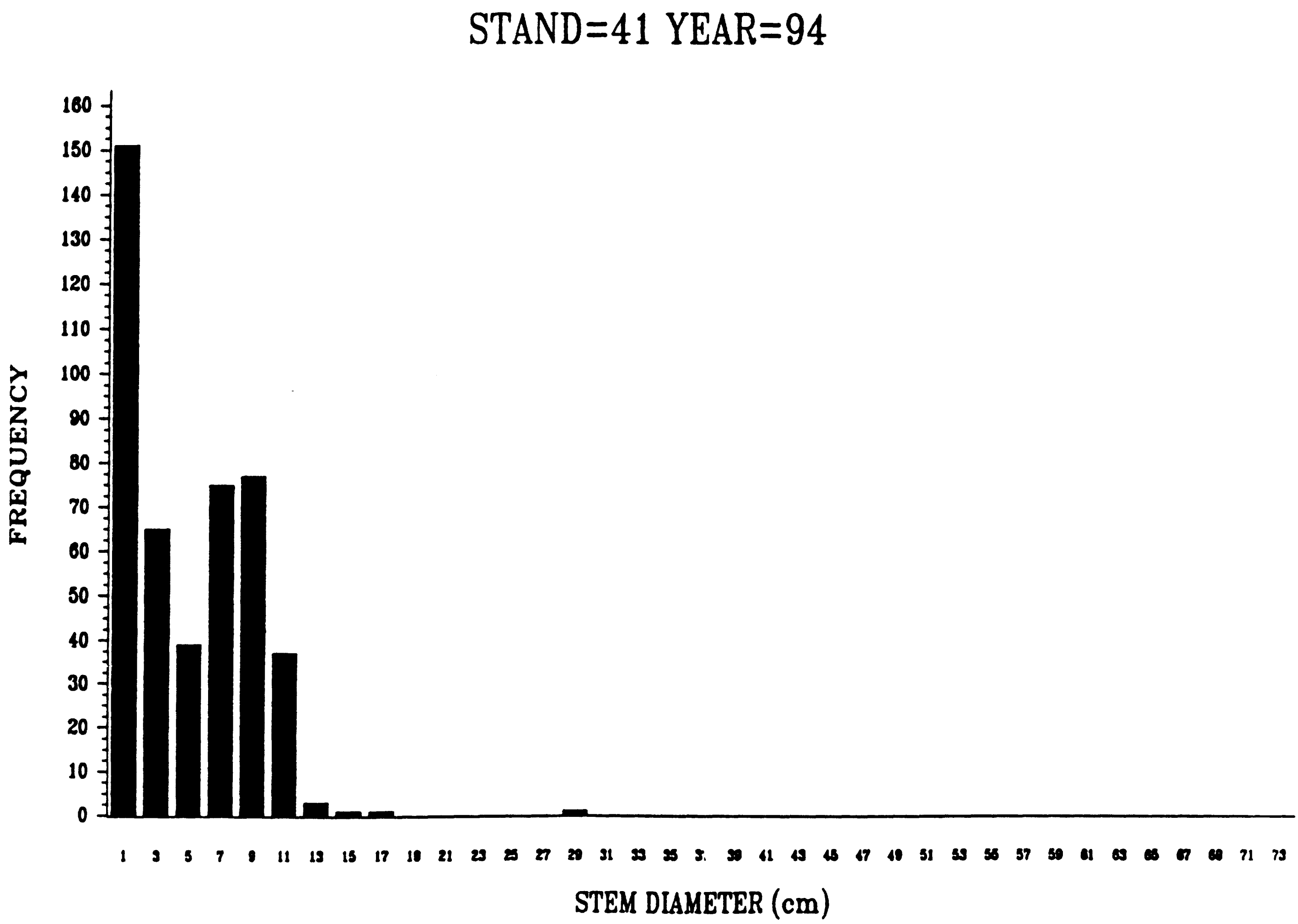
STAND=39 YEAR=94

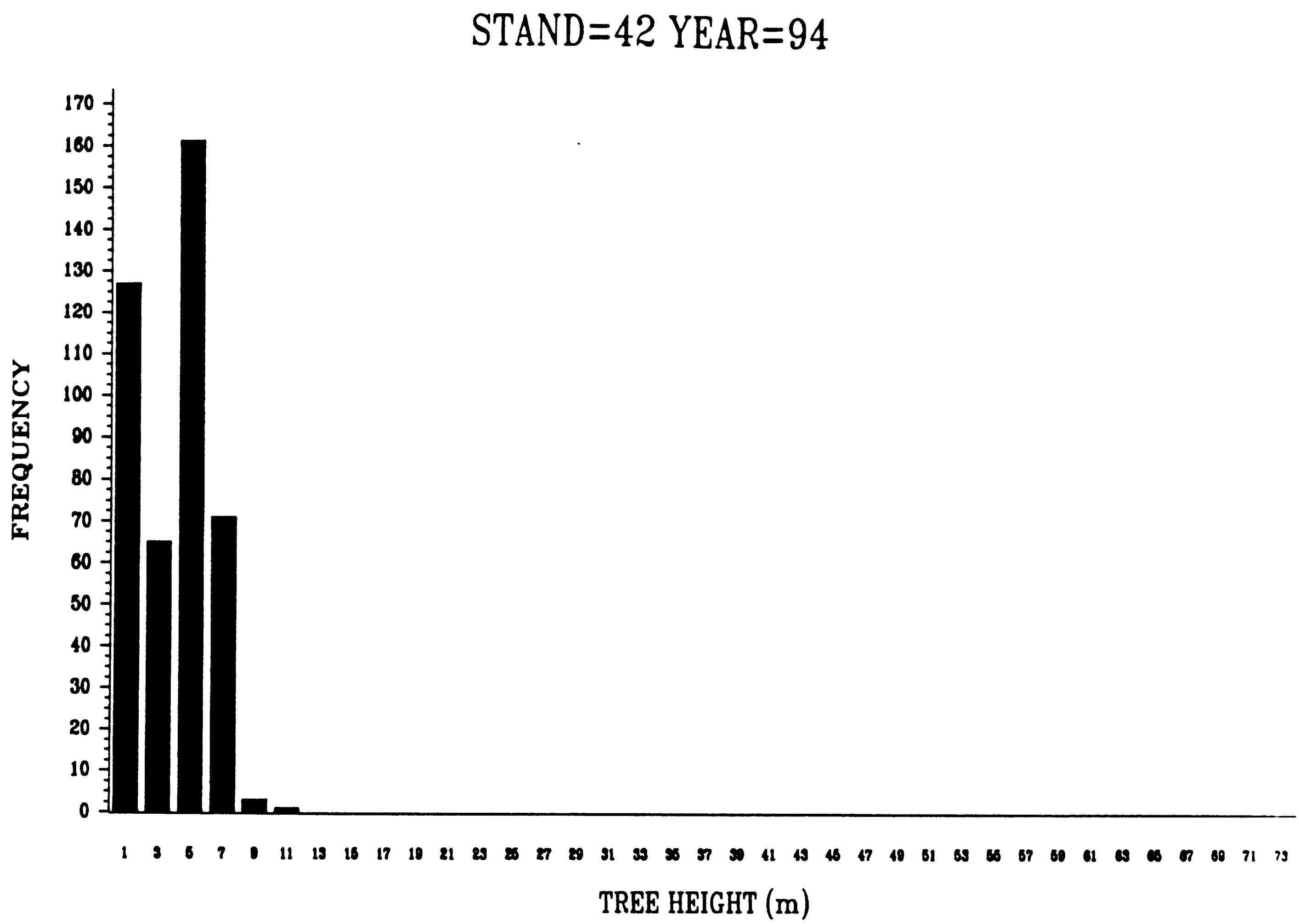


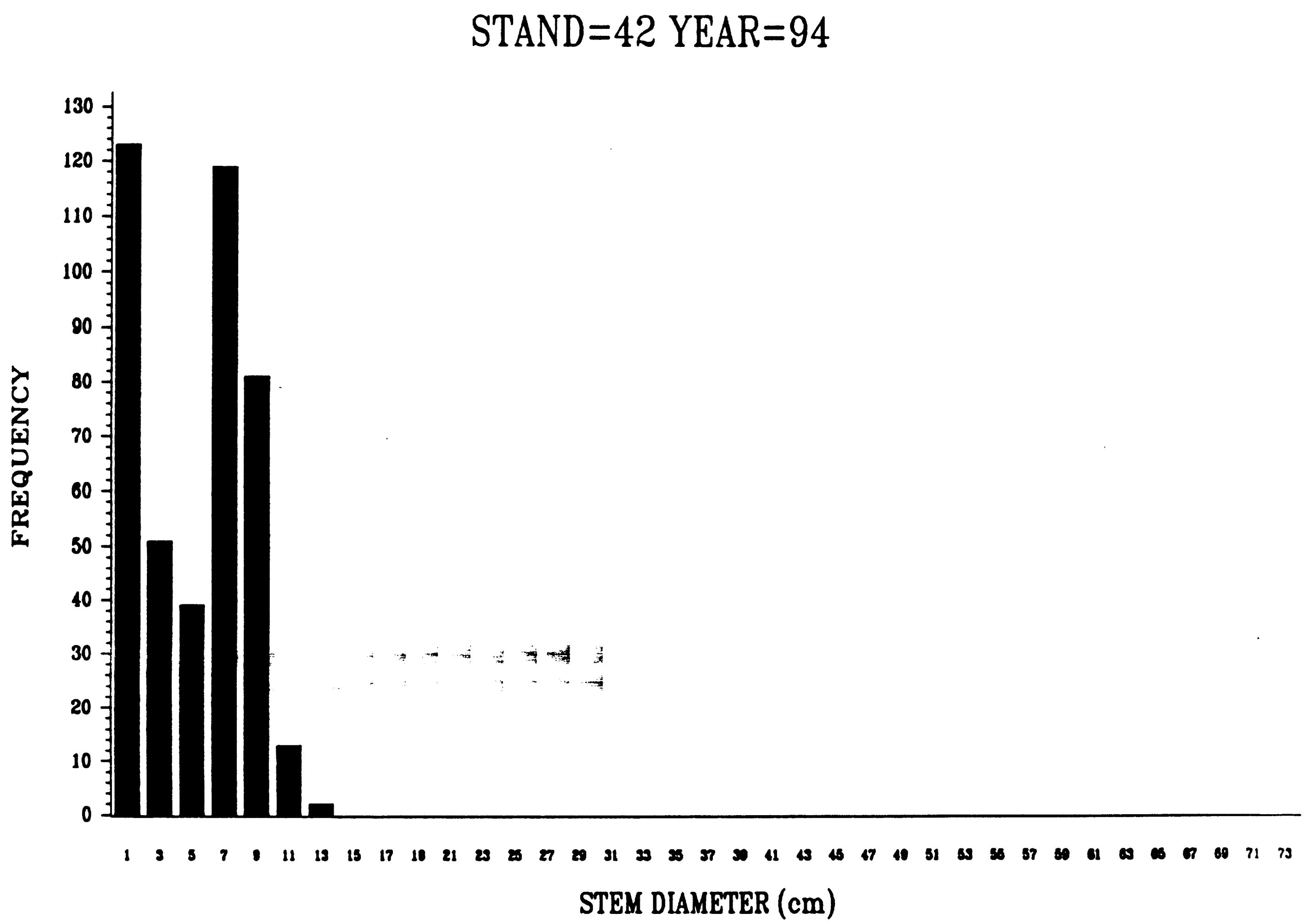

STAND=40 YEAR=94
FREQUENCY
0
10
20
30
40
50
60
70
80
TREE HEIGHT (m)


STAND=40 YEAR=94
FREQUENCY
0
10
20
30
40
50
60
STEM DIAMETER (cm)

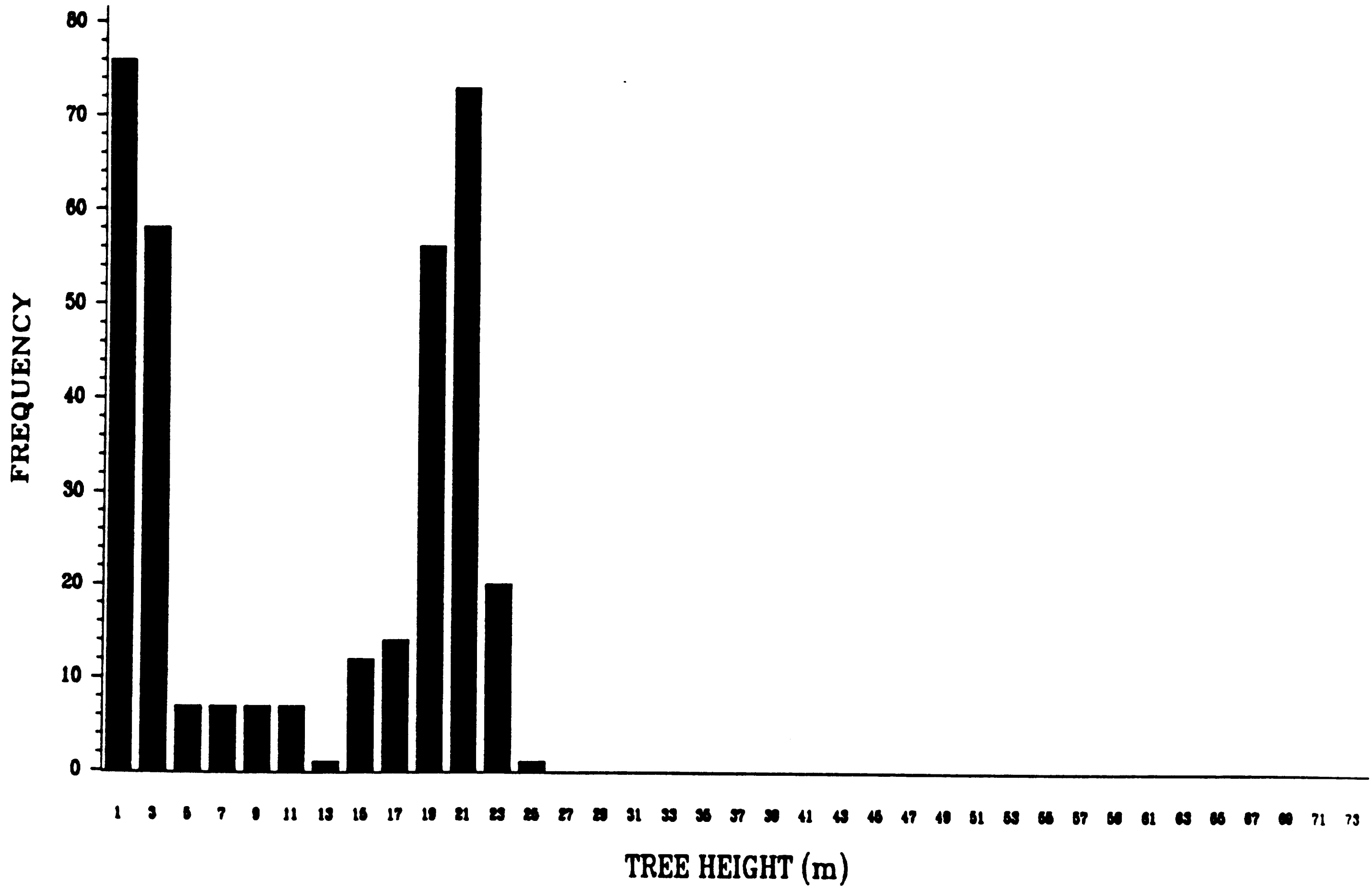

STAND=41 YEAR=94
FREQUENCY
TREE HEIGHT (m)


STAND=41 YEAR=94
FREQUENCY
STEM DIAMETER (cm)

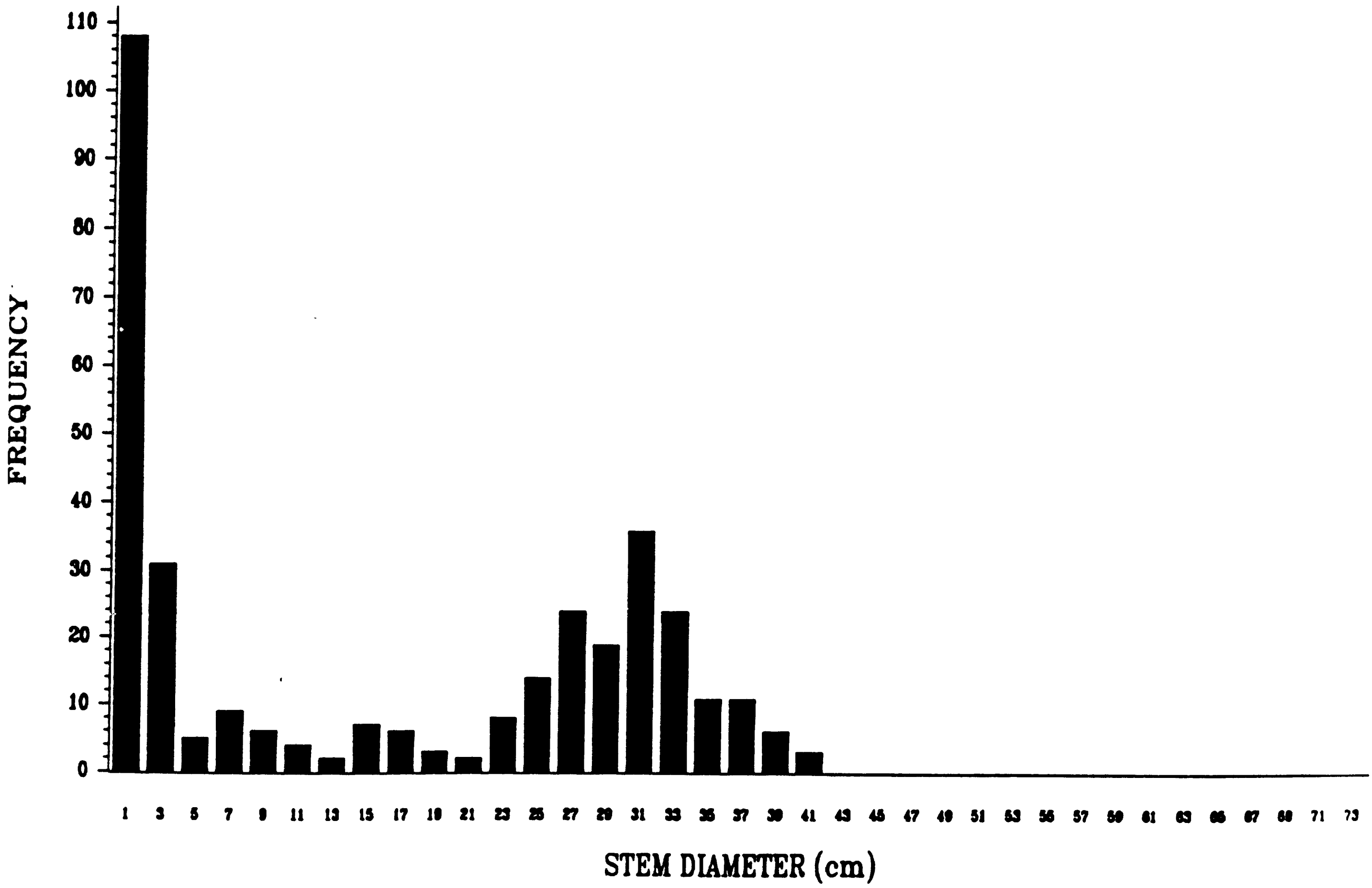

STAND=42 YEAR=94
FREQUENCY
0
10
20
30
40
50
60
70
80
90
100
110
120
130
140
150
160
170
1 3 5 7 9 11 13 15 17 19 21 23 25 27 29 31 33 35 37 39 41 43 45 47 49 51 53 55 57 59 61 63 65 67 69 71 73
TREE HEIGHT (m)


STAND=42 YEAR=94
FREQUENCY
0
10
20
30
40
50
60
70
80
90
100
110
120
130
1 3 5 7 9 11 13 15 17 19 21 23 25 27 29 31 33 35 37 39 41 43 45 47 49 51 53 55 57 59 61 63 65 67 69 71 73
STEM DIAMETER (cm)

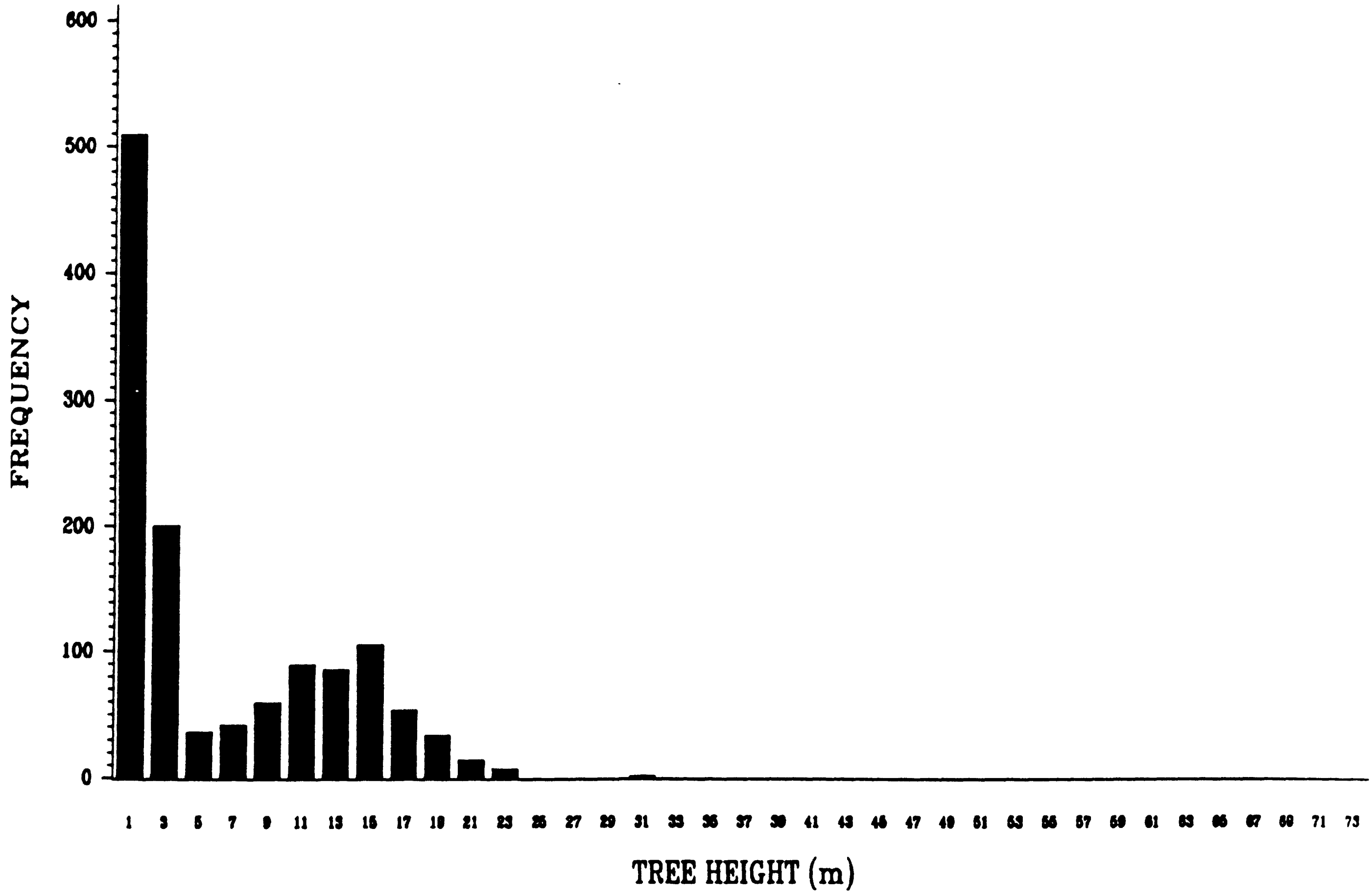
STAND=43



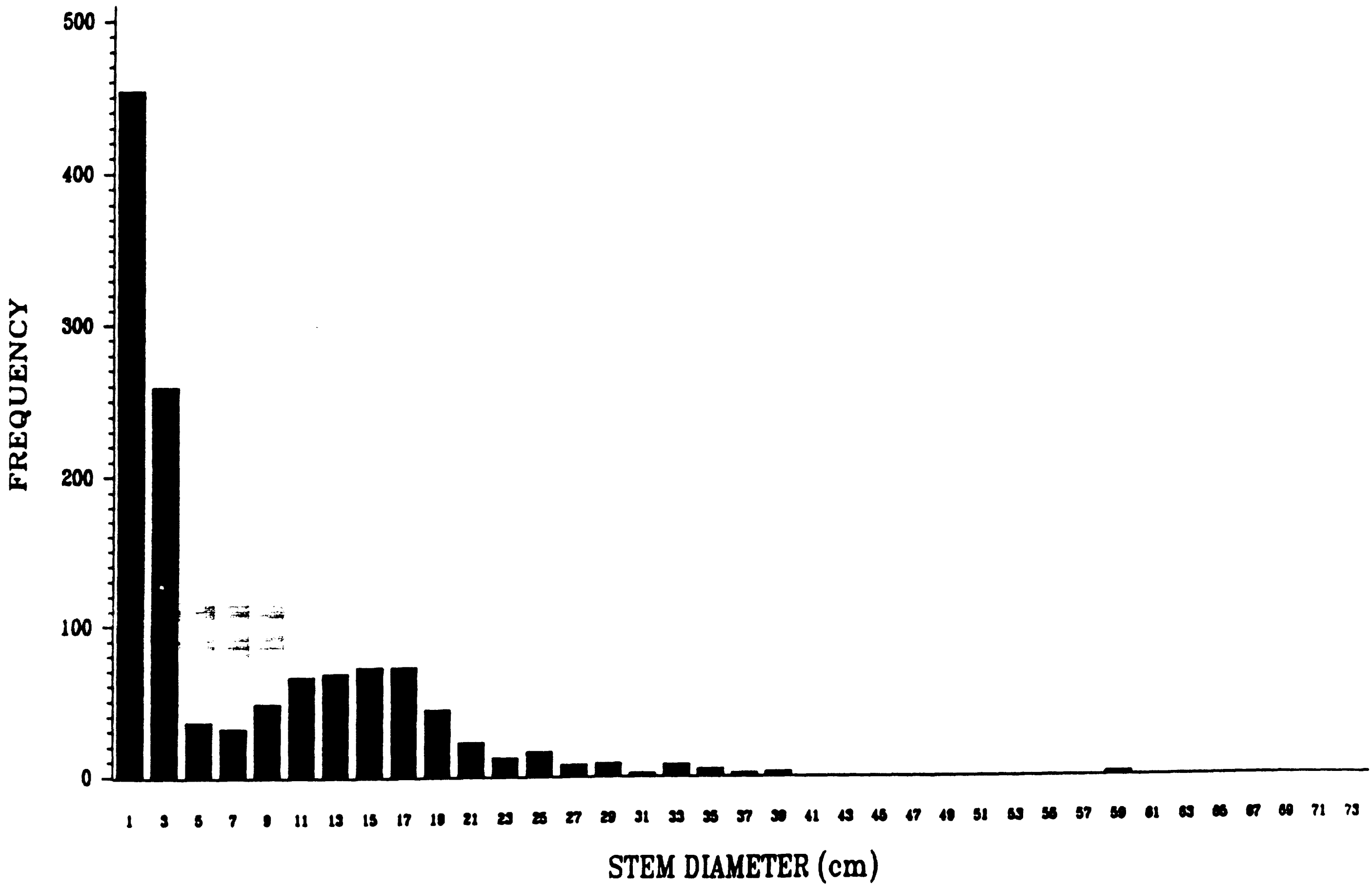
STAND=43



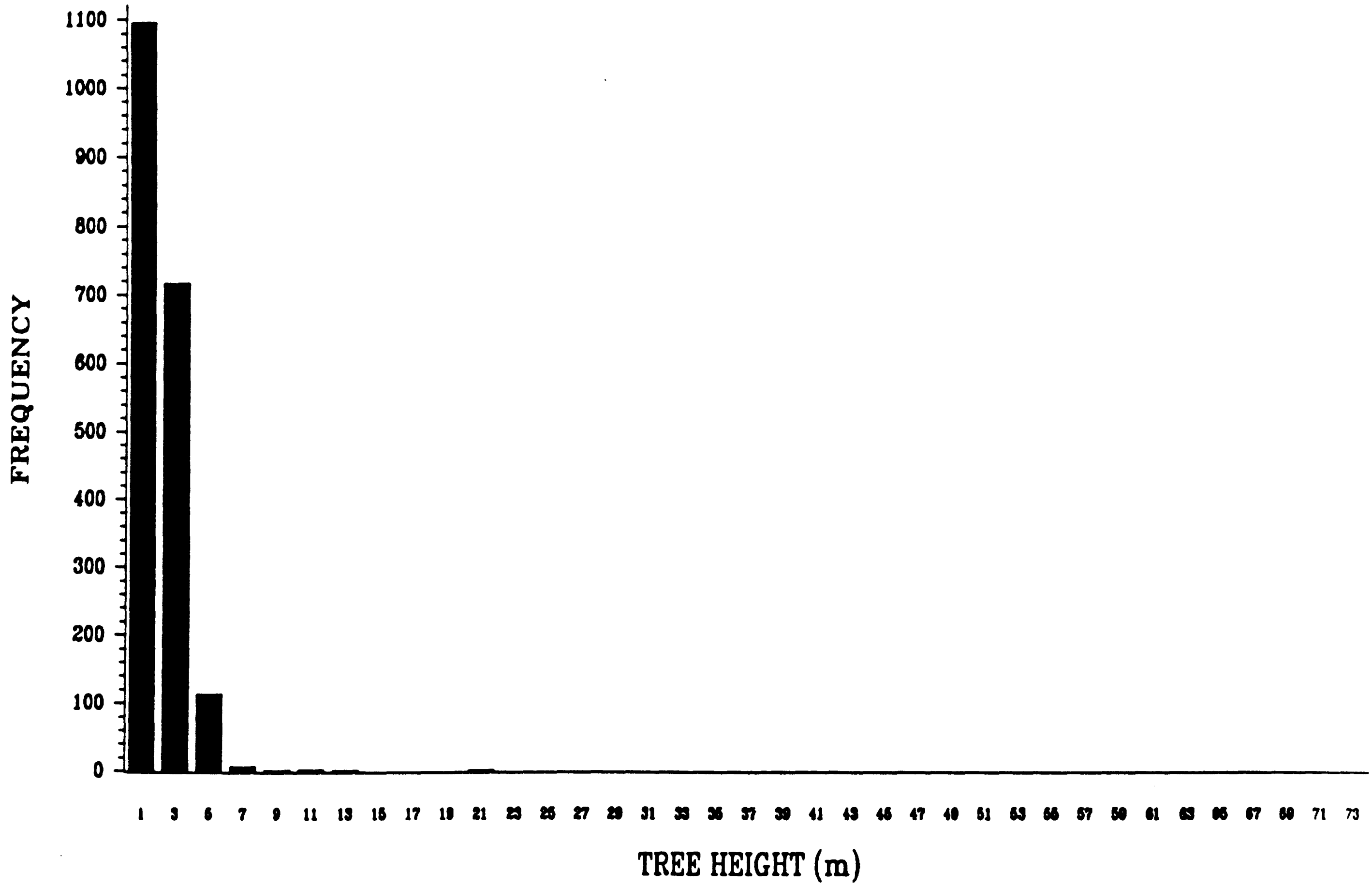
STAND=44



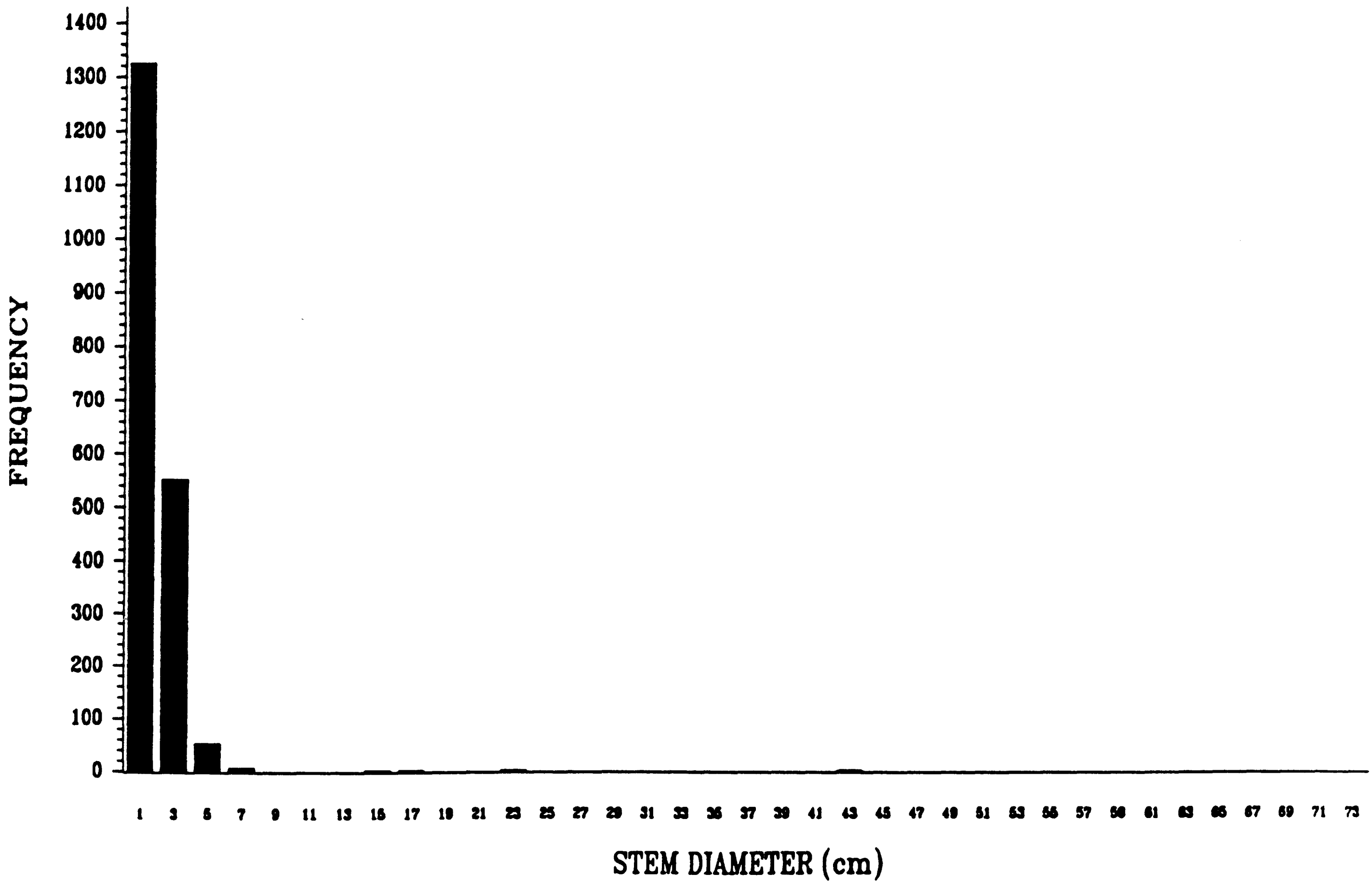
STAND=44



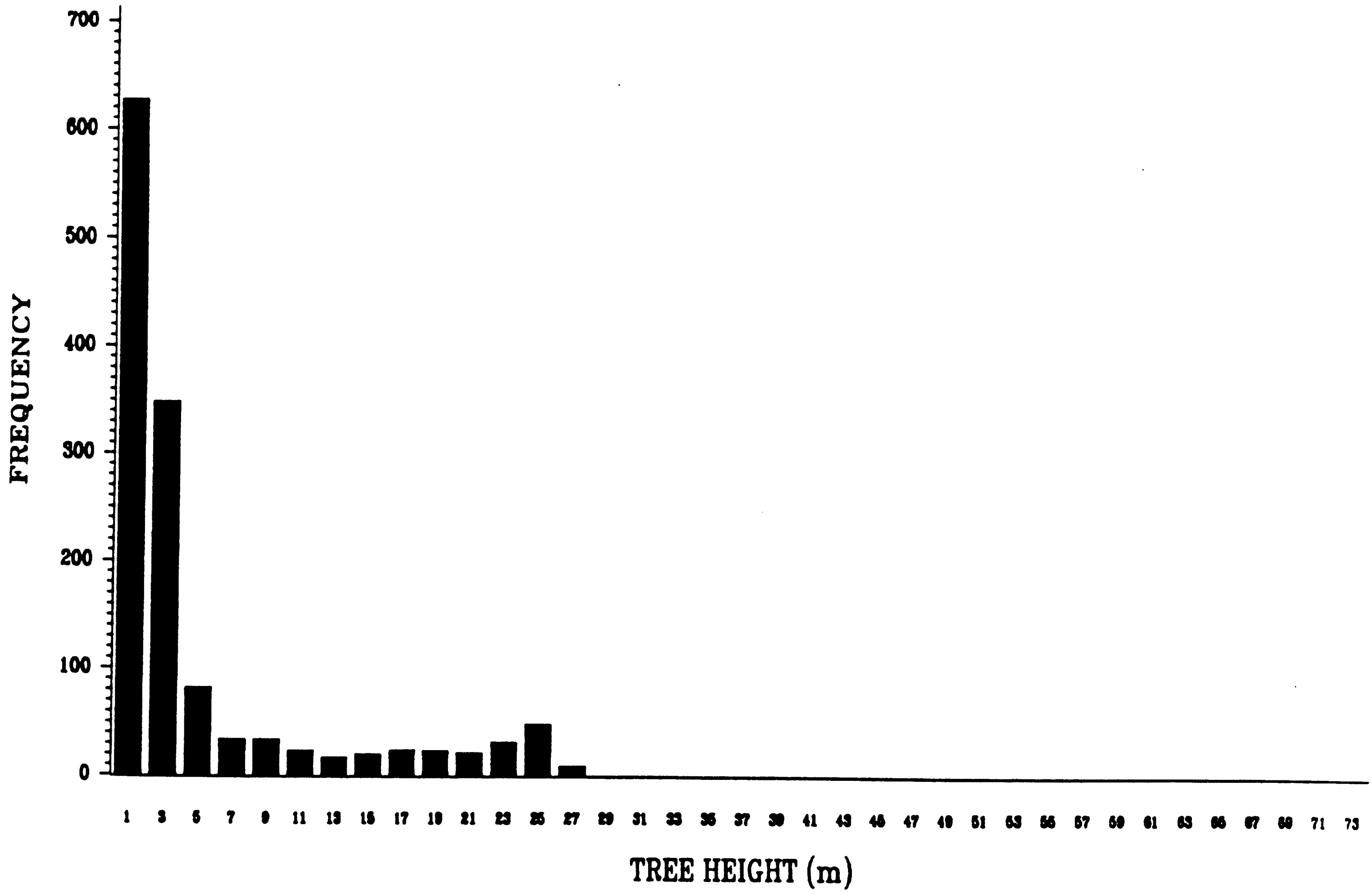
STAND=45 YEAR=94



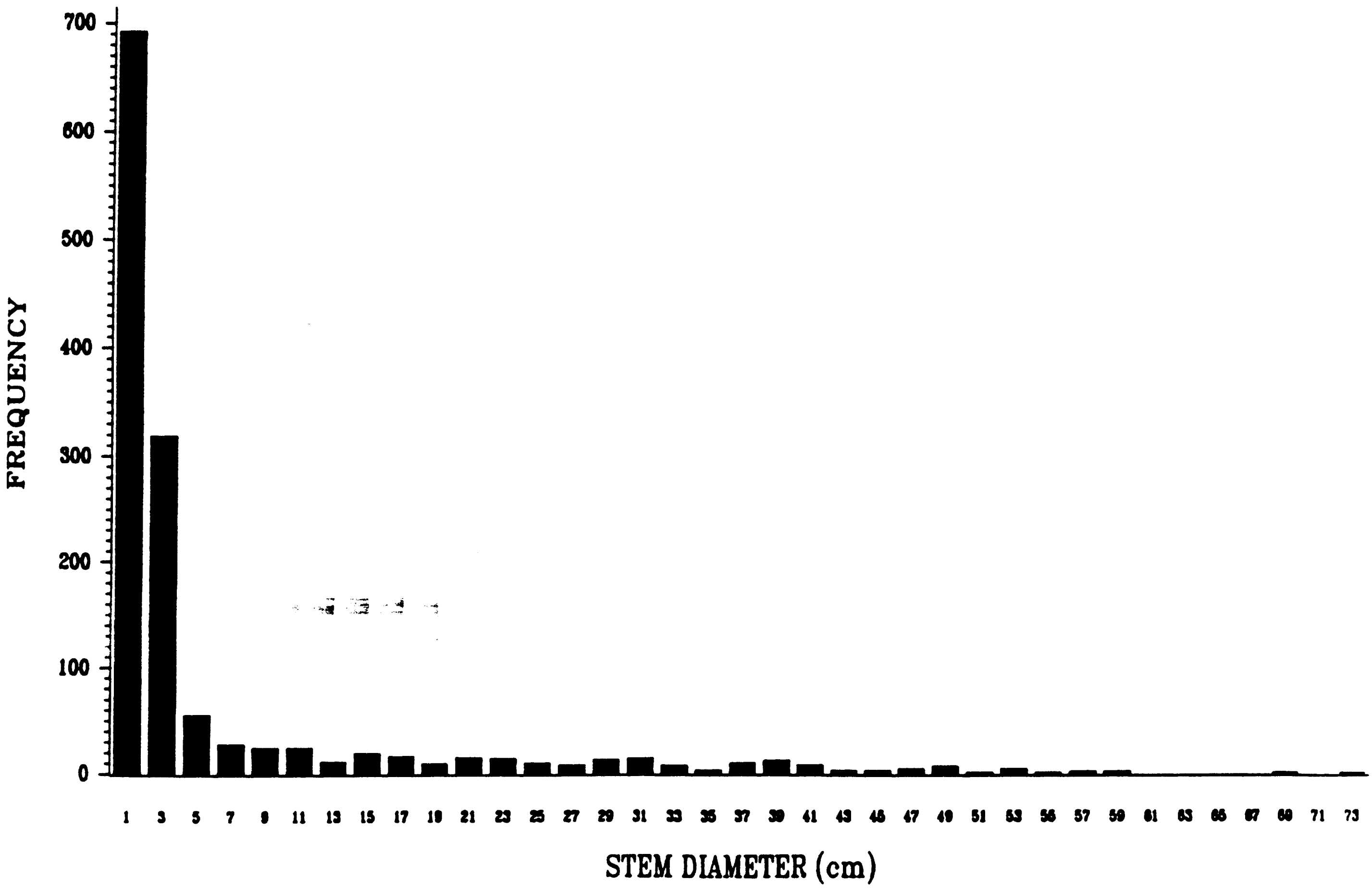
STAND=45 YEAR=94

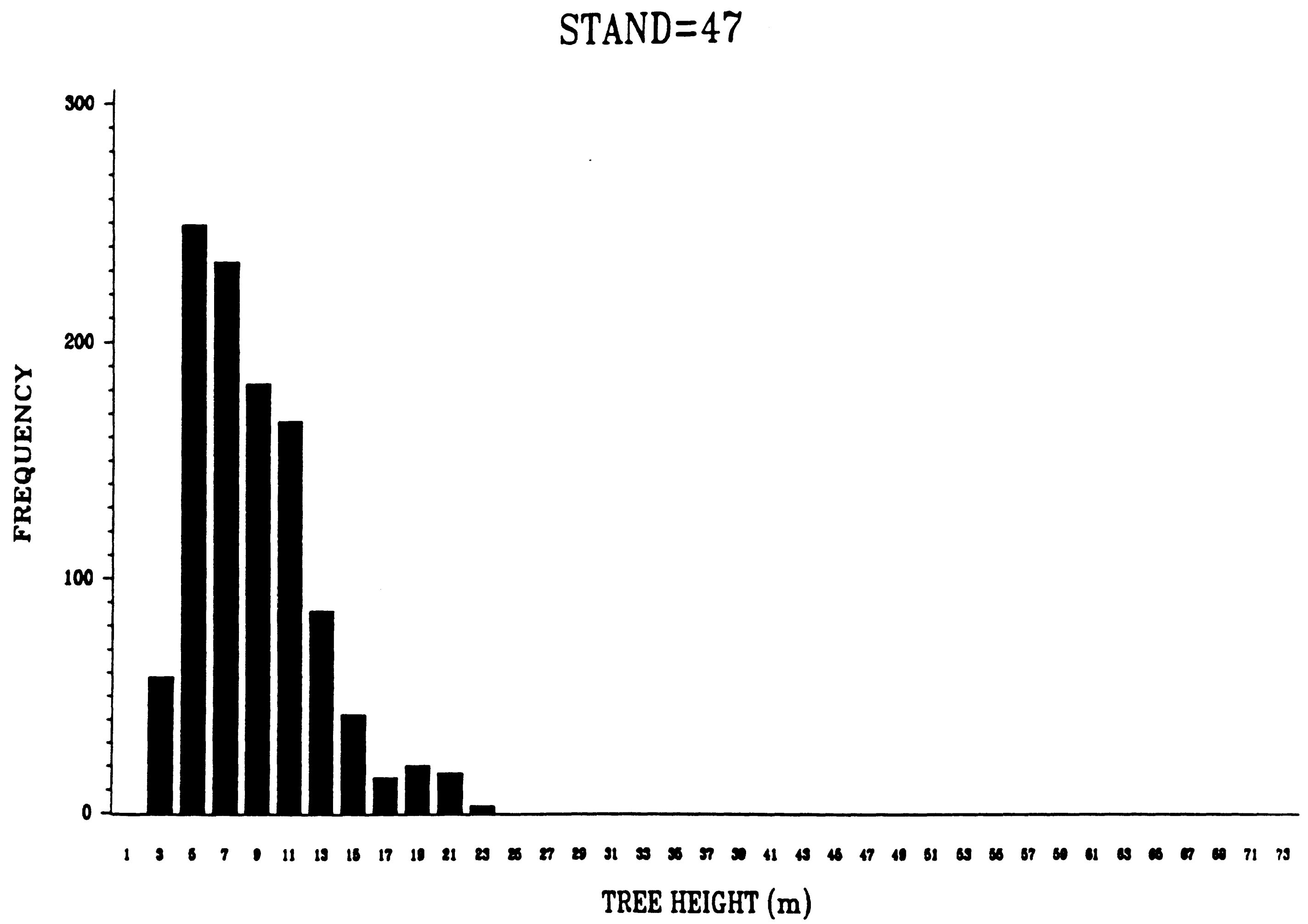


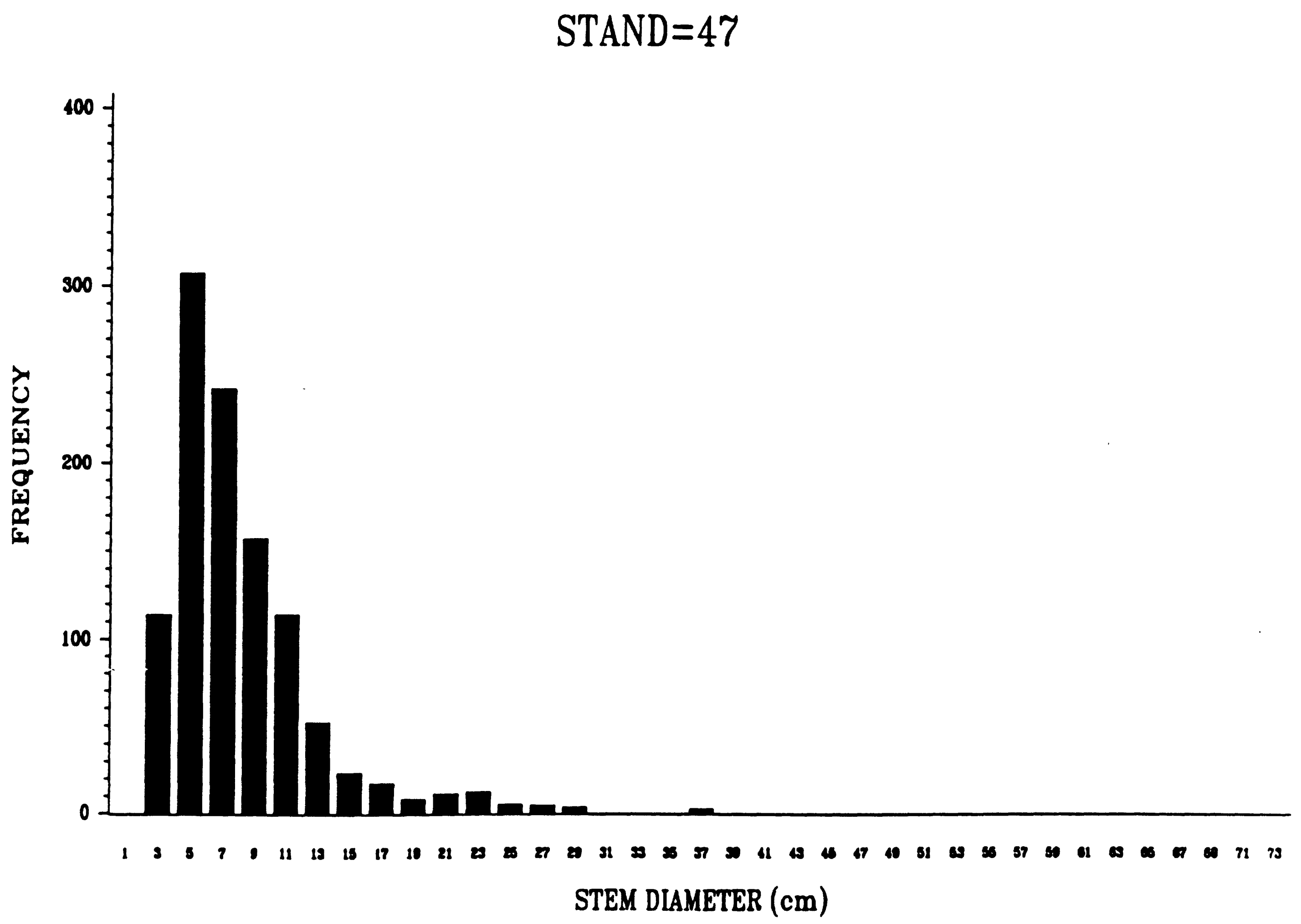
STAND=46



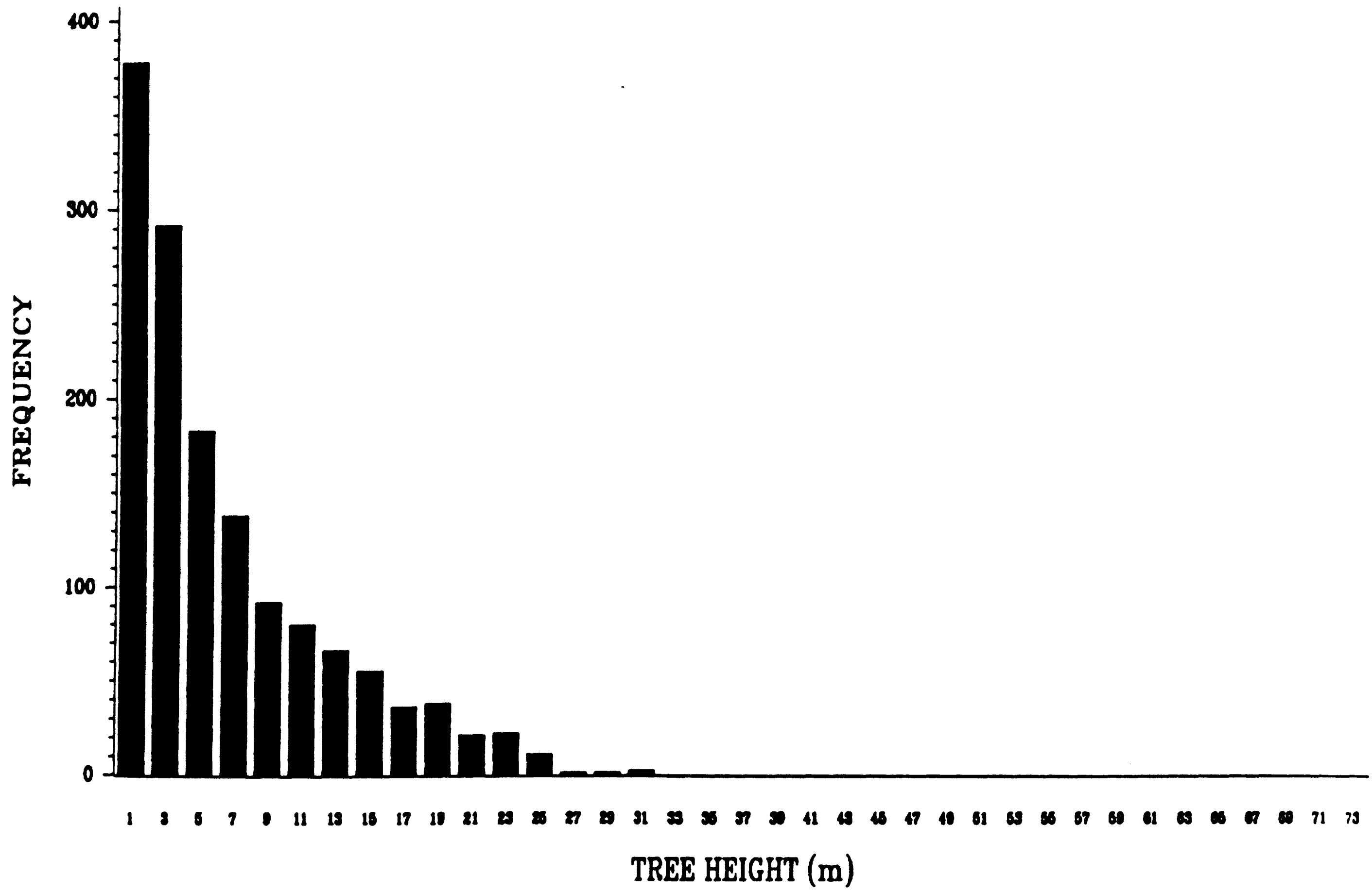
STAND=46



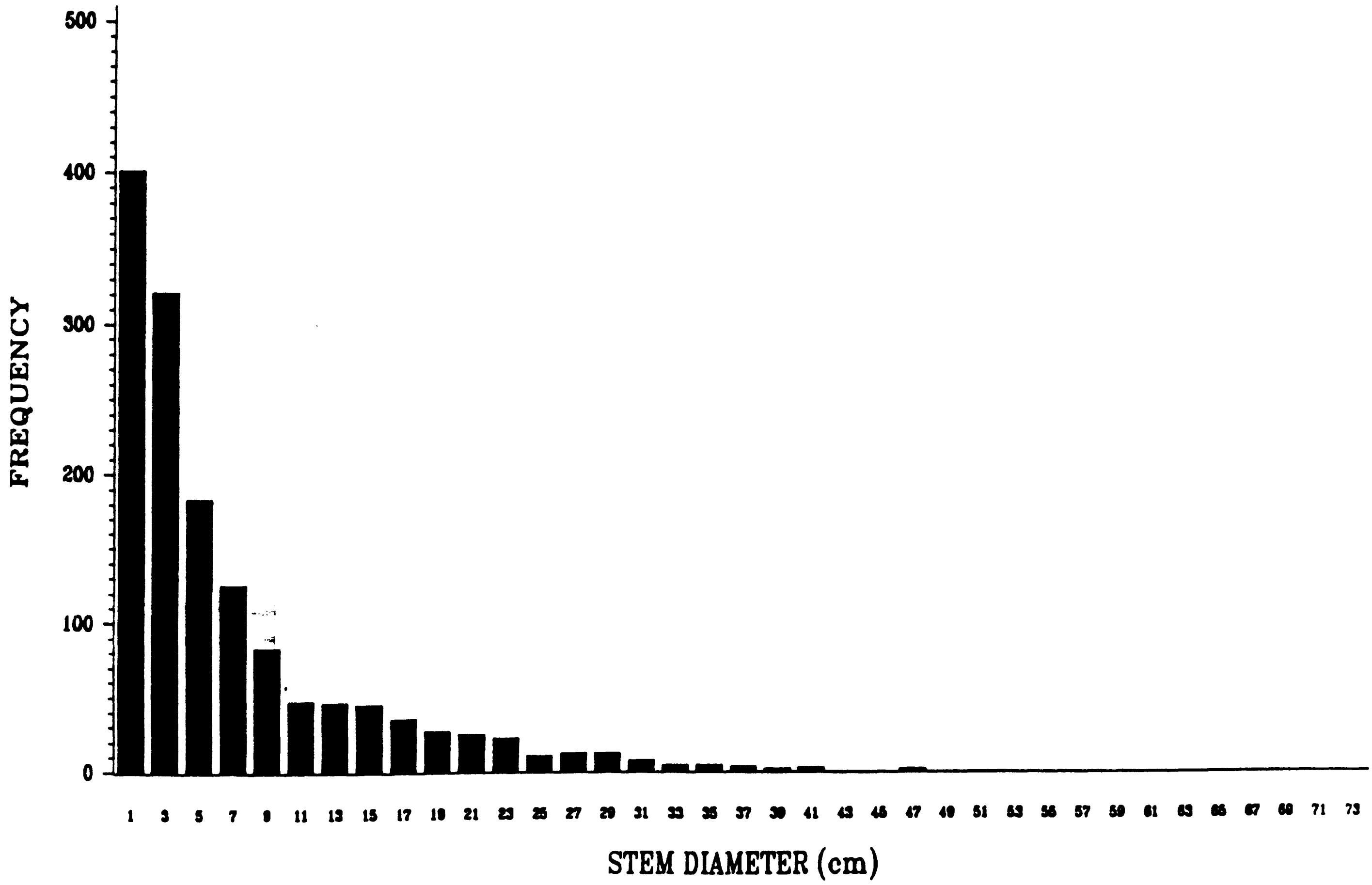

STAND=47
FREQUENCY
300
200
100
0
1 3 5 7 9 11 13 15 17 19 21 23 25 27 29 31 33 35 37 39 41 43 45 47 49 51 53 55 57 59 61 63 65 67 69 71 73
TREE HEIGHT (m)


STAND=47
FREQUENCY
400
300
200
100
0
1 3 5 7 9 11 13 15 17 19 21 23 25 27 29 31 33 35 37 39 41 43 45 47 49 51 53 55 57 59 61 63 65 67 69 71 73
STEM DIAMETER (cm)

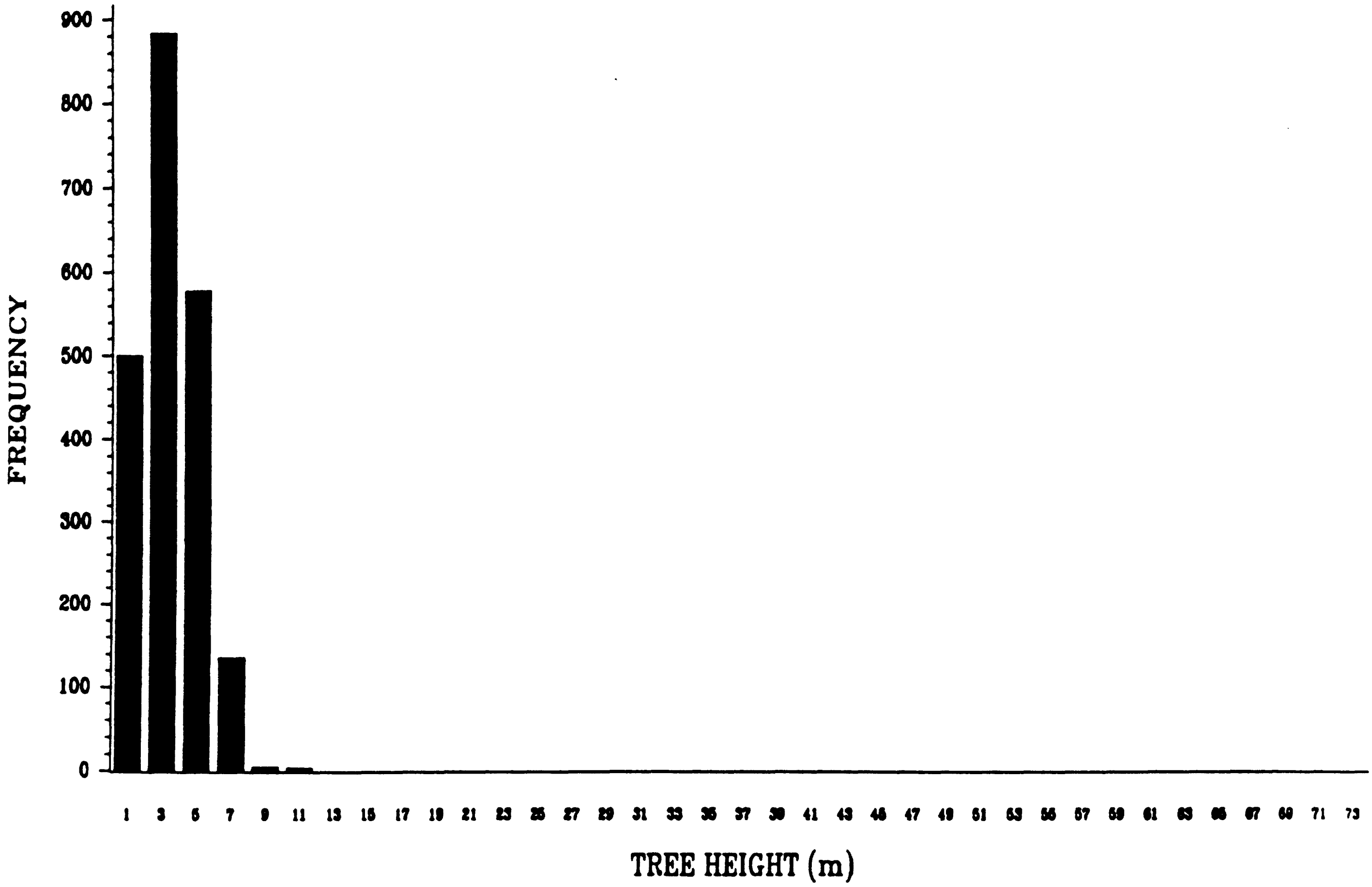
STAND=48



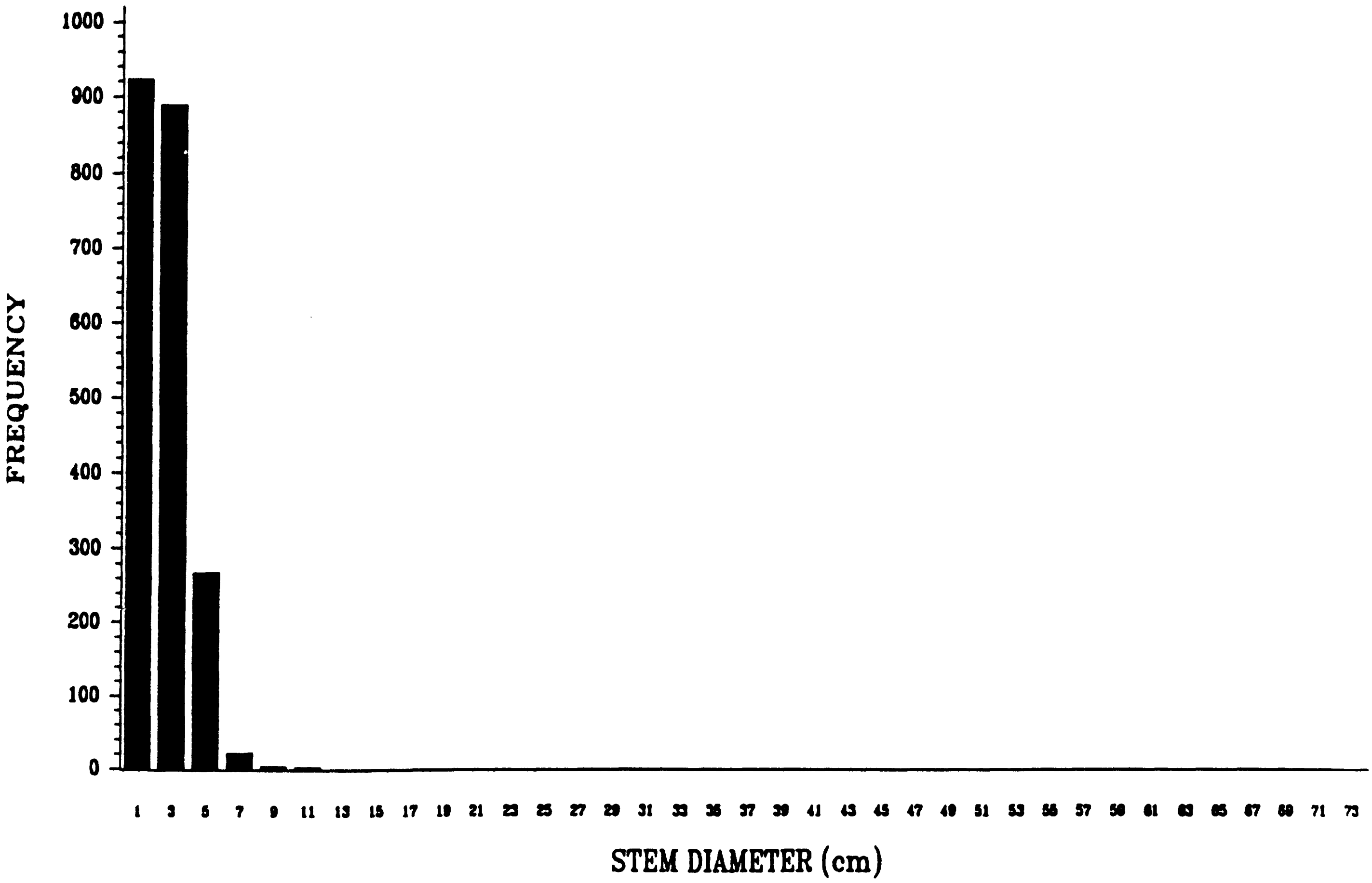
STAND=48



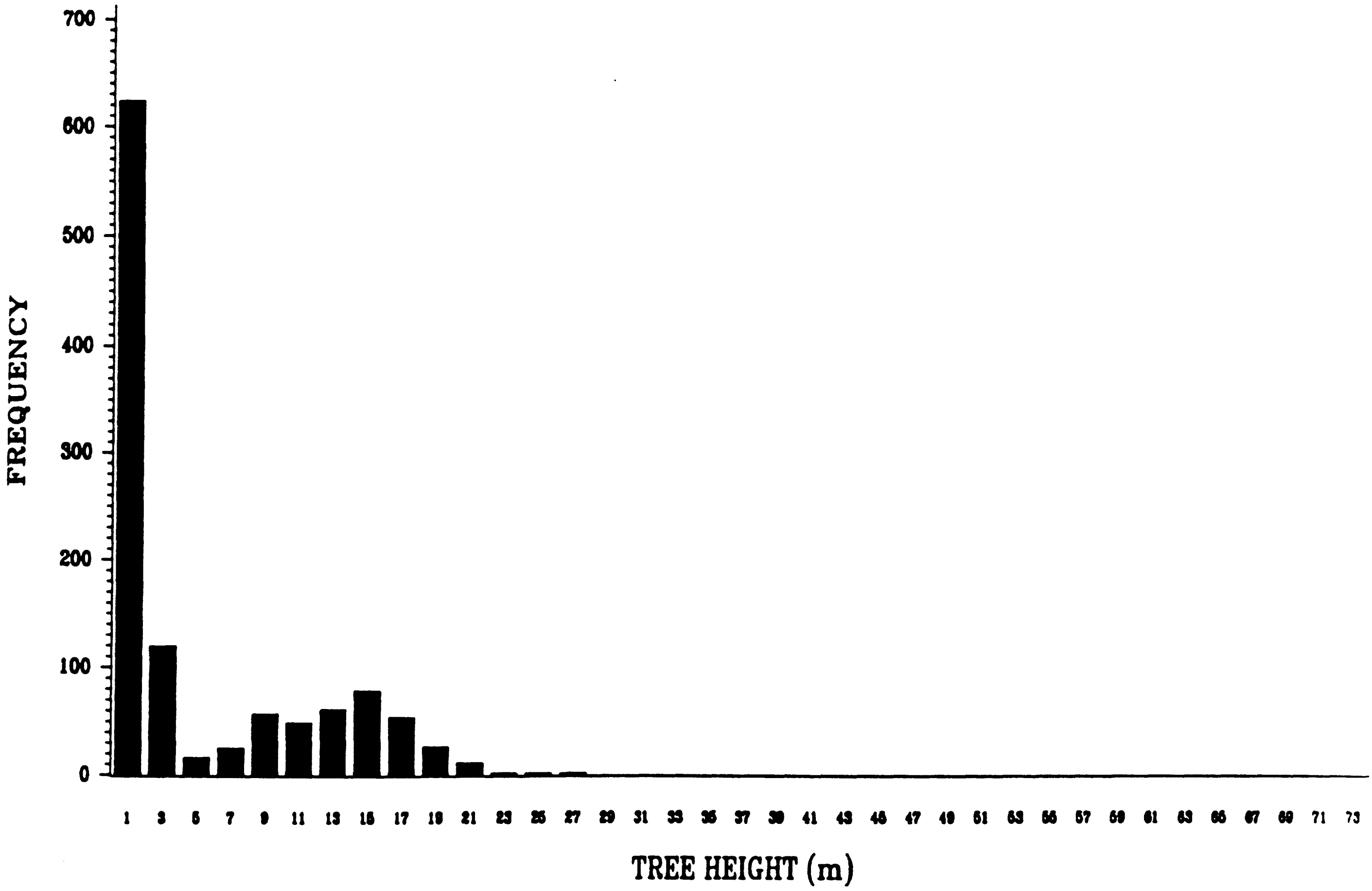
STAND=49 YEAR=94



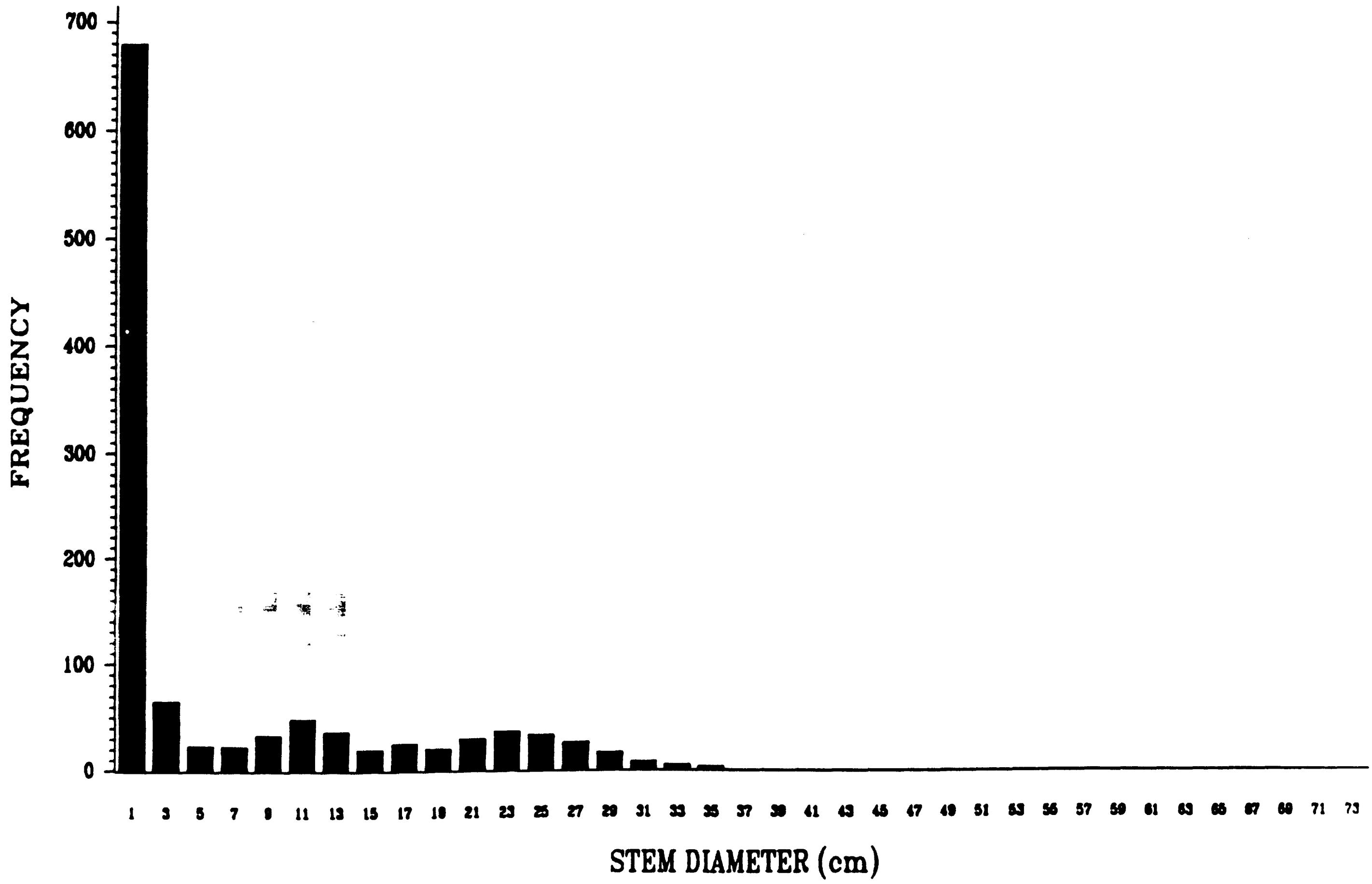
STAND=49 YEAR=94

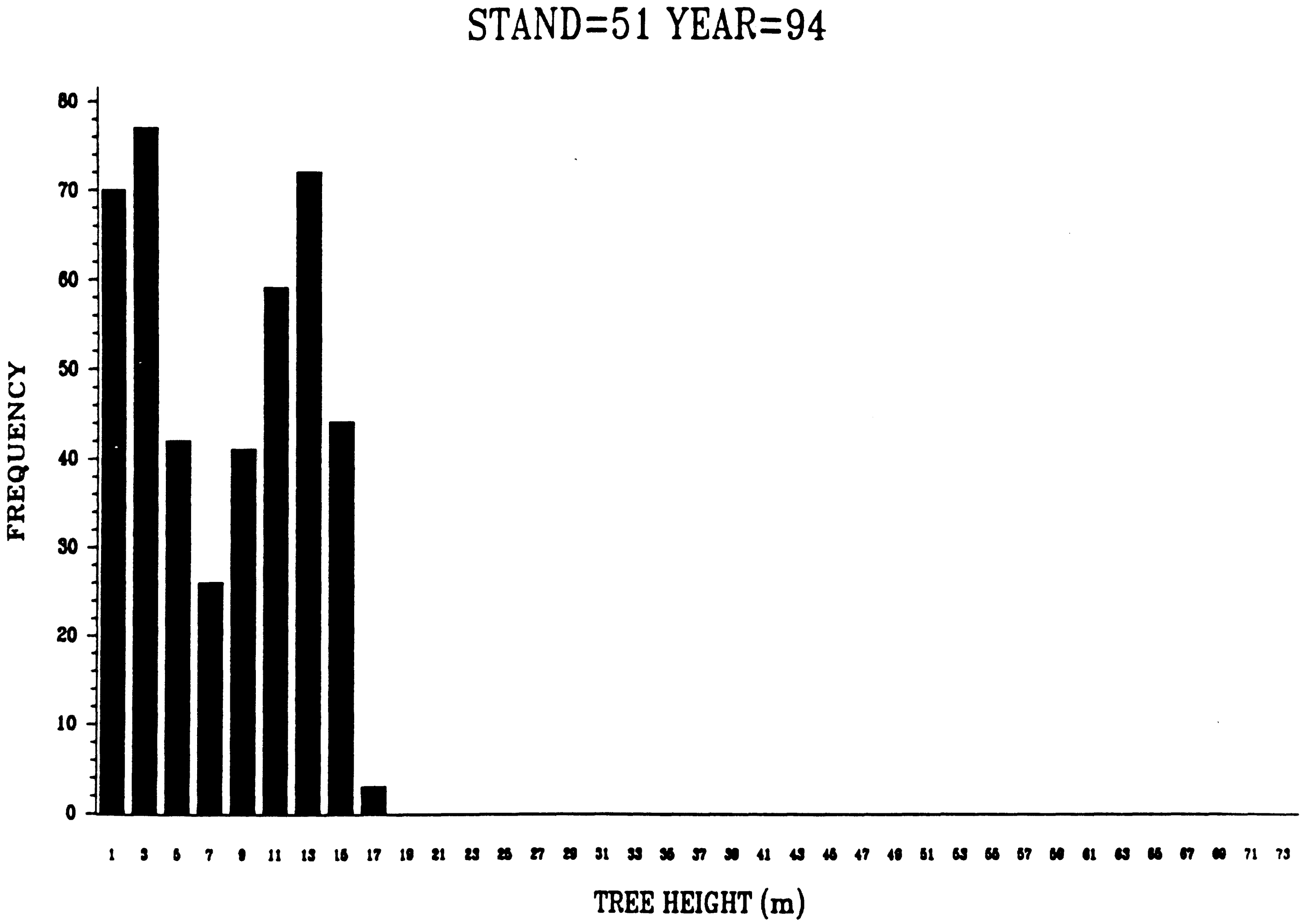


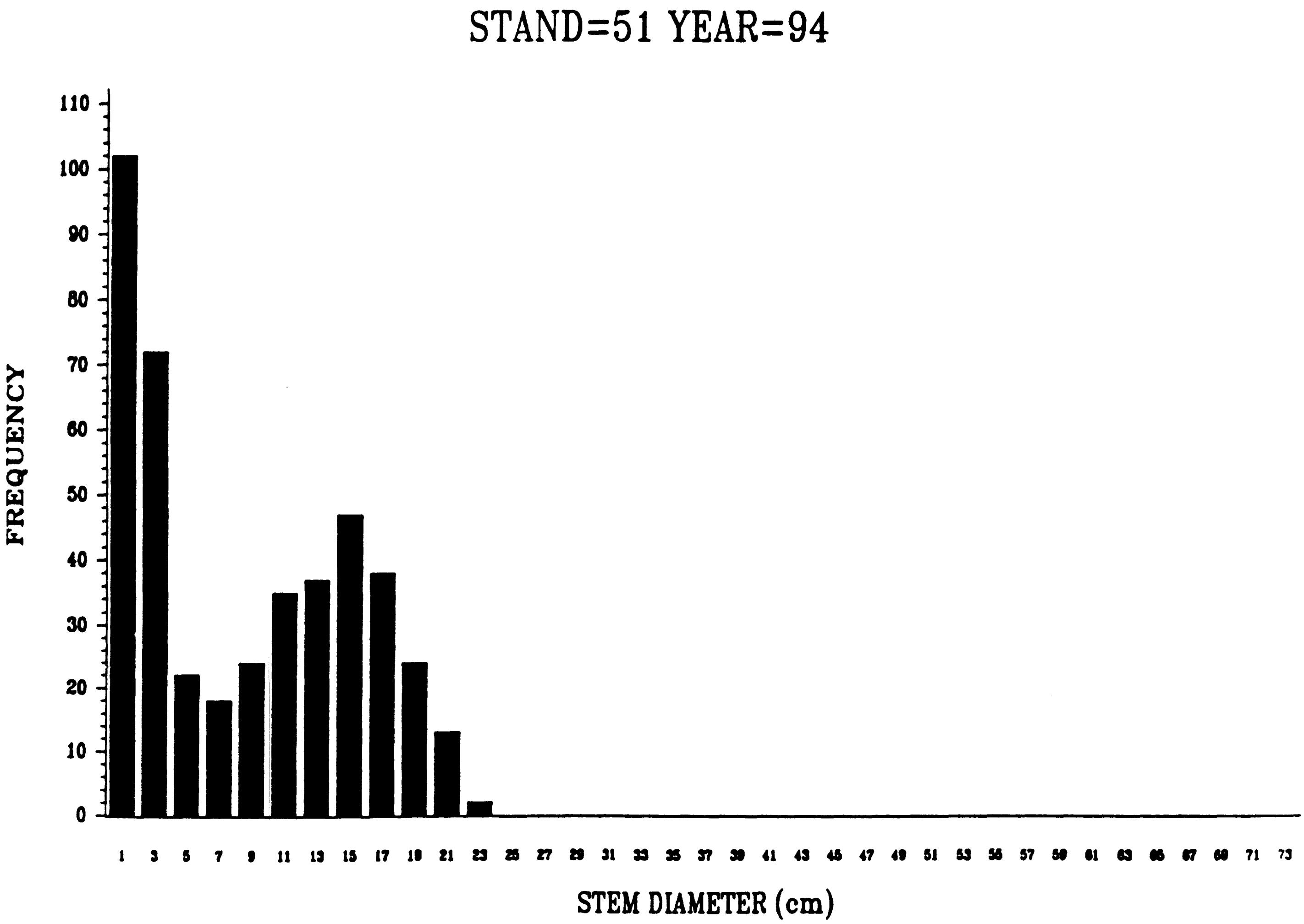
STAND=50

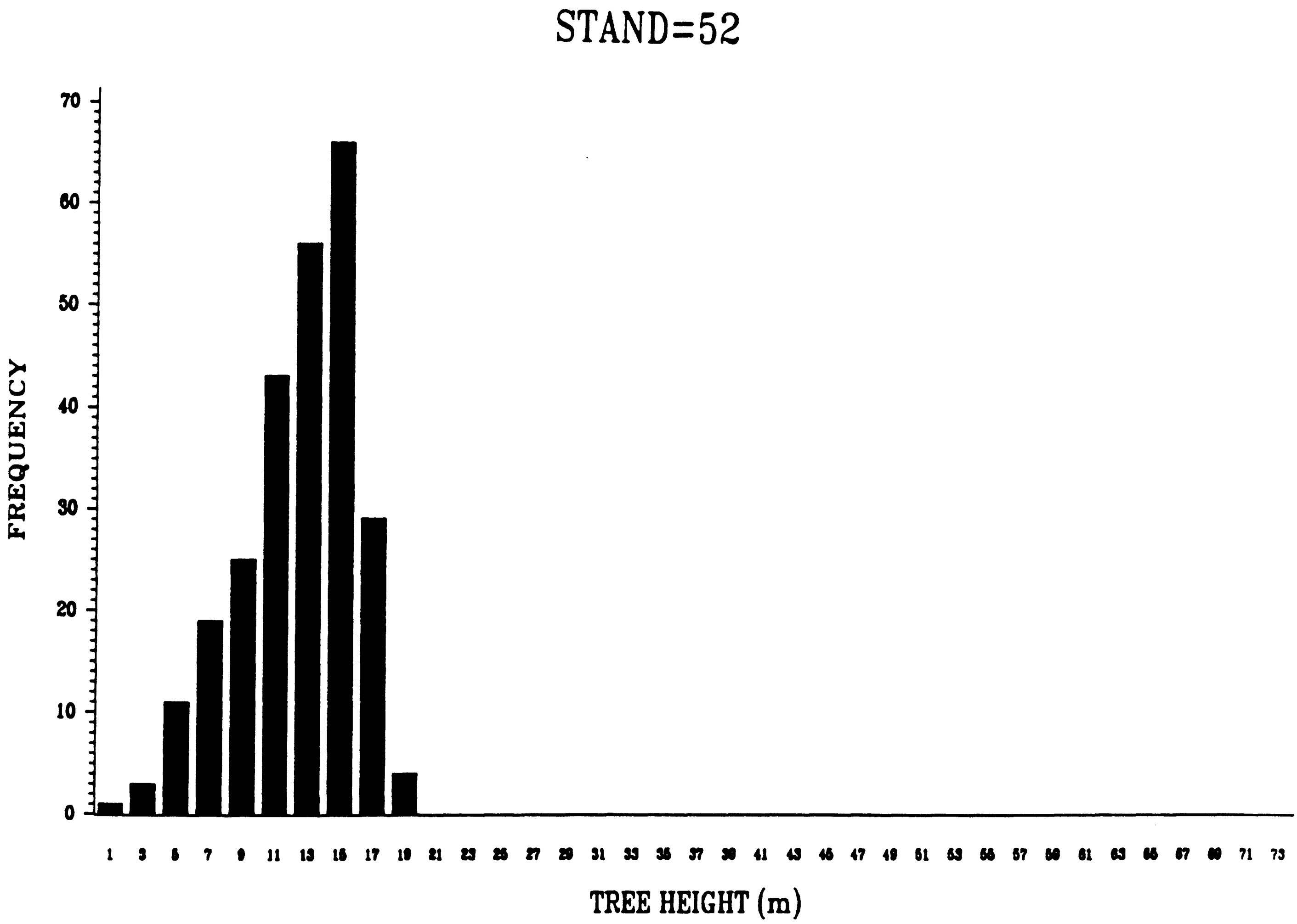


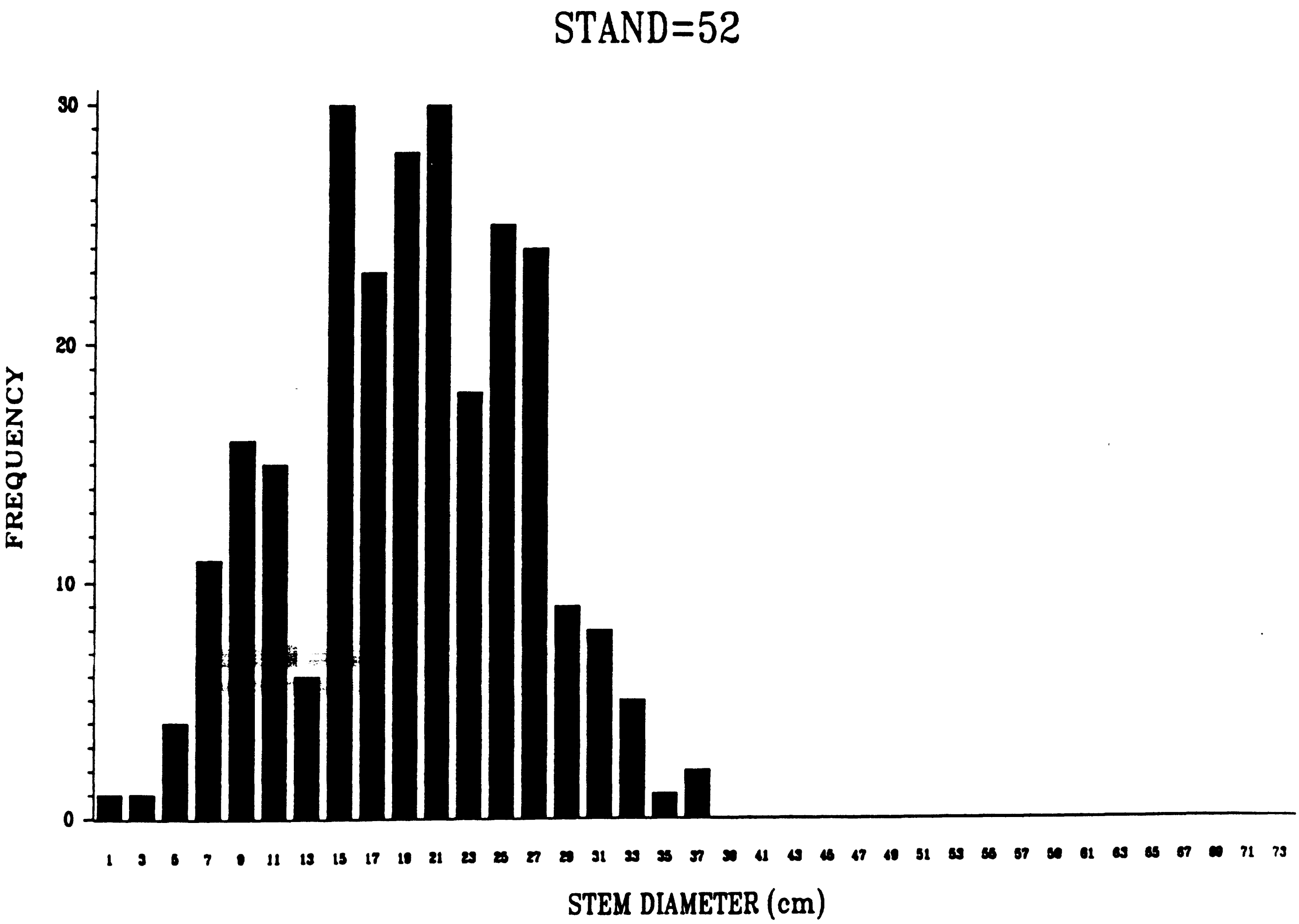
STAND=50

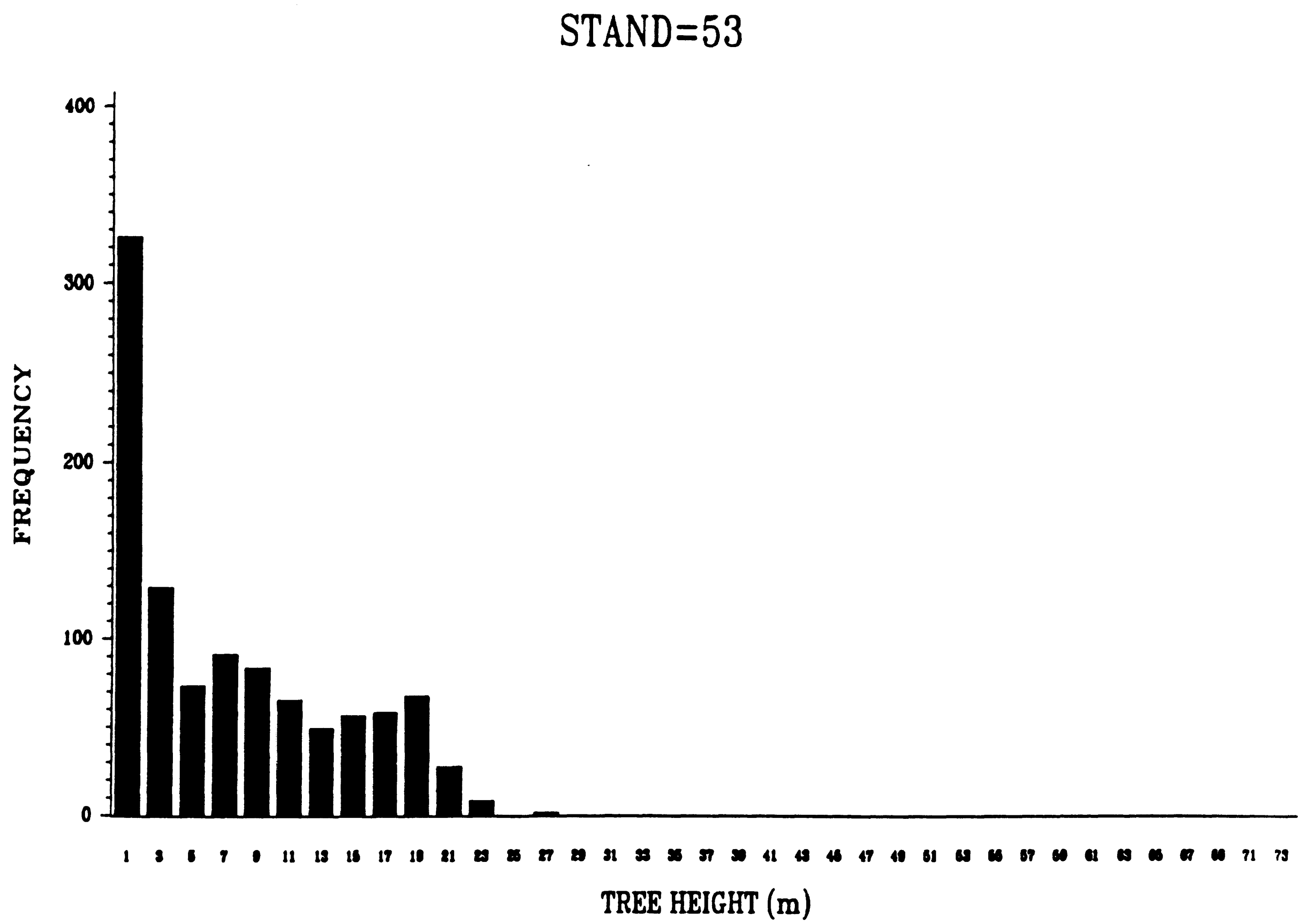



STAND=51 YEAR=94
FREQUENCY
TREE HEIGHT (m)

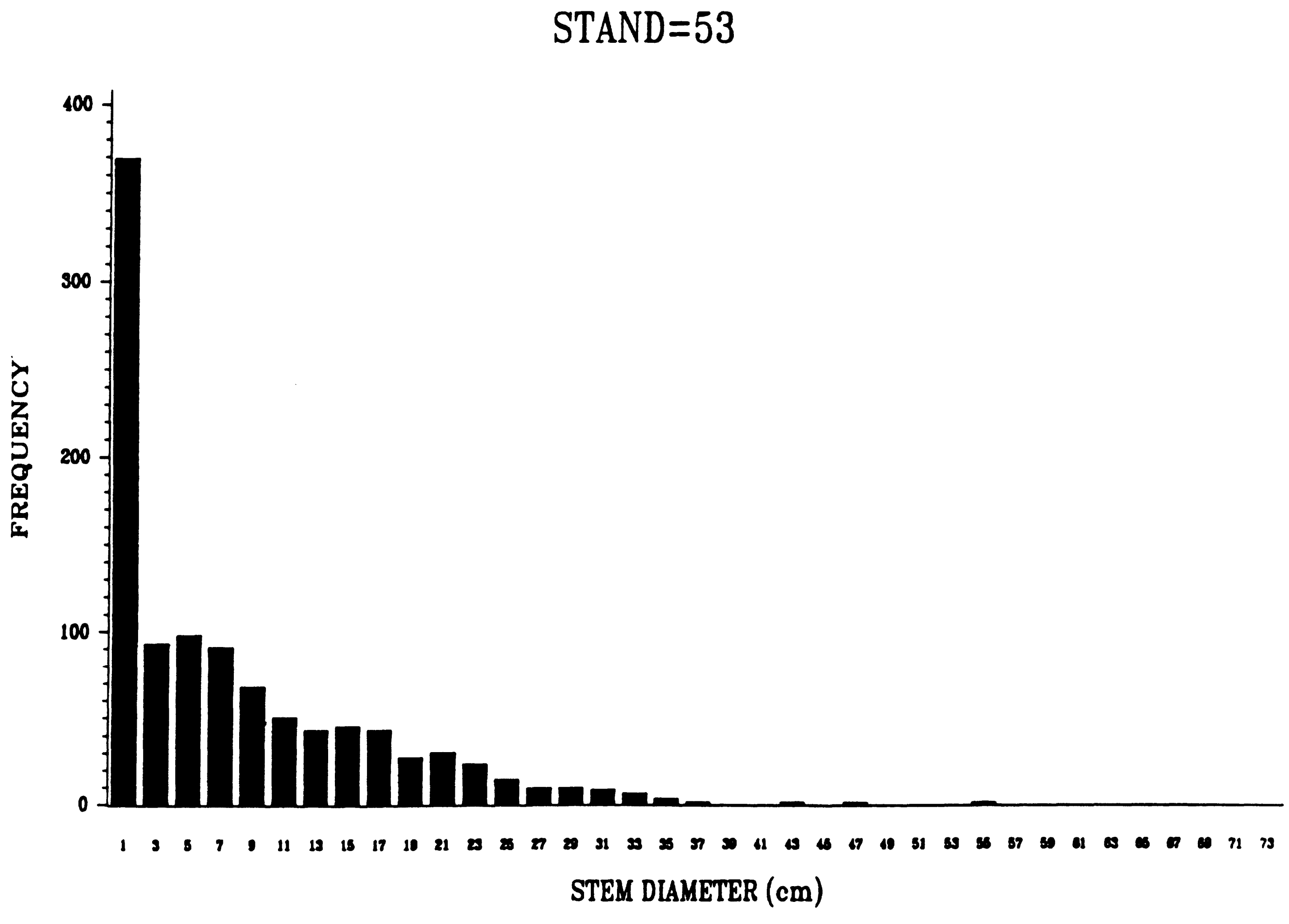

STAND=51 YEAR=94
FREQUENCY
STEM DIAMETER (cm)


STAND=52
FREQUENCY
TREE HEIGHT (m)


STAND=52
FREQUENCY
STEM DIAMETER (cm)

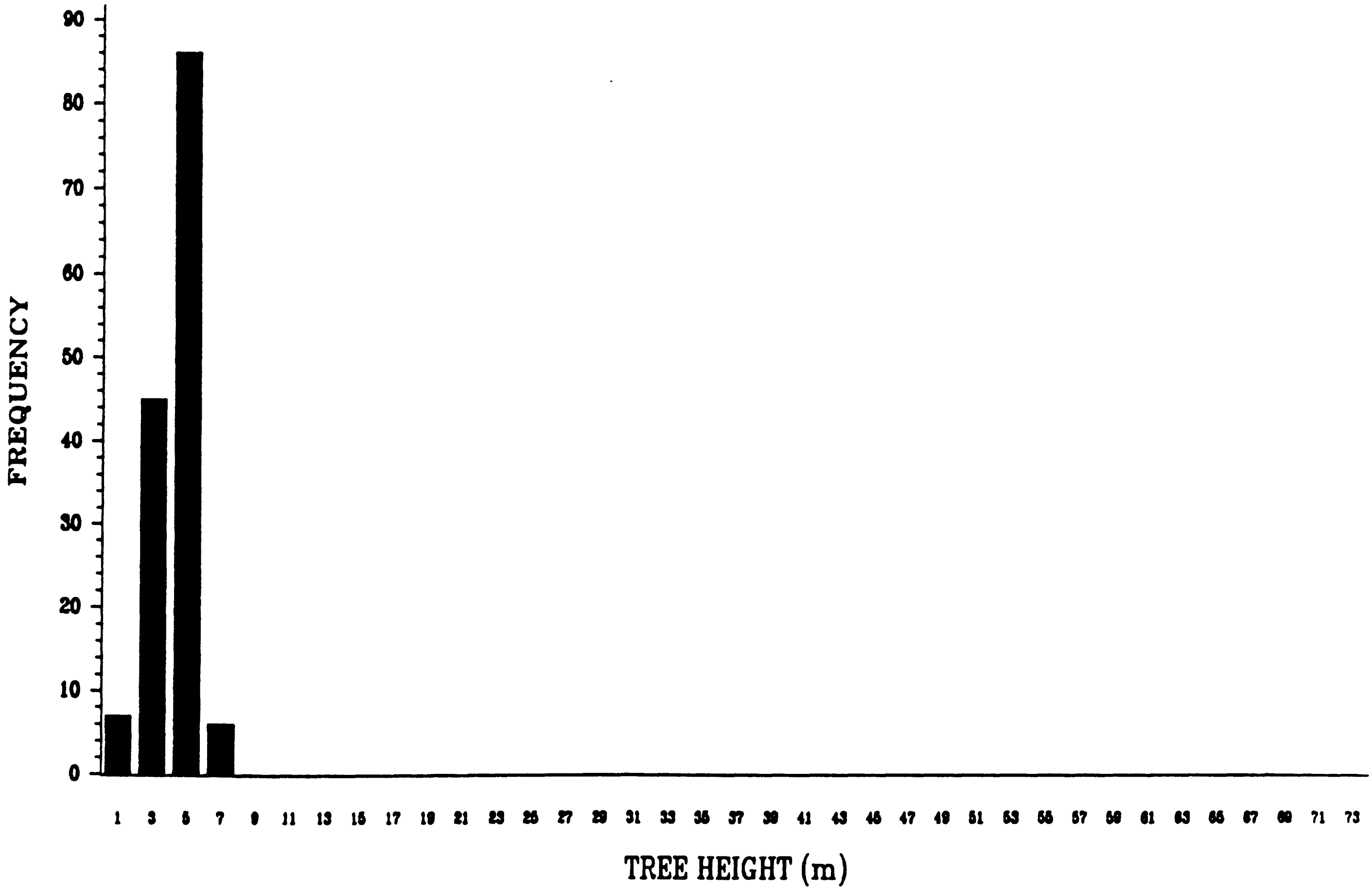


STAND=53
FREQUENCY
TREE HEIGHT (m)

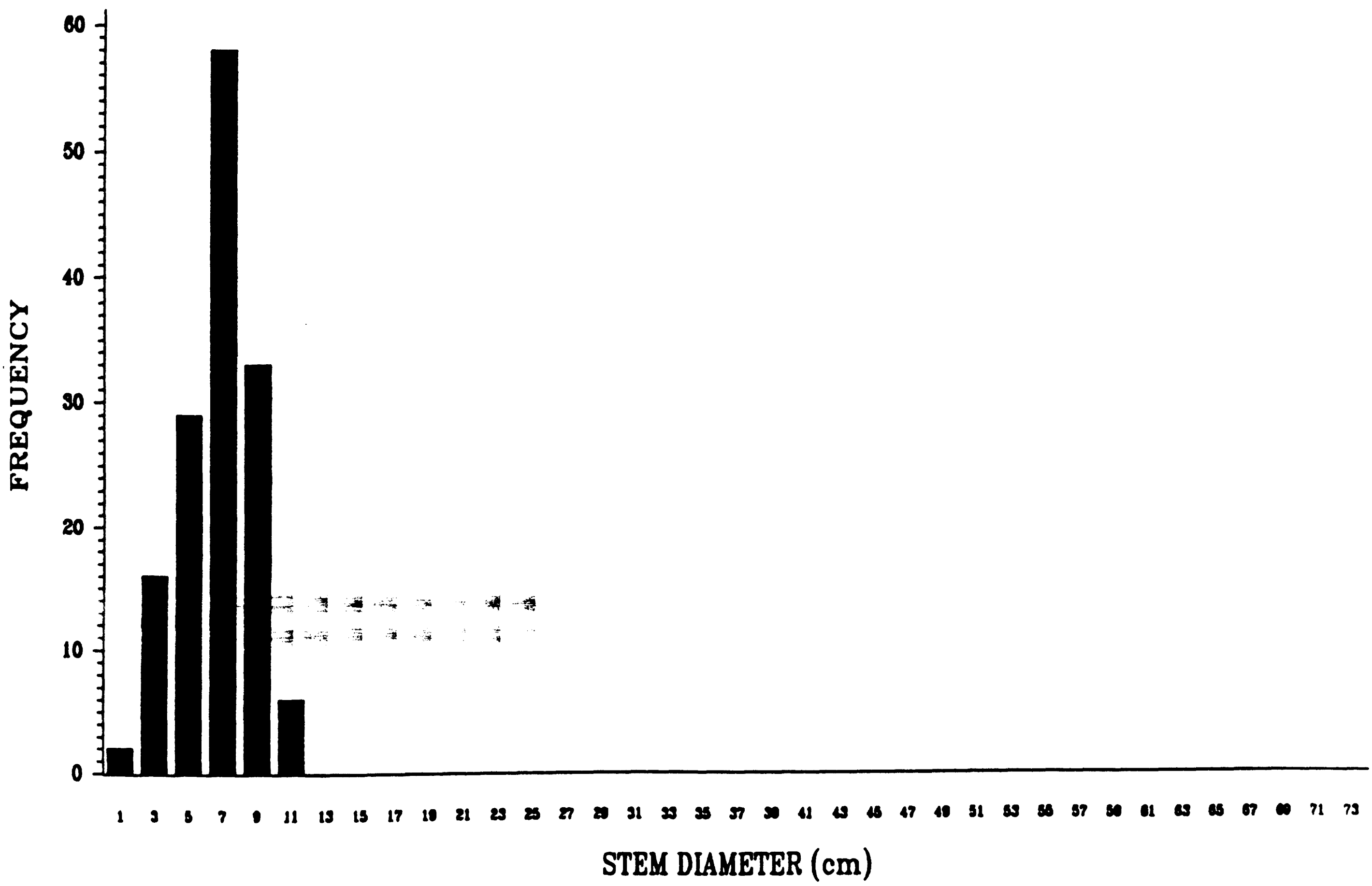


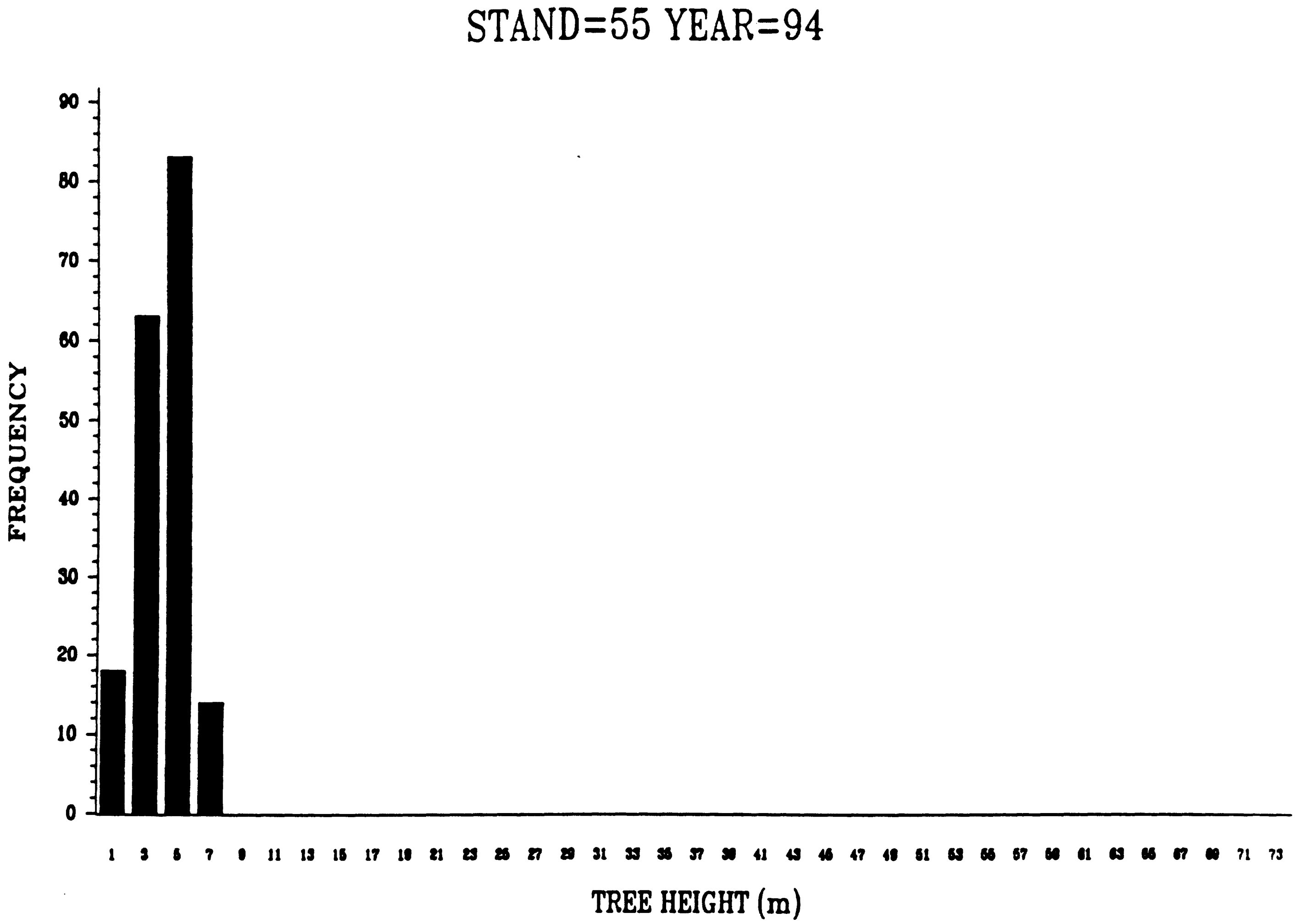
STAND=53
FREQUENCY
STEM DIAMETER (cm)

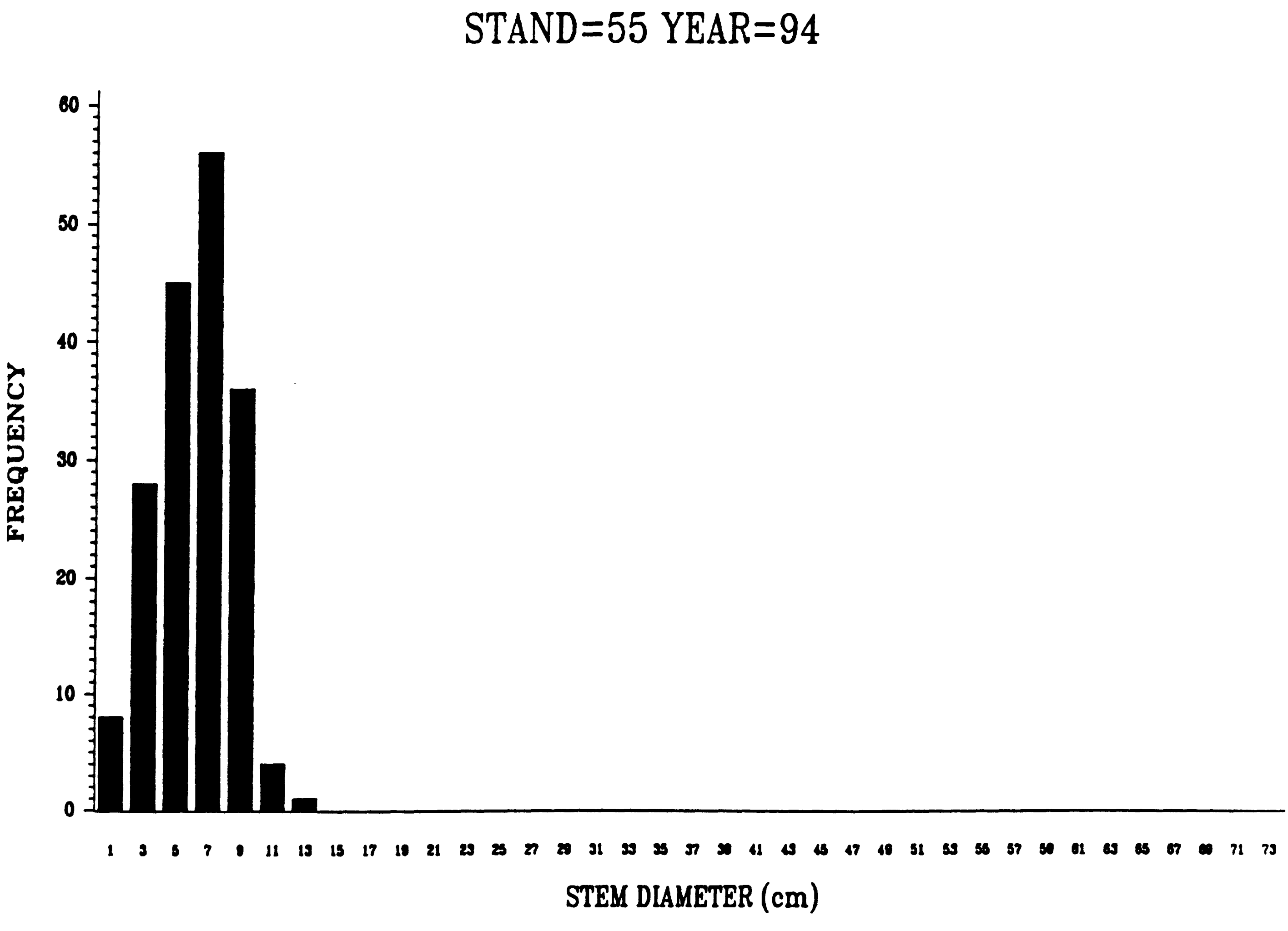
STAND=54 YEAR=94

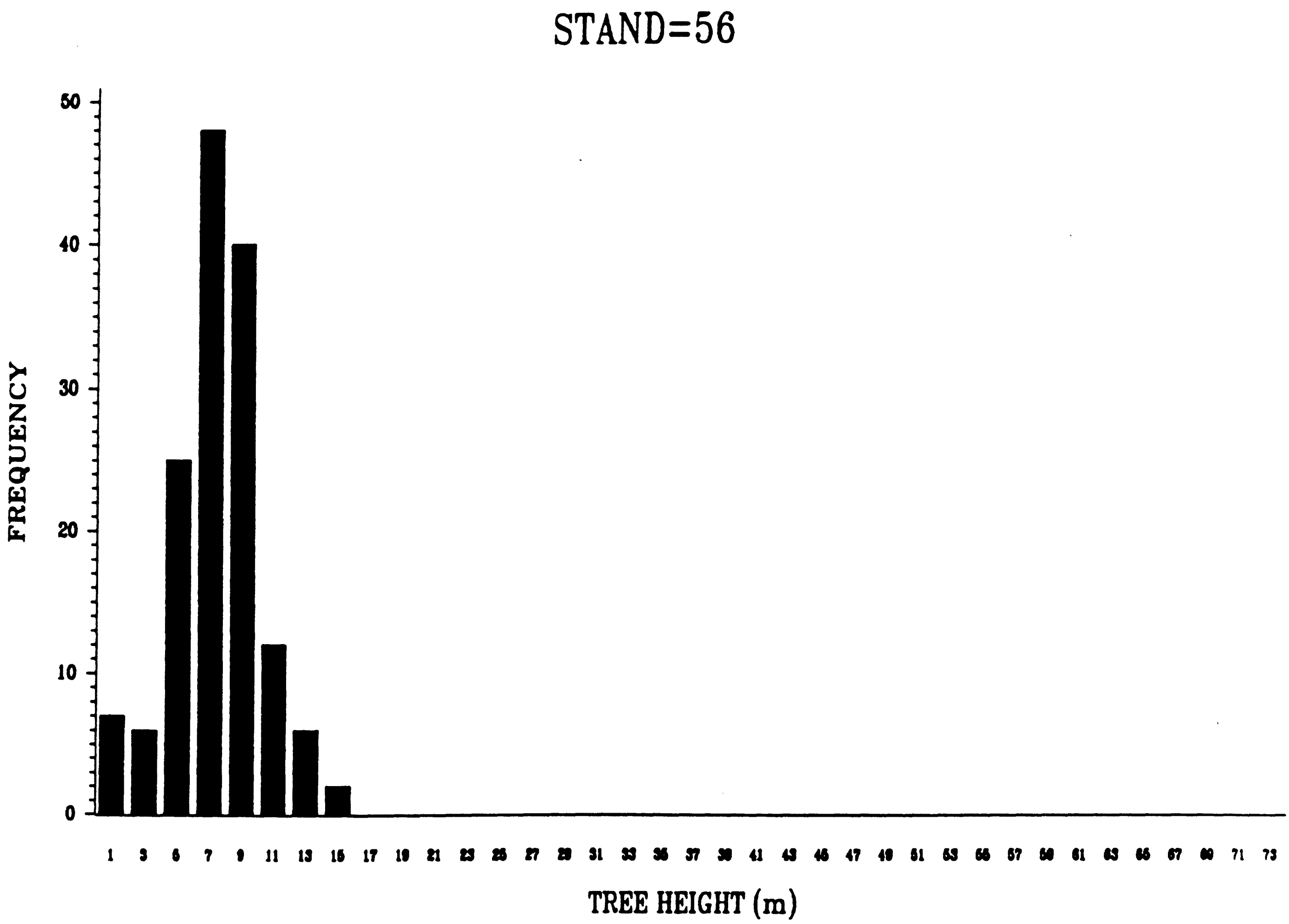


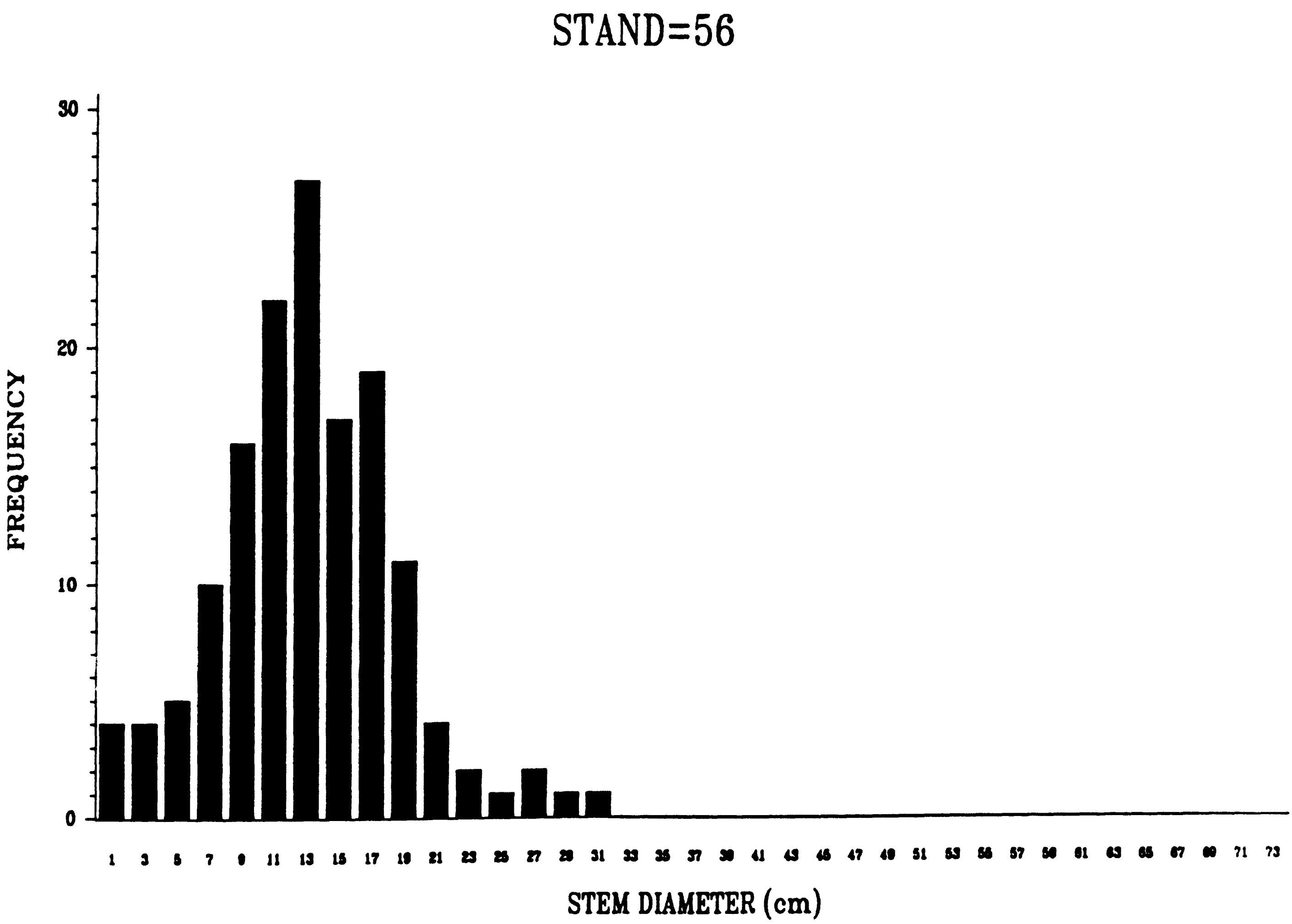
STAND=54 YEAR=94



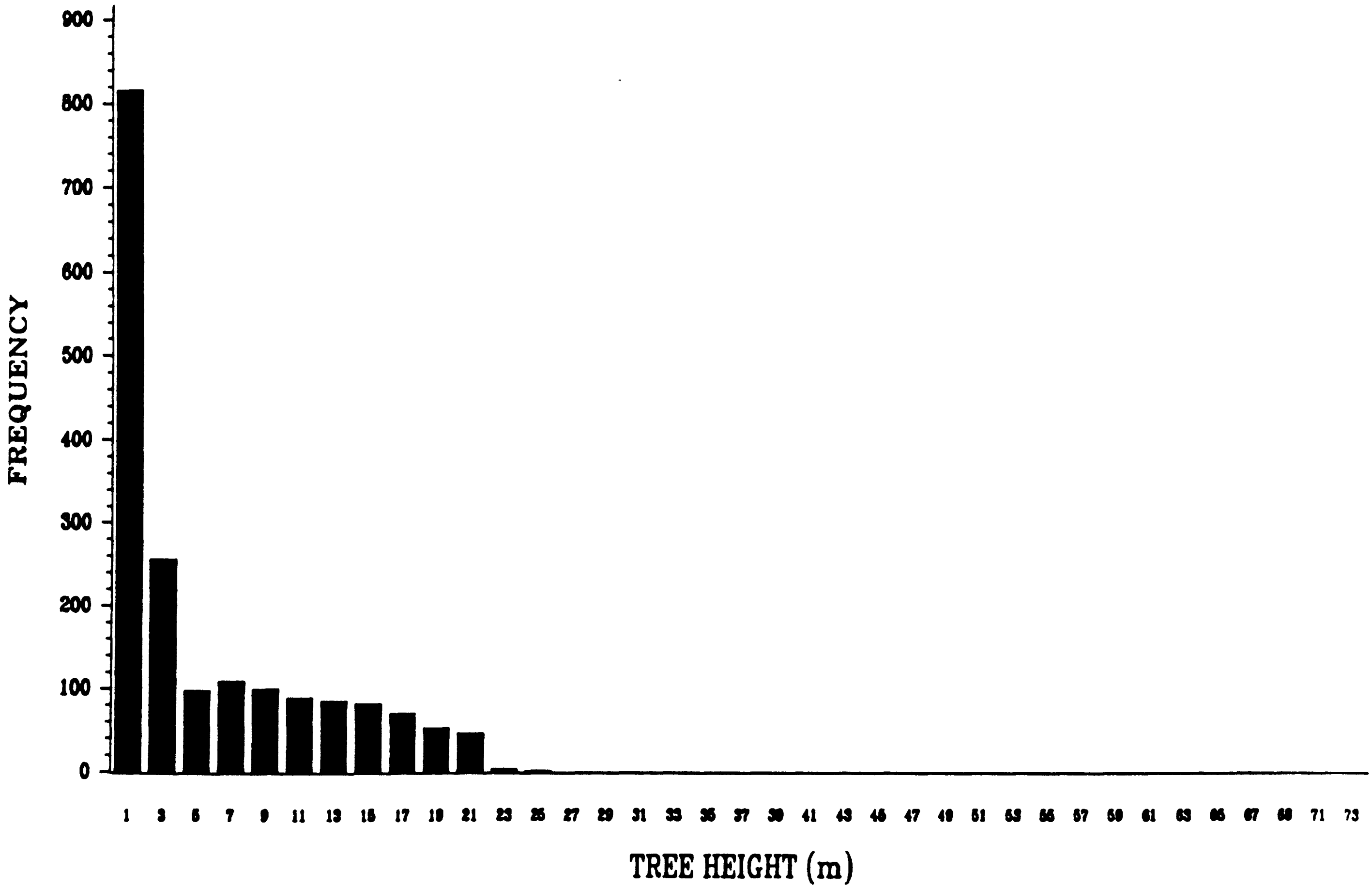

STAND=55 YEAR=94
FREQUENCY
TREE HEIGHT (m)


STAND=55 YEAR=94
FREQUENCY
STEM DIAMETER (cm)

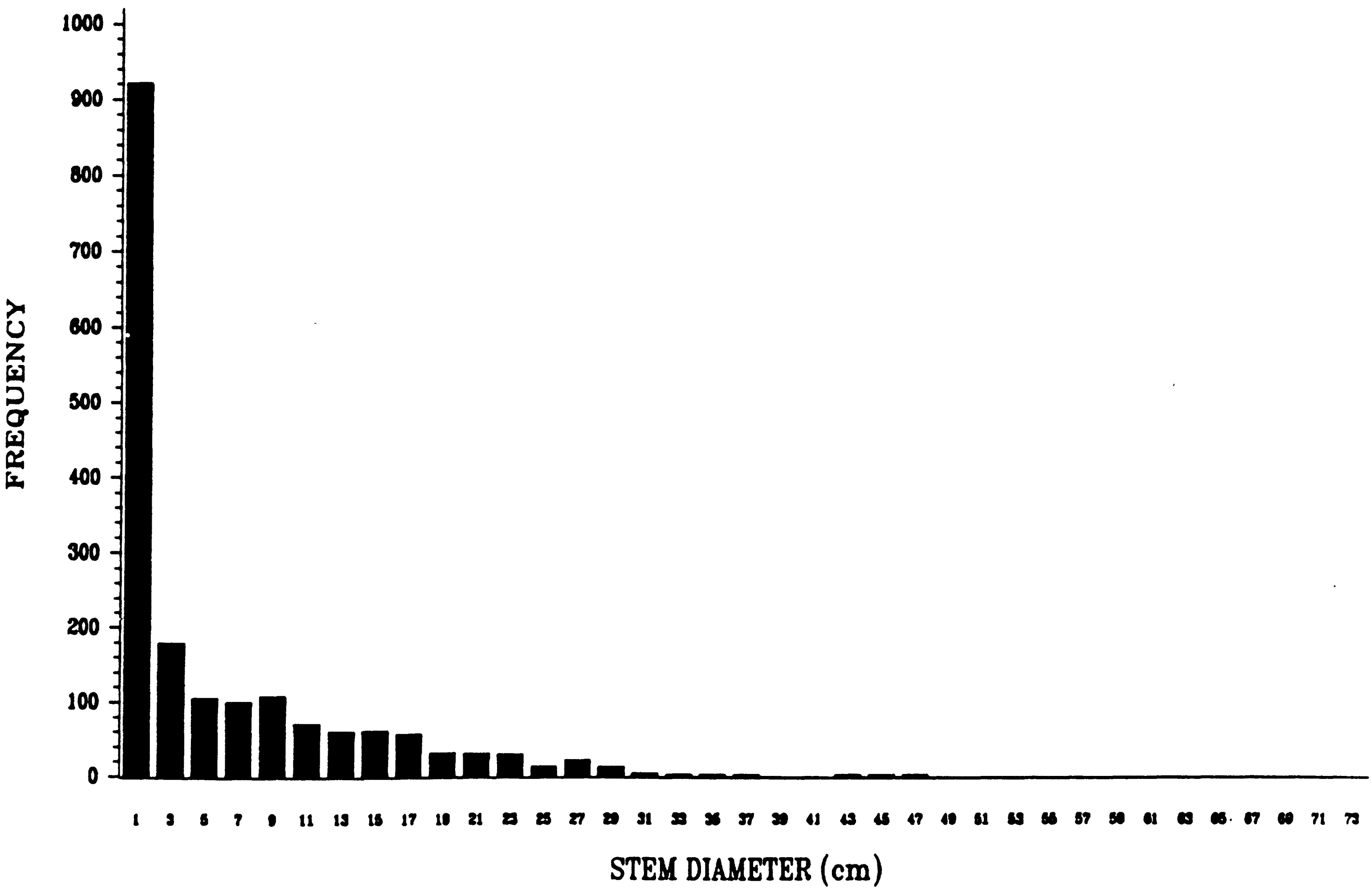

STAND=56
FREQUENCY
0
10
20
30
40
50
TREE HEIGHT (m)

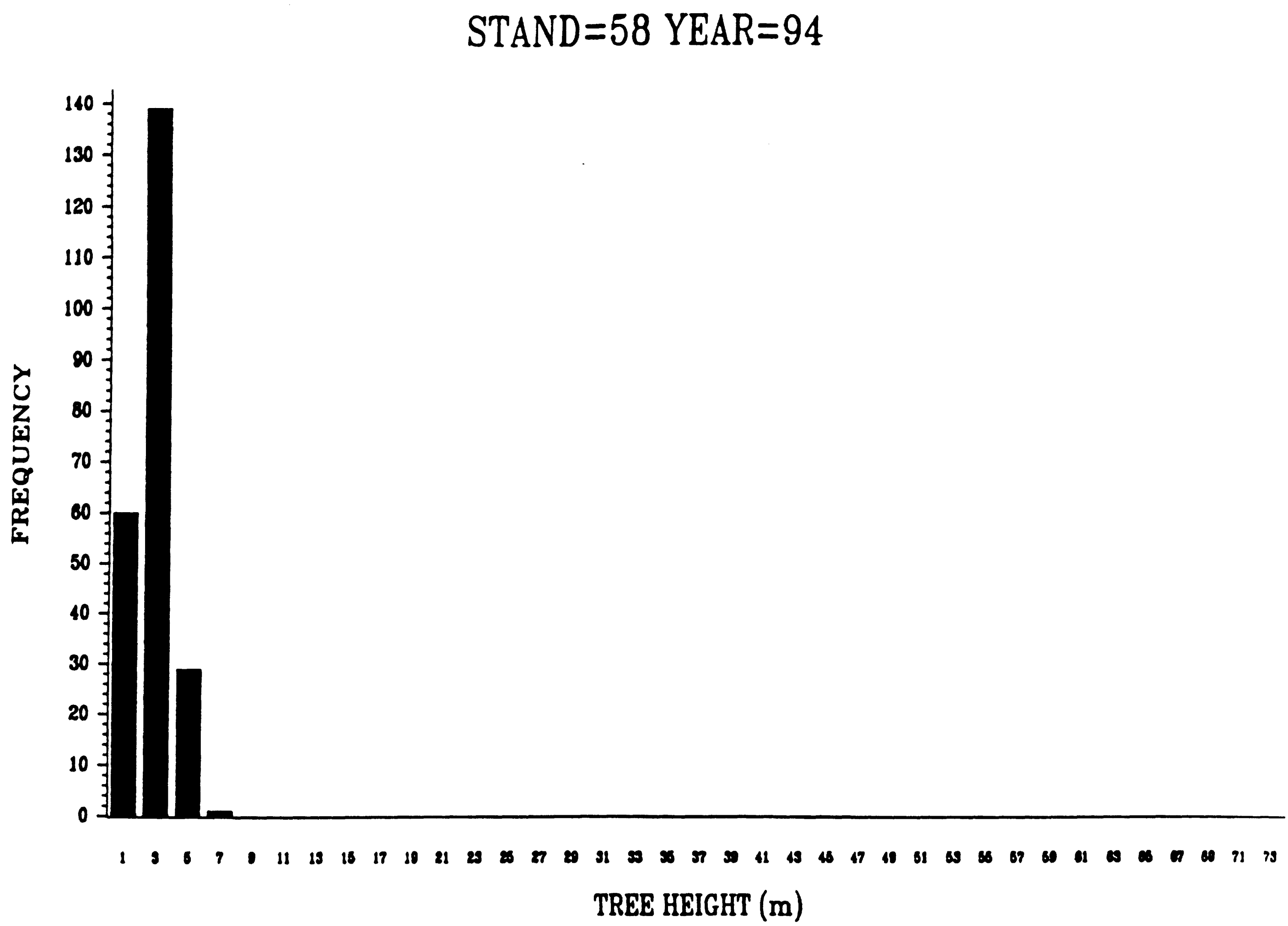

STAND=56
FREQUENCY
0
10
20
30
STEM DIAMETER (cm)

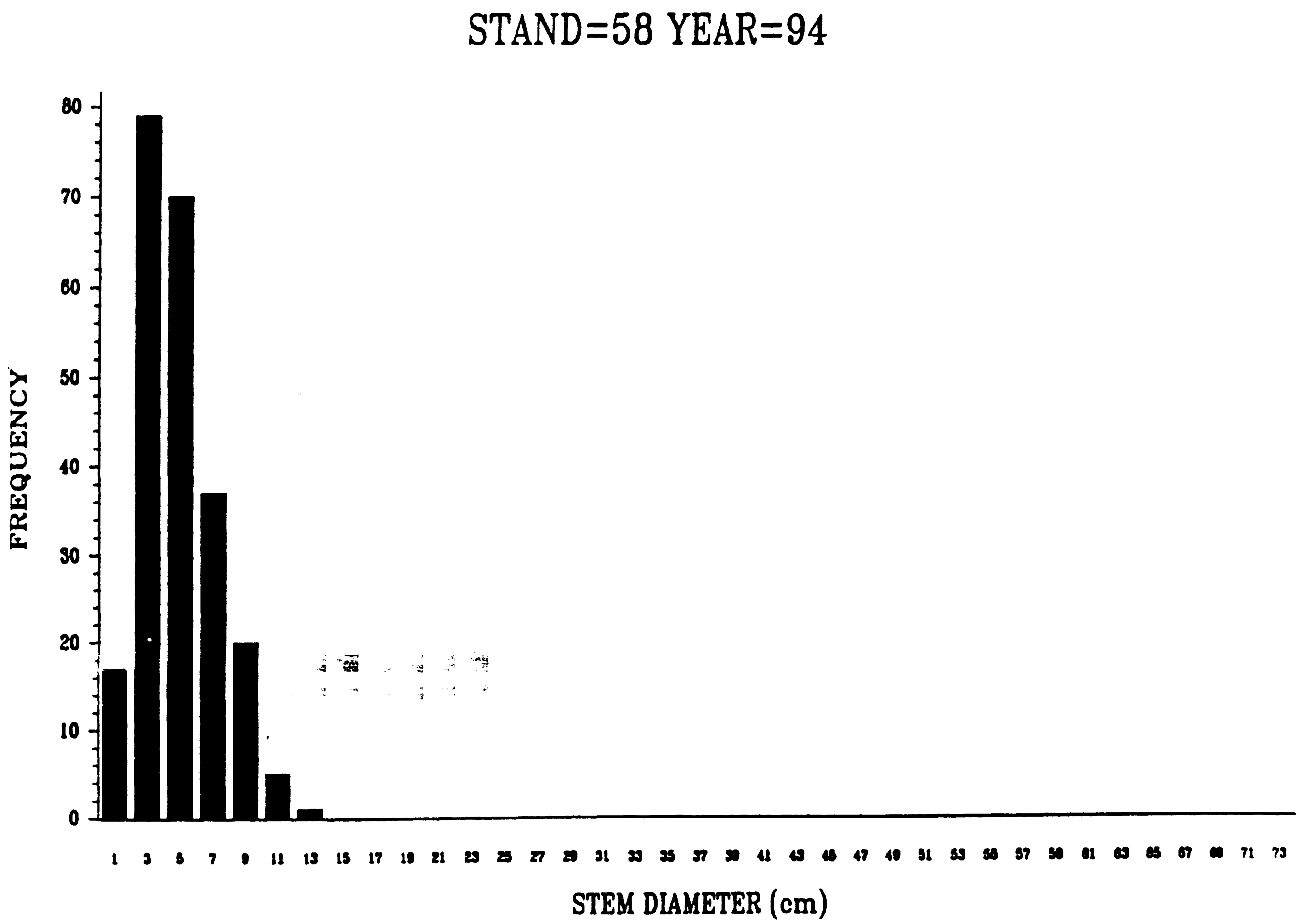
STAND=57

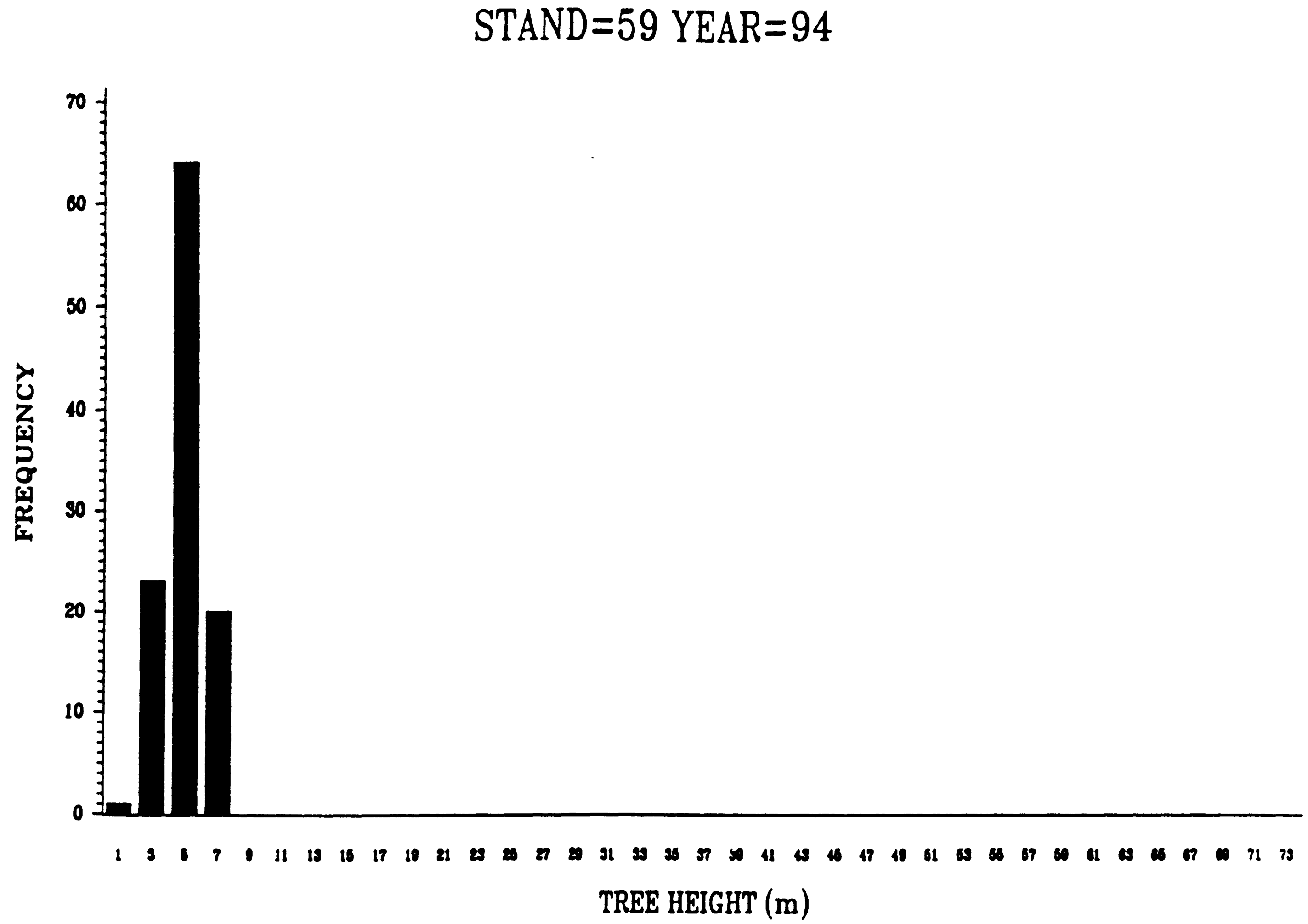


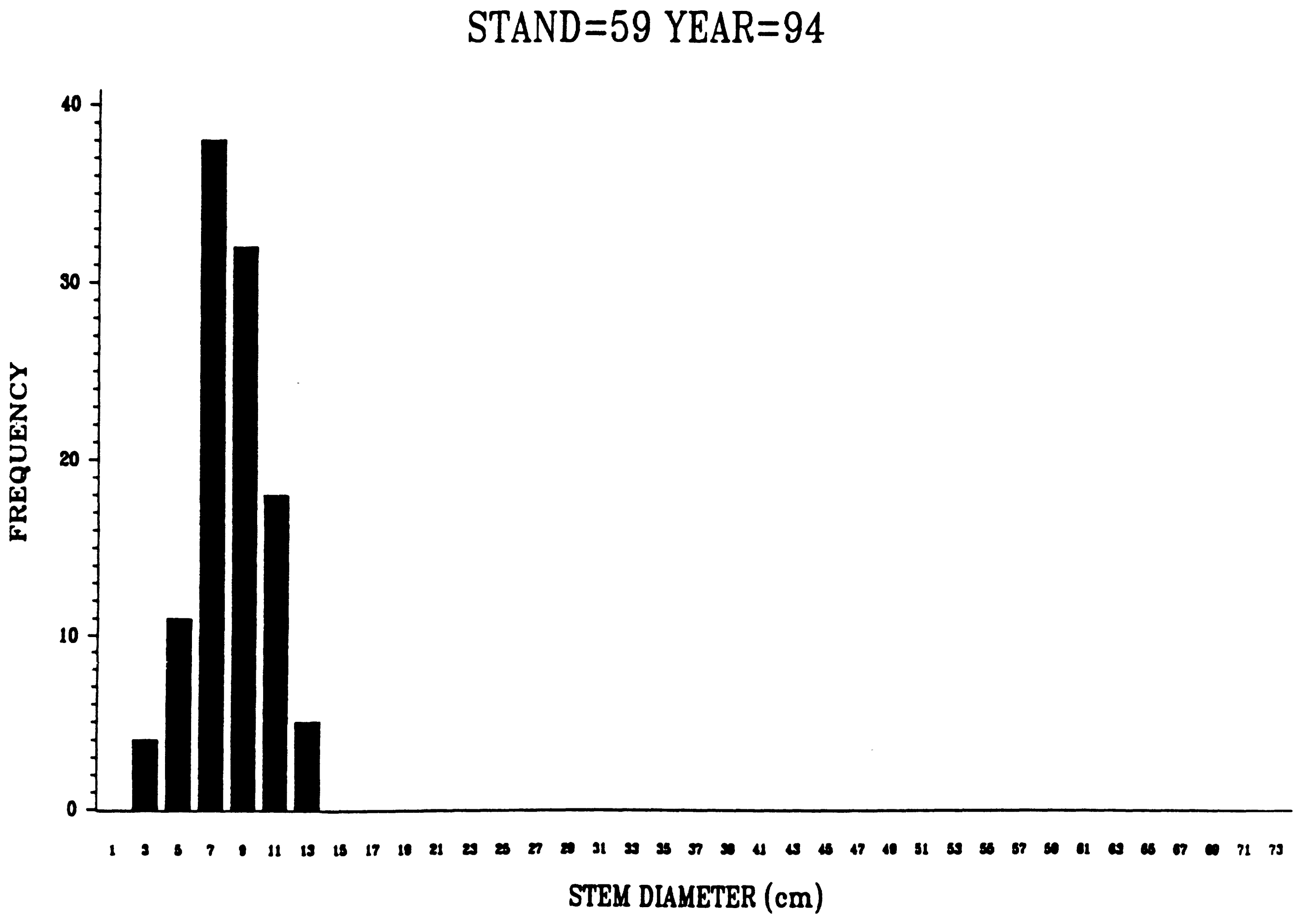
STAND=57



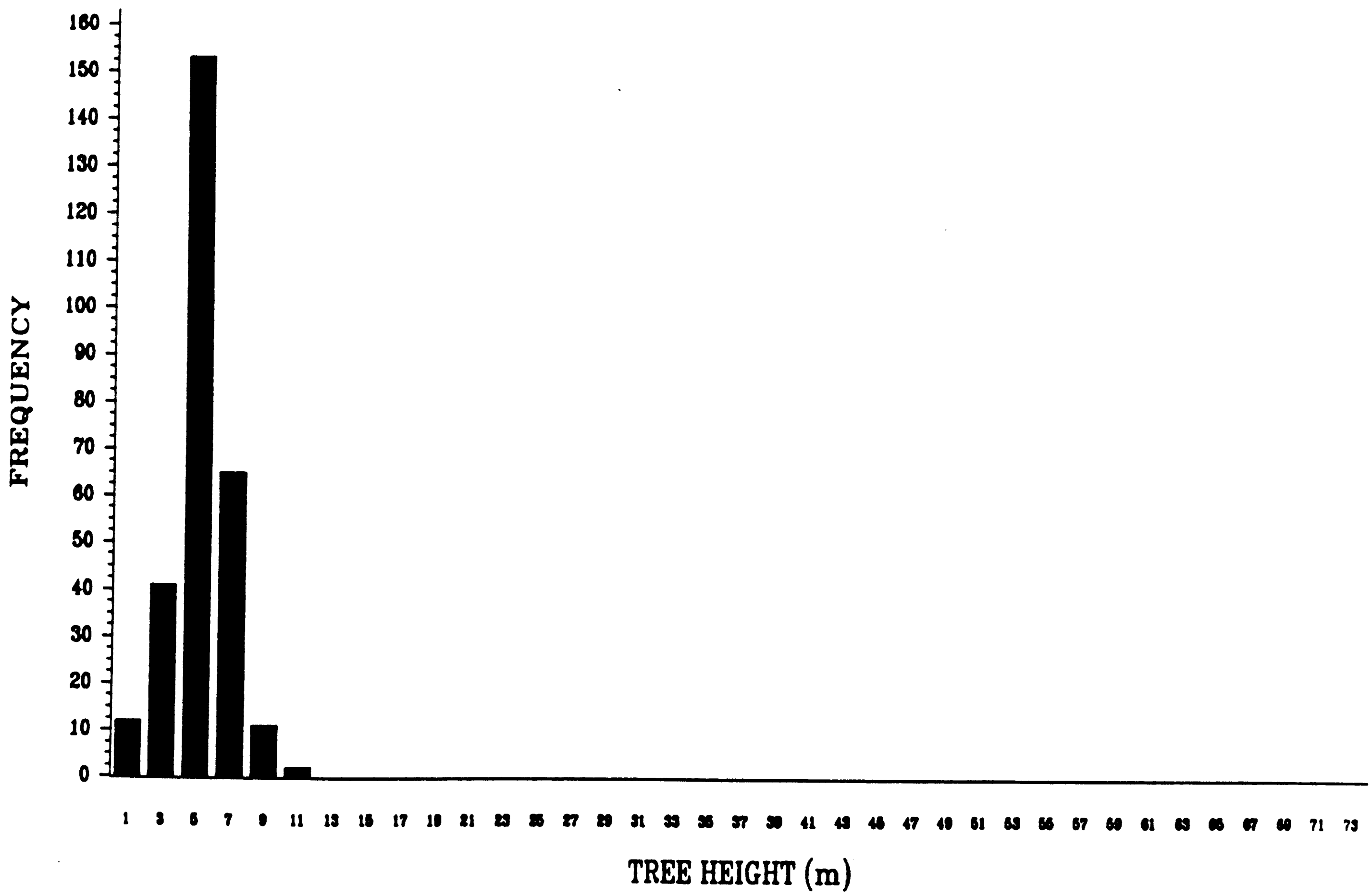

STAND=58 YEAR=94
FREQUENCY
140
130
120
110
100
90
80
70
60
50
40
30
20
10
0
1 3 5 7 9 11 13 15 17 19 21 23 25 27 29 31 33 35 37 39 41 43 45 47 49 51 53 55 57 59 61 63 65 67 69 71 73
TREE HEIGHT (m)


STAND=58 YEAR=94
FREQUENCY
80
70
60
50
40
30
20
10
0
1 3 5 7 9 11 13 15 17 19 21 23 25 27 29 31 33 35 37 39 41 43 45 47 49 51 53 55 57 59 61 63 65 67 69 71 73
STEM DIAMETER (cm)

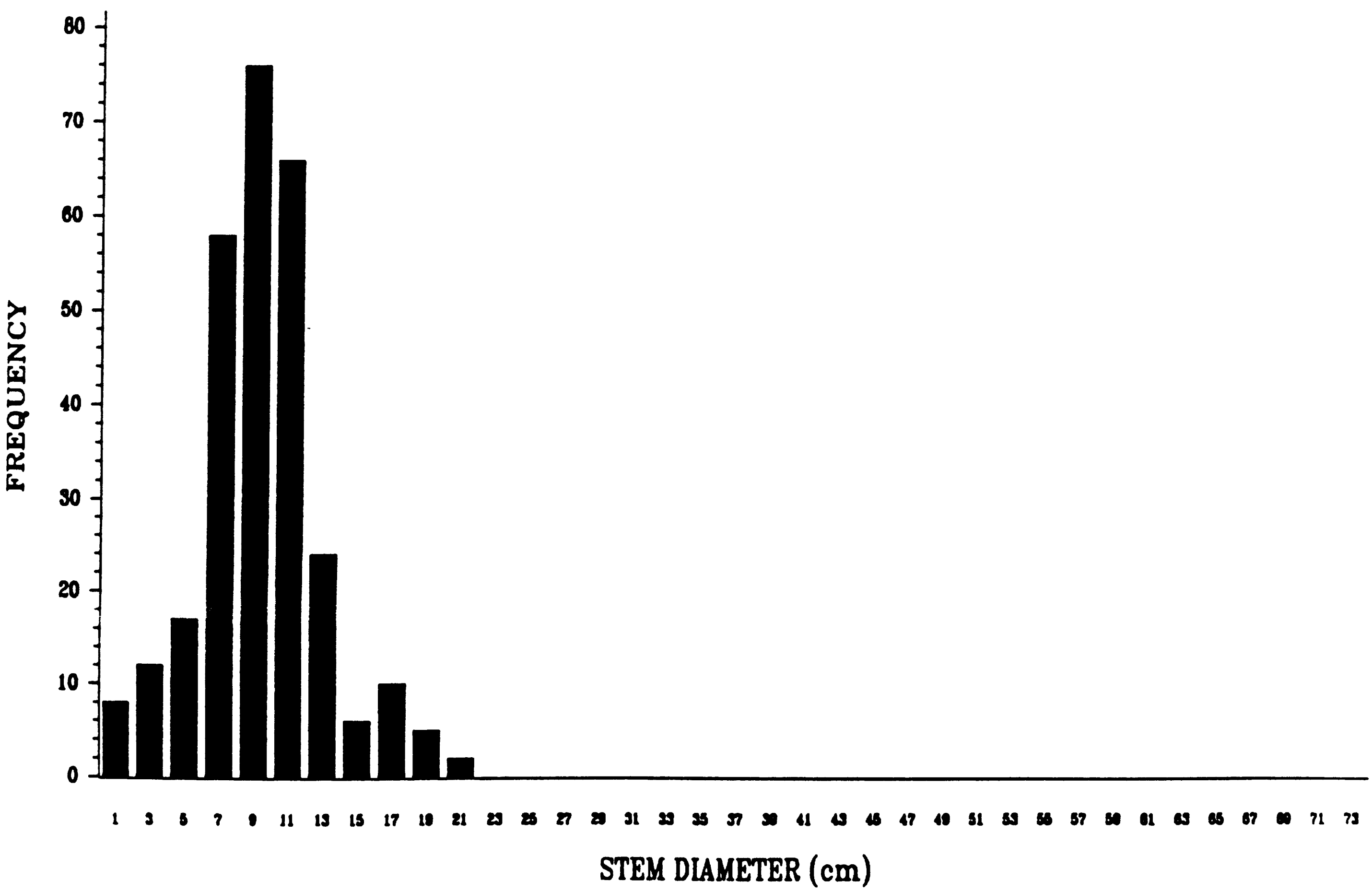

STAND=59 YEAR=94
FREQUENCY
0
10
20
30
40
50
60
70
1 3 5 7 9 11 13 15 17 19 21 23 25 27 29 31 33 35 37 39 41 43 45 47 49 51 53 55 57 59 61 63 65 67 69 71 73
TREE HEIGHT (m)


STAND=59 YEAR=94
FREQUENCY
0
10
20
30
40
1 3 5 7 9 11 13 15 17 19 21 23 25 27 29 31 33 35 37 39 41 43 45 47 49 51 53 55 57 59 61 63 65 67 69 71 73
STEM DIAMETER (cm)

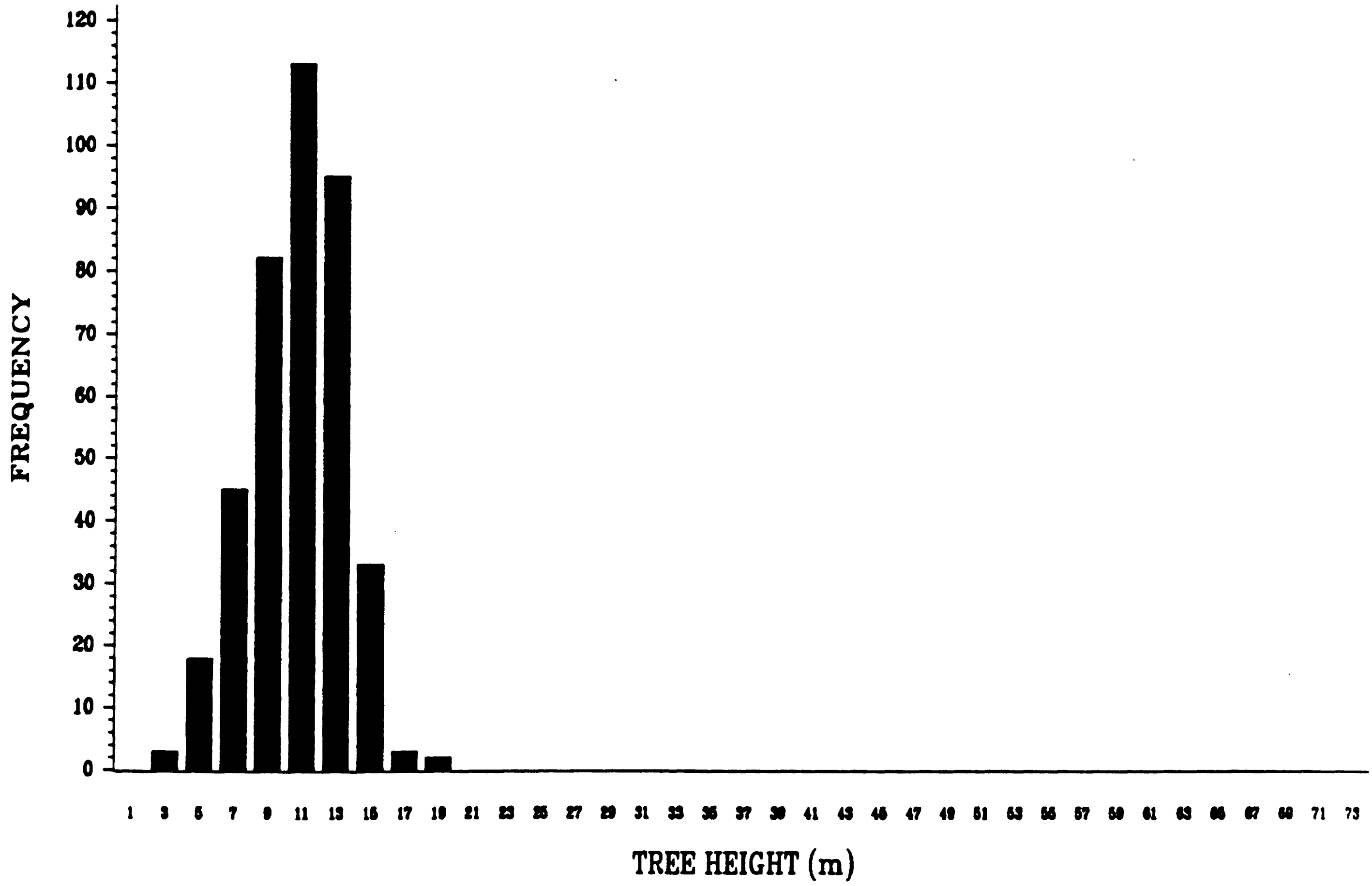
STAND=60



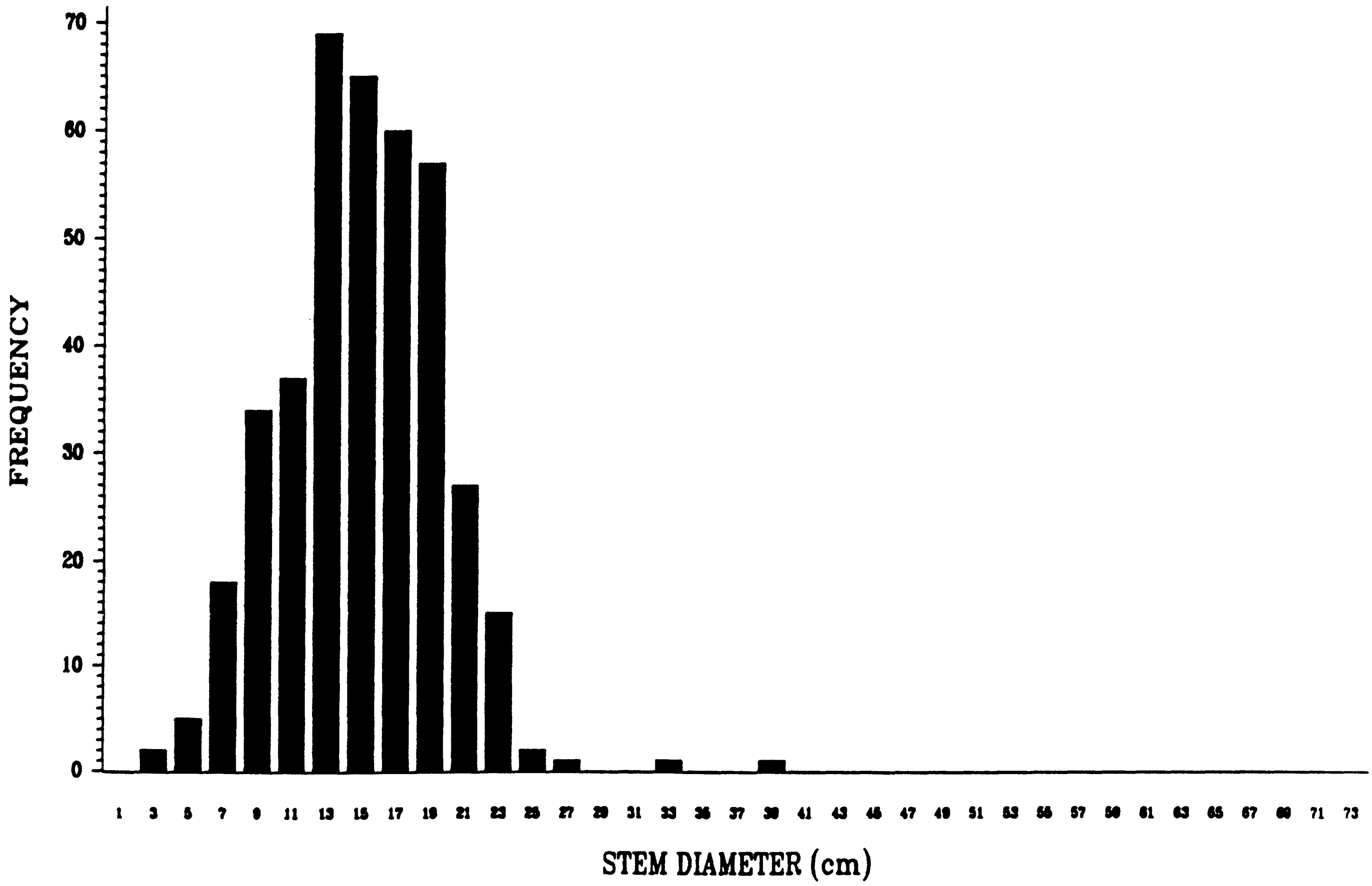
STAND=60



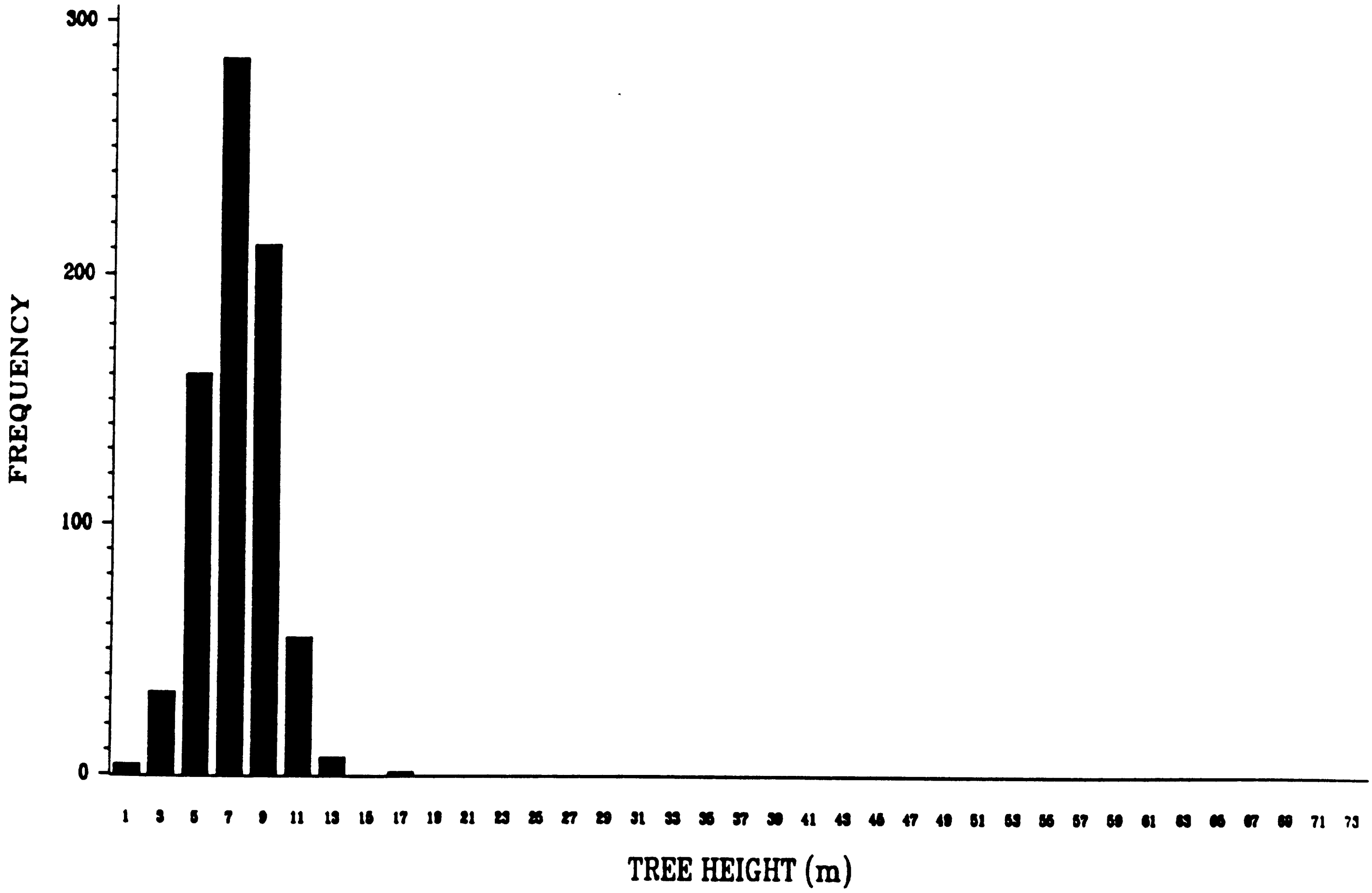
STAND=61



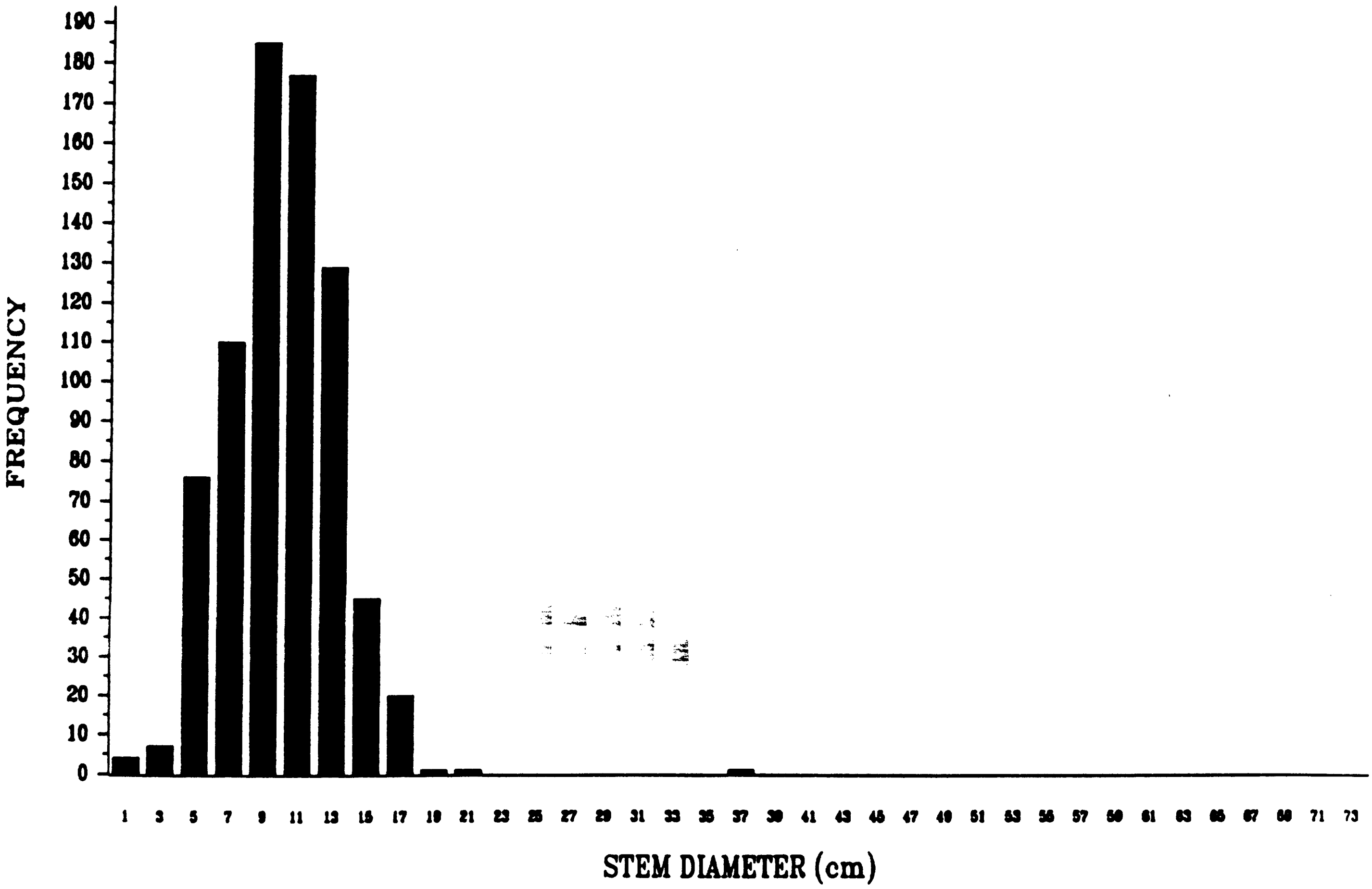
STAND=61

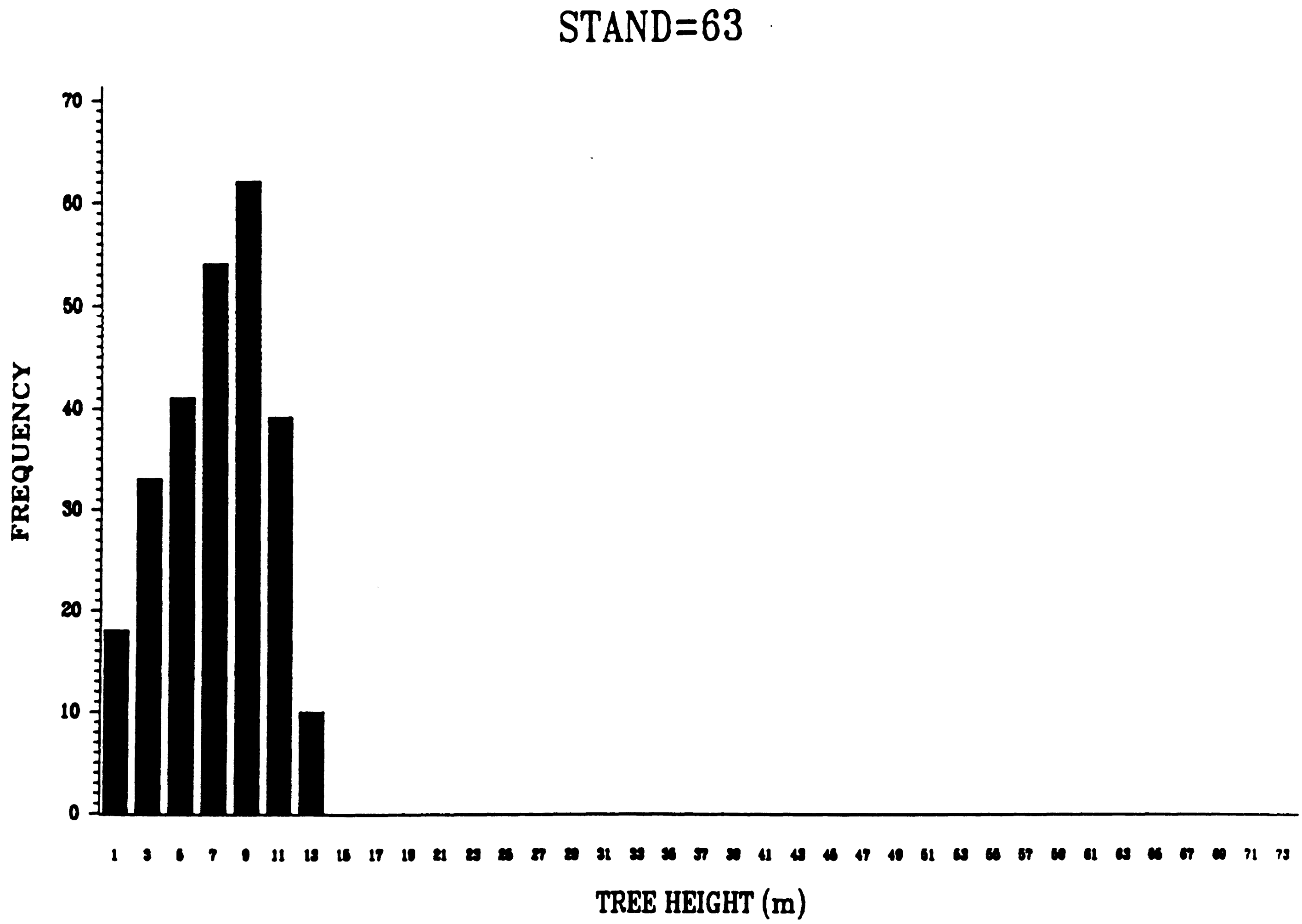


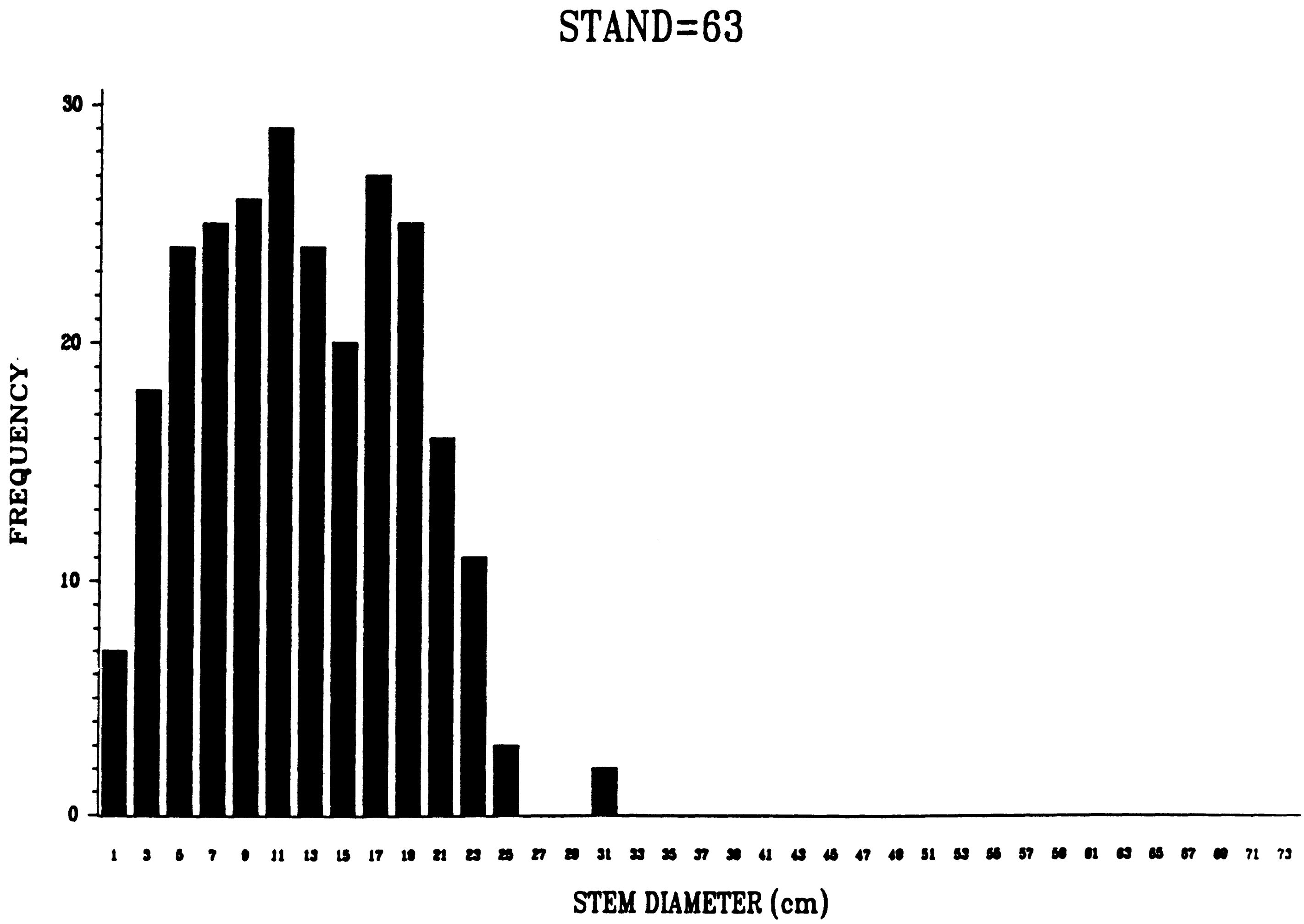
STAND=62



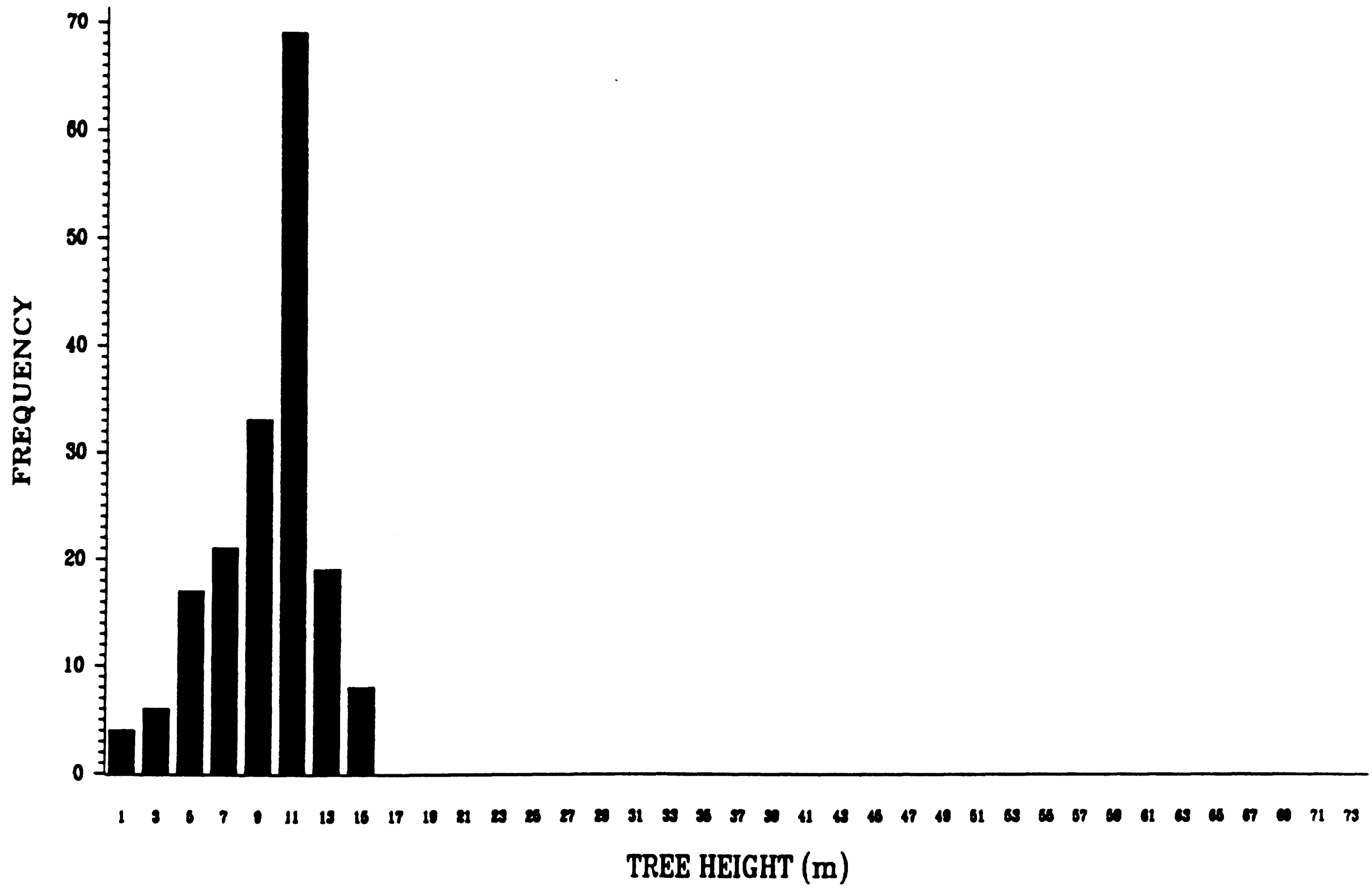
STAND=62



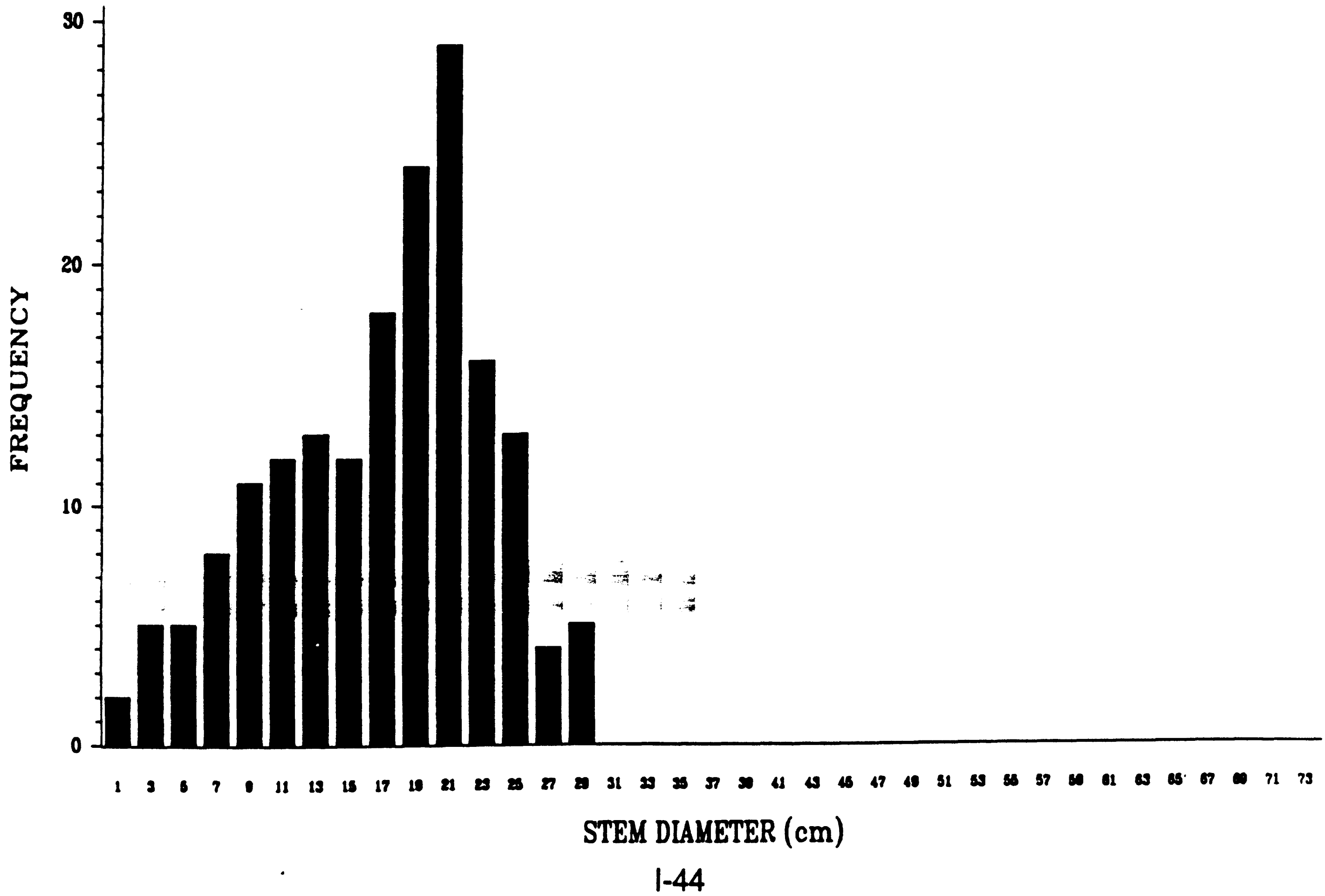

STAND=63
FREQUENCY
TREE HEIGHT (m)
0
10
20
30
40
50
60
70

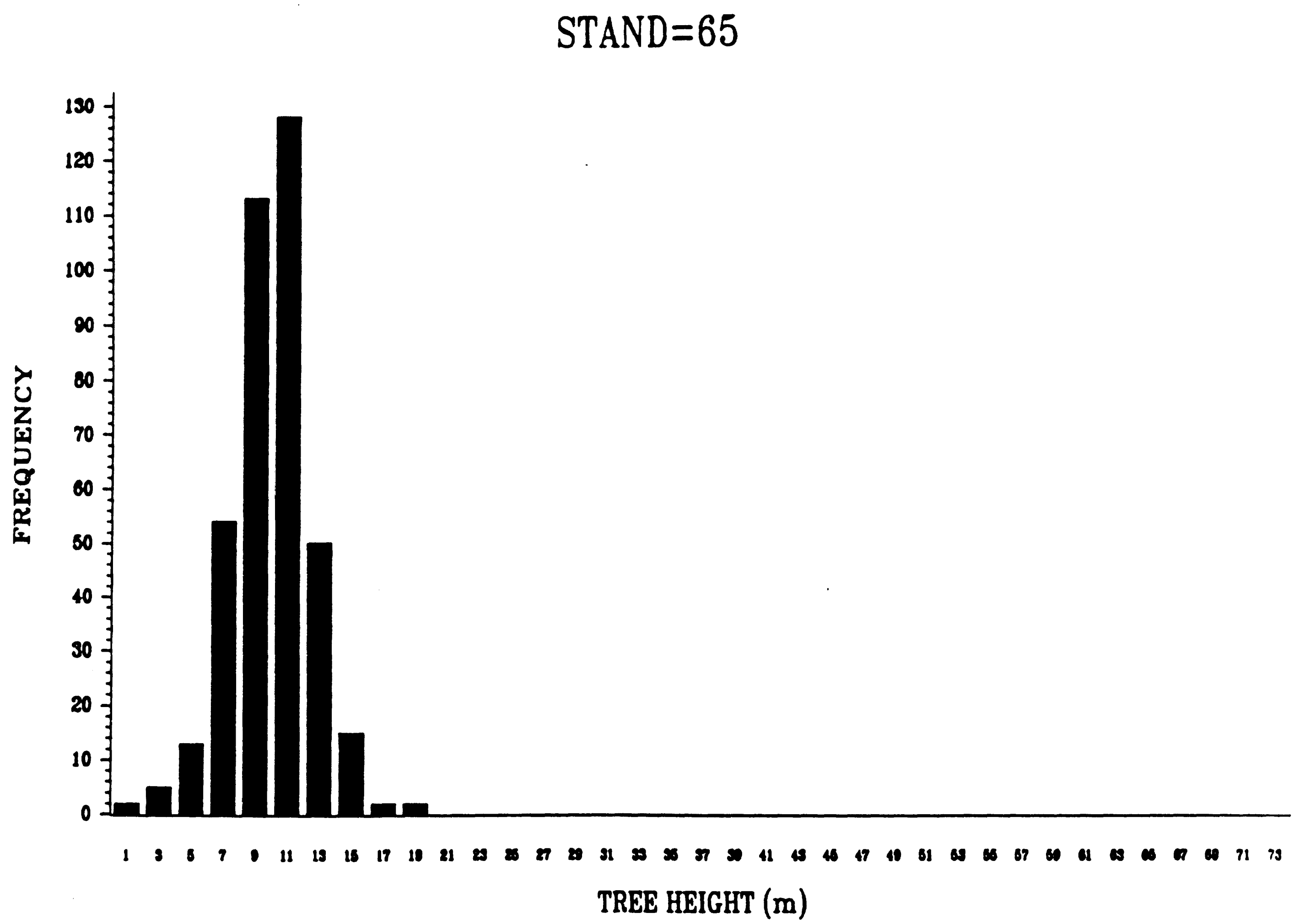

STAND=63
FREQUENCY
STEM DIAMETER (cm)
0
10
20
30

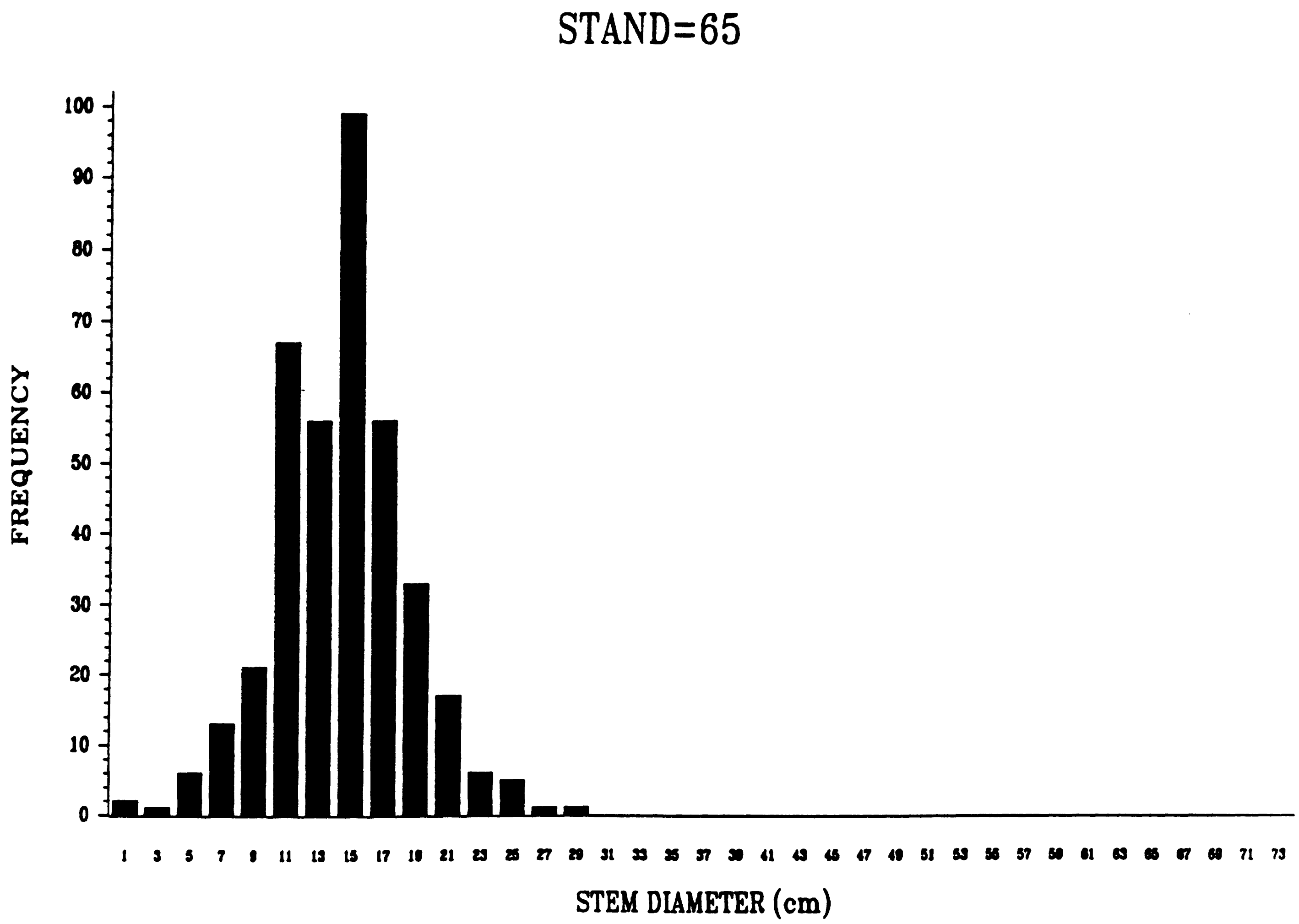
STAND=64

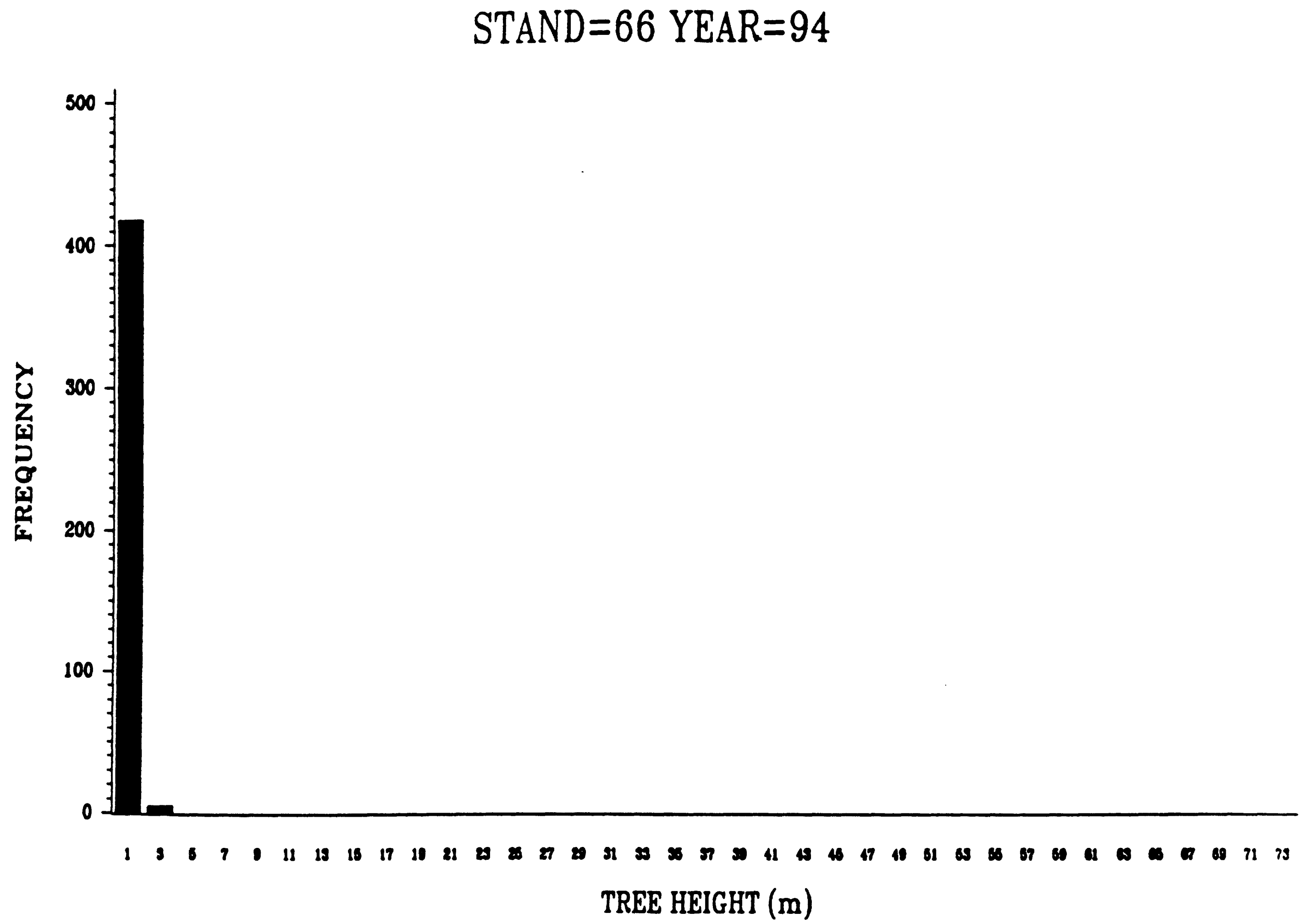


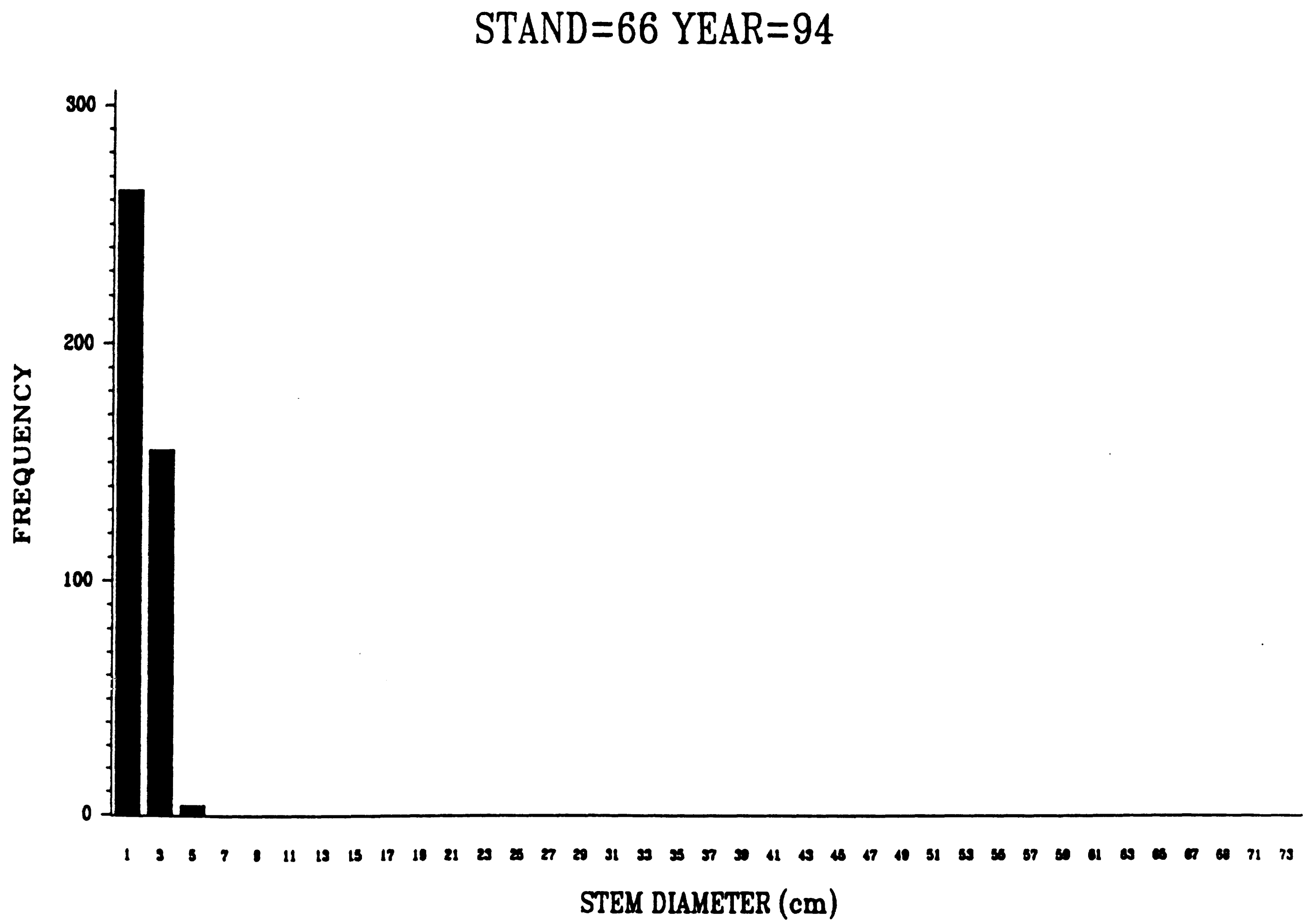
STAND=64



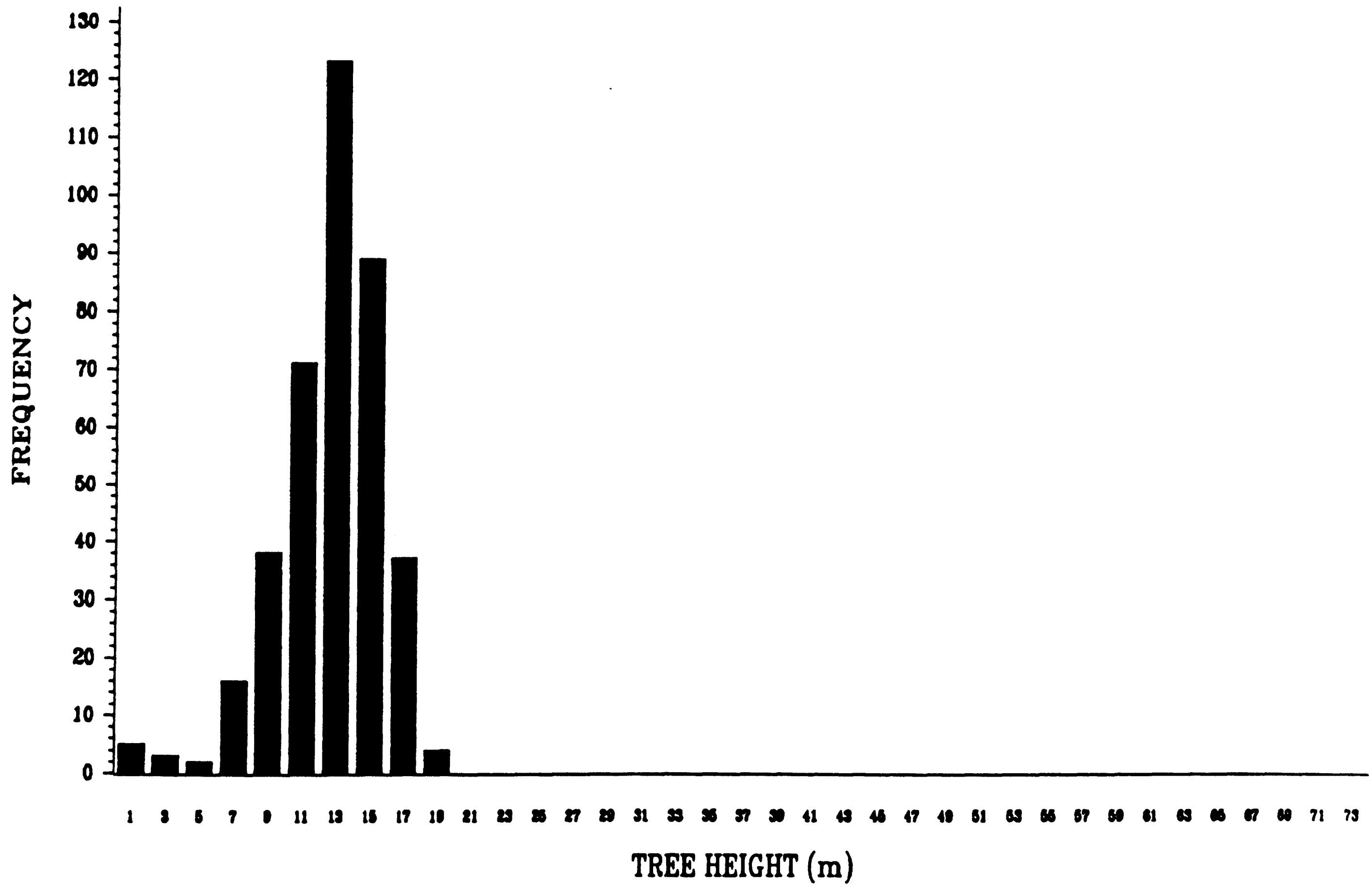

STAND=65
FREQUENCY
TREE HEIGHT (m)


STAND=65
FREQUENCY
STEM DIAMETER (cm)

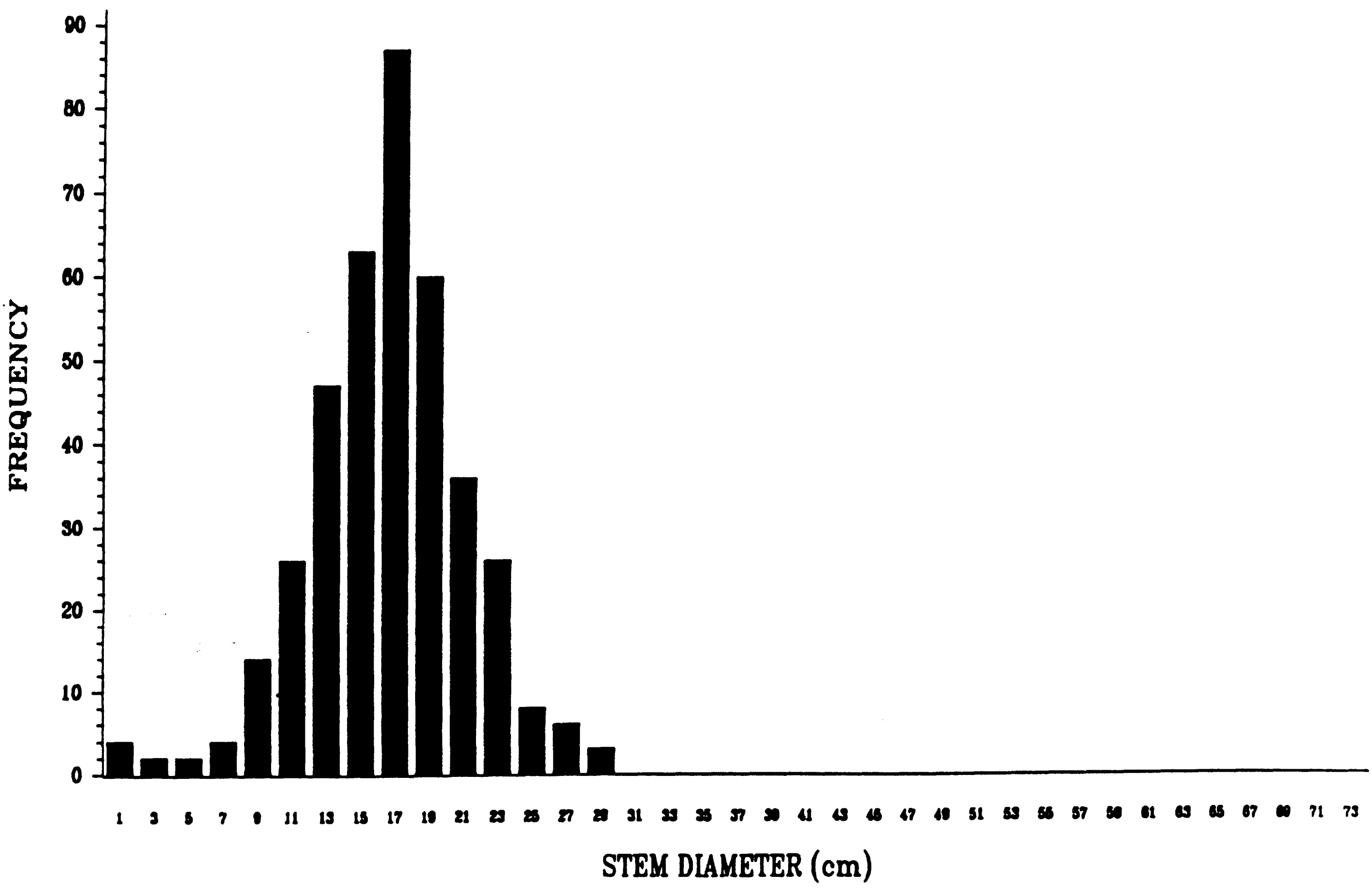

STAND=66 YEAR=94
FREQUENCY
0
100
200
300
400
500
1 3 5 7 9 11 13 15 17 19 21 23 25 27 29 31 33 35 37 39 41 43 45 47 49 51 53 55 57 59 61 63 65 67 69 71 73
TREE HEIGHT (m)

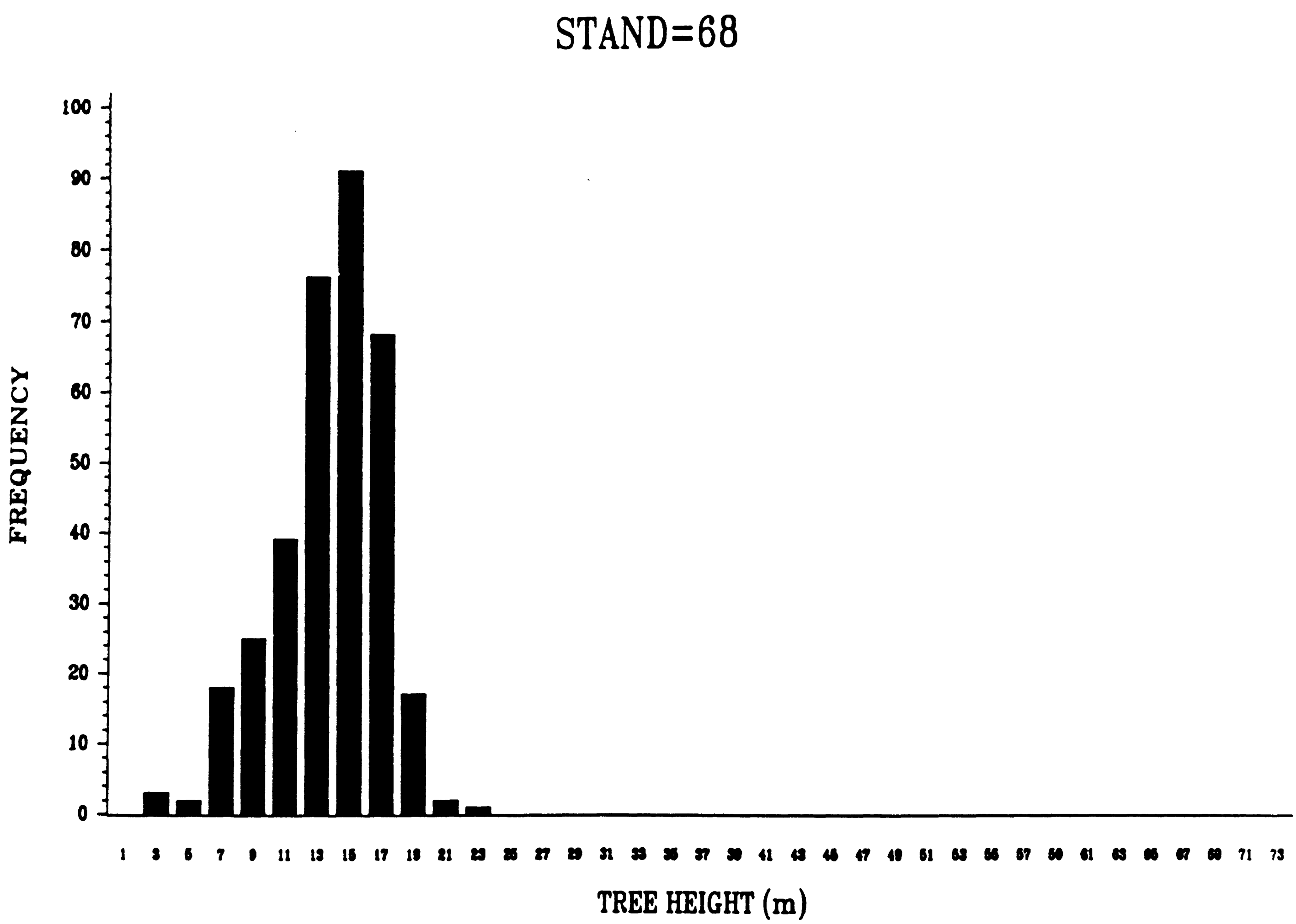

STAND=66 YEAR=94
FREQUENCY
0
100
200
300
1 3 5 7 9 11 13 15 17 19 21 23 25 27 29 31 33 35 37 39 41 43 45 47 49 51 53 55 57 59 61 63 65 67 69 71 73
STEM DIAMETER (cm)

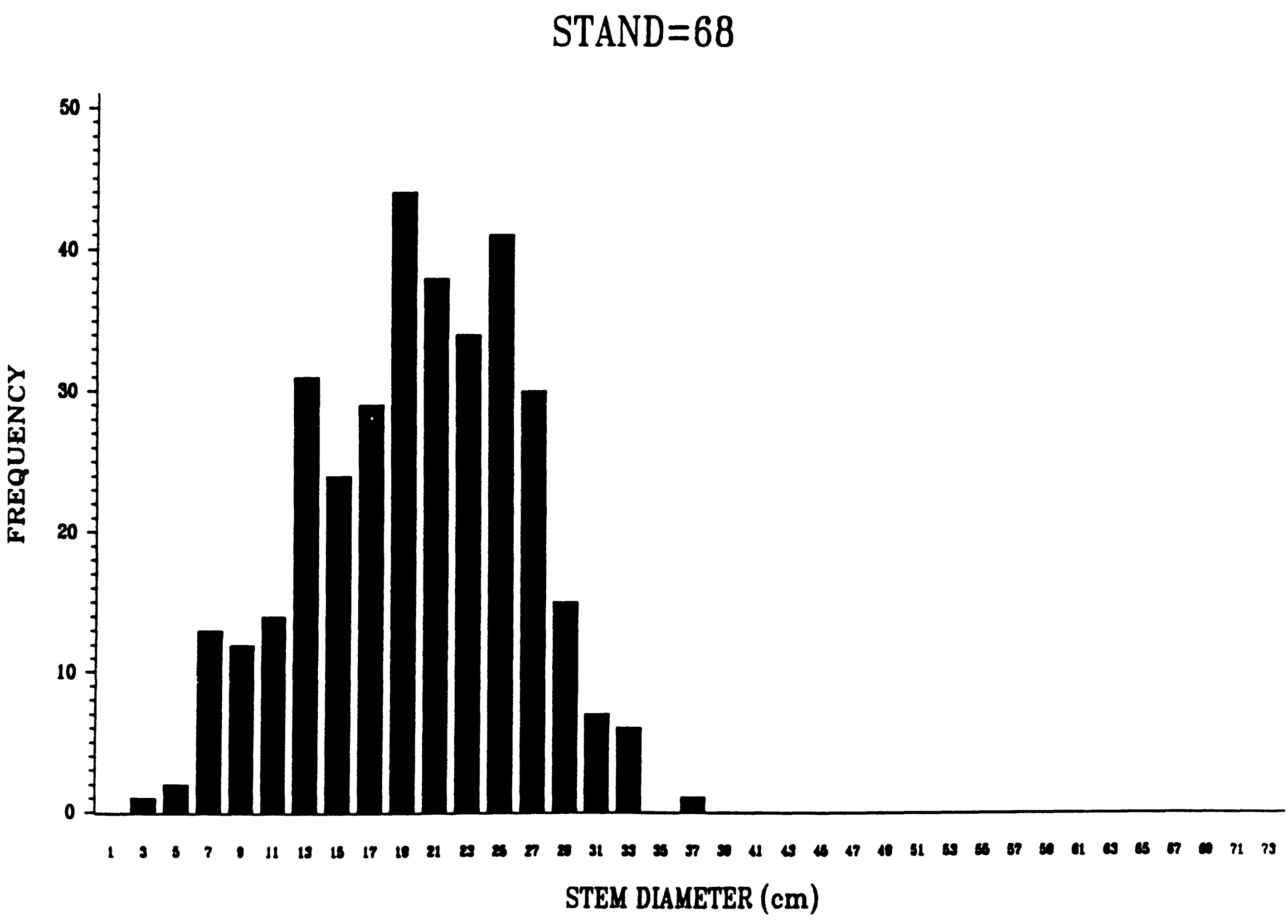
STAND=67

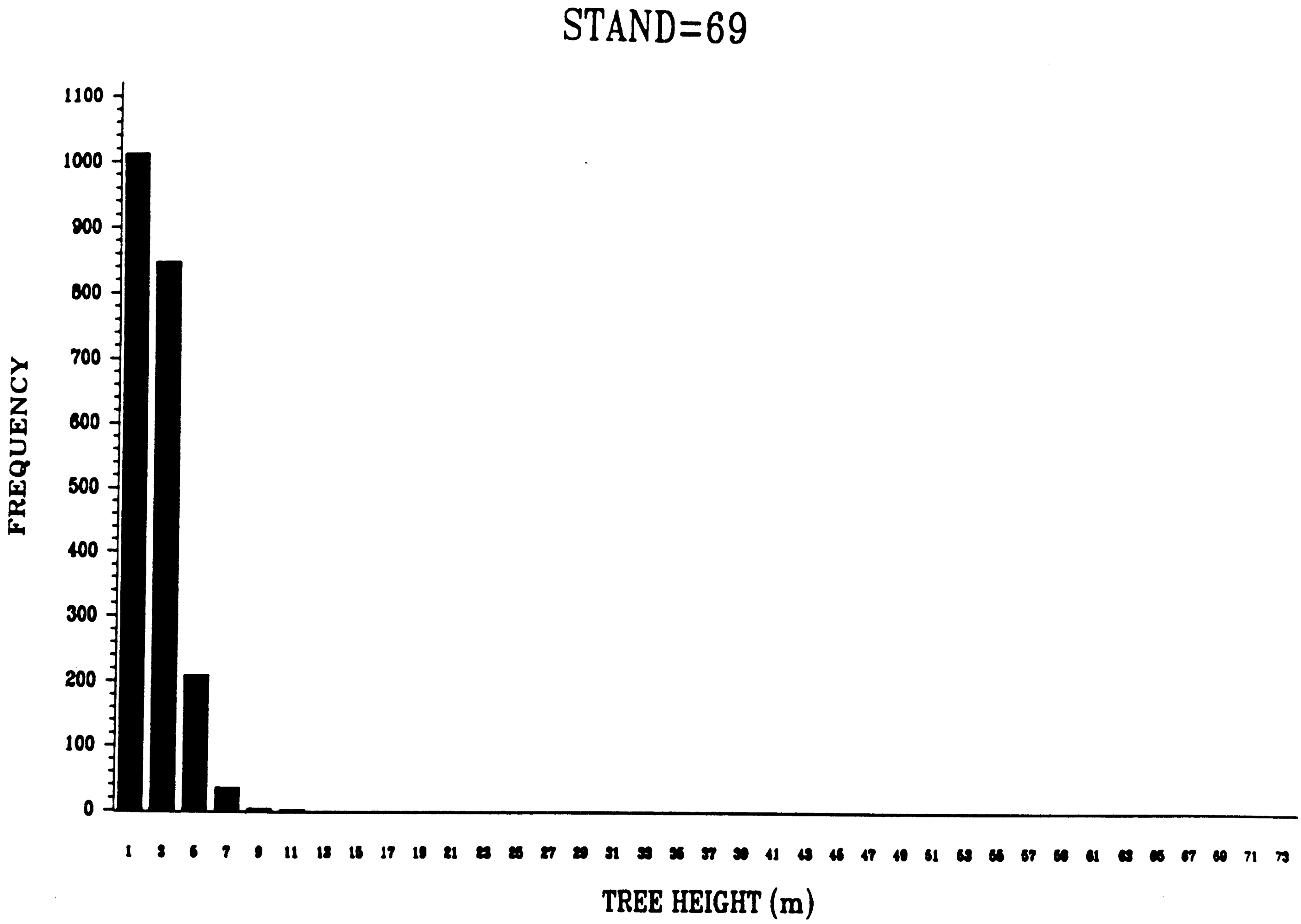


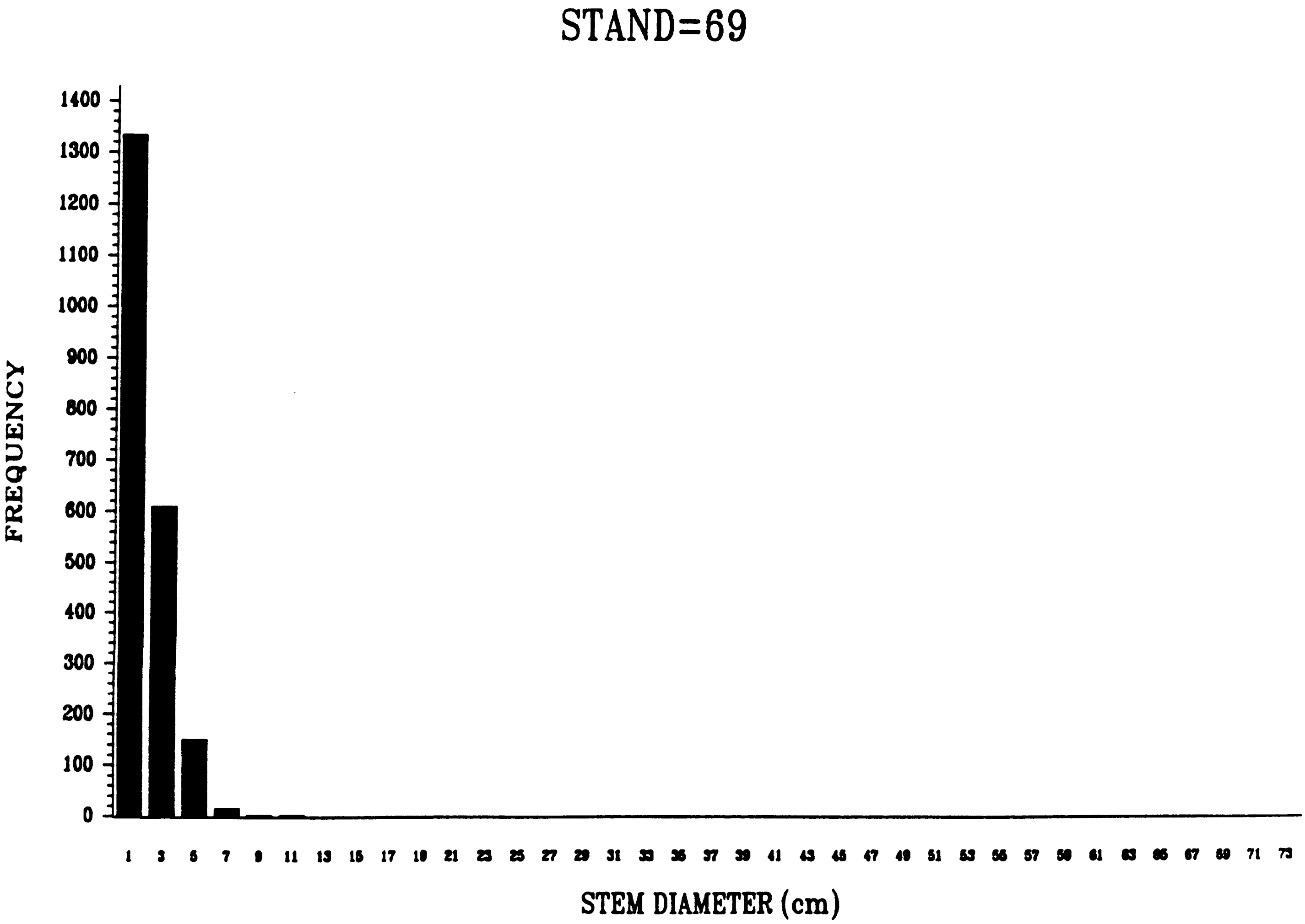
STAND=67



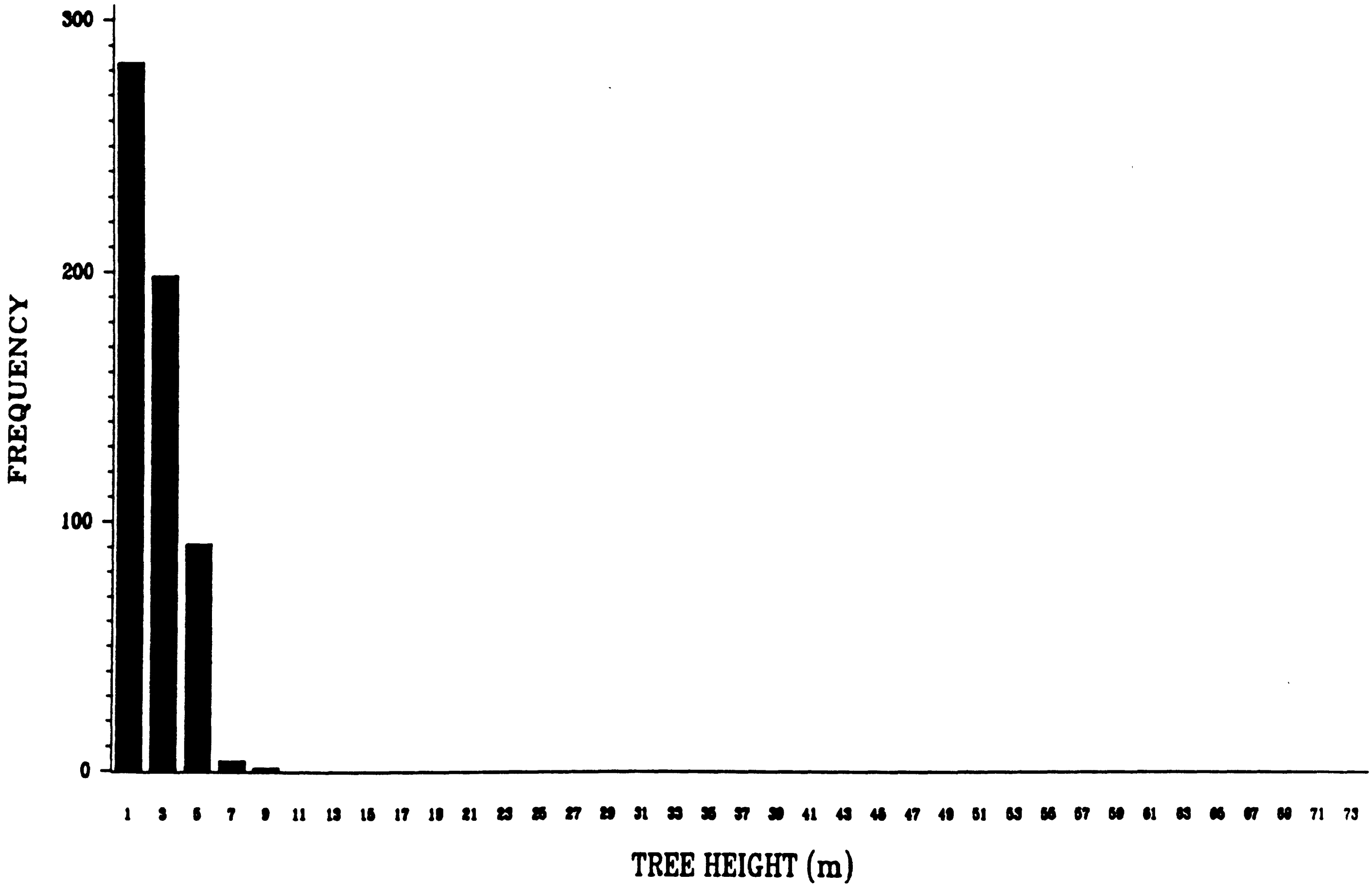

STAND=68
FREQUENCY
TREE HEIGHT (m)


STAND=68
FREQUENCY
STEM DIAMETER (cm)

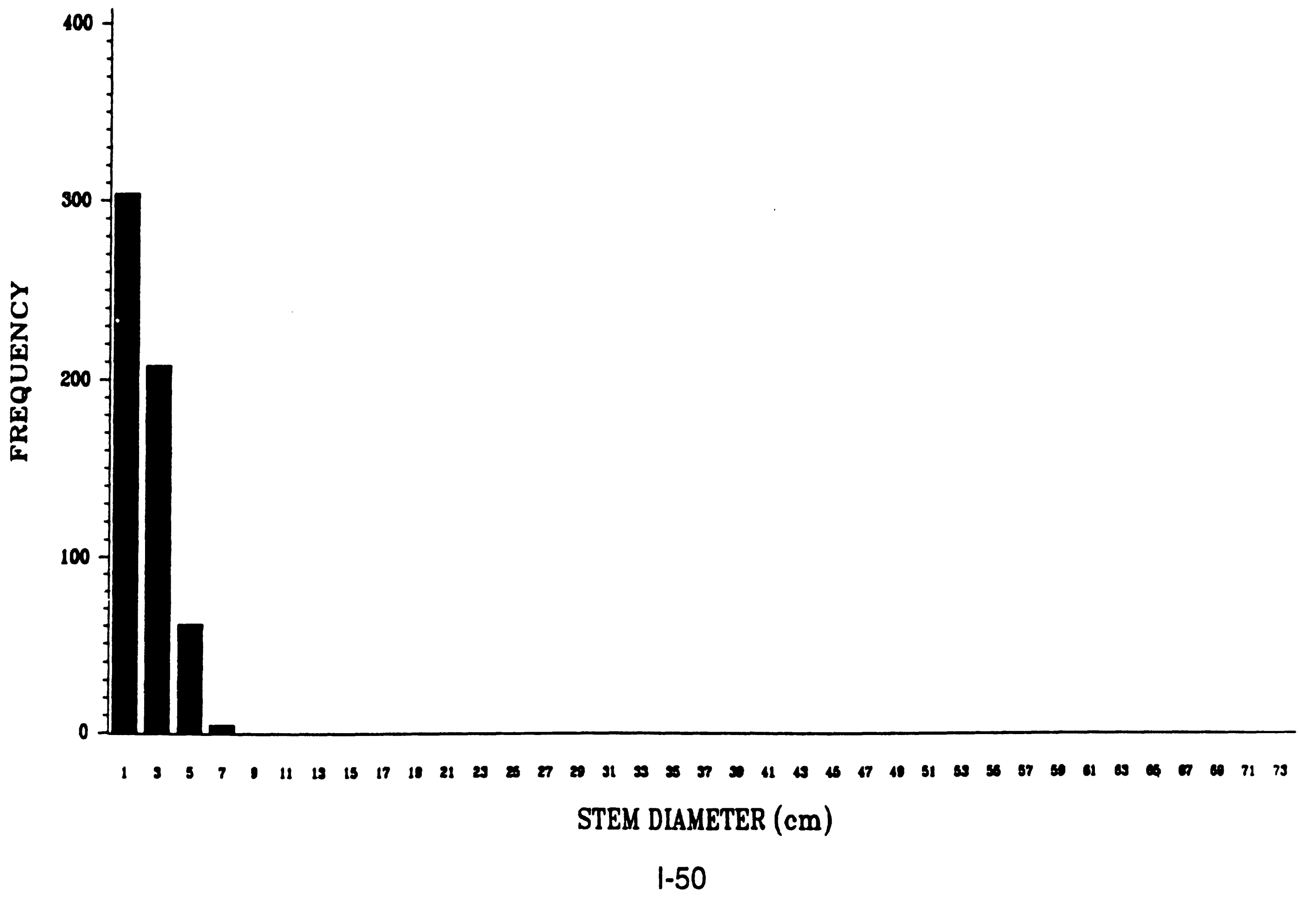

STAND=69
FREQUENCY
TREE HEIGHT (m)

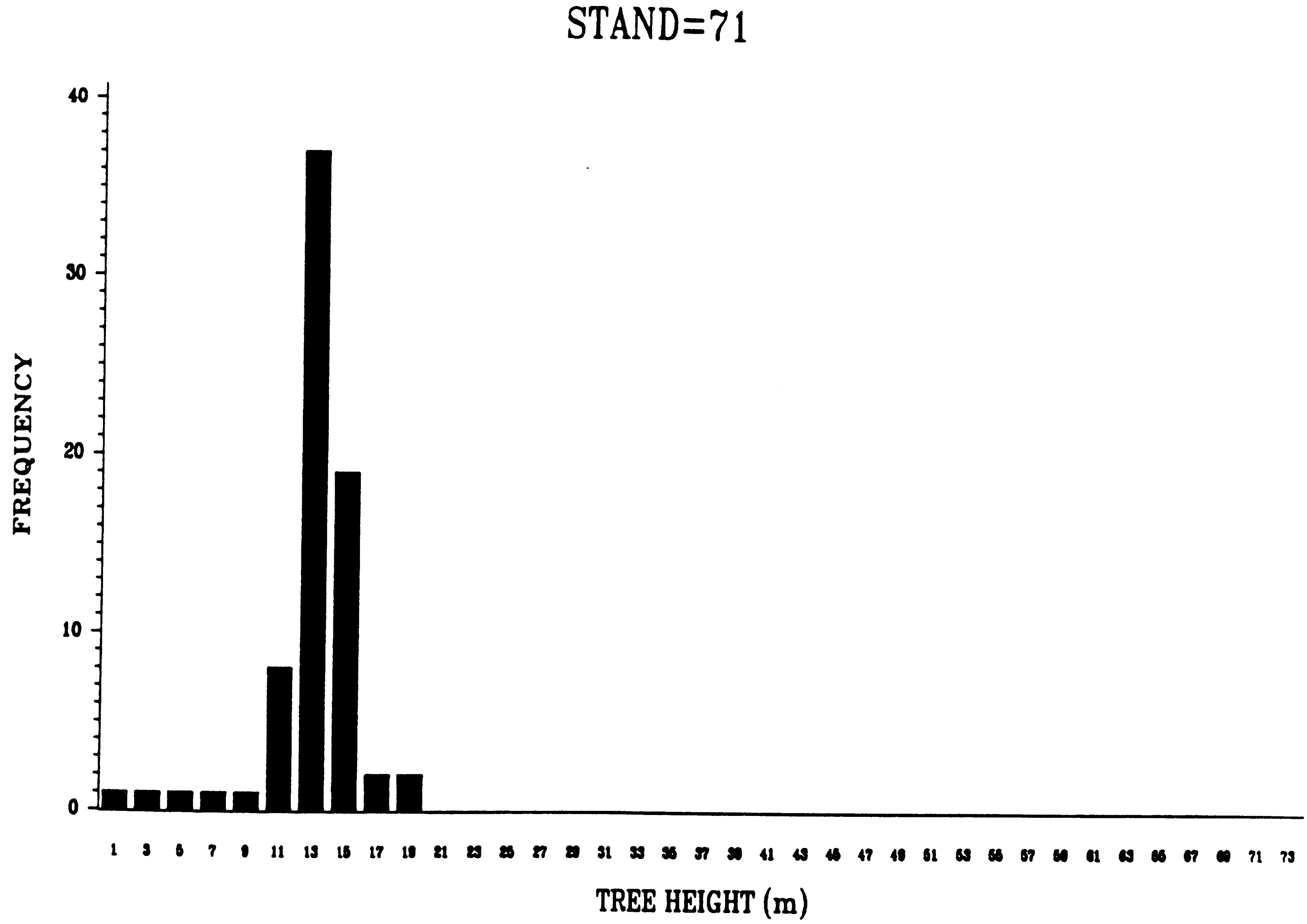

STAND=69
FREQUENCY
STEM DIAMETER (cm)

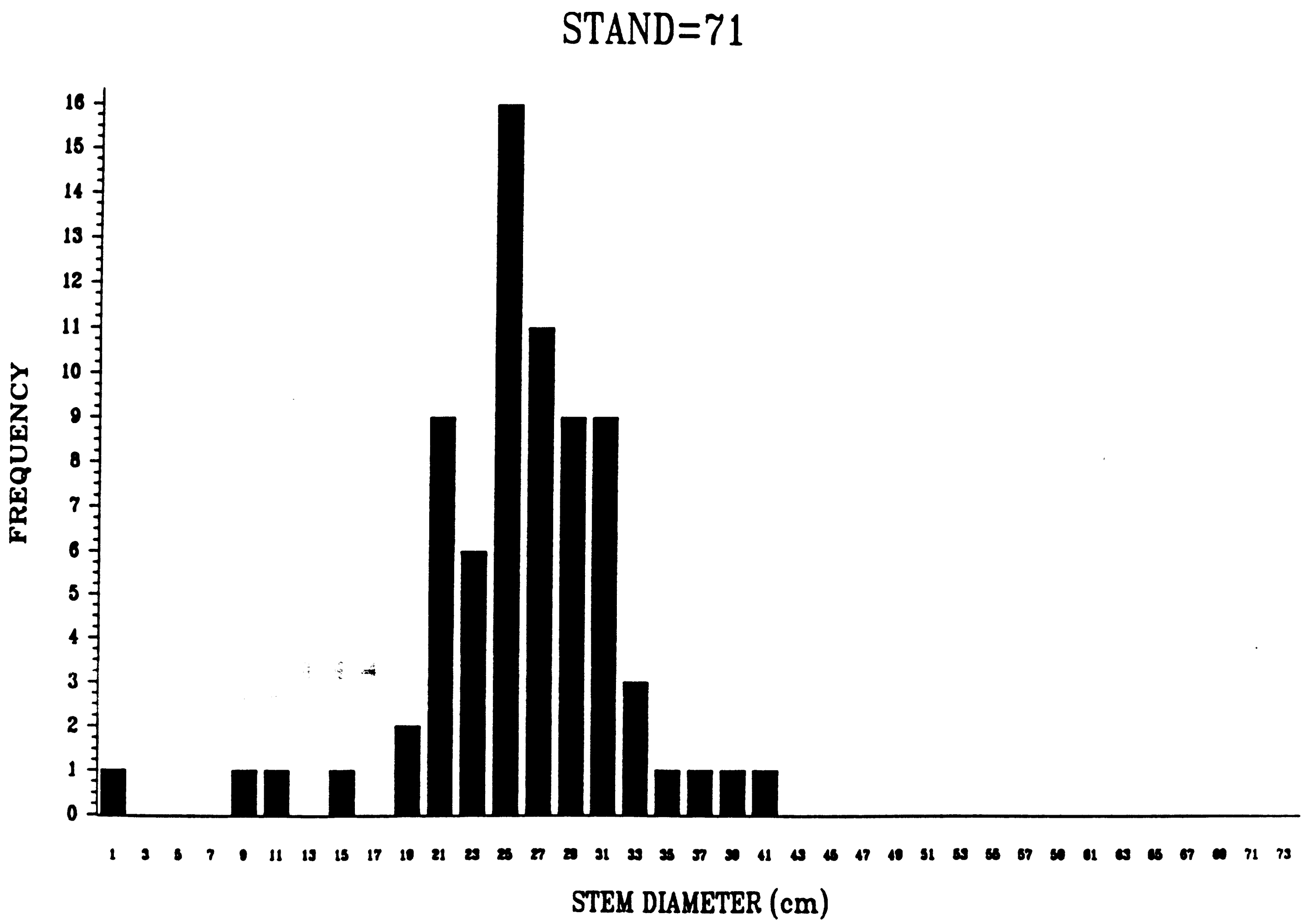
STAND=70

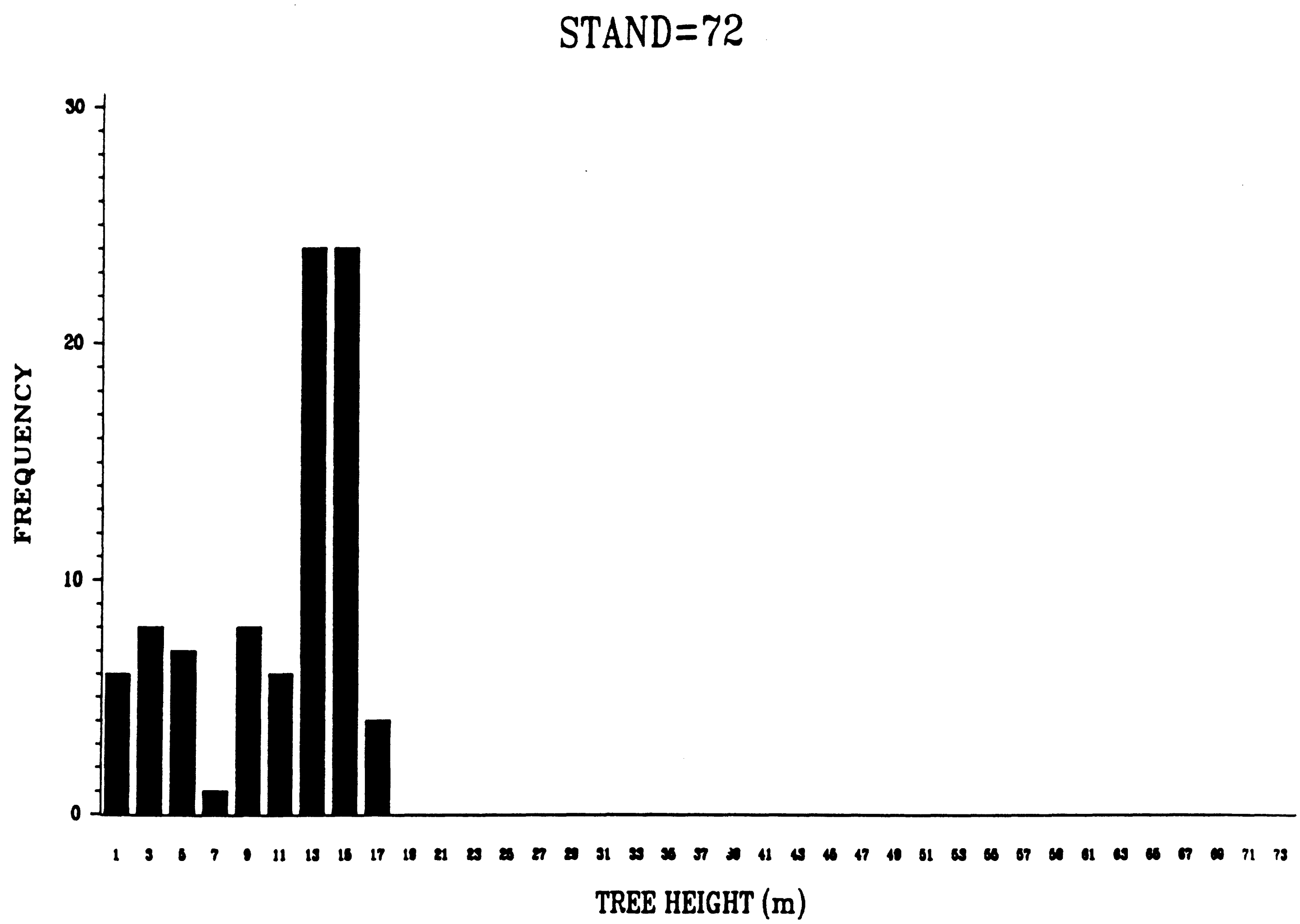


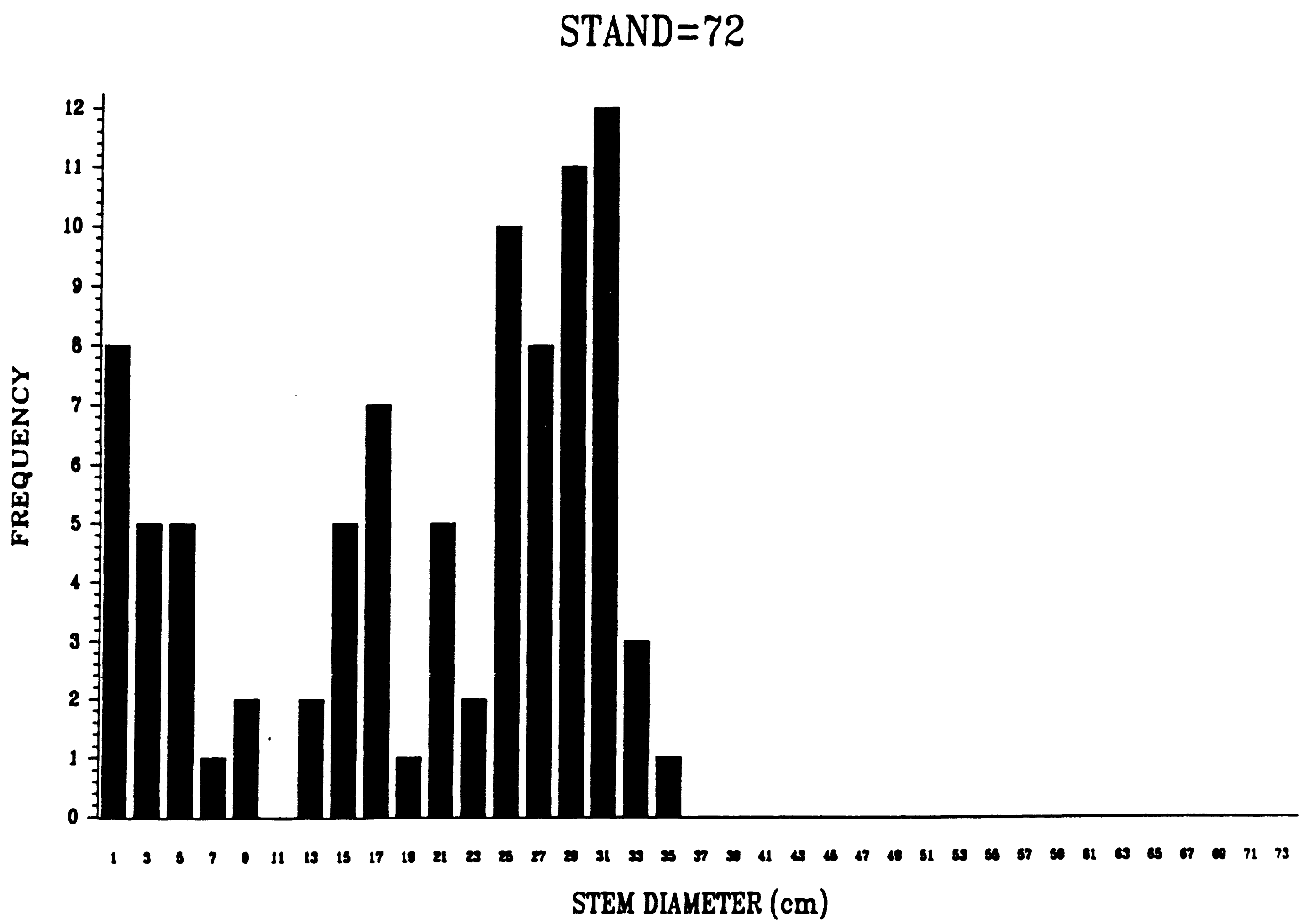
STAND=70

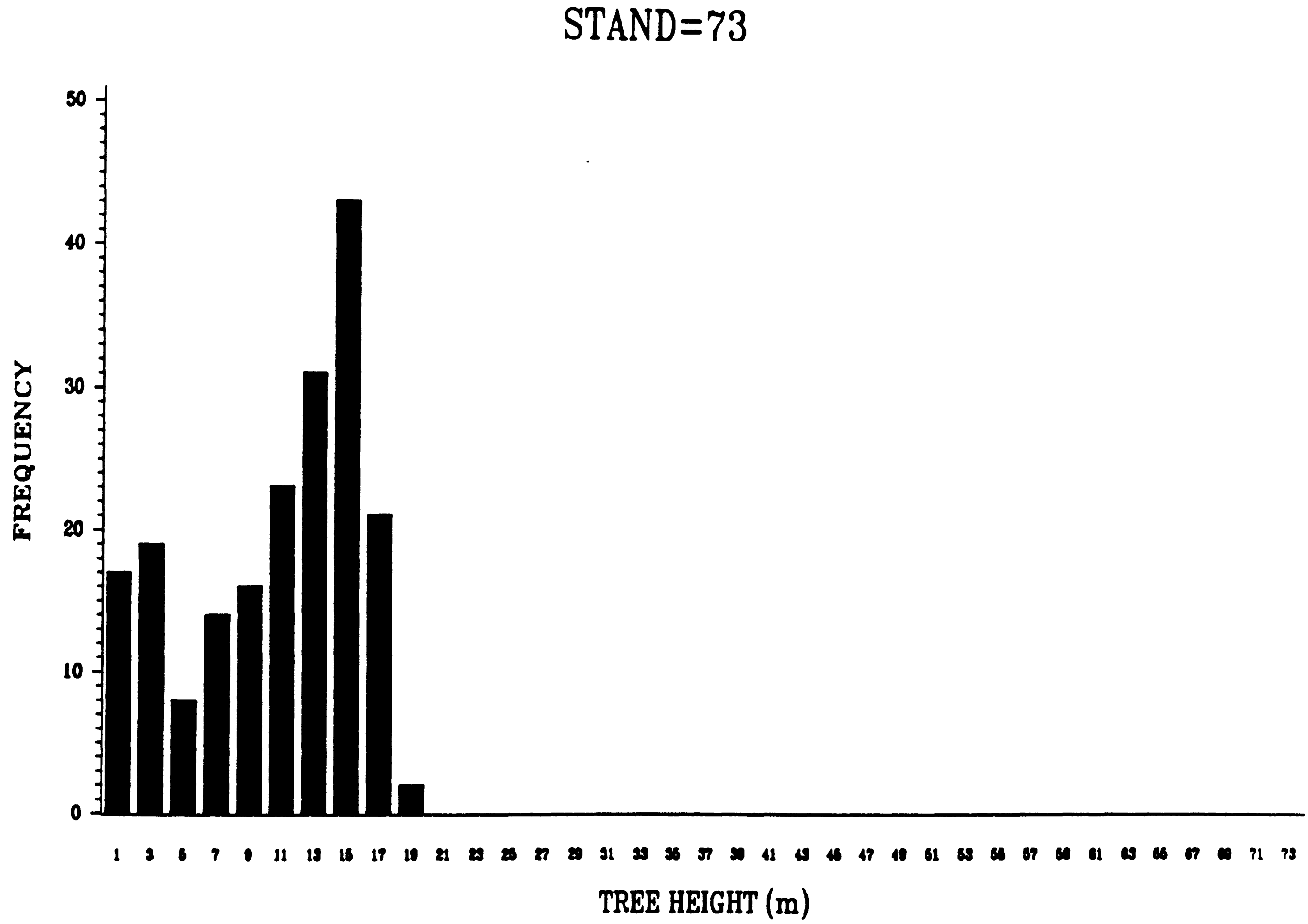



STAND=71
FREQUENCY
0
10
20
30
40
1 3 5 7 9 11 13 15 17 19 21 23 25 27 29 31 33 35 37 39 41 43 45 47 49 51 53 55 57 59 61 63 65 67 69 71 73
TREE HEIGHT (m)


STAND=71
FREQUENCY
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
1 3 5 7 9 11 13 15 17 19 21 23 25 27 29 31 33 35 37 39 41 43 45 47 49 51 53 55 57 59 61 63 65 67 69 71 73
STEM DIAMETER (cm)


STAND=72
FREQUENCY
TREE HEIGHT (m)


STAND=72
FREQUENCY
STEM DIAMETER (cm)


STAND=73
FREQUENCY
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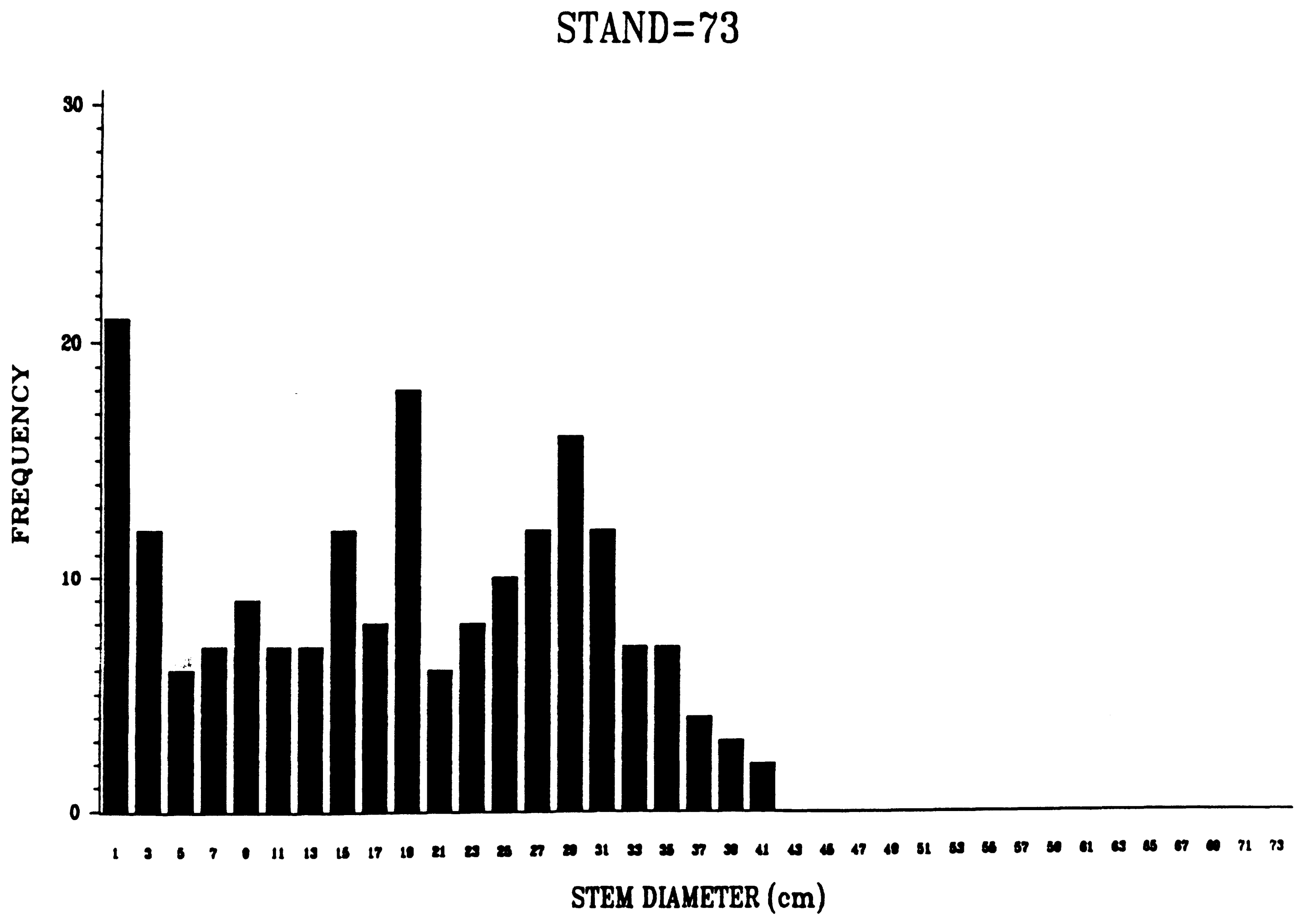
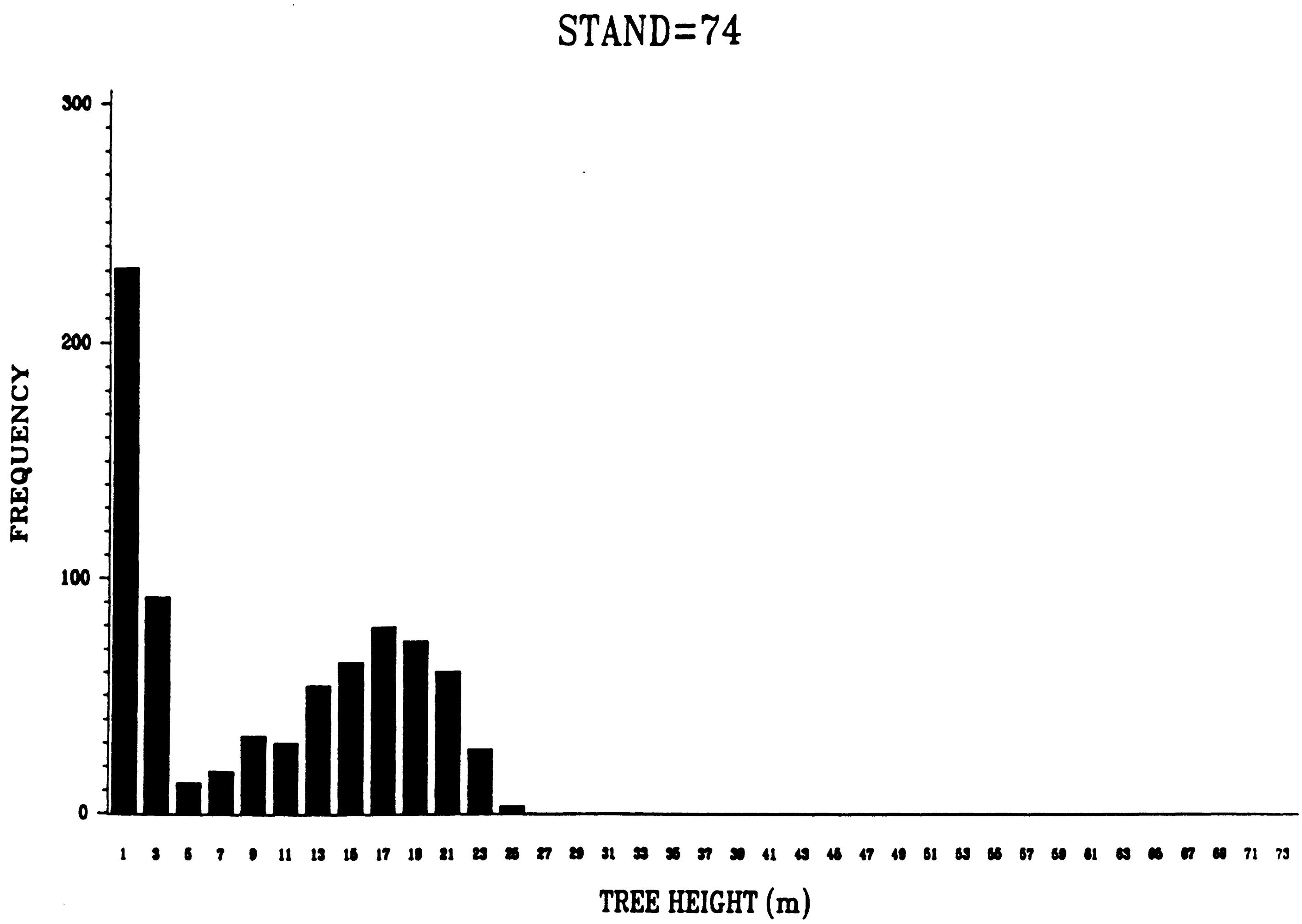
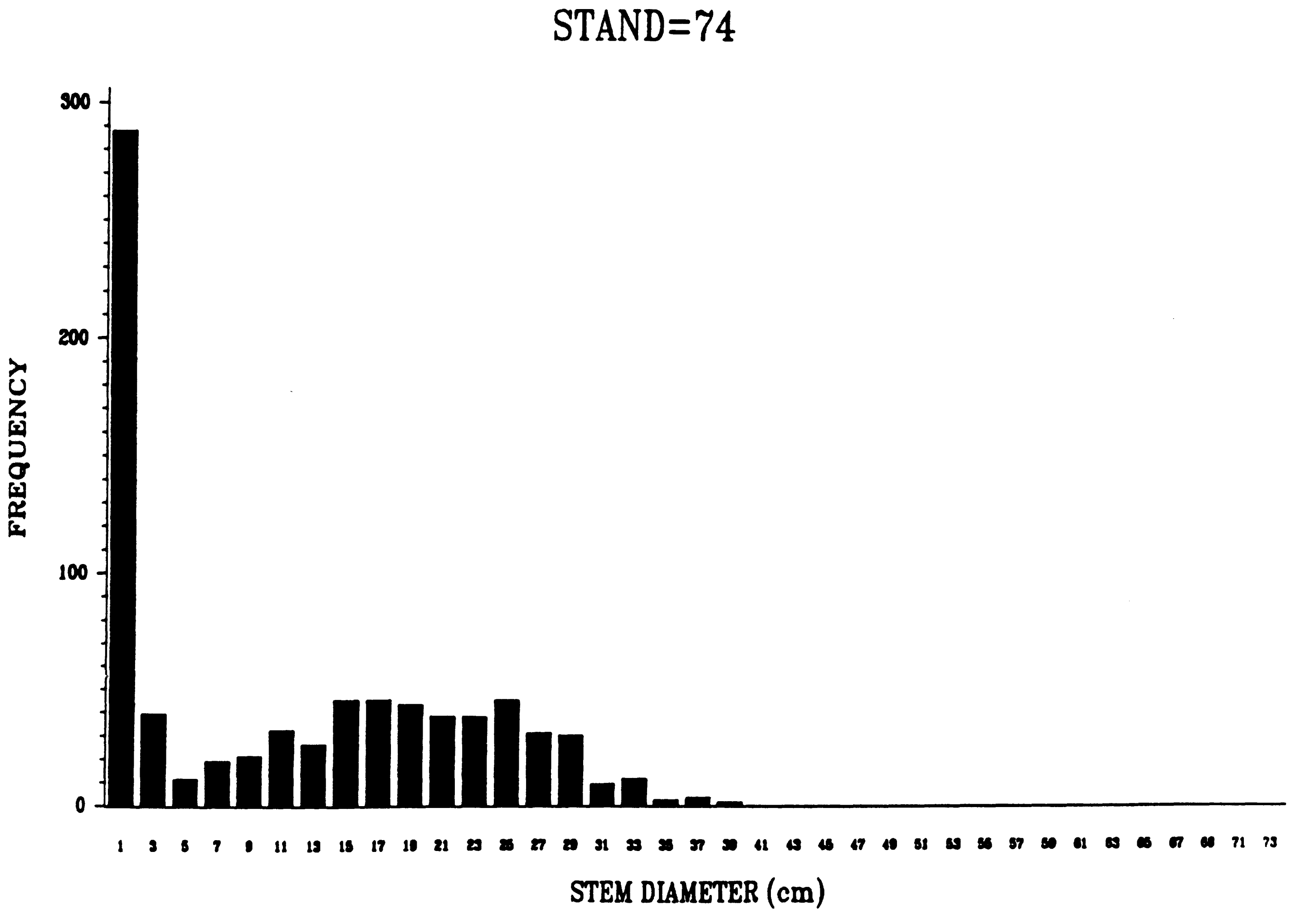
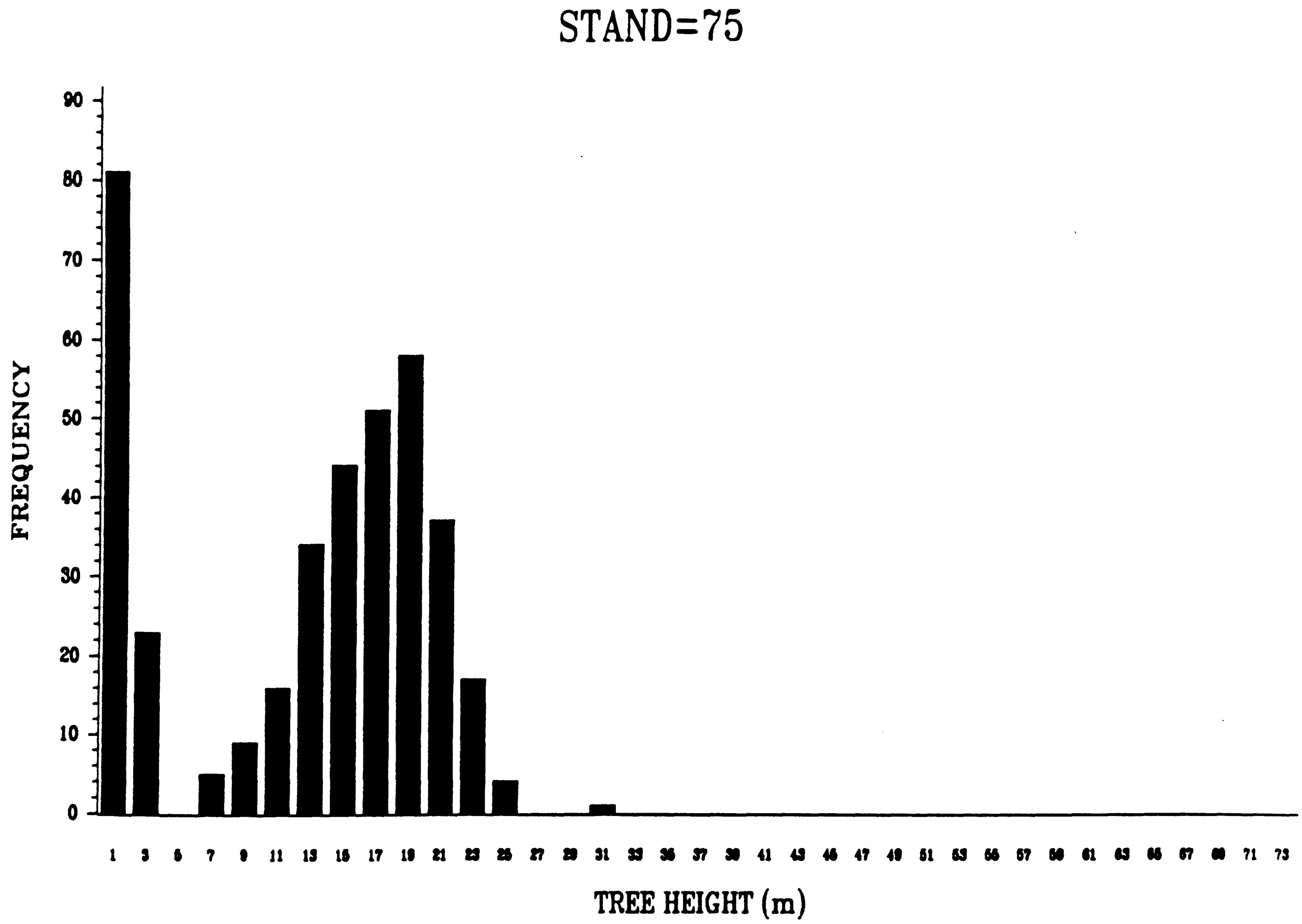
10
20
30
40
50
1 3 5 7 9 11 13 15 17 19 21 23 25 27 29 31 33 35 37 39 41 43 45 47 49 51 53 55 57 59 61 63 65 67 69 71 73
TREE HEIGHT (m)


STAND=73
FREQUENCY
0
10
20
30
1 3 5 7 9 11 13 15 17 19 21 23 25 27 29 31 33 35 37 39 41 43 45 47 49 51 53 55 57 59 61 63 65 67 69 71 73
STEM DIAMETER (cm)


STAND=74
FREQUENCY
TREE HEIGHT (m)


STAND=74
FREQUENCY
STEM DIAMETER (cm)


STAND=75
FREQUENCY
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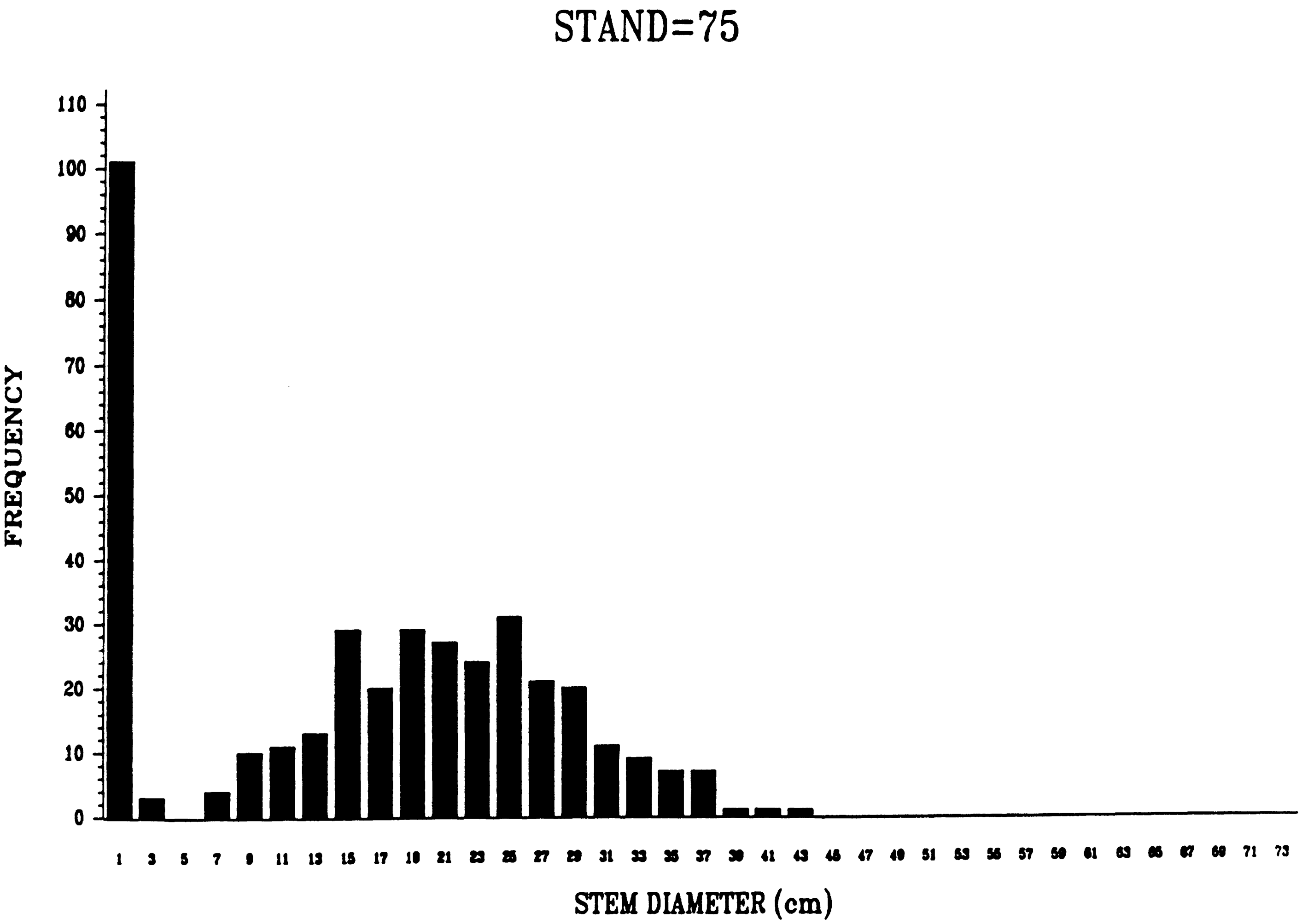
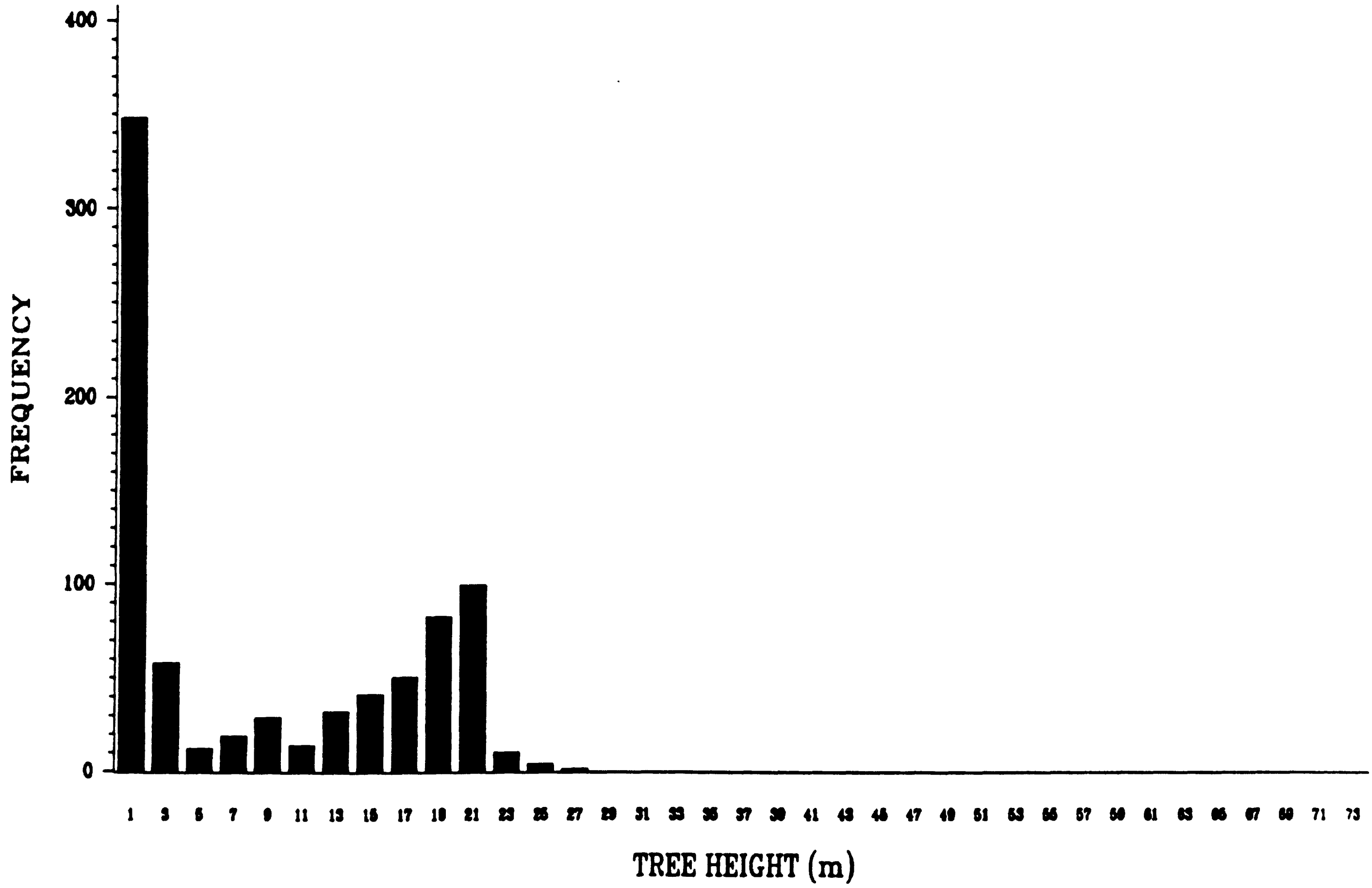
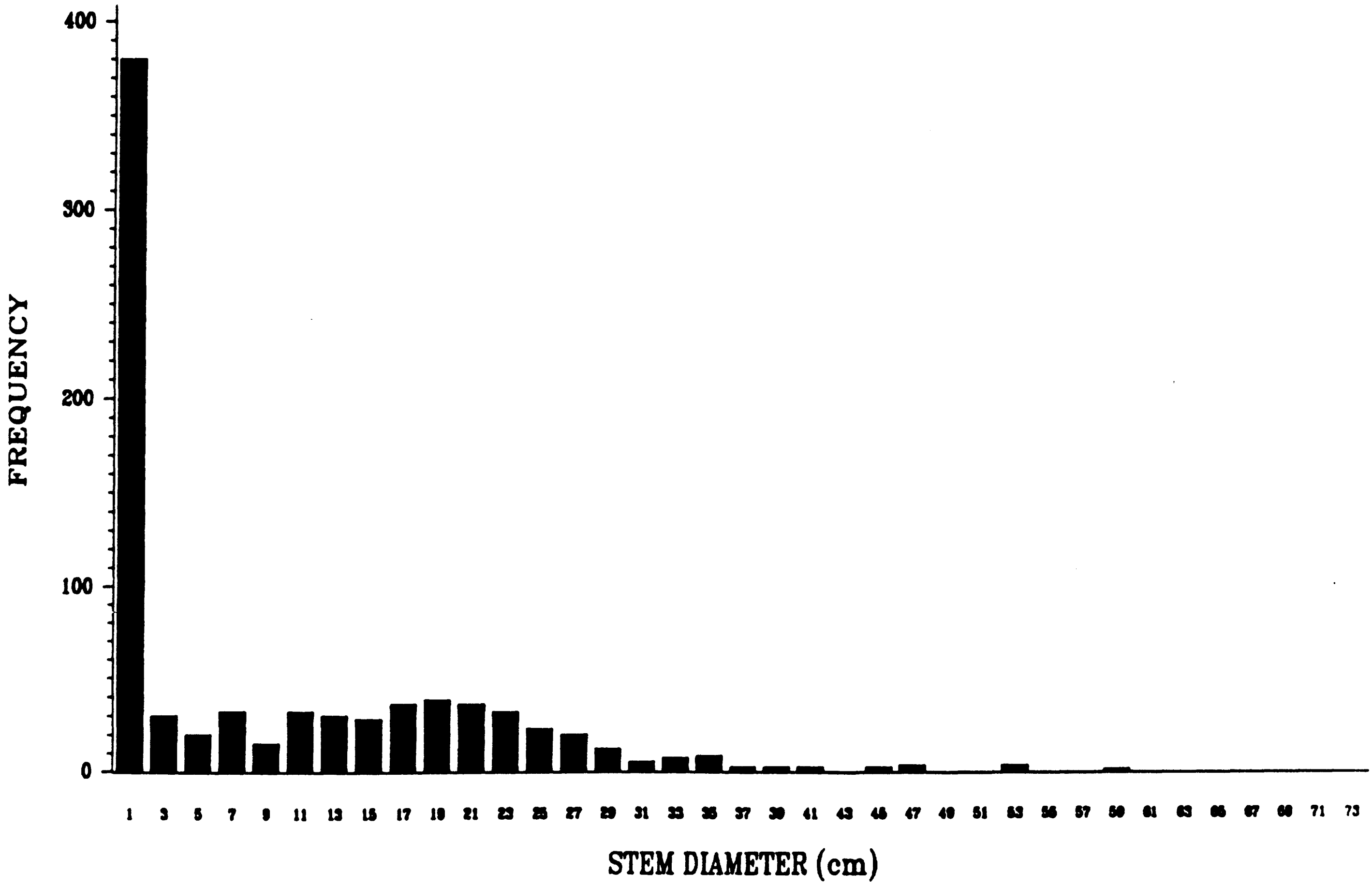
20
30
40
50
60
70
80
90
TREE HEIGHT (m)


STAND=75
FREQUENCY
0
10
20
30
40
50
60
70
80
90
100
110
STEM DIAMETER (cm)

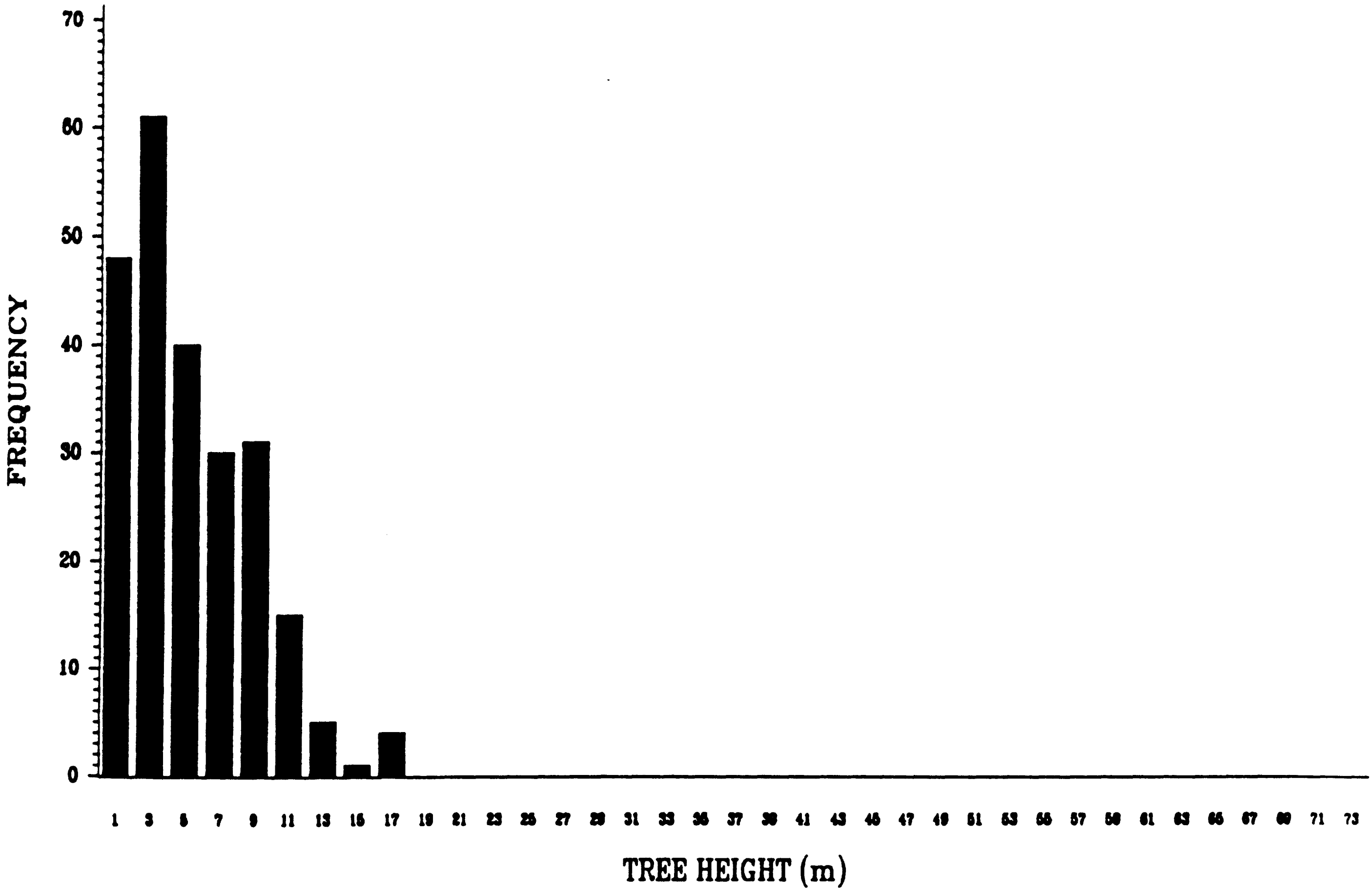
STAND=76



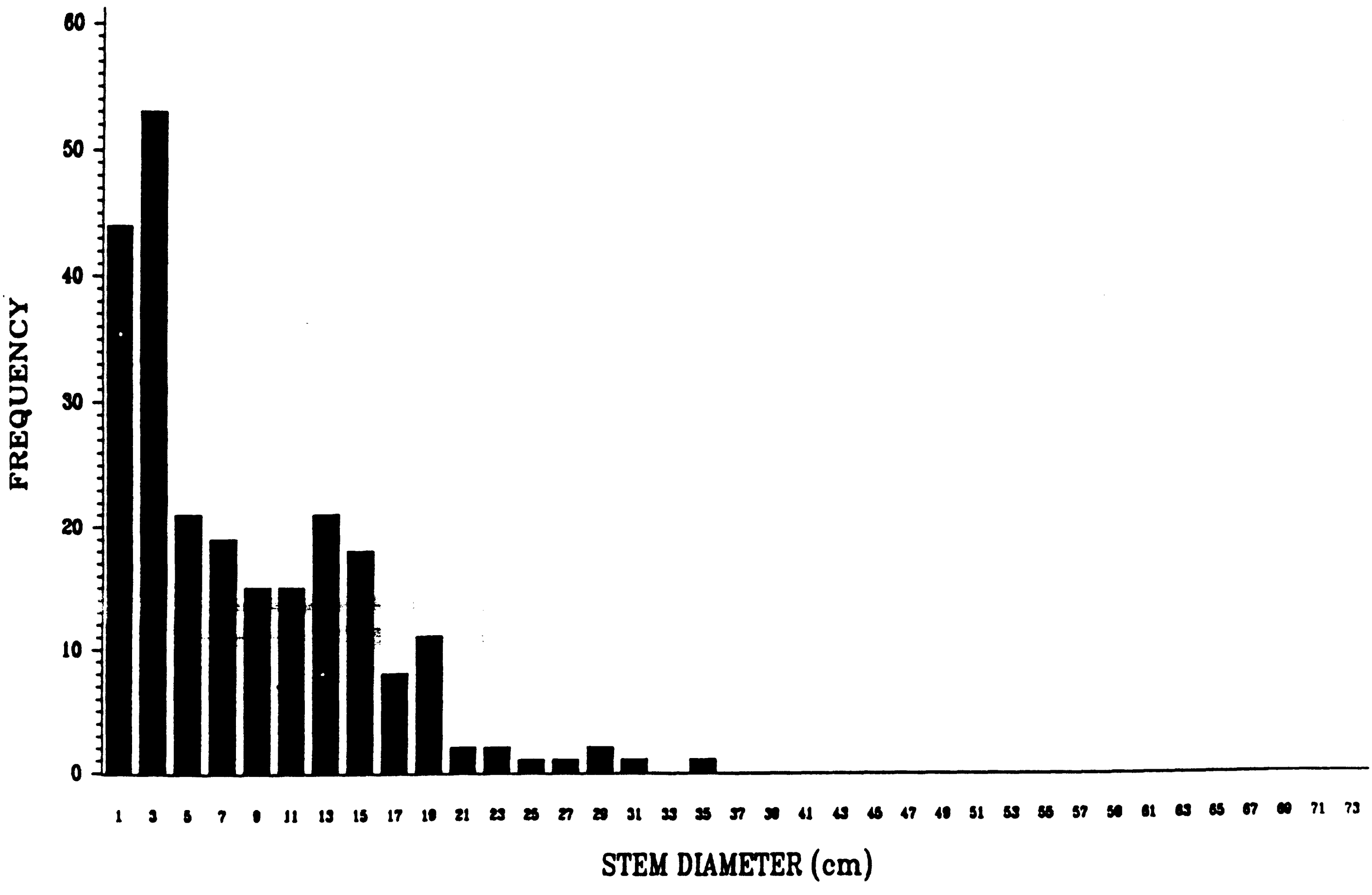
STAND=76

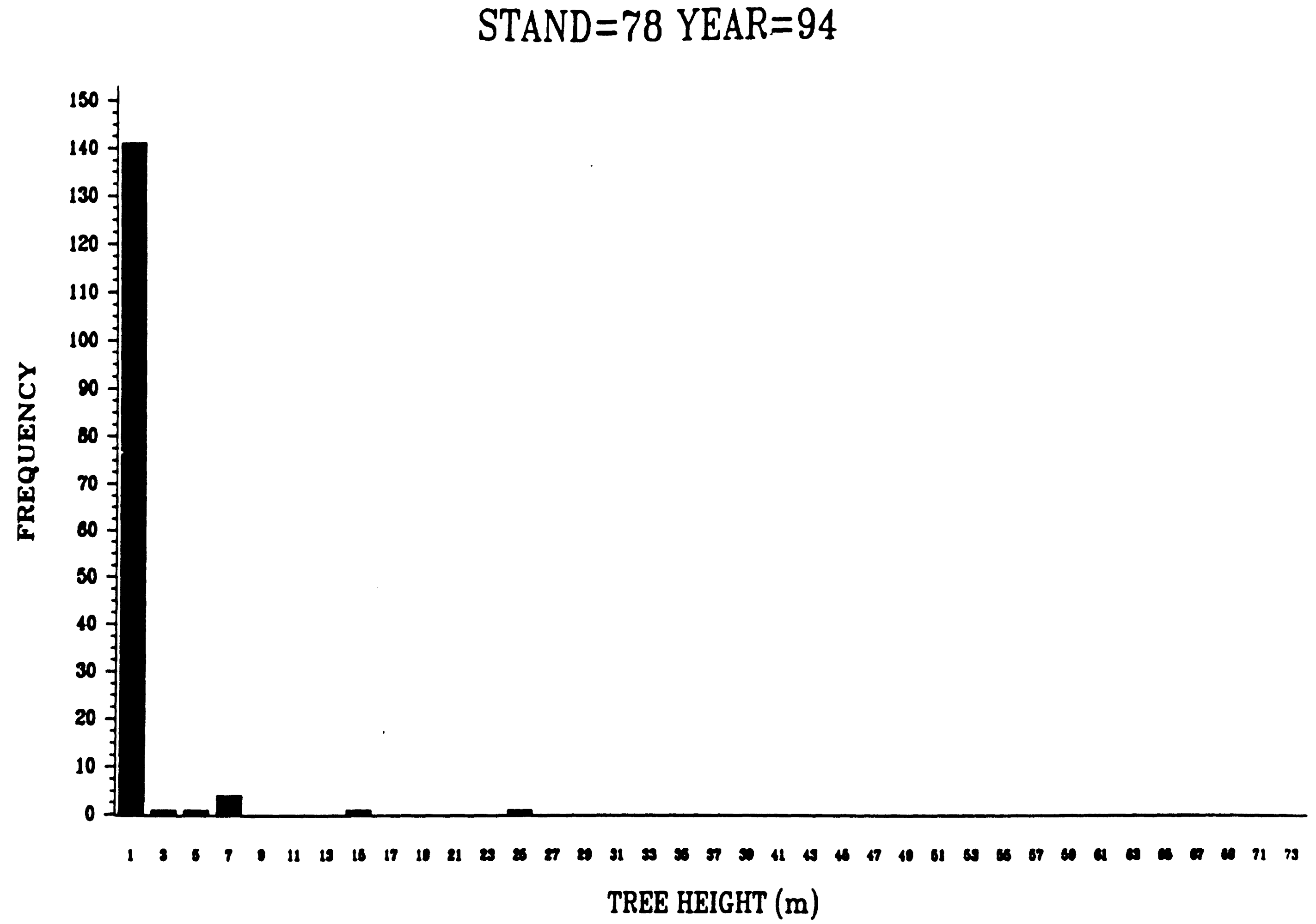


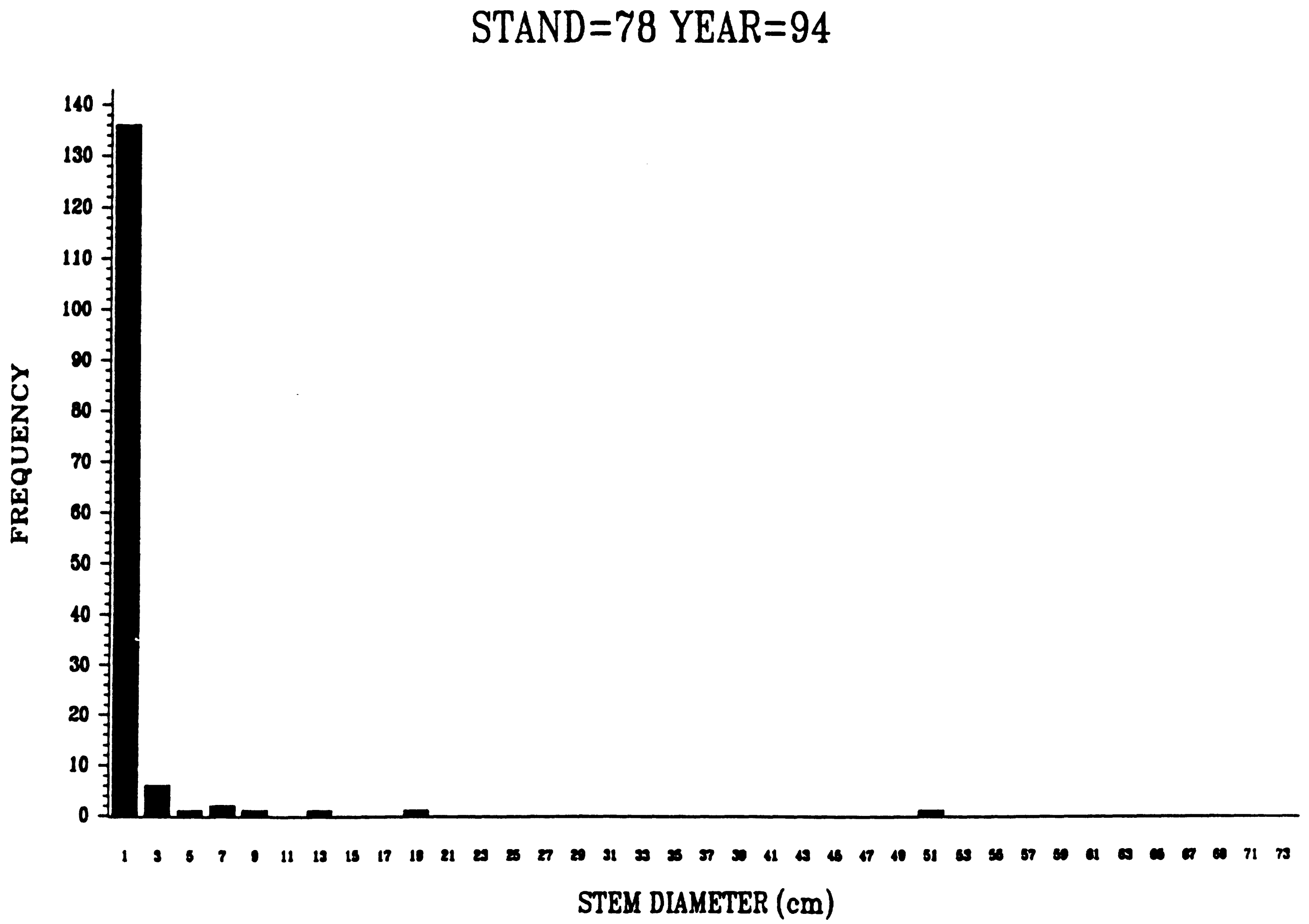
STAND=77 YEAR=94



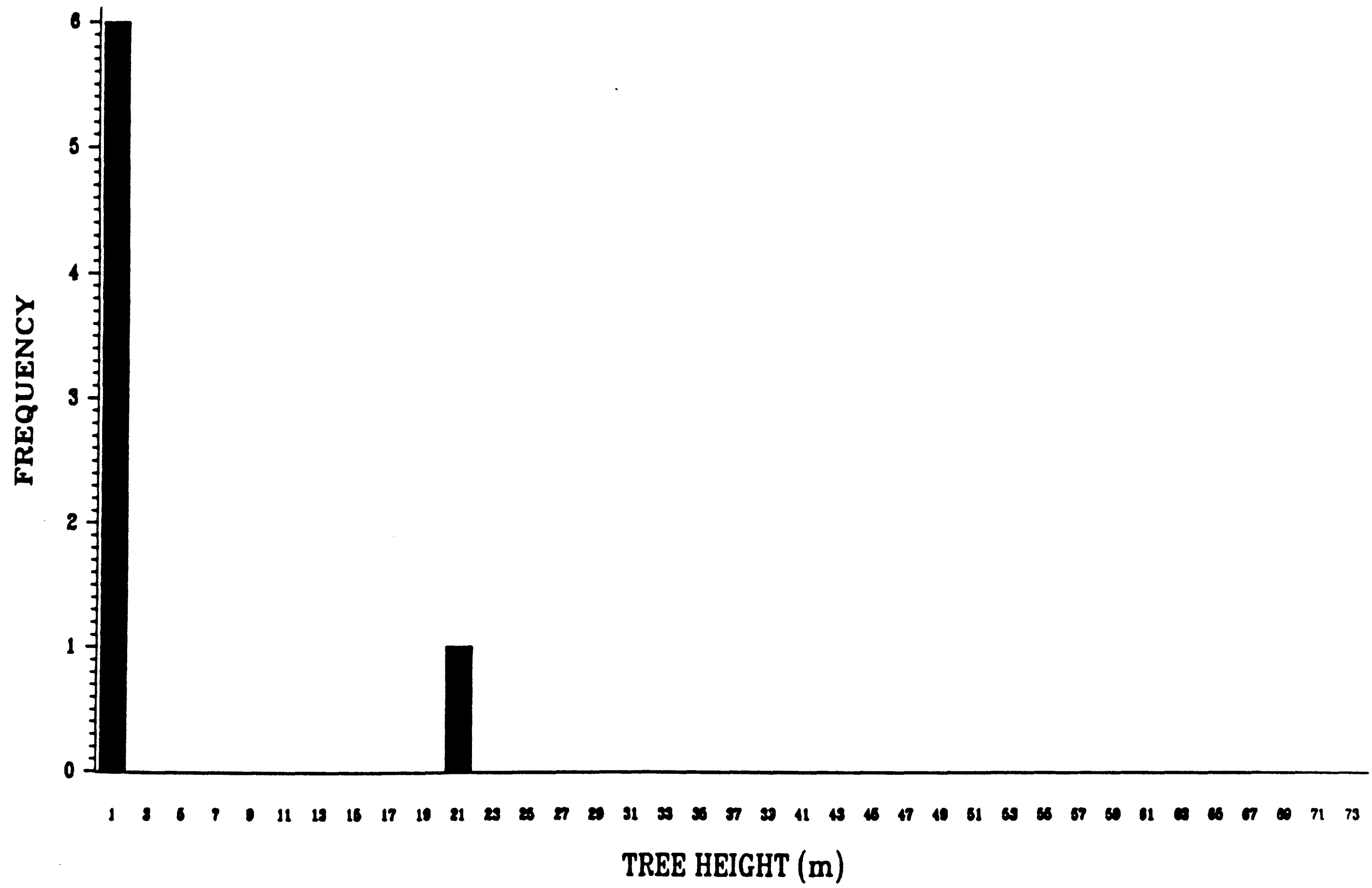
STAND=77 YEAR=94



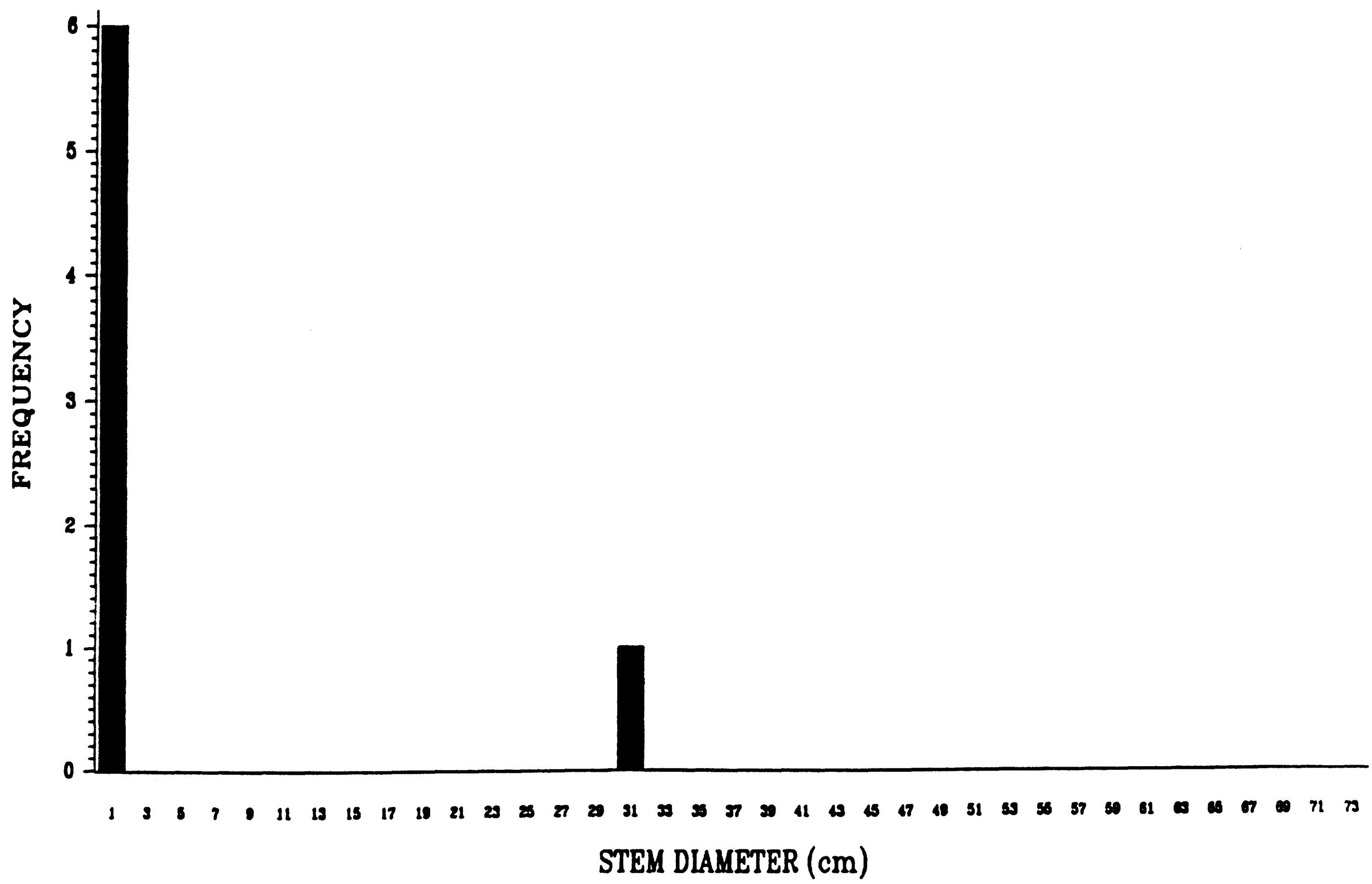

STAND=78 YEAR=94
FREQUENCY
TREE HEIGHT (m)


STAND=78 YEAR=94
FREQUENCY
STEM DIAMETER (cm)

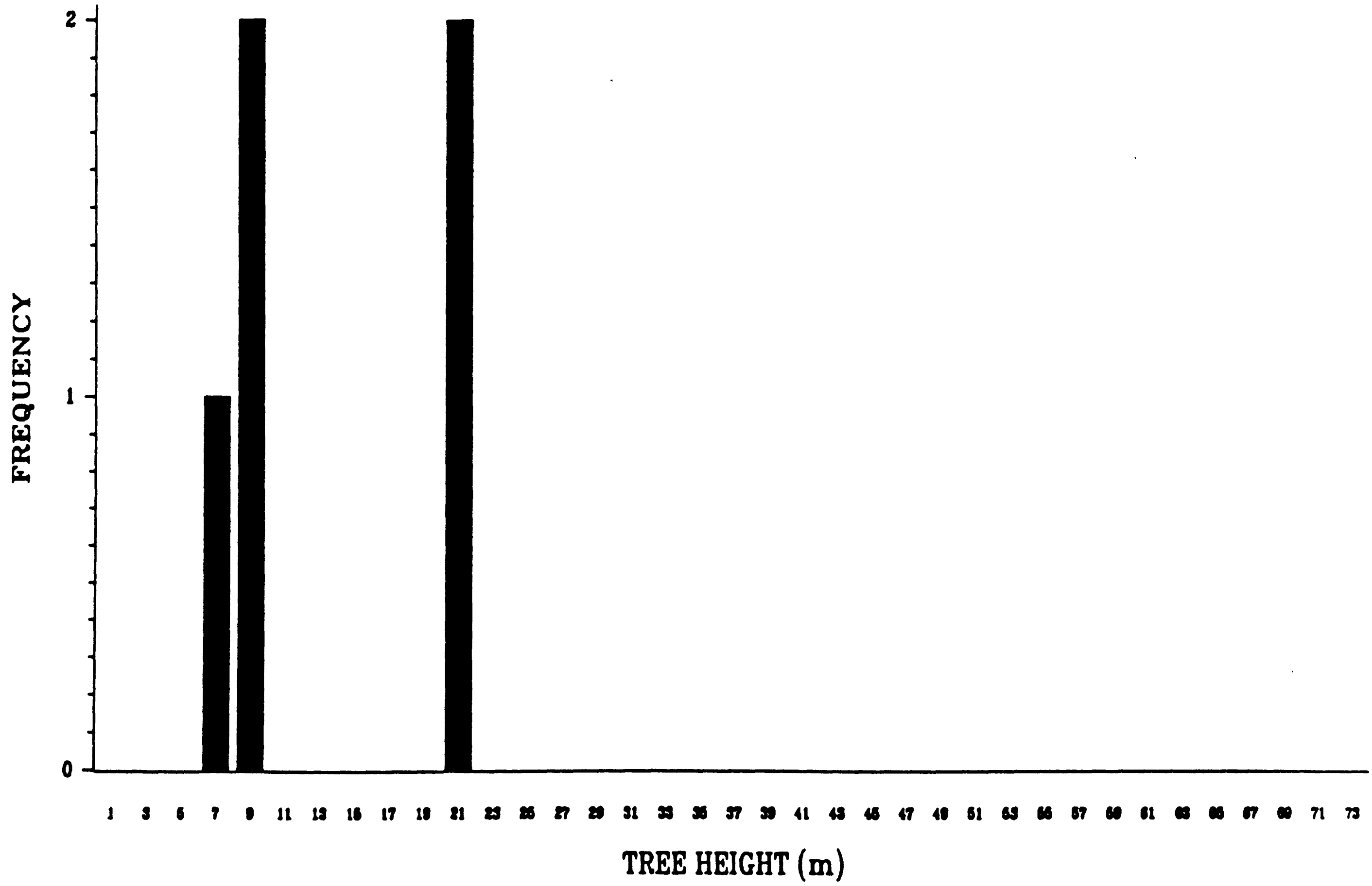
STAND=79 YEAR=94



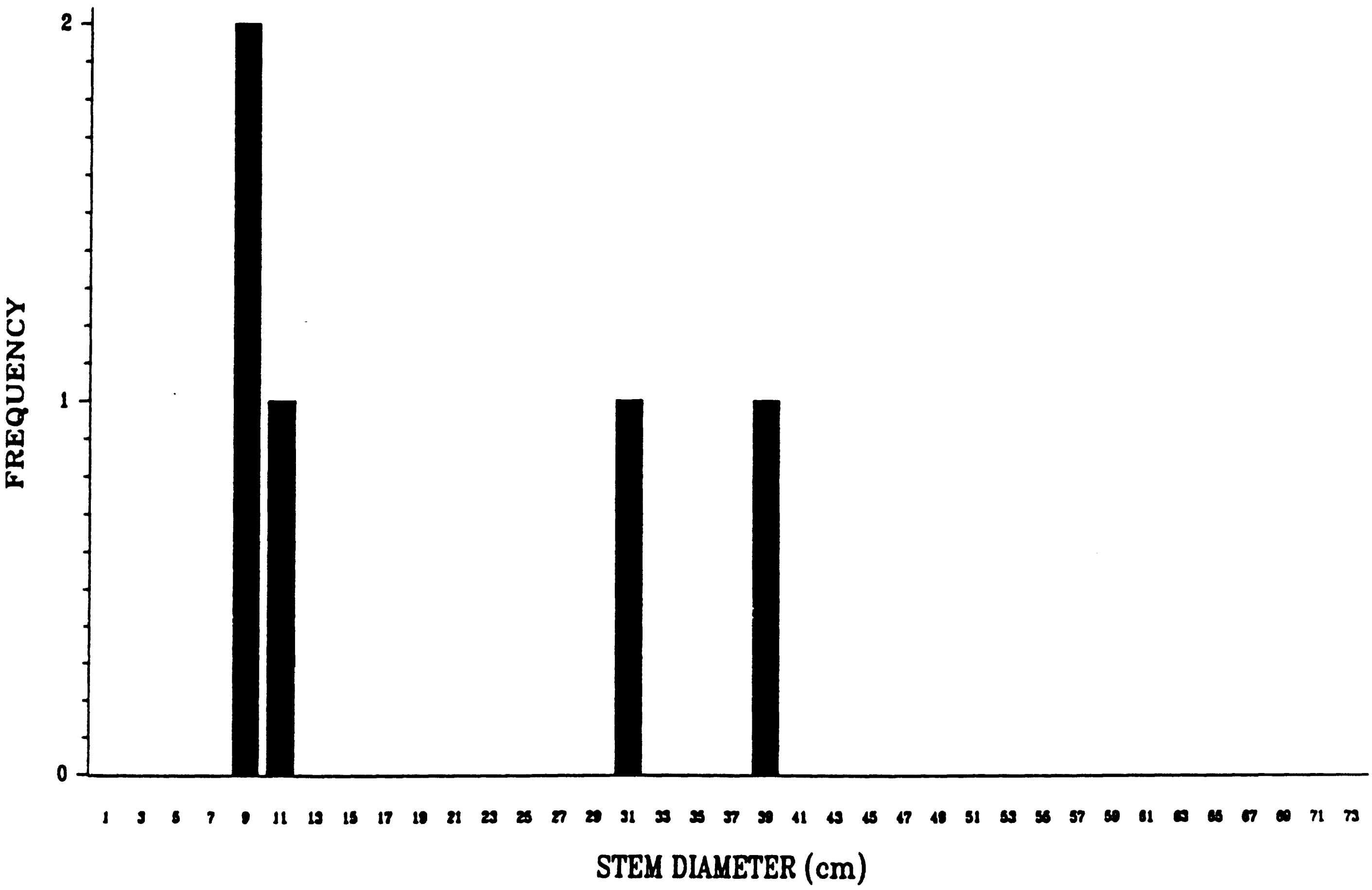
STAND=79 YEAR=94

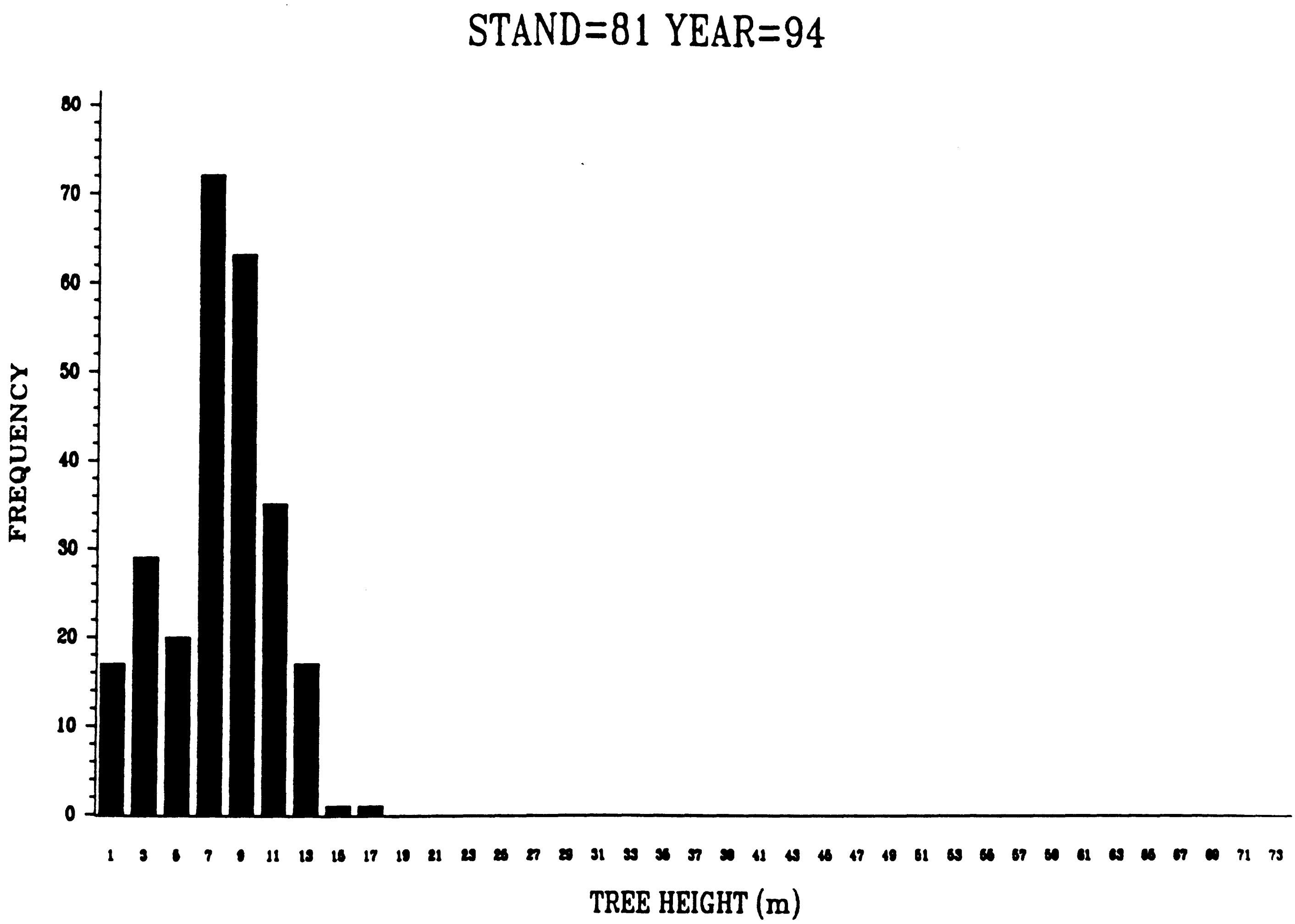


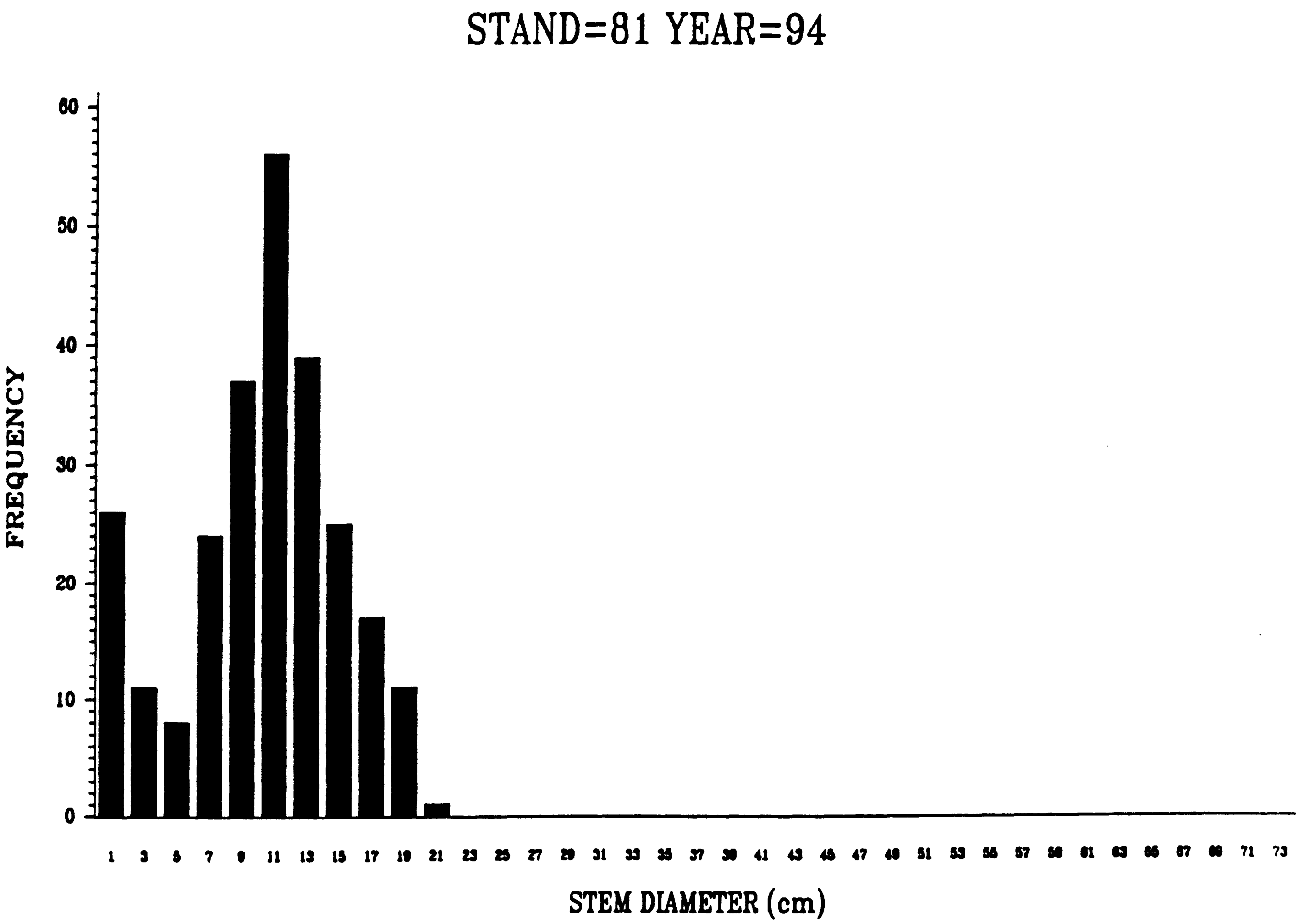
STAND=80 YEAR=94

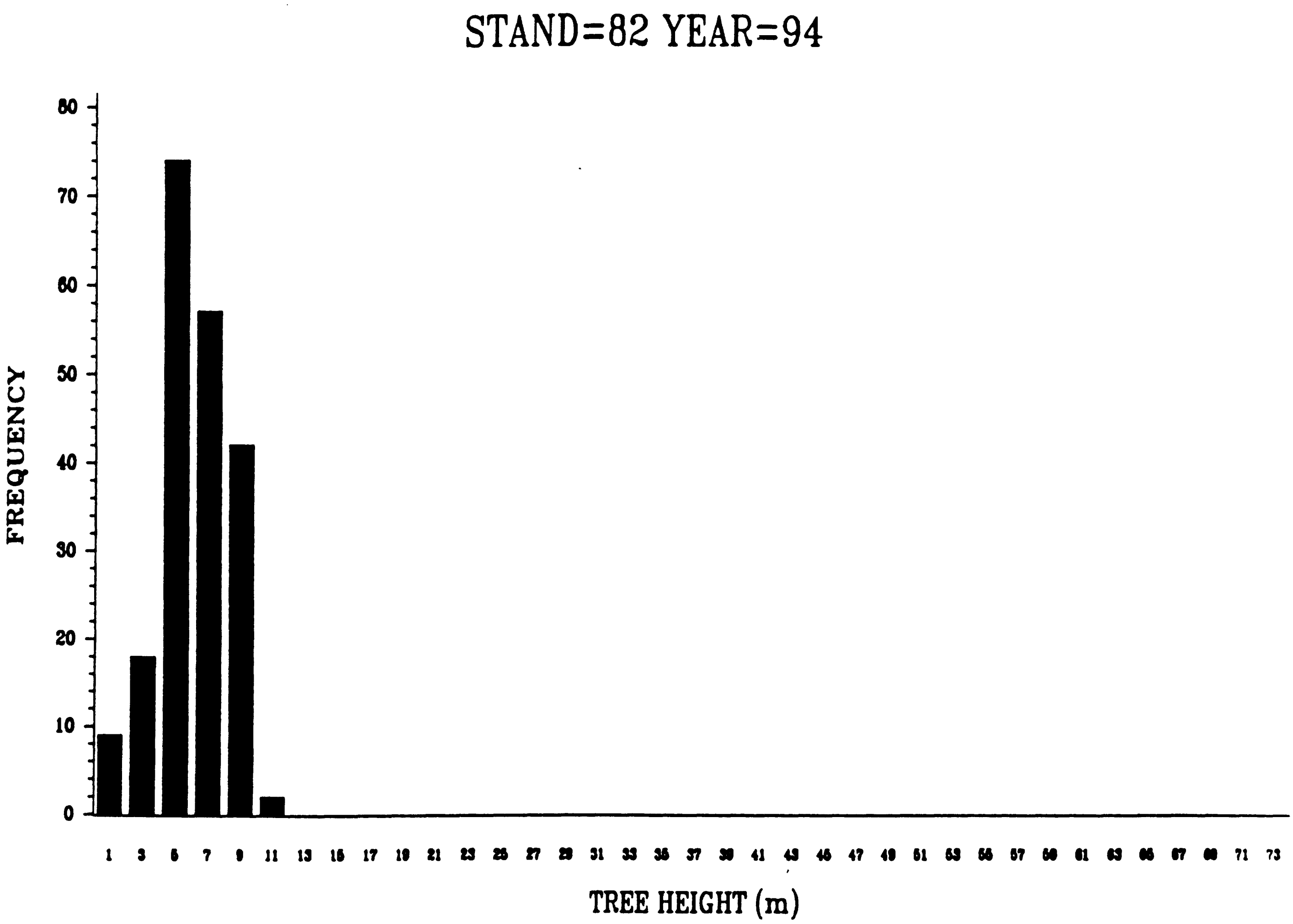


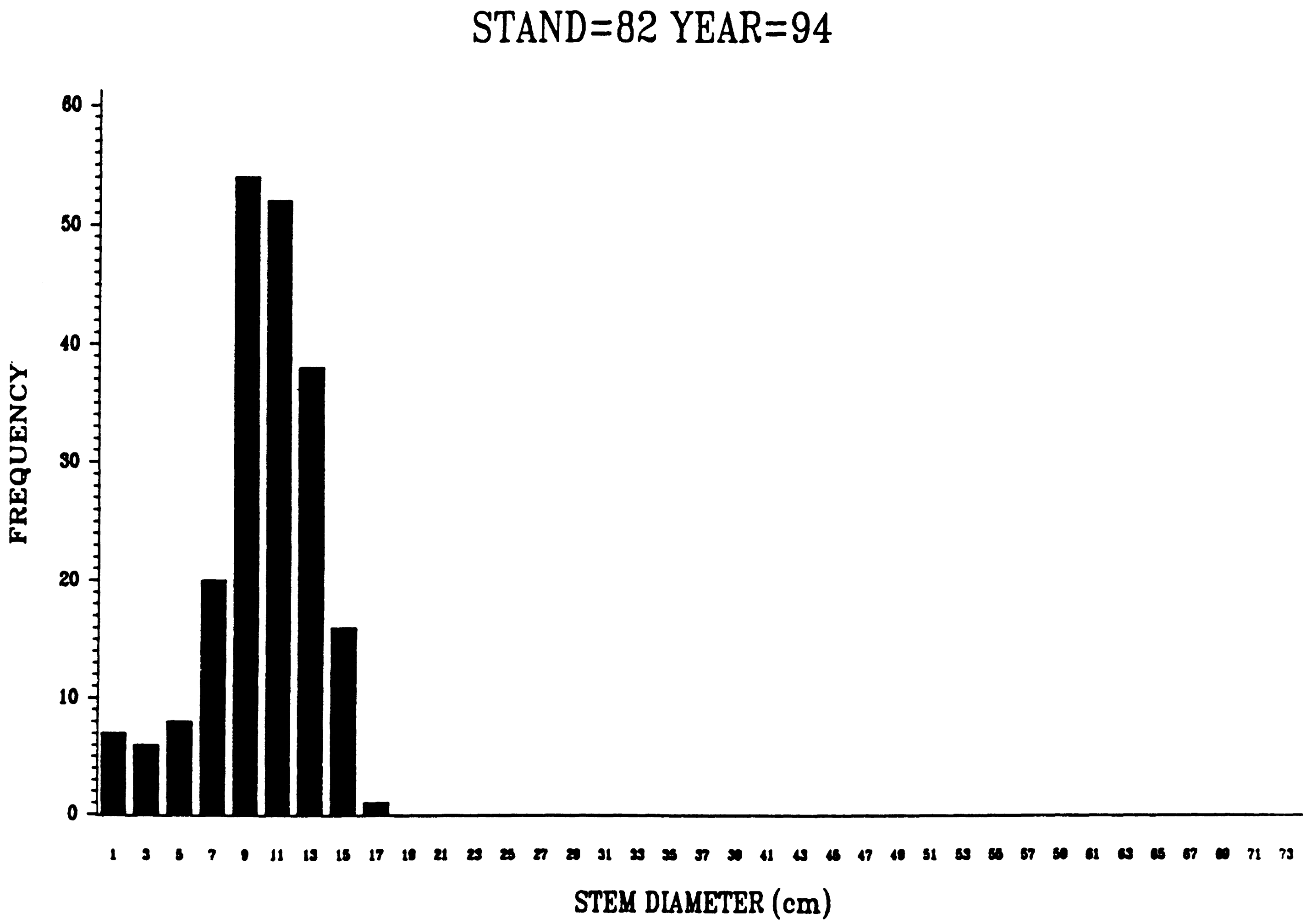
STAND=80 YEAR=94



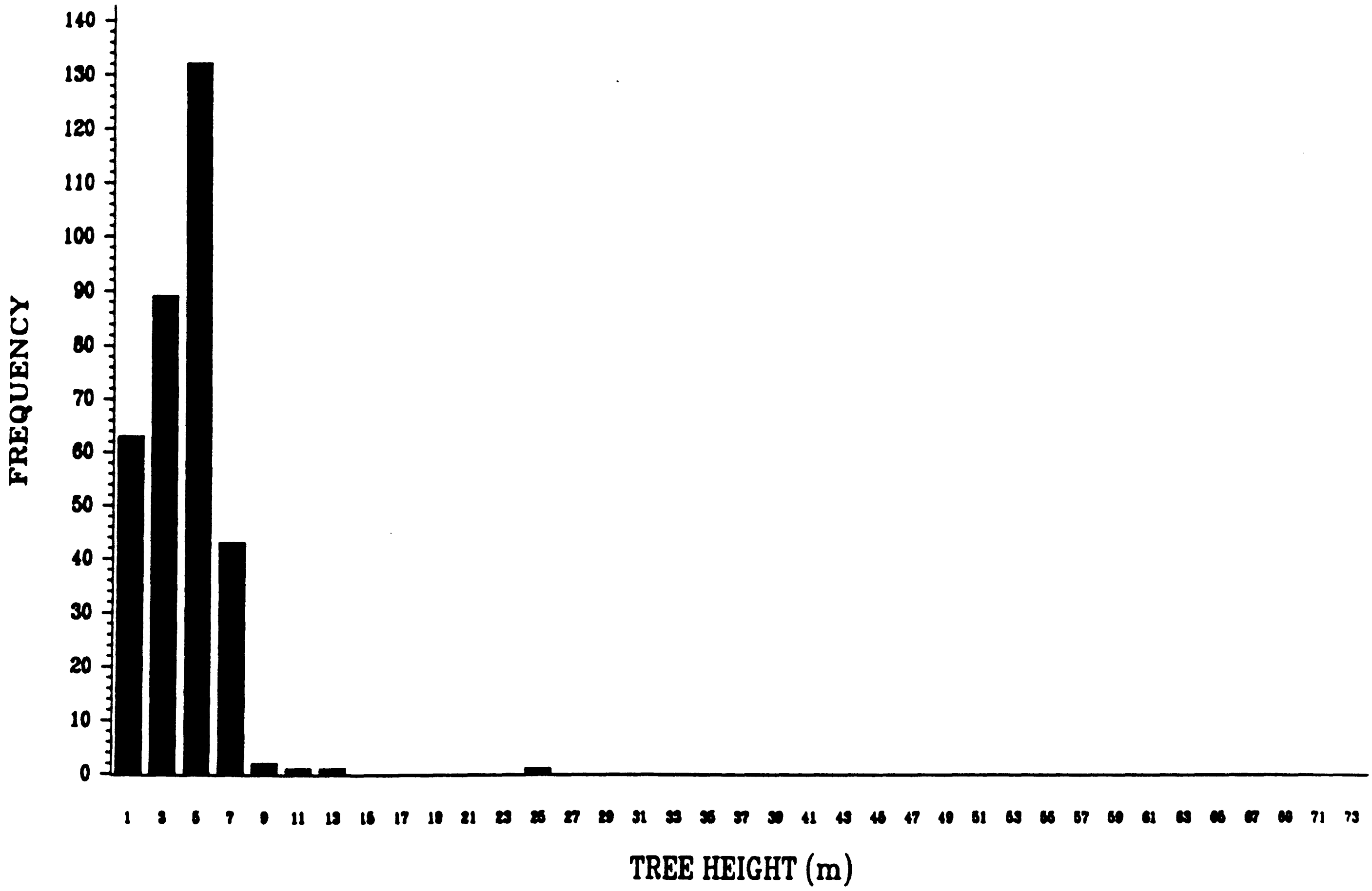

STAND=81 YEAR=94
FREQUENCY
TREE HEIGHT (m)


STAND=81 YEAR=94
FREQUENCY
STEM DIAMETER (cm)

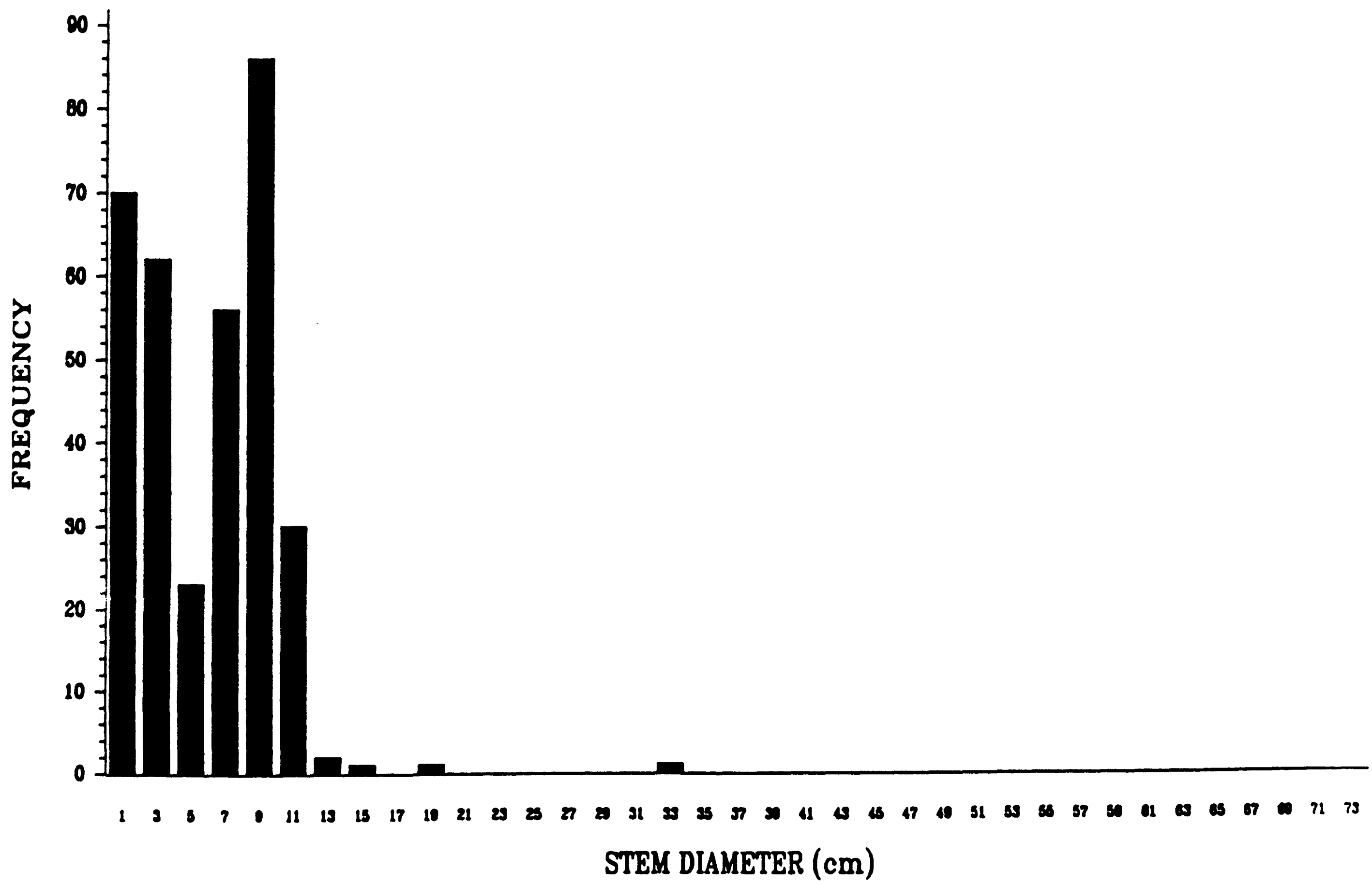

STAND=82 YEAR=94
FREQUENCY
TREE HEIGHT (m)


STAND=82 YEAR=94
FREQUENCY
STEM DIAMETER (cm)

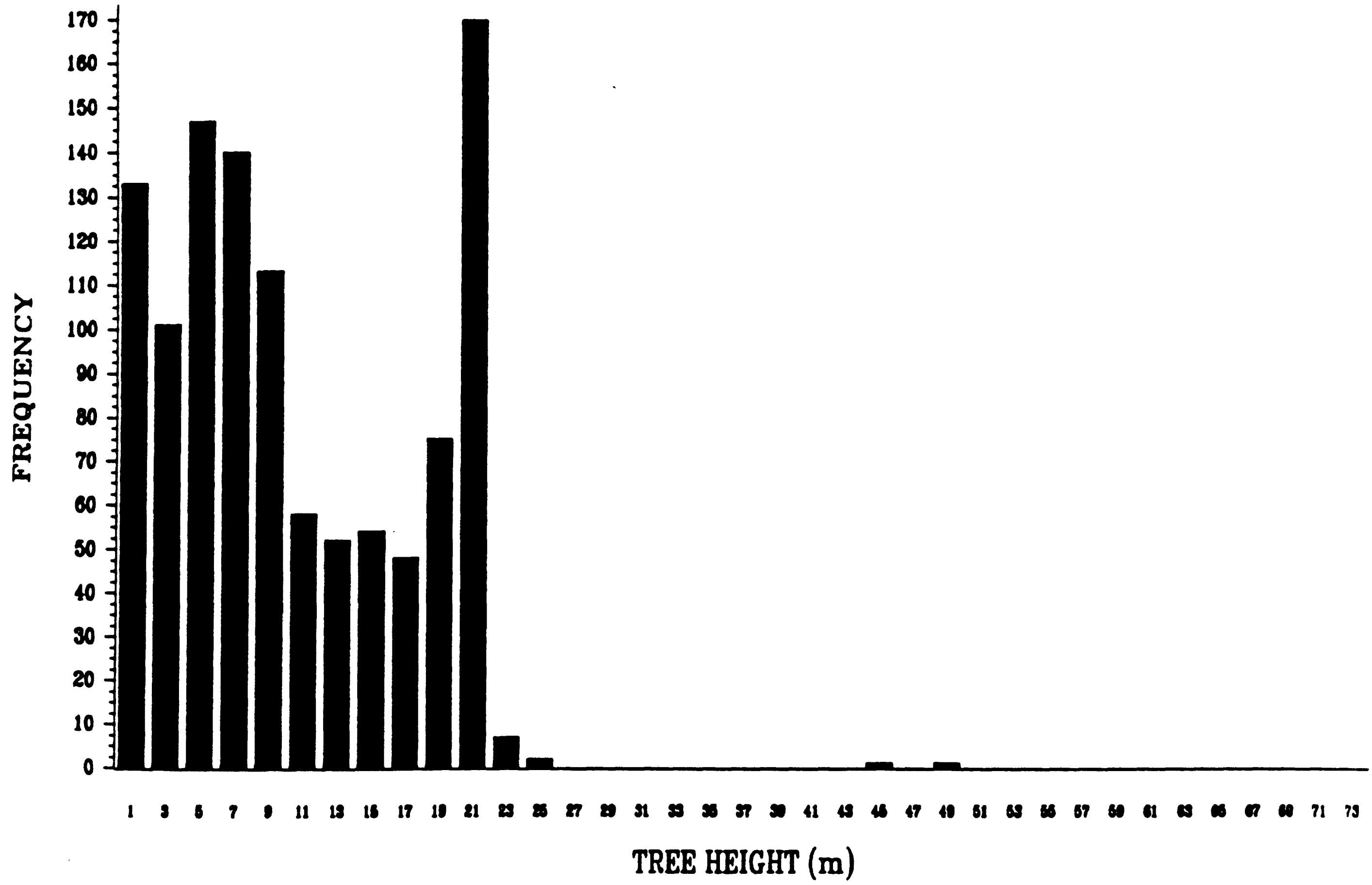
STAND=83 YEAR=94



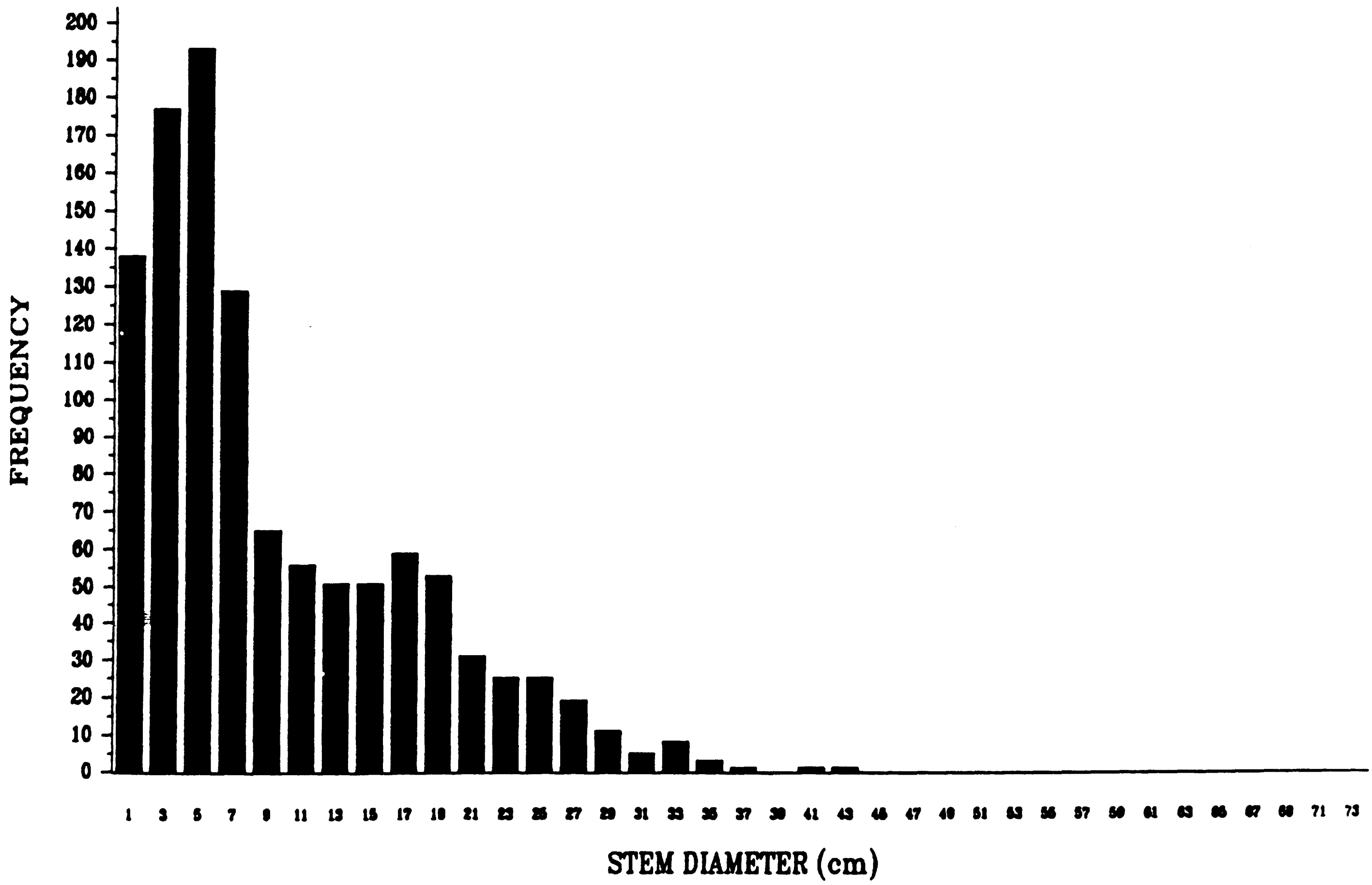
STAND=83 YEAR=94

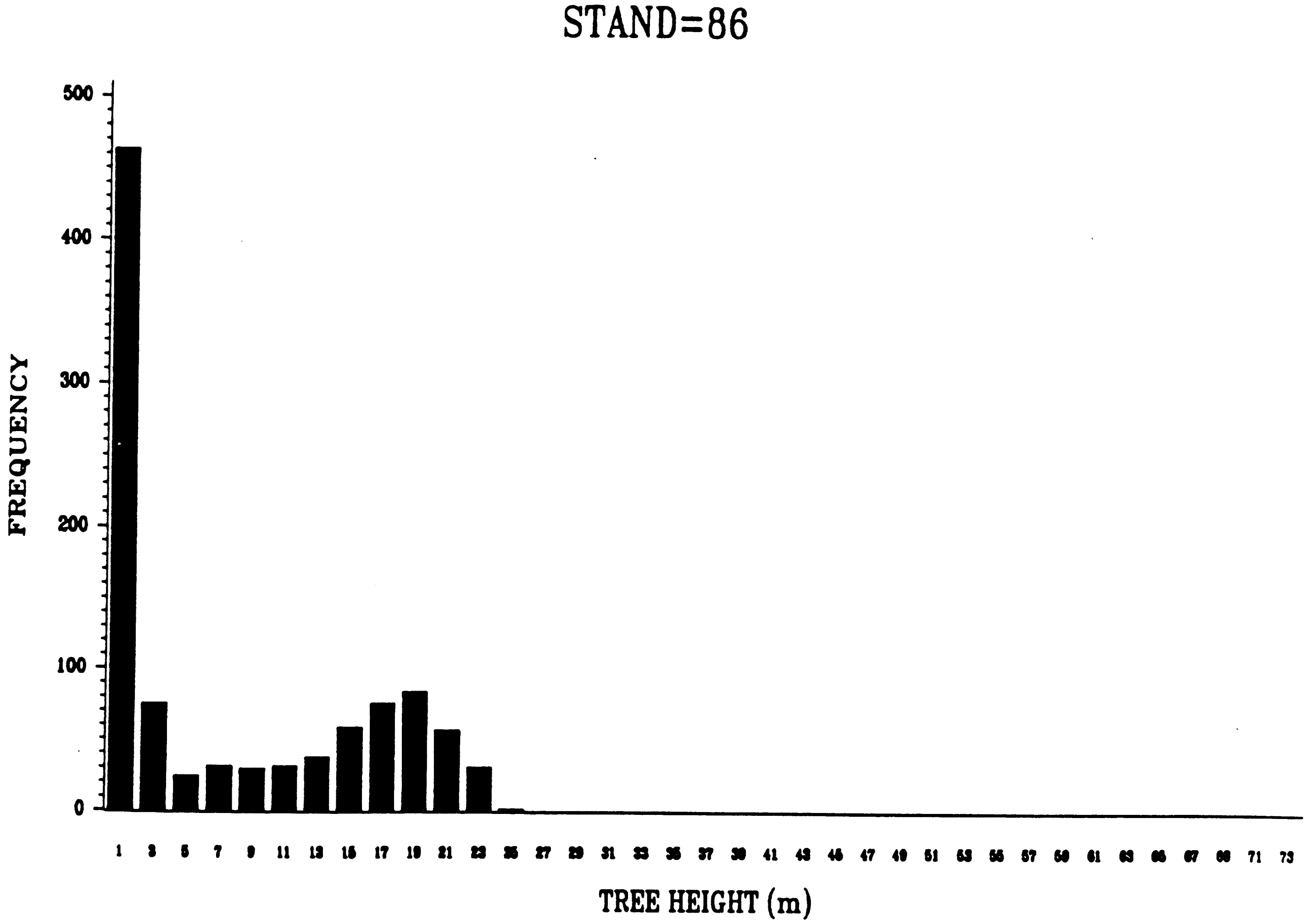


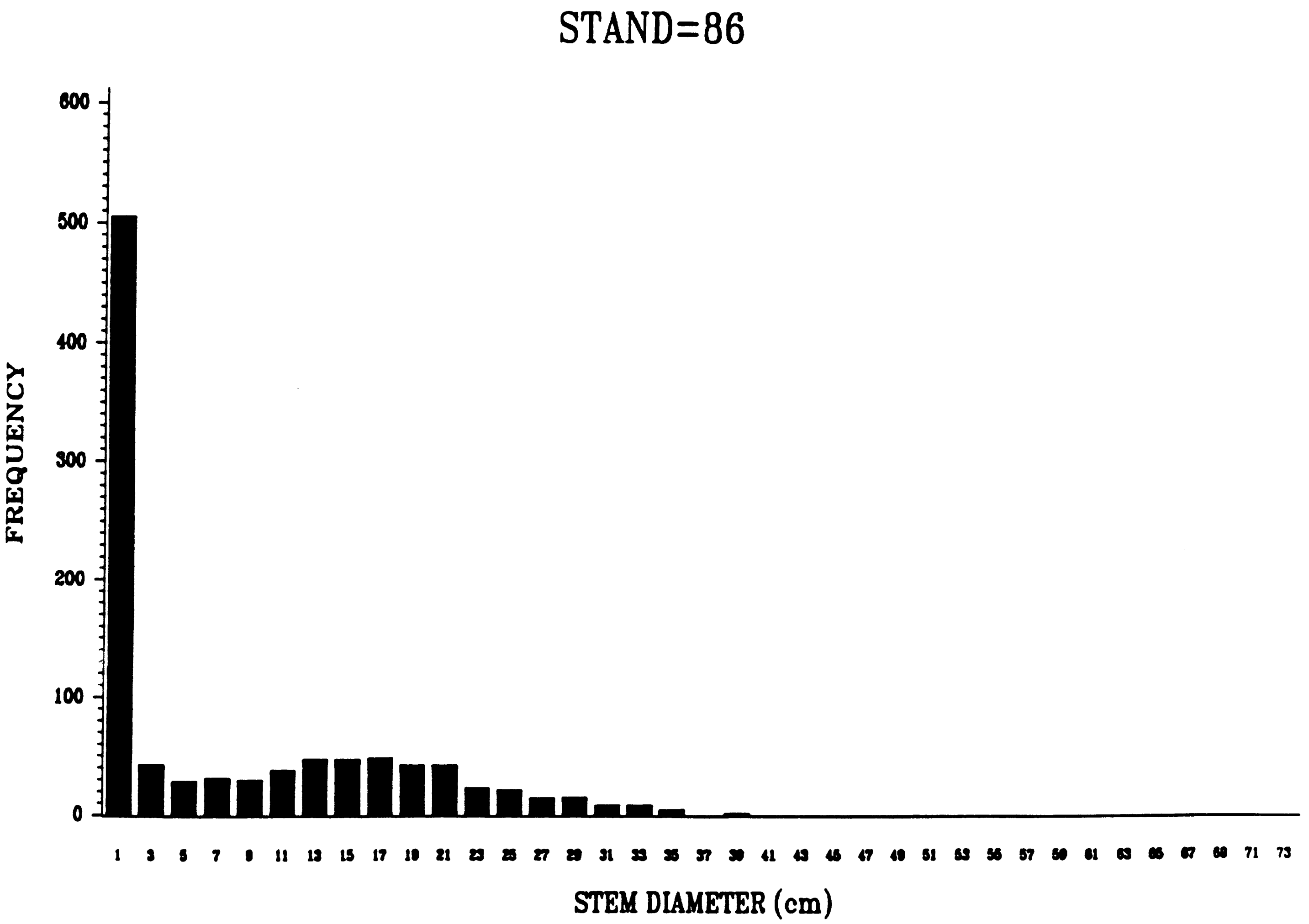
STAND=85



STAND=85




STAND=86
FREQUENCY
TREE HEIGHT (m)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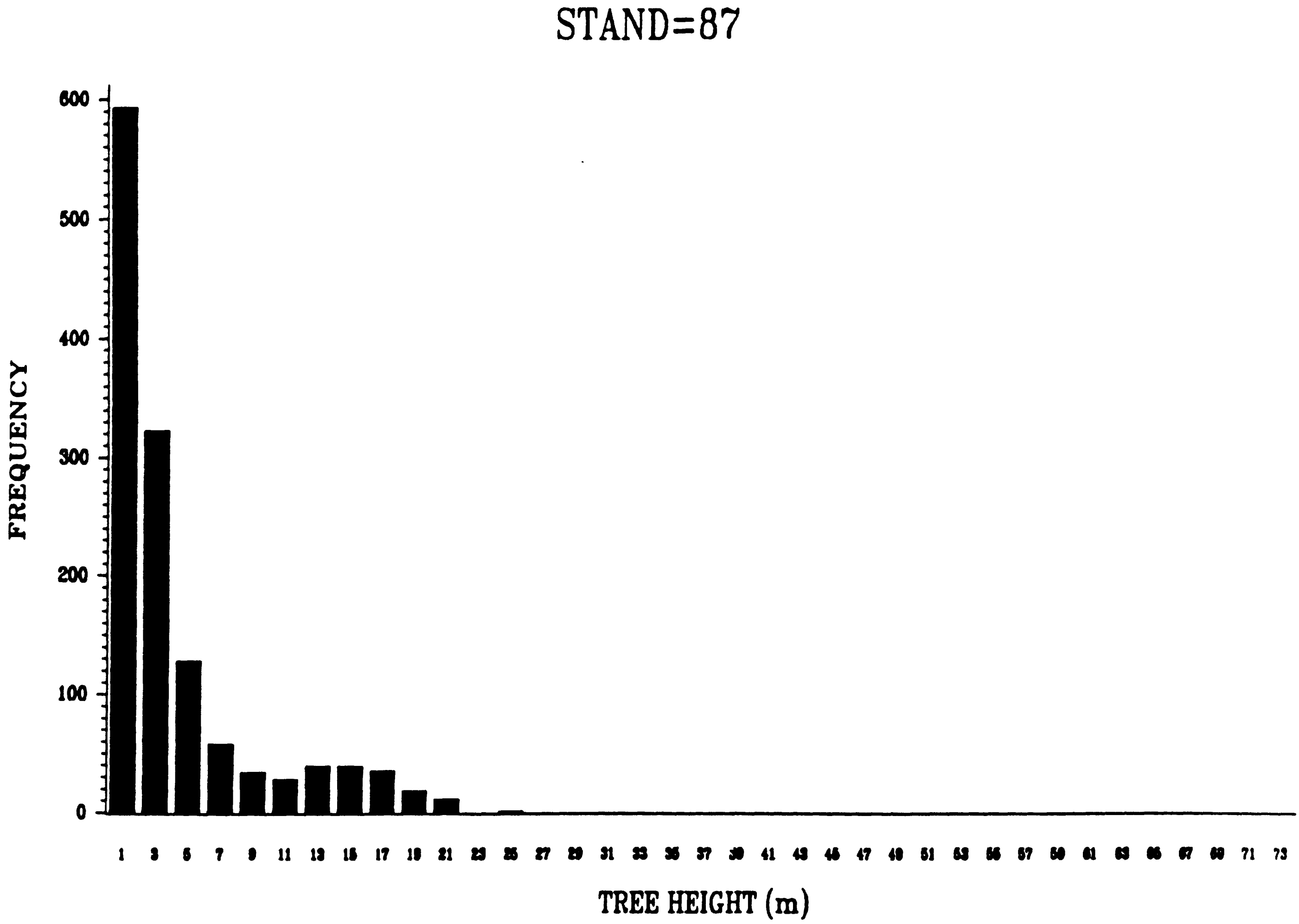
FREQUENCY
STEM DIAMETER (cm)



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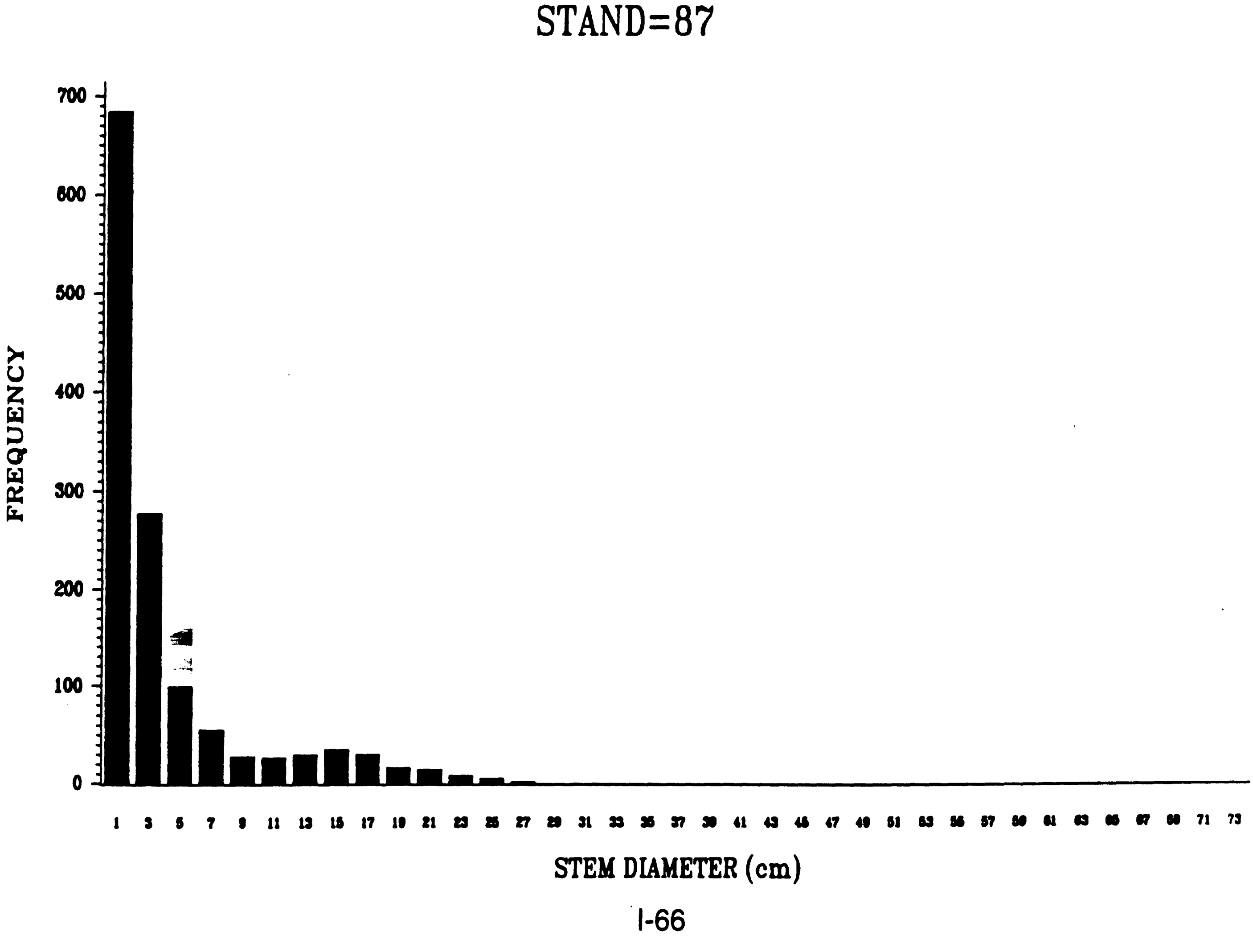
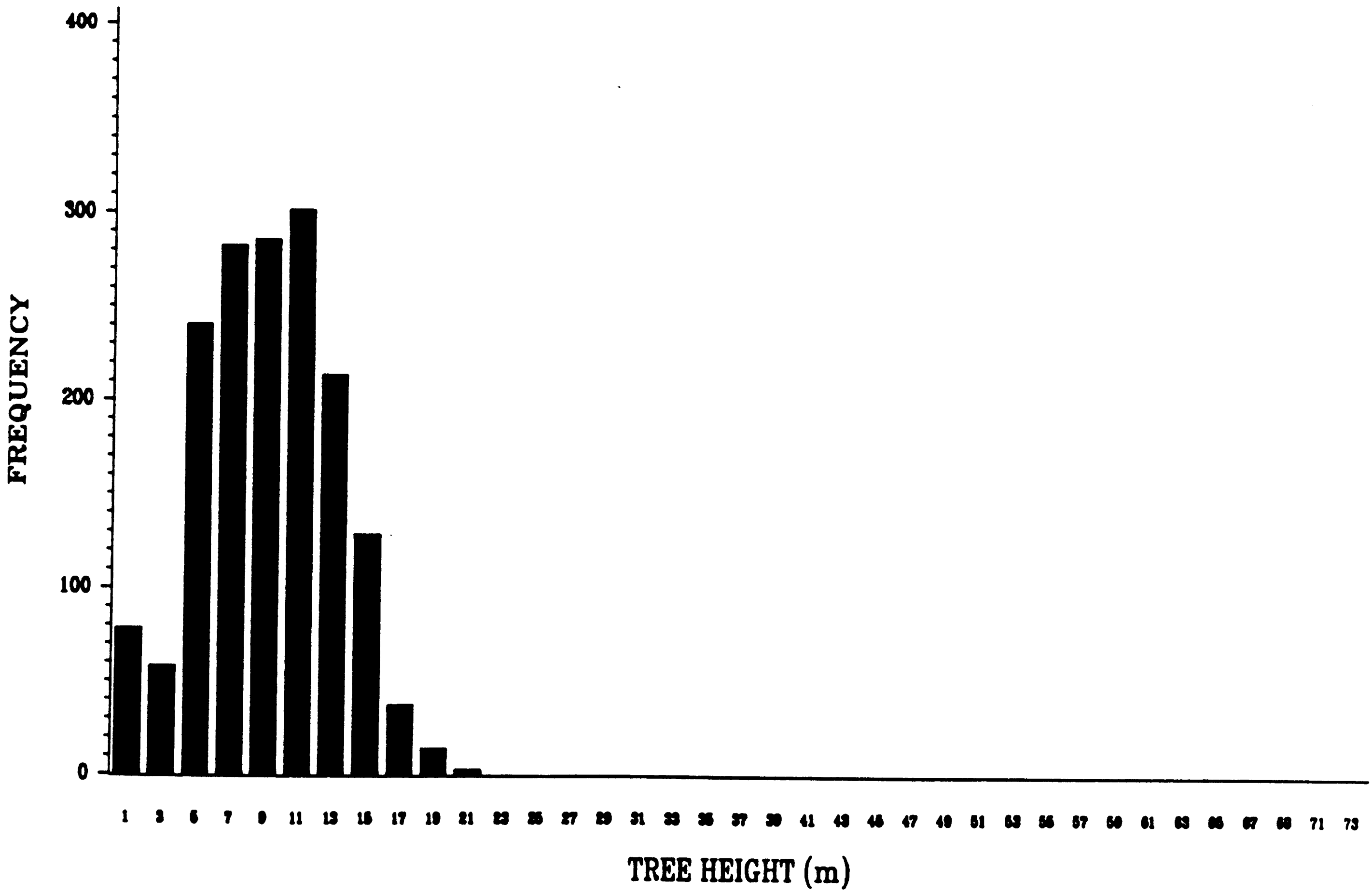
TREE HEIGHT (m)

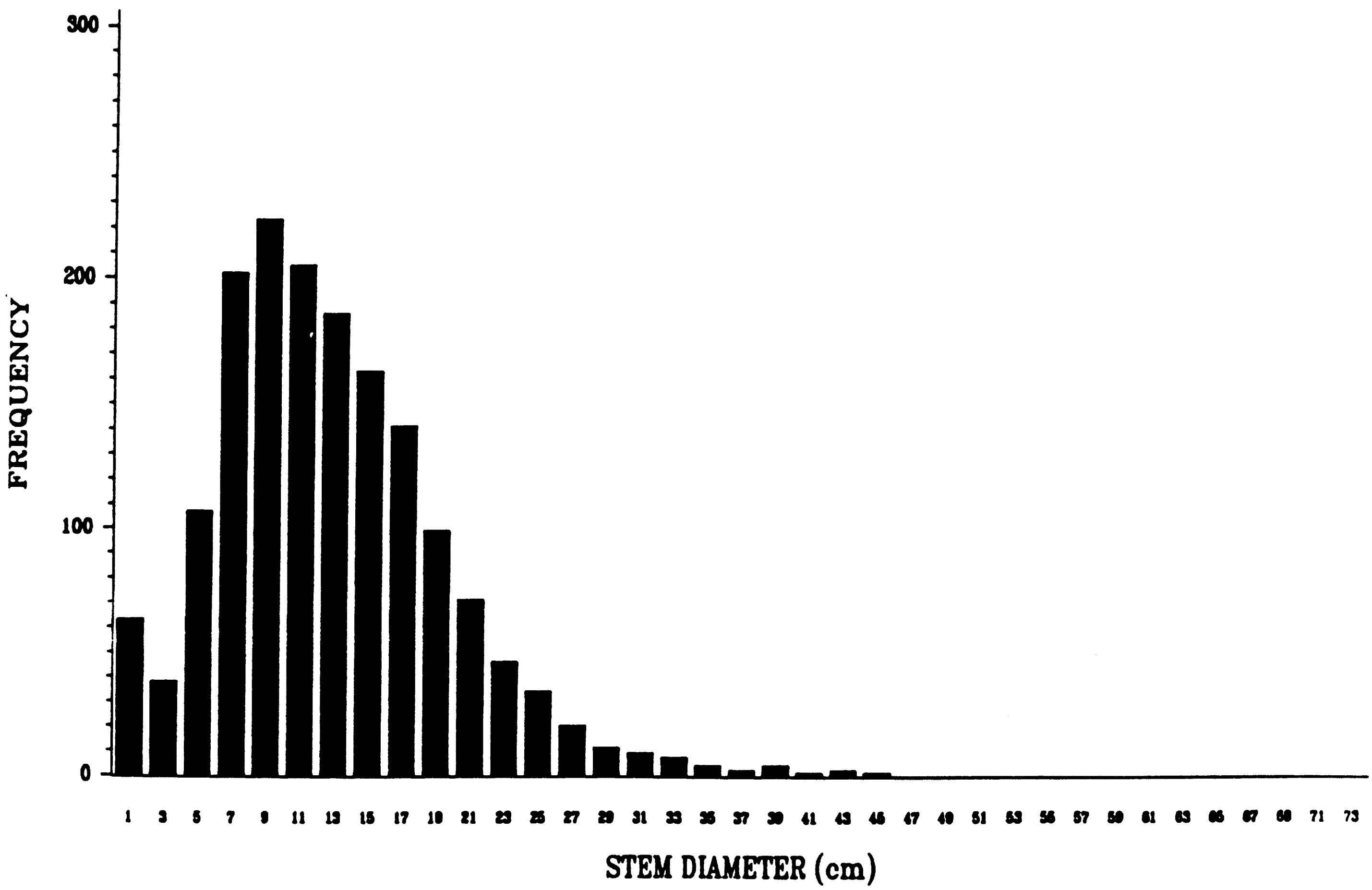


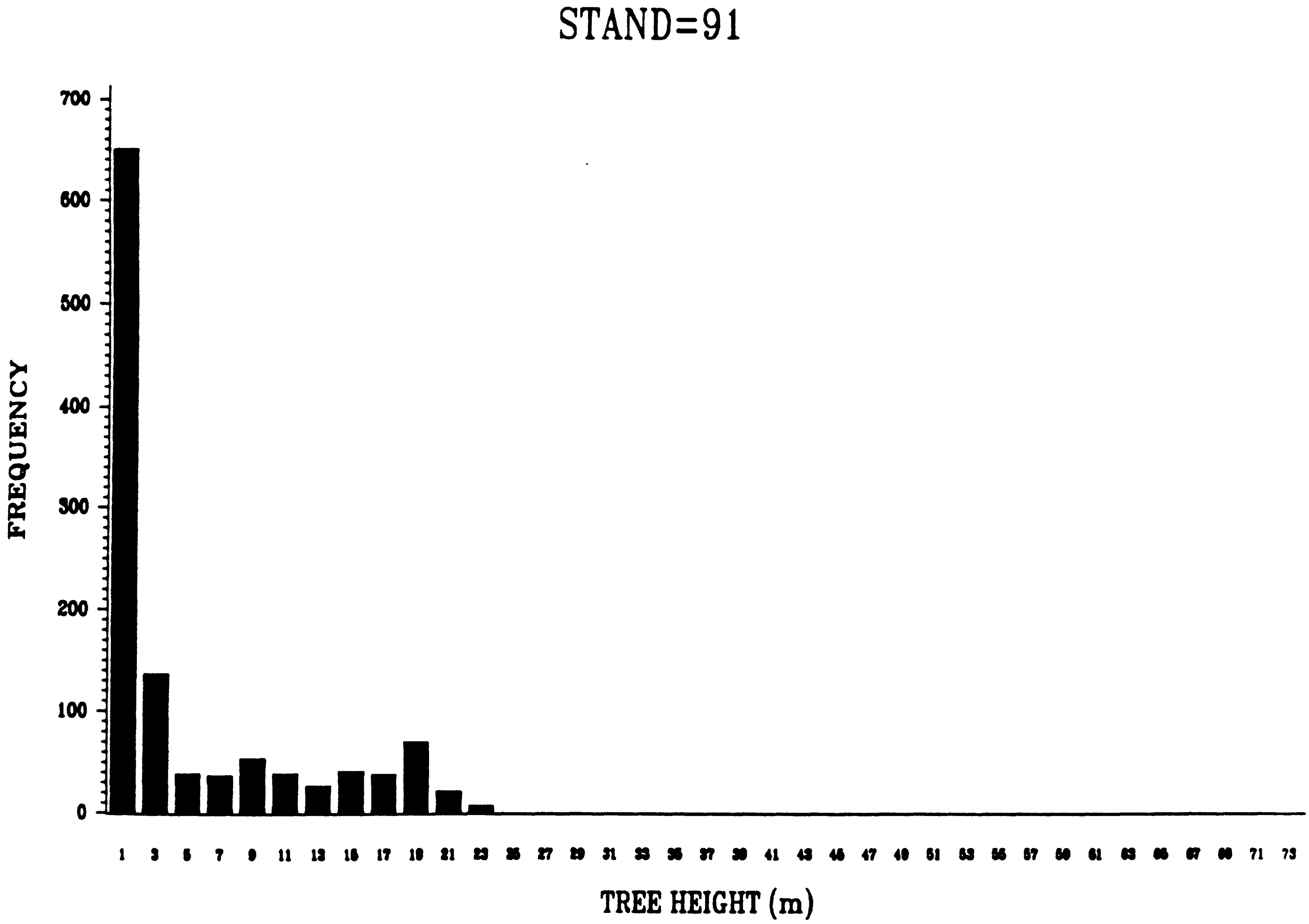
STAND=87
FREQUENCY
STEM DIAMETER (cm)

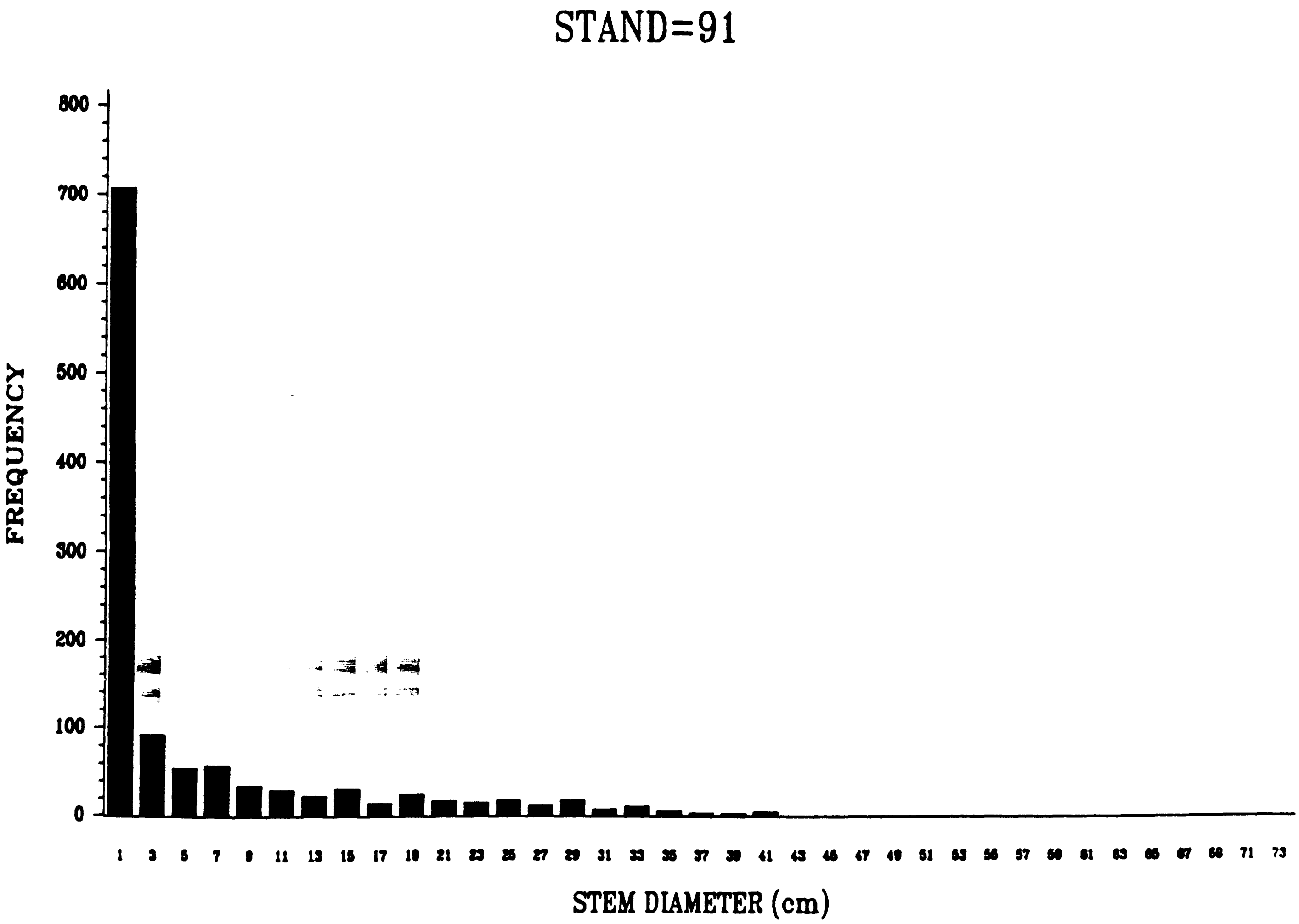
STAND=88



STAND=88




STAND=91
FREQUENCY
TREE HEIGHT (m)


STAND=91
FREQUENCY
STEM DIAMETER (cm)