CHAPTER 11

APPENDICES

CHAPTER 11 APPENDICES

Appendix 1 List of Study Team Members

The members of the Study Teams and Advisory team and their period of field work are shown below.

(1) First Phase

1) Study Team

Name	Position and Responsible Field	Field Work Period
Forestry Planning		19/5/1994 - 02/6/1994
Ikuo Suzuki	Team Leader/Chief Study Coordinator	01/8/1994 - 20/8/1994
Suehiko Fujimori	Forest Management Plan/Deputy Study Coordinator	19/5/1994 - 02/6/1994 01/8/1994 - 29/9/1994
Seishiro Shojiguchi	Forest Management	19/5/1994 - 02/6/1994 01/8/1994 - 29/9/1994
Shiro Morishita	Socioeconomic Survey/ Forest Products Industry	02/8/1994 - 31/8/1994
Junzo Watanabe	Forest Inventory (1)	01/8/1994 - 29/9/1994
Takashi Mikami	Forest Inventory (2)	02/8/1994 - 31/8/1994
Shuichi Miyabe	Land Use and Vegetation Survey	01/8/1994 - 29/9/1994
Land Surveying		
Hiromasa Takahashi	Supervisor of Aerial Triangulation and Surveying/Deputy Study Coordinator	19/5/1994 - 27/7/1994
Masaki Kurihara	Aerial Photography	06/6/1994 - 06/7/1994
Nobuo Shimizu	Control Point Surveying (1)	19/5/1995 - 15/7/1994
Tsuneo Terada	Control Point Surveying (2)	19/5/1994 - 27/7/1994
Takeo Ichige	Control Point Surveying (3)	06/6/1994 - 15/7/1994
Masayuki Yoshitomi	Control Point Surveying (4)	06/6/1994 - 15/7/1994
Shinichi Mitsuoka	Supplementary Surveying	23/6/1994 - 27/7/1994
Isao Sakai	Satellite Data Analysis	06/6/1994 - 25/6/1994
Yoshifumi Sakurai	Satellite Data Analysis	06/6/1994 - 25/6/1994

2) Advisory Team

Name	Position and Responsible Field	Field Work Period
Sadamoto Watanabe	Team Leader/Frigid Forest Ecology	14/9/1994 - 23/9/1994
Haruo Sawada	Remote Sensing	14/9/1994 - 23/9/1994
Kazuo Sudo	Coordinator	14/9/1994 - 23/9/1994
Noritaka Asakawa	Coordinator	19/5/1994 - 02/6/1994

3) C/P Organization (Research Institute of Forestry and Wildlife)

Name	Position and Responsible Field	Field Work Period
Dr. D. Enkhsaikhan	Forest Management Plan/Coordinator	19/5/1994 - 2/9/1994 1/8/1994 - 29/9/1994
L. Batdorj	Forest Management	"
B. Otgonsuren	Forest Inventory	"
B. Bayarsaikhan	Forest Inventory	"
G. Tsedendashi	Land Use and Vegetation Survey	"
Z. Narangerel	Forest Inventory	"

The official titles of the above members of the C/P organization are as follows.

Name	Position
Dr. D. Enkhsaikhan	Director
L. Batdorj	Chief of Forest Measurement and Hunting Policy Department
B. Otgonsuren	Chief Engineer, Forest Measurement and Hunting Policy Department
B. Bayarsaikhan	Engineer, Forest Measurement and Hunting Policy Department
G. Tsedendashi	Research Worker, Forest Measurement and Hunting Policy Department (on loan from Science Academy)
Z. Narangerel	Engineer, Forest Measurement and Hunting Policy Department
J. Bat-Erdene	Engineer, Forest Measurement and Hunting Policy Department

(2) Second Phase

1) Study Team

Name	Position and Responsible Field	Field Work Period
Ikuo Suzuki	Team Leader/Chief Study Coordinator	11/6/1995 - 25/6/1995 25/7/1995 - 09/8/1995
Suehiko Fujimori	Forest Management Plan/Deputy Study Coordinator	11/6/1995 - 09/8/1995
Seishiro Shojiguchi	Forest Management	11/6/1995 - 09/8/1995
Shiro Morishita	Socioeconomic Survey/Forest Products Industry	11/6/1995 - 19/7/1995
Junzo Watanabe	Forest Inventory (1)	11/6/1995 - 09/8/1995
Takashi Mikami	Forest Inventory (2)	11/6/1995 - 09/8/1995
Tetsushige Kubo	Soil Survey	11/6/1995 - 09/8/1995
Shuichi Miyabe	Land Use and Vegetation Survey	11/6/1995 - 09/8/1995

2) C/P Organization (Research Institute of Forestry and Wildlife)

Name	Position and Responsible Field	Field Work Period
Dr. D. Enkhsaikhan	Forest Management Plan/Coordinator	11/6/1995 - 9/8/1996
L. Batdorj	Forest Management	11/6/1995 - 9/8/1996
B. Otgonsuren	Forest Inventory	11/6/1995 - 9/8/1996
B. Bayarsaikhan	Forest Inventory	11/6/1995 - 9/8/1996
G. Tsedendashi	Land Use and Vegetation Survey	11/6/1995 - 9/8/1996
Z. Narangerel	Forest Inventory	11/6/1995 - 9/8/1996
J. Bat-Erdene	Soil Survey	1/8/1994 - 29/9/1994

Note: The official titles of the people listed above are the same as those of the Phase 1 Study

(3) Third Phase

1) Study Team

Name	Position and Responsible Field	Field Work Period
Ikuo Suzuki	Team Leader/Chief Study Coordinator	17/6/1996 - 29/6/1996
Suehiko Fujimori	Forest Management Plan/Deputy Study Coordinator	17/6/1996 - 26/7/1996
Seishiro Shojiguchi	Forest Management	17/6/1996 - 17/7/1996
Junzo Watanabe	Forest Inventory (1)	17/6/1996 - 26/7/1996
Shuichi Miyabe	Land Use and Vegetation Survey	17/6/1996 - 26/7/1996

2) Advisory Team

Name	Position and Responsible Field	Field Work Period
Mitsuaki Yamagata	Forest Management Plan	17/6/1996 - 27/6/1996
Yasukuni Yanagihara	Forest/Forest Industry	17/6/1996 - 27/6/1996
Haruo Sawada	Remote Sensing	20/7/1996 - 26/7/1996
Tadahiro Simotaira	Coordinator	20/7/1996 - 26/7/1996

3) C/P Organization (Research Institute of Forestry and Wildlife)

Name	Position and Responsible Field	Field Work Period
Dr. D. Enkhsaikhan	Forest Management Plan	17/6/1996 - 26/7/1996
L. Batdorj	Forest Management	17/6/1996 - 26/7/1996
B. Otgonsuren	Forest Inventory	17/6/1996 - 26/7/1996
B. Bayarsaikhan	Forest Inventory	17/6/1996 - 26/7/1996
G. Tsedendashi	Land Use and Vegetation Survey	17/6/1996 - 26/7/1996
Z. Narangerel	Forest Inventory	17/6/1996 - 26/7/1996

Note: The official titles of the people listed above are the same as those of the Phase 1 Study

(4) Additional Survey

1) Study Team

Name	Position and Responsible Field	Field Work Period
Ikuo Suzuki	Team Leader/Chief Study Coordinator	25/11/1997 - 6/12/1997
Suchiko Fujimori	Forest Management Plan/Deputy Study Coordinator	28/6/1997 - 16/8/1997 25/11/1997 - 6/12/1997
Junzo Watanabe	Forest Inventory (1)	28/6/1997 - 16/8/1997
Takashi Mikami	Forest Inventory (2)	28/6/1997 - 16/8/1997
Shuichi Miyabe	Land Use and Vegetation Survey	28/6/1997 - 16/8/1997 25/11/1997 - 6/12/1997
Masaki Kurihara	Aerial Photography	17/5/1997 - 12/7/1997
Isao Sakai	Satellite Data Analysis	25/11/1997 - 6/12/1997

2) Advisory Team

Name	Position and Responsible Field	Field Work Period
Sadamoto Watanabe	Team Leader/Frigid Forest Ecology	25/11/1997 - 6/12/1997
Yukihide Katsuta	Coordinator	25/11/1997 - 6/12/1997

3) C/P Organization (Forest Management Center)

Name	Position and Responsible Field	Field Work Period
Dr. D. Enkhsaikhan	Forest Management Plan/Coordinator	28/6/1997 - 16/8/1997 25/11/1997 - 6/12/1997
L. Batdorj	Forest Management	28/6/1997 - 16/8/1997
B. Otgonsuren	Forest Inventory	25/11/1997 - 6/12/1997
B. Bayarsaikhan	Forest Inventory	28/6/1997 - 16/8/1997 25/11/1997 - 6/12/1997
G. Tsedendashi	Land Use and Vegetation Survey	28/6/1997 - 16/8/1997 25/11/1997 - 6/12/1997
Z. Narangerel	Forest Inventory	28/6/1997 - 16/8/1997 25/11/1997 - 6/12/1997
Tsagaantsoochu	Insect Survey	28/6/1997 - 16/8/1997 25/11/1997 - 6/12/1997

Note: The official titles of the people listed above are the same as those of the Phase 1 Study except for Ms. Tsagaantsoochu who has been temporarily transferred from the Science Academy and given the official title of "Researcher".

Appendix 2 List of Main Interviewees

Those people interviewed by the Study Team members in connection with the Study are listed below (personal titles are omitted).

(1) First Phase

1) Ministry of Trade and Industry

B. Bayasgalan	:	Director of Department of Industrial Policy
L. Nasanbuyan	:	Assistant Director of Department of Economic and Trade Affairs

2) State Administration of Geodesy and Cartography

J. Sanjaajamts	:	President
A. Dorjgotov	:	Auditting Chief

3) Ministry of Nature and Environment

T. Shurevdamba	:	Deputy Minister

4) Research Institute for Forestry and Wildlife

O. Bolor	:	Former Chief of Forest Measurement and Hunting Policy Department

5) Selenge Provincial Government

R. Bayarsaikhan	:	Vice-Governor
B. Djamsuran	:	Director of Forestry Office
Dasidawa	:	Director of Scotch Pine Protection Forest Office

6) Embassy of Japan

Yoshihiro Hasumi	:	Ambassador Extraordinary and Plenipotentiary
Fumiaki Tominaga	:	Counselor
Keizo Kagawa	:	First Secretary

7) JICA/JOCV Office

Yukio Sasaki	:	Resident Representative

Kenichi Sasaki	:	JOCV Coordinator
Tatsuo Ohno	:	JOCV Coordinator

(2) Second Phase

1) Ministry of Nature and Environment

T. Shurevdamba	:	Deputy Minister
J. Tsogtbaatar	:	Deputy Director of Natural Resources Bureau

2) Research Institute for Forestry and Wildlife

Ch. Bazarsad	:	Chief Engineer, Silviculture Department

3) Selenge Provincial Government

Darhanavarga	:	Director of Division of Agriculture, Stock Raising and Natural Conservation
B. Djamsuran	:	Director of Forestry Office
Enhkbat	:	Chief of Altanbulag District
Bayasgalan	:	Deputy Chief of Altanbulag District
Davaa	:	Secretary of Altanbulag District

4) Embassy of Japan

Keizo Kagawa	:	First Secretary

5) JICA/JOCV Office

Yukio Sasaki	:	Resident Representative
Tatsuo Ohno	:	JOCV Coordinator

6) JICA Expert

Motohiro Arihara	:	National Development Board

(3) Third Phase

1) Ministry of Nature and Environment

T. Shurevdamba	:	Deputy Minister
J. Tsogtbaatar	:	Deputy Director of Natural Resources Bureau

2) Research Institute for Forestry and Wildlife

Ch. Bazarsad	:	Staff Members (Researchers)
Ch. Ganbaatar	:	Staff Members (Researchers)
D. Tsendsuren	:	Staff Members (Researchers)
D. Erdene	:	Staff Members (Researchers)
D. Enkhbayar	:	Staff Members (Researchers)
B. Oyunbileg	:	Staff Members (Researchers)

3) Selenge Provincial Government

Darhanavarga	:	Director of Division of Agriculture, Stock Raising and Natural Conservation
B. Djamsuran	:	Director of Forestry Office

4) State Administration of Geodesy and Cartography

Enkbair	:	Director of Aerial Surveying and Mapping Division
Furelbaatar	:	Officer of Aerial Photography Department

5) Embassy of Japan

Takuo Kidokoro	:	Counselor
Taira Iwasaki	:	Second Secretary
Keizo Kagawa	:	Second Secretary

6) JICA/JOCV Office

Yukio Sasaki	:	Resident Representative
Yoshifusa Shikama	:	Resident Representative
Mikako Honma	:	JOCV Coordinator
Ken Shiromizu	:	JOCV Coordinator

(4) Additional Survey

1) Ministry of External Relations

L. Dawagiv	:	Director of 1st Department (Asia and America)
T. Bolormaa	:	Staff of 1st Department (Asia and America)
N. Nishihata	:	Aid Coordinator

2) Ministry of Nature and the Environment

Dr. Ts. Adyasuren	:	Minister
S. Banzragch	:	Director General of Nature Protection Agency
B. Ganbaatar	:	Director of International Cooperation Department
Ch. Dorjsuren	:	Chief of Forest Animals Division
T. Enebish	:	Chief of Strategic Guidance and Planning Division
L. Dorjtseden	:	Chief Expert of Policy Implementation and Coordination Bureau
J. Dorjgotov	:	Expert of Forest Animals Division

3) Selenge Provincial Government

L. Altangerel	:	Governor
Gambott	:	Chief of Natural Resources Policy Division
B. Djamsuran	:	Director of Forestry Office
Shinebayar	:	Chief Engineer of Forestry Office

4) National University

Dr. N. Gombosuren	:	Head of Forestry Department

5) Altanbulag District

Bayarmagnai	:	Chief of Altanbulag District
Tsederna	:	Member of Council of Representatives
Batjargal	:	Nature Protection Officer
Suhbat	:	Nature Protection Officer
Munghbaatar	:	Nature Protection Officer

6) Embassy of Japan

Yoshio Koshio	:	Counselor
Taira Iwasaki	:	Second Secretary
Satosi Matoba	:	Second Secretary

7) JICA Mongolia Office

Yoshifusa Shikama	:	Resident Representative
Keizo Egawa	:	Assistant Resident Representative
Ken Shiromizu	:	Coordinator
Mikako Honma	:	Coordinator

Appendix 3 Minutes of Meeting Relating to Explanation of and Discussions on Progress Report

MINUTES OF MEETING

FOR

THE FOREST RESOURCES MANAGEMENT STUDY

IN SELENGE AIMAK,

MONGOLIA

In pursuance of the Scope of Work of the Forest Resources Management Study in Selenge Aimak, Mongolia (hereinafter referred to as "the Study") signed on January 20, 1994. Japan International Cooperation Agency dispatched the Study Team to Mongolia.

The Study Team headed by Mr. Ikuo SUZUKI, visited Mongolia from June 12, 1995 to August 8, 1995, explained to and had series of discussions with the responsible officials of Research Institute of Forestry and Wildlife (hereinafter referred to as "RIFW"), Ministry of Nature and Environment on the Progress Report of the Study.

The salient results of the discussions were as follows.

1. The RIFW side agreed in principle upon the contents of the Progress Report.
2. The RIFW found there is no necessity to include ***Pinus sibirica*** in the volume table survey. The RIFW, therefore, requested to reject the description on the formulation of a volume table of ***Pinus sibirica*** in the MINUTES OF MEETING OF SCOPE OF WORK FOR THE FOREST RESOURCES MANAGEMENT STUDY IN SELENGE AIMAK, MONGOLIA signed on January 20, 1994. The Study Team accepted this request and will incorporate this issue into the volume table survey.

The said issues were discusses and agreed upon by the RIFW and the Study Team in relation to the Study.

August 5, 1995
Ulaanbaatar

鈴木郁雄

Ikuo SUZUKI
Team Leader
The Forest Resources Management Study in Selenge Aimak

Dr. D.Enkhsaikhan
Director
Research Institute of Forestry and Wildlife
Ministry of Nature and Environment

Appendix 4 Control Point Surveying

(1) Closure Errors of Vectors

Session Number	Observed Point	Vector Closure Error				Length of Route (m)	D / L ppm
		dx	dy	dz	D		
1	B1 - 1 - 3 - 6	0.001	0.003	0.002	0.004	43,234.046	0.093
2	1 - 2 - 20 - 3	-0.001	-0.002	0.001	0.002	50,558.433	0.040
3	T1 - 5 - 20 - 2	0.002	-0.003	-0.004	0.005	27,302.290	0.183
4	9 - 10 - 20 - 5	-0.002	0.001	-0.004	0.005	41,772.305	0.120
5	3 - 7 - B2 - 6	0	-0.004	-0.003	0.005	37,655.878	0.133
6	20 - 10 - 24 - 3	-0.001	0	0.001	0.001	60,909.631	0.016
7	3 - 24 - 11 - 7	-0.001	-0.002	0.003	0.004	43,337.072	0.092
8	B2 - 7 - B6 - B5	-0.001	0.003	0.005	0.006	28,467.101	0.211
9	4 - 8 - B6 - B5	0	0.001	0.003	0.003	38,813.838	0.077
10	B6 - 7 - 11 - 8	0	-0.001	0.001	0.001	40,873.419	0.024
11	11 - 24 - 17 - 21	0.003	-0.001	-0.005	0.006	36,795.762	0.163
12	24 - 10 - T7 - 17	-0.001	0.008	-0.007	0.011	36,917.182	0.298
13	T7 - 19 - 22 - 17	0	0.004	-0.001	0.004	34,450.874	0.116
14	4 - B4 - B3 - 12	-0.007	0.006	-0.006	0.011	59,617.185	0.185
15	4 - 8 - 25 - B4	0.003	-0.004	-0.002	0.005	60,284.233	0.083
16	8 - 11 - 21 - 25	0.003	0	0.002	0.004	46,437.982	0.086
17	21 - 17 - 18 - 25	-0.048	0.009	0.003	0.049	49,588.777	0.988
18	17 - 22 - 19 - 16	0.013	0.003	0.002	0.013	64,120.763	0.203
19	22 - 18 - T3 - 19	0	-0.004	-0.014	0.015	54,329.470	0.276
20	T4 - 12 - B3 - 13	0	-0.001	0.003	0.003	57,661.880	0.052
21	B4 - 15 - 16 - 25	0.001	-0.010	-0.003	0.010	41,350.924	0.102
22	B4 - 15 - 14 - B3	0	0	0	0	40,509.635	0
23	15 - 16 - T5 - 14	0.004	-0.001	-0.002	0.005	39,877.240	0.125

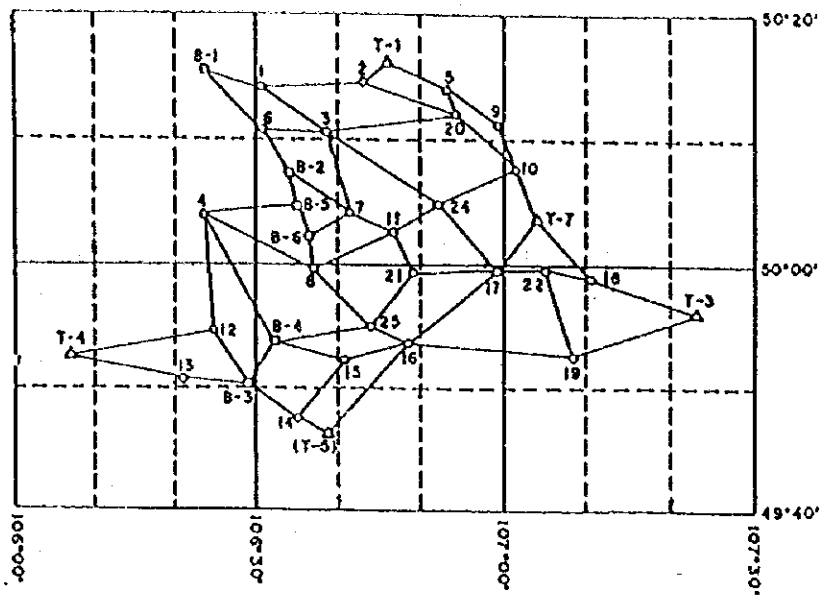
Standard Deviation 0.159

(2) Discrepancy of Vector of Double Side Length

D. Side Length	Observed Length 1	Observed Length 2	Discrepancy
1 - 3	13,176.650m	.639m	0.011m
2 - 20	10,833.948	.947	0.001
B3 - B4	9,656.447	.440	0.007
5 - 20	3,921.309	.312	-0.003
10 - 20	17,612.571	.582	-0.001
3 - 20	13,430.551	.553	-0.002
3 - 6	10,687.105	.096	0.009
3 - 7	9,623.816	.813	0.003
B2 - 7	11,041.809	.798	0.011
B5 - B6	4,382.475	.457	0.018
7 - B6	8,098.666	.706	-0.040
3 - 24	18,919.982	.979	0.003
7 - 11	8,804.602	.626	-0.024
11 - 24	5,988.698	.678	0.020
10 - 24	10,946.514	.522	-0.008
B6 - 8	7,559.124	.123	0.001
4 - 8	14,914.840	.858	-0.018
8 - 11	16,410.916	.964	-0.048
11 - 21	7,005.778	.778	0
17 - 24	11,845.254	.239	0.015
T7 - 17	8,207.735	.733	0.002
8 - 25	12,536.191	.157	0.034
4 - B4	19,246.315	.311	0.004
B4 - 15	11,680.736	.750	-0.014
B4 - 25	13,586.872	.869	0.003
16 - 25	7,895.918	.918	0
12 - B3	13,423.541	.573	-0.032
15 - 16	8,187.402	.398	0.004
21 - 25	10,485.168	.131	0.037
17 - 21	11,956.056	.032	0.026
14 - 15	11,335.042	.028	0.014
16 - 17	19,251.623	.676	-0.043
17 - 22	7,897.574	.570	0.004
18 - 22	6,427.872	.875	-0.003
19 - 22	13,253.999	4.013	0.014

Average Side Length 11.1km
Standard Deviation 0.020

(3) GPS Observation Network



(4) Coordinates of Newly Established GCPs

Point	Latitude	Longitude	X	Y
1	50° 15' 21.488172"	106° 30' 54.183737"	5,570,515.264	18,608,044.430
2	50° 15' 7.373016"	106° 41' 55.781968"	5,570,361.847	18,621.159.618
3	50° 10' 57.871644"	106° 39' 36.532122"	5,562,590.985	18,618,572.779
4	50° 3' 56.304131"	106° 25' 26.315765"	5,549,217.265	18,601,953.686
5	50° 15' 4.927469"	106° 51' 10.100926"	5,570,548.050	18,632,142.432
6	50° 11' 11.395318"	106° 30' 38.353357"	5,562,781.843	18,607,887.459
7	50° 6' 4.547980"	106° 42' 19.363351"	5,553,601.374	18,622,010.262
8	49° 59' 43.183611"	106° 36' 4.295797"	5,541,653.861	18,614,809.216
9	50° 11' 2.178978"	106° 58' 35.373811"	5,563,274.969	18,641,162.086
10	50° 6' 47.089367"	107° 1' 35.087240"	5,555,489.710	18,644.941.235
11	50° 3' 29.062143"	106° 48' 30.391328"	5,548,971.143	18,629,499.767
12	49° 54' 52.769866"	106° 22' 0.147829"	5,532,347.692	18,598,160.541
13	49° 50' 28.752604"	106° 20' 24.667605"	5,524,156.338	18,596,401.624
14	49° 48' 13.536534"	106° 35' 56.653570"	5,520,344.017	18,615,111.983
15	49° 52' 58.212745	106° 41' 54.348378	5,529,296.164	18,622,064.917
16	49° 52' 16.229637"	106° 48' 39.152295"	5,528,188.438	18,603,177.225
17	50° 0' 14.798747"	106° 58' 57.175675"	5,543,285.809	18,642,125.675
18	49° 59' 23.380861"	107° 10' 51.666602"	5,542,093.506	18,656,398.848
19	49° 52' 57.934915"	107° 8' 25.072897"	5,530,101.370	18,653,819.647
20	50° 13' 1.257983"	106° 50' 25.774559	5,566,705.408	18,631,358.706
21	49° 59' 43.116005"	106° 48' 58.942625"	5,542,004.329	18,630,237.301
22	49° 59' 52.026958"	107° 5' 32.080714"	5,542,796.600	18,650,008.690
24	50° 5' 13.460088"	106° 52' 44.046476"	5,552,321.027	18,634,463.833
25	49° 55' 9.349130"	106° 43' 48.227609"	5,533,399.596	18,624,244.645

Note: No. 23 is missing.

Appendix 5 Forest Area by Aimak

(1/2)

Province	Forest Land Area (1,000 ha)	Stocked Land Area (ha)	Stocked Land Area by Species (ha)											
			Larix sibirica	*Pinus sylvestris*	*Picea obovata*	*Abies sibirica*	*Pinus sibirica*	*Betula* spp.	*Populus tremula*	*Populus* spp.	*Hippophae* spp.	*Salix* spp.	Shrub-land	*Haloxylon ammo-dendron*
Bayan Olgii	44.7	42,341	41,671								670			
(1.0)	(0.3)	(0.3)	(0.6)								(4.5)			
Uvs	125.6	125,399	112,532				765				8,059		4,043	420,100
(1.8)	(0.8)	(0.9)	(1.6)				(0.1)				(54.7)		(1.9)	(10.9)
Hovd	427.7	425,087									2,749		2,238	
(5.6)	(2.8)	(3.1)									(18.7)		(1.1)	
Zavhan	488.3	438,459	422,860		1,030		4,377				2,212		7,980	
(5.3)	(3.2)	(3.1)	(6.0)		(4.3)		(0.4)				(15.0)		(3.8)	
Hovsgol	3,547.5	3,178,094	2,908,677	5,070	2,860		153,670	22,850					84,967	
(31.5)	(23.3)	(22.8)	(41.1)	(0.7)	(11.9)		(14.6)	(2.4)					(40.1)	
Arhangai	789.2	735,120	697,050				33,670	3,870					530	
(13.4)	(13.4)	(5.2)	(5.3)	(9.9)			(3.2)	(0.4)					(0.3)	
Bulgan	1,551.9	1,467,734	1,058,134	47,792	140		40,524	232,090	153	1,015	244	6,230	81,412	
(30.0)	(10.2)	(10.5)	(15.0)	(6.7)	(0.6)		(3.8)	(24.6)	(1.7)	(71.9)	(1.7)	(32.7)	(38.4)	
Selenge	1,240.1	1,131,856	307,555	359,685	3,555	1,855	177,718	274,467	2,711		792	131	3,387	
(26.4)	(8.1)	(8.1)	(4.4)	(50.5)	(14.8)	(100.0)	(16.8)	(29.1)	(29.3)		(5.4)	(0.7)	(1.6)	
Sukhbaatar	527.6	439,849	161,206	77,568	6,545		55,787	129,362	410	77			8,894	
(5.4)	(3.5)	(3.2)	(2.3)	(10.9)	(27.3)		(5.3)	(13.7)	(4.4)	(5.4)			(4.2)	
Ulaanbaatar	191.3	147,648	73,508	13,076	2,542		36,109	18,739	61			3,613		
(73.8)	(1.3)	(1.1)	(1.0)	(1.9)	(10.6)		(3.4)	(2.0)	(0.7)			(18.9)		

Province	Forest Land Area (1,000 ha)	Stocked Land Area (ha)	Stocked Land Area by Species (ha)											
			Larix sibirica	*Pinus sylvestris*	*Picea obovata*	*Abies sibirica*	*Pinus sibirica*	*Betula* spp.	*Populus tremula*	*Populus* spp.	*Hippophae* spp.	*Salix* spp.	Shrub-land	*Haloxylon ammo-dendron*
Tov	1,085.4	923,186	438,080	69,975	6,994		323,539	78,806	152	320			5,320	
(11.4)	(7.1)	(6.6)	(6.2)	(9.8)	(29.2)		(30.7)	(8.3)	(1.6)	(22.7)			(2.5)	
Hentii	1,484.0	1,193,229	702,831	108,061	320		220,503	141,535	4,216			9,100	6,663	
(14.6)	(9.8)	(8.6)	(9.9)	(15.2)	(1.3)		(20.9)	(15.0)	(45.6)			(47.7)	(3.1)	
Dornod	112.6	90,299	8,794	30,692				42,947	1,551				6,315	
(0.7)	(0.7)	(0.7)	(0.1)	(4.3)				(4.5)	(16.7)				(3.0)	
Gov'altai	1,519.1	1,517,900	3,000											1,514,900
(10.7)	(10.0)	(10.9)	(0.0)											(39.2)
Bayanhongor	822.5	822,400	18,700											803,700
(7.1)	(5.4)	(5.9)	(0.3)											(20.8)
Ovor Hangai	210.7	194,410	114,947				7,963							71,500
(3.1)	(1.4)	(1.4)	(1.6)				(0.8)							(1.9)
Omnogov'	1,050.5	1,050,500												1,050,500
(6.4)	(6.9)	(7.5)												(27.2)
Total	15,218.7	13,923,511	7,069,545	711,919	23,986	1,855	1,054,625	944,666	9,254	1,412	14,726	19,074	211,749	3,860,700
(8.9)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)

Notes:
1) Figures in brackets are percentage figures vis-a-vis the total. Those under the provincial names are the proportions of stocked land in the provincial land area.
2) No forests exist in Dornogov' and Dund Gove' Aimak. Ulaanbaatar has a protected zone around Mt. Bogd.
Source: RIFW, Ministry of Nature and Environment

Appendix 6 Main Mammals and Birds Found in Intensive Area

(1) Main Mammalian Species Found in Intensive Area

Orders	Families	Species
INSECTIVORA	*Erinaceidae*	*Erinaceus auritus*[*1]
	Soricidae	*Sorex caecutiens*
CHIROPTERA	*Vespertilionidae*	*Plecotus auritus*
LAGOMORPHA	*Ochotonidae*	*Ochotona pallasi*
		Ochotona hyperborea
	Leporidae	*Lepus tolai*
		Lepus timidus
RODENTIA	*Sciuridae*	*Sciurus vulgaris*
		Tamias sibiricus
		Citellus undulatus
	Muridae	*Mus musculus*
		Apodemus agrarius
	Cricetidae	*Clethrionomys rutilus*[*2]
CARNIVORA	*Felidae*	*Lynx lynx*
		Felis manul
	Ursidae	*Ursus arctos*
	Canidae	*Canis lupus*
		Vulpes vulpes
		Vulpes carsac
	Mustelidae	*Meles meles*
		Gulo gulo
		Martes foina
		Martes zibellina
		Mustela altaica
		Mustela eversmanni
		Mustela sibirica
		Mustela vison
ARTIODACTYLA	*Suidae*	*Sus scrofa*
	Cervidae	*Moschus moschiferus* [*3]
		Cervus elaphus
		Alcee alces
		Capreolus pygargus[*4]

Note: The above list is based on the taxonomy of "Dictionary of the Vertebrate Species of Mongolia" (1994). The taxonomy of "A World List of Mammalian Species" (Corbet and Hill 1986) differently classifies the footnoted species as follows.

*1 *Erinaceidae Hemiechinus auritus*
*2 *Muridae Clethrionomys rutilus*
*3 *Muschidae Moschus moschiferus*
*4 *Cervidae Capreolus capreolus*

(2) Main Birds Found in Intensive Area

Orders	Families	Species
ANSERIFORMES	*Anatidae*	*Cygnus* spp.
		Anser anser
		Tadorna ferruginea
		Anas platyrhynchos
FALCONIFORMES	*Pandionidae*	*Pandion haliaetus*
	Accipitridae	*Neophron percnopterus*
		Milvus migrans
		Accipiter gularis
		Buteo buteo
	Falconidae	*Falco tinnunculus*
GALLIFORMES	*Tetraonidae*	*Lagopus lagopus*
		Lyrurus tetrix
		Bonasia bonasia
		Tetrao urogallus
GRUIFORMES	*Gruidae*	*Grus* spp.
		Grus japonensis
	Otidae	*Otis tarda*
CHARADRIIFORMES	*Charadriidae*	*Vanellus vanellus*
	Scolopacidae	*Calidris minuta*
	Laridae	*Larus argentatus*
COLUMBIFROMES	*Columbidae*	*Columba livia*
		Columba palumbus
CUCULIFORMES	*Cuculidae*	*Cuculus canorus*
STRIGIFORMES	*Strigidae*	*Otus scops*
		Bubo bubo
CORACIIFORMES	*Upupidae*	*Upupa epops*
PICIFORMES	*Picidae*	*Picoides major*
		Picoides minor
		Dryocopus martius
PASSERIFORMES	*Alaudidae*	*Melanocorypha mongolica*
	Hirundinidae	*Riparia riparia*
		Hirundo daurica
	Motacillidae	*Motacilla alba*
	Troglodytidae	*Troglodytes troglodytes*
	Turdinae	*Oenanthe oenanthe*
	Paradoxornithidae	*Panurus biamicus*
	Aegithalidae	*Aegithalos caudatus*
	Emberizidae	*Emberiza tristrami*
	Ploceidae	*Passer montanus*
	Corvidae	*Garrulus glandarius*
		Pica pica
		Nucifraga caryocatactes
		Corvus monedula
		Corvus frugilegus
		Corvus corax

Note: The above list is based on the taxonomy of "Dictionary of the Vertebrate Species of Mongolia" (1994).

Appendix 7 Description of the Representative Soil Profiles

Dystric Cambisol (Profile No. 11)

Location: Model area 2, Elevation: 960m, Land form: Steep slope on the mountainside, Slope: 28°, N, Vegetation: Natural mixed forest (*Larix sibirica · Betula platyphylla · Populus tremula · Rhododendron dahuricum*), Parent material: Diorite, Drainage: Somewhat excessively drained, Human influence: Fire damage.

Profile description:

O 5cm (F 4cm · H 1cm)

A 0~8cm; Dark brown (7.5YR 3/3) moist; Clay loam; Moderate fine angular; Sticky, plastic, friable moist; Hardness 5; *pH* 5.7; Very few small (1~2cm) gravels; Common coarse roots, frequent fine roots; Abrupt smooth boundary.

Bu1 8~26/30cm; Dull reddish brown (5YR 4/3) moist; Clay loam; Weak medium angular; Sticky, plastic, very friable moist; Hardness 10; *pH* 5.8; Frequent subangular stones; Few coarse roots, common fine roots; Gradual wavy boundary.

Bu2 26/30~40/43cm; Brown (7.5YR 4/3) moist; Sandy clay loam; Very weak coarse angular; Slightly sticky, slightly plastic, very friable moist; Hardness 10; *pH* 5.9; Very frequent subangular stones; Very few coarse roots, few fine root; Gradual wavy boundary.

C 40/43~80cm+; Grayish brown (7.5YR 4.5/2) moist; Sandy clay loam; Massive; Slightly sticky, slightly plastic, very friable moist; Hardness 18; *pH* 5.8; Frequent subangular stones; Very few coarse and fine roots.

Humic Cambisol (Profile No. 5)

Location: Model area 1, Elevation: 930m, Land form: Concave steep slope on the mountainside, Slope: 18°, N45°E, Vegetation: Natural pine forest (*Pinus sylvestris · Betula platyphylla · Rhododendron dahuricum*), Parent material: Diorite, Drainage: Well drained, Human influence: Fire damage.

Profile description:

O 4cm (FH)

Au1 0~10cm; Black (7.5YR 2/1) moist; Silt loam; Strong crumb; Sticky, plastic, loose moist; Hardness 3; *pH* 6.0; Frequent fine roots; Abrupt smooth boundary.

Au2 10~40cm; Dark brown (7.5YR 3/3) moist; Silty clay loam; Weak medium subangular; Sticky, plastic, very friable; Hardness 12; *pH* 5.8; Few coarse roots, common fine roots; Gradual smooth boundary.

B 40~62cm; Brown (7.5YR 4/3) moist; Silty clay loam; Massive; Slightly sticky, slightly plastic, very friable moist; Hardness 17; *pH* 6.2; Few fine roots; Gradual smooth boundary.

C 62~100cm+; Dull yellowish brown (10YR 5/4) moist; Sandy loam; Massive; Slightly sticky, nonplastic, loose moist; Hardness 22; *pH* 6.9: Few fine roots.

Haplic Kastanozem (Profile No. 7)

Location: Model area 2, Elevation: 830m, Land form: Gentle foot slope of the mountain, Slope: 6°, N45°E, Vegetation: Forest-steppe (*Pinus sylvestris* · *Gramineae* grasses), Parent material: Granodiorite, Drainage: Well drained, Human influence: Fire damage.

Profile description:

O 2cm (dead grasses)

Au1 0~10cm; Brownish black (10YR 2/2) moist; Silty clay loam; Moderate crumb; Slightly sticky, slightly plastic, very friable moist; Hardness 13; *pH* 6.3; Frequent fine roots, few coarse roots; Abrupt smooth boundary.

Au2 10~32cm; Dark brown (10YR 2.5/3) moist; Silty clay loam; Weak medium subangular; Sticky, plastic, friable moist; Hardness 20; *pH* 6.6; Common fine roots, few coarse roots; Clear smooth boundary.

AB 32~55cm; Dark brown (10YR 3/3) moist; Silty clay loam; Massive; Sticky, plastic, friable moist; Hardness 19; *pH* 6.9; Few fine roots; Clear smooth boundary.

C 55~100cm+; Dull yellowish brown (10YR 5/4) moist; Sandy loam; Massive; Nonsticky, nonplastic, loose moist; Hardness 20; *pH* 6.6; Very few fine roots.

Haplic Arenosol (Profile No. 16)

Location: Model area 1, Elevation: 755m, Land form: Rolling terrace surface, Slope: 6°, S80°W, Vegetation: Natural pine forest (*Pinus Sylvestris* · *Cladonia spp.*), Parent material: Sand (terrace sediment), Drainage: Excessively drained, Human influence: Fire damage.

Profile description:

O 5cm (F 4cm, H 1cm)

AC 0~7cm; Dull yellowish brown (10YR 4/3) moist; Sand; Very weak fine subangular; Nonsticky, nonplastic, loose moist; Hardness 11; *pH* 6.1; Few coarse and fine roots; Clear smooth boundary.

C 7~100cm+; Dull yellow orange (10YR 6/5) moist; Sand; Single grain; Nonsticky, nonplastic, loose moist; Hardness 14; *pH* 6.0; Few coarse and fine roots.

Umbric Fluvisol (Profile No. 18)

Location: Model area 2, Elevation: 750m, Land form: Valley bottom lowland, Vegetation: Meadow, Parent material: Fluvial sediment, Drainage: Poorly drained.

Profile description:

A 0~9/13cm; Brownish black (10YR 2/2) moist; Clay; Moderate crumb and fine subangular; Sticky, plastic, very friable moist; Hardness 18; *pH* 5.7; Frequent fine roots; Clear wavy boundary.

AC 9/13~50cm; Brownish black (10YR 3/2) moist; Grey mottle; Clay; Very weak angular; Very sticky, very plastic, firm moist; Hardness 22; *pH* 5.4; Common fine roots; Gradual smooth boundary.

C 50~66/74cm; Grayish yellow brown (10YR 4/2) moist; Clay; Massive; Very sticky, very plastic, firm moist; Hardness 23; *pH* 7.2; Very few fine roots; Clear wavy boundary.

2C 66/74~100cm+; Grayish yellow brown (10YR 4.5/2) moist; Sandy loam; Massive; nonsticky, nonplastic, firm moist; Hardness 19; *pH* 6.0.

Appendix 8 List of Plants Found in Model Areas (1/5)

	Family	科	No.	Species	Tree(▲)/Shrub(△)	Dominance: Larch Forest	Dominance: Pine Forest	Dominance: Birch Forest	Dominance: Poplar Forest	Human Use: Forage	Human Use: Medicinal	Human Use: Nourishment	Human Use: Industrial	Human Use: Others
Pteridophyta	Polypodiaceae	ｳﾗｲﾀﾞﾏｼﾞ	1	Woodsia ilvensis										●
			2	Cystopteris fragilis										●
			3	Gymnocarpium remote-pinnatum										●
			4	Athyrium filix-femina										●
			5	Pteridium aquilinum		-	|||	||			●		
	Equisetaceae	ﾄｸｻ	6	Equisetum pratense				|||					●
			7	Equisetum palustre										●
			8	Equisetum sylvaticum										●
Gymnosperm	Pinaceae	ﾏﾂ	9	Larix sibirica	▲	|||						●	
			10	Pinus sylvestris	▲		|||					●	
	Cupressoceae	ﾋﾉｷ	11	Juniperus sabina	△						●		●	
			12	Juniperus sibirica	△						●		●	
	Ephedraceae	ﾏﾊﾞﾗﾓﾐﾓﾐ	13	Ephedra sinica						●	●			
Angiosperm	Gramineae	ｲﾈ	14	Spodiopogon sibiricus						●				
			15	Panicum miliaceum						●		●		
			16	Hierochloe glabra						●				
			17	Stipa sibirica						●				
			18	Stipa grandis						●				
			19	Stipa baicalensis						●				
			20	Stipa Krylovii						●				
			21	Stipa pennata						●				
			22	Phleum phleoides						●				
			23	Alopecurus aequalis						●				
			24	Alopecurus brachystachyus						●				
			25	Agrostis clavata						●				
			26	Agrostis Trinii						●				
			27	Calamagrostis epigeios						●				
			28	Calamagrostis purpurea						●				
			29	Calamagrostis obtusata		||||	||	||	-	●				
			30	Trisetum sibiricum						●				
			31	Helictotrichon pubescens						●				
			32	Helictotrichon Schellianum						●				
			33	Avena fatua						●		●		
			34	Avena sativa						●		●		
			35	Beckmannia syzigachne						●				
			36	Phragmites communis						●				
			37	Cleistogenes Kitagawae						●				
			38	Cleistogenes squarrosa						●				
			39	Koeleria glauca						●				
			40	Koeleria macrantha						●				
			41	Melica virgata						●				
			42	Melica nutans						●				
			43	Poa subfastigiata						●				
			44	Poa sibirica		-	-			●				
			45	Poa angustifolia						●				
			46	Poa pratensis						●				
			47	Poa tianschanica						●				
			48	Poa attenuata						●				
			49	Festuca sibirica						●				
			50	Festuca altaica						●				
			51	Festuca rubra						●				
			52	Festuca ovina		-				●				
			53	Festuca lenensis						●				
			54	Bromus inermis						●				
			55	Bromus Pumpellianus						●				

Appendix List of Plants Found in Model Areas (2/5)

Family	科	No.	Species	Tree(▲)/Shrub(△)	Dominance: Larch Forest	Dominance: Pine Forest	Dominance: Birch Forest	Dominance: Poplar Forest	Human Use: Forage	Human Use: Medicinal	Human Use: Nourishment	Human Use: Industrial	Human Use: Others
		56	Agropyron cristatum						●				
		57	Agropyron repens						●				
		58	Hordeum brevisubulatum						●				
		59	Elymus transbaicalensis						●				
		60	Elymus sibiricus						●				
		61	Elymus dahuricus						●				
		62	Elymus mutabilis						●				
		63	Elymus Gmelinii						●				
		64	Elymus Komarovii						●				
		65	Hierochloe odorata						●				
Cyperaceae	ｶﾔﾂﾘｸｻ	66	Eriophorum brachyantherum						●				
		67	Eriophorum russeolum						●				
		68	Kobresia filifolia						●				
		69	Kobresia Bellardii						●				
		70	Carex argunensis						●				
		71	Carex Scheidtii						●				
		72	Carex norvegica						●				
		73	Carex pediformis		+++	+++	+++	-	●				
		74	Carex Korshinskyi						●				
		75	Carex dichroa						●				
		76	Carex orthostachys						●				
		77	Luzula pallescens						●				
Liliaceae	ﾕﾘ	78	Veratrum Lobelianum							●			
		79	Hemerocallis minor						●		●		
		80	Allium lineare						●		●		
		81	Allium schoenoprasum								●		
		82	Allium victorialis								●		
		83	Allium anisopodium								●		
		84	Allium senescens								●		
		85	Lilium dahuricum								●		
		86	Lilium martagon								●		
		87	Lilium pumilum								●		
		88	Maianthemum bifolium		-	-							●
		89	Paris quadrifolia										●
		90	Polygonatum officinale							●			
Iridaceae	ｱﾔﾒｸｻ	91	Iris flavissima						●				●
		92	Iris ruthenica		++	-	+++						●
Orchidaceae	ﾗﾝ	93	Cypripedium guttatum										●
		94	Cypripedium macranthum										●
		95	Microstylis monophyllos										●
		96	Epipogon aphyllum										●
		97	Orchis salina										●
		98	Platanthera bifolia										●
Salicaceae	ﾔﾅｷﾞ	99	Salix caprea	▲								●	
		100	Salix Bebbiana	▲								●	
		101	Salix pentandra	▲								●	
		102	Populus tremula	▲				+++				●	
Betulaceae	ｶﾊﾞﾉｷ	103	Betula platyphylla	▲			+++					●	
		104	Betula gmelinii	▲								●	
		105	Betula fruticosa	△								●	
		106	Alnus fruticosa	△								●	
Ulmaceae	ﾆﾚ	107	Ulmus pumila	▲								●	
Urticaceae	ｲﾗｸｻ	108	Urtica angustifolia									●	
		109	Urtica cannabina									●	
Polygonaceae	ﾀﾃﾞ	110	Rheum undulatum									●	

Appendix List of Plants Found in Model Areas (3/5)

Family	科	No.	Species	Tree(▲)/Shrub(△)	Dominance: Larch Forest	Dominance: Pine Forest	Dominance: Birch Forest	Dominance: Poplar Forest	Human Use: Forage	Human Use: Medicinal	Human Use: Nourishment	Human Use: Industrial	Human Use: Others
		111	Rumex acetosella									●	
		112	Rumex acetosa									●	
		113	Polygonum alopecuroides									●	
		114	Polygonum divaricatum						●	●			
		115	Polygonum viviparum							●	●		
Chenopodiaceae	ｱｶｻﾞ	116	Chenopodium album										●
		117	Kochia prostrata										●
Caryophyllaceae	ﾅﾃﾞｼｺ	118	Stellaria dichotoma						●				
		119	Cerastium arvense						●				
		120	Arenaria capillaris						●				
		121	Moehringa lateriflora						●				
		122	Silene repens						●				
		123	Silene vulgaris						●				
		124	Dianthus superbus							●			
		125	Dianthus versicolor							●			
Ranunculaceae	ｷﾝﾎﾟｳｹﾞ	126	Caltha natans										●
		127	Trollius asiaticus							●			
		128	Cimicifuga foetida							●			
		129	Aquilegia sibirica										●
		130	Delphinium grandiflorum							●			
		131	Aconitum barbatum							●			
		132	Aconitum excelsum							●			
		133	Anemone crinita							●			
		134	Pulsatilla ambigua						●	●			
		135	Pulsatilla flavescens						●	●			
		136	Pulsatilla Turczaninovii						●	●			
		137	Atragene sibirica										●
		138	Ranunculus chinensis						●				
		139	Thalictrum foetidum						●	●			
		140	Thalictrum minus		-		-		●	●			
		141	Thalictrum simplex						●				
Berberidaceae	ﾒｷﾞﾂﾈ	142	Berberis sibirica							●	●		
Cruciferae	ﾃﾞﾝﾀｸｻ	143	Alyssum obovatum										
Papaveraceae	ｹｼ	144	Papaver croceum						●				
Crassulaceae	ﾍﾞﾝｹｲｿｳ	145	Sedum aizoon							●			
		146	Sedum purpureum							●			
		147	Orostachys malacophylla							●			
		148	Orostachys spinosa							●			
Saxifragaecae	ｽｸﾞﾘ	149	Ribes altissimum	△						●	●		
		150	Ribes diacantha	△						●	●		
		151	Ribes nigrum	△						●	●		
		152	Ribes rubrum	△						●	●		
		153	Parnassia palustris							●			
		154	Bergenia crassifolia							●			
Rosaecae	ﾊﾞﾗ	155	Spiraea flexuosa	△	+	-	+++	-				●	
		156	Spiraea media	△								●	
		157	Cotoneaster melanocarpa	△								●	
		158	Crataegus sanguinea	△						●	●		
		159	Rubus sachalinensis	△	+	-	+			●	●		
		160	Rubus saxatilis	△	+	-	+++	-		●	●		
		161	Fragaria orientalis							●	●		
		162	Dasiphora fruticosa	△								●	
		163	Potentilla flagellaris						●				
		164	Potentilla acaulis						●				
		165	Potentilla nivea										

Appendix List of Plants Found in Model Areas (4/5)

Family	科	No.	Species	Tree(▲)/Shrub(△)	Dominance: Larch Forest	Dominance: Pine Forest	Dominance: Birch Forest	Dominance: Poplar Forest	Human Use: Forage	Human Use: Medicinal	Human Use: Nourishment	Human Use: Industrial	Human Use: Others
		166	Filipendula palmata				+						●
		167	Sanguisorba officinalis							●			
		168	Rosa acicularis	△						●	●		
		169	Rosa dahurica	△						●	●		
		170	Amygdalus pedunculata	△								●	
		171	Padus asiatica	▲						●	●		
		172	Araeniaca sibirica	△								●	
Leguminosae	マメ	173	Thermopsis dahurica						●	●			
		174	Medicago falcata						●	●			
		175	Trifolium lupinaster						●				
		176	Caragana pygmaea									●	
		177	Astragalus adsurgens						●				
		178	Astragalus mongholicus						●				
		179	Oxytropis myriophylla						●				
		180	Oxytropis caespitosa						●				
		181	Hedysarum collinum						●				
		182	Lespedeza dahurica			++			●				
		183	Vicia amoena						●				
		184	Vicia baicalensis		+	-	++	-	●				
		185	Vicia cracca						●				
		186	Vicia unijuga						●				
		187	Vicia venosa						●				
		188	Lathyrus humilis		-	-	-	-	●				
Polygalaceae	ヒメハギ	189	Polygala hybrida										
Geraniceae	フウロソウ	190	Geranium pratense							●	●		
		191	Geranium sibiricum							●	●		
		192	Geranium Vlassovianum							●	●		
Euphorbiaceae	トウダイグサ	193	Euphorbia discolor						●				
Violaceae	スミレ	194	Viola uniflora						●				
		195	Viola biflora						●				
		196	Viola arenaria						●				
Thymelocaceae	ジンチョウゲ	197	Stellera chamaejasme						●				
Onagraceae	アカバナ	198	Chamaenerion angustifolium								●		
Umbelliferae	セリ	199	Bupleurum scorzonerifolium						●				
		200	Carum carvi								●		
		201	Aegopodium alpestre						●				
		202	Saposhnikovia divaricata						●	●			
		203	Heracleum dissectum						●				
Pyrolaceae	イチヤクソウ	204	Pyrola incarnata		+	-							●
		205	Pyrola rotundifolia										●
Ericaceae	ツツジ	206	Ledum palustre	△						●		●	
		207	Rhododendron dahuricum	△	+++	+	++	+		●		●	
Vacciniaceae	スノキ	208	Vaccinium vitis-idaea		-	-				●	●		
Primulaceae	サクラソウ	209	Primula sibirica						●				
		210	Trientalis europaea						●				
Gentianaceae	リンドウ	211	Gentiana barbata							●			
		212	Gentiana macrophylla							●			
Convolvalaceae	ヒルガオ	213	Convolvulus arvensis										●
Polemoniaceae	ハナシノブ	214	Polemonium racemosum										
Boraginaceae	ムラサキ	215	Myosotis caespitosa										●
Labiatae	シソ	216	Schizonepeta multifida										●
		217	Phlomis tuberosa							●			
		218	Lamium album								●		
		219	Thymus gobicus							●			
		220	Thymus dahuricus							●			

Appendix List of Plants Found in Model Areas (5/5)

Family	科	No.	Species	Tree(▲)/Shrub(△)	Dominance				Human Use				
					Larch Forest	Pine Forest	Birch Forest	Poplar Forest	Forage*	Medicinal	Nourishment	Industrial	Others
Solanaceae	ナス	221	Hyoscyamus niger							●			
Scrophulariaceae	ゴマノハグサ	222	Veronica incana						●				
		223	Veronica longifolia						●				
		224	Pedicularis rubens										●
Plantaginaceae	オオバコ	225	Plantago major							●			
Rublaceae	アカネ	226	Galium boreale						●				
		227	Galium verum						●				
Caprifoliaceae	スイカズラ	228	Sambucus sibirica	△						●			
		229	Lonicera altaica	△						●	●		
		230	Linnaea borealis										●
Valerianaceae	オミナエシ	231	Valeriana officinalis							●			
		232	Patrinia rupestris						●				
Dipsacaceae	マツムシソウ	233	Scabiosa comosa						●				
Campanulaceae	キキョウ	234	Campanula glomerata						●				
Compositae	キク	235	Aster alpinus						●				
		236	Heteropappus biennis						●				
		237	Leontopodium leontopodioides						●			●	
		238	Achillea asiatica						●				
		239	Filifolium sibiricum			·			●				
		240	Artemisia commutata						●				
		241	Artemisia frigida						●				
		242	Artemisia laciniata						●				
		243	Artemisia sericea						●				
		244	Artemisia dracunculus						●				
		245	Cacalia hastata						●				
		246	Serratula centauroides						●				
		247	Scorzonera radiata						●				
		248	Taraxacum officinale						●	●			
		249	Saussurea Stubendorfii										
		250	Saussurea alpina										

<Symbols>

||| :dominants

|| :subdominants

| :participants(always)

· :participants (sometimes)

Appendix 9 Compilation of Sample Plot Survey Results (1995 Survey)

Plot No. 1

General Summing Results

Species	DBH MAX (cm)	DBH AVG (cm)	DBH MIN (cm)	H MAX (m)	H AVG (m)	H MIN (m)	Class n 1 (n)	Class n 2 (n)	Class n 3 (n)	Class n Sum (n)	Class Total V 1 (m^3)	Class Total V 2 (m^3)	Class Total V 3 (m^3)	Class Total V Total (m^3)
Larix sibirica														
Pinus sylvestris	44	25	10	20	14	7	60	48	31	139	28.642	16.198	8.586	53.426
Betula platyphylla														
Populus tremula														
Grand/Total	44	25	10	20	14	7	60	48	31	139	28.642	16.198	8.586	53.426

Summing by Species, DBH Class, Quality

DBH Range (cm)	*Larix sibirica* Class 1/2 n	*Larix sibirica* Class 1/2 V (m^3)	*Larix sibirica* Class 3 n	*Larix sibirica* Class 3 V (m^3)	*Pinus sylvestris* Class 1/2 n	*Pinus sylvestris* Class 1/2 V (m^3)	*Pinus sylvestris* Class 3 n	*Pinus sylvestris* Class 3 V (m^3)	*Betula platyphylla* Class 1/2 n	*Betula platyphylla* Class 1/2 V (m^3)	*Betula platyphylla* Class 3 n	*Betula platyphylla* Class 3 V (m^3)	*Populus tremula* Class 1/2 n	*Populus tremula* Class 1/2 V (m^3)	*Populus tremula* Class 3 n	*Populus tremula* Class 3 V (m^3)
≤ 13					2	0.103	4	0.179								
13 < ≤ 17					8	0.858	3	0.296								
17 < ≤ 21					18	3.164	10	1.413								
21 < ≤ 25					16	4.844	5	1.499								
25 < ≤ 29					34	14.744	3	1.119								
29 < ≤ 33					17	9.184	2	0.950								
33 < ≤ 37					10	7.561	3	2.109								
37 < ≤ 41					5	4.384										
41 < ≤ 45							1	1.021								
45 < ≤ 49																
49 < ≤ 53																
53 <																
Total					108	44.840	31	8.586								

Plot No. 2

General Summing Results

Species	DBH MAX (cm)	DBH AVG (cm)	DBH MIN (cm)	H MAX (m)	H AVG (m)	H MIN (m)	Class n 1 (n)	Class n 2 (n)	Class n 3 (n)	Class n Sum (n)	Class Total V 1 (m^3)	Class Total V 2 (m^3)	Class Total V 3 (m^3)	Class Total V Total (m^3)
Larix sibirica														
Pinus sylvestris	42	21	10	18	13	7	178	43	13	232	55.736	7.626	1.520	64.882
Betula platyphylla														
Populus tremula														
Grand/Total	42	21	10	18	13	7	178	43	13	232	55.736	7.626	1.520	64.882

Summing by Species, DBH Class, Quality

DBH Range (cm)	*Larix sibirica* Class 1/2 n	*Larix sibirica* Class 1/2 V (m^3)	*Larix sibirica* Class 3 n	*Larix sibirica* Class 3 V (m^3)	*Pinus sylvestris* Class 1/2 n	*Pinus sylvestris* Class 1/2 V (m^3)	*Pinus sylvestris* Class 3 n	*Pinus sylvestris* Class 3 V (m^3)	*Betula platyphylla* Class 1/2 n	*Betula platyphylla* Class 1/2 V (m^3)	*Betula platyphylla* Class 3 n	*Betula platyphylla* Class 3 V (m^3)	*Populus tremula* Class 1/2 n	*Populus tremula* Class 1/2 V (m^3)	*Populus tremula* Class 3 n	*Populus tremula* Class 3 V (m^3)
≤ 13					35	1.765	8	0.341								
13 < ≤ 17					37	4.024	2	0.142								
17 < ≤ 21					38	7.246										
21 < ≤ 25					39	11.792	2	0.643								
25 < ≤ 29					33	13.655	1	0.358								
29 < ≤ 33					21	11.701										
33 < ≤ 37					9	6.484										
37 < ≤ 41					5	4.587										
41 < ≤ 45					2	2.108										
45 < ≤ 49																
49 < ≤ 53																
53 <																
Total					219	63.362	13	1.520								

Plot No. 3

General Summing Results

Species	DBH MAX (cm)	DBH AVG (cm)	DBH MIN (cm)	H MAX (m)	H AVG (m)	H MIN (m)	Class n 1 (n)	Class n 2 (n)	Class n 3 (n)	Class n Sum (n)	Class Total V 1 (m^3)	Class Total V 2 (m^3)	Class Total V 3 (m^3)	Class Total V Total (m^3)
Larix sibirica														
Pinus sylvestris	46	18	10	22	13	6	142	162	54	358	46.829	37.024	7.841	91.694
Betula platyphylla	22	15	10	16	13	11			7	7			1.258	1.258
Populus tremula														
Grand/Total	46	18	10	22	13	6	142	162	61	365	46.829	37.024	9.099	92.952

Summing by Species, DBH Class, Quality

DBH Range (cm)	*Larix sibirica* Class 1/2 n	*Larix sibirica* Class 1/2 V (m^3)	*Larix sibirica* Class 3 n	*Larix sibirica* Class 3 V (m^3)	*Pinus sylvestris* Class 1/2 n	*Pinus sylvestris* Class 1/2 V (m^3)	*Pinus sylvestris* Class 3 n	*Pinus sylvestris* Class 3 V (m^3)	*Betula platyphylla* Class 1/2 n	*Betula platyphylla* Class 1/2 V (m^3)	*Betula platyphylla* Class 3 n	*Betula platyphylla* Class 3 V (m^3)	*Populus tremula* Class 1/2 n	*Populus tremula* Class 1/2 V (m^3)	*Populus tremula* Class 3 n	*Populus tremula* Class 3 V (m^3)
≤ 13					91	4.704	35	1.669			2	0.185				
13 < ≤ 17					62	6.918	12	1.415			3	0.453				
17 < ≤ 21					42	8.776	3	0.650			1	0.291				
21 < ≤ 25					35	10.981					1	0.329				
25 < ≤ 29					25	11.783										
29 < ≤ 33					22	14.085										
33 < ≤ 37					16	12.994	1	0.904								
37 < ≤ 41					6	6.166	2	2.088								
41 < ≤ 45					2	2.436	1	1.114								
45 < ≤ 49					3	5.010										
49 < ≤ 53																
53 <																
Total					304	83.853	54	7.841			7	1.258				

Plot No. 4

General Summing Results

Species	DBH MAX (cm)	DBH AVG (cm)	DBH MIN (cm)	H MAX (m)	H AVG (m)	H MIN (m)	Class n 1 (n)	Class n 2 (n)	Class n 3 (n)	Class n Sum (n)	Class Total V 1 (m^3)	Class Total V 2 (m^3)	Class Total V 3 (m^3)	Class Total V Total (m^3)
Larix sibirica														
Pinus sylvestris	46	20	10	23	13	6	89	52	13	154	29.488	12.852	2.857	45.197
Betula platyphylla														
Populus tremula														
Grand/Total	46	20	10	23	13	6	89	52	13	154	29.488	12.852	2.857	45.197

Summing by Species, DBH Class, Quality

DBH Range (cm)	*Larix sibirica* Class 1/2 n	*Larix sibirica* Class 1/2 V (m^3)	*Larix sibirica* Class 3 n	*Larix sibirica* Class 3 V (m^3)	*Pinus sylvestris* Class 1/2 n	*Pinus sylvestris* Class 1/2 V (m^3)	*Pinus sylvestris* Class 3 n	*Pinus sylvestris* Class 3 V (m^3)	*Betula platyphylla* Class 1/2 n	*Betula platyphylla* Class 1/2 V (m^3)	*Betula platyphylla* Class 3 n	*Betula platyphylla* Class 3 V (m^3)	*Populus tremula* Class 1/2 n	*Populus tremula* Class 1/2 V (m^3)	*Populus tremula* Class 3 n	*Populus tremula* Class 3 V (m^3)
≤ 13					34	1.254	2	0.058								
13 < ≤ 17					21	2.453	4	0.486								
17 < ≤ 21					22	4.350	2	0.440								
21 < ≤ 25					19	5.651	3	0.791								
25 < ≤ 29					17	8.211	2	1.082								
29 < ≤ 33					18	8.984										
33 < ≤ 37					7	5.721										
37 < ≤ 41					3	2.993										
41 < ≤ 45																
45 < ≤ 49					2	2.723										
49 < ≤ 53																
53 <																
Total					141	42.340	13	2.857								

Plot No. 5

General Summing Results

Species	DBH MAX (cm)	DBH AVG (cm)	DBH MIN (cm)	H MAX (m)	H AVG (m)	H MIN (m)	Class n 1 (n)	Class n 2 (n)	Class n 3 (n)	Class n Sum (n)	Class Total V 1 (m³)	Class Total V 2 (m³)	Class Total V 3 (m³)	Class Total V Total (m³)
Larix sibirica														
Pinus sylvestris	48	18	10	28	17	6	287	92	69	448	84.582	23.066	23.554	131.222
Betula platyphylla	18	14	10	17	14	10		7	6	13		1.039	0.898	1.937
Populus tremula														
Grand/Total	48	18	10	28	17	6	287	99	75	461	84.582	24.125	24.452	133.159

Summing by Species; DBH Class; Quality

DBH Range (cm)	*Larix sibirica* Class 1/2 n	*Larix sibirica* Class 1/2 V (m³)	*Larix sibirica* Class 3 n	*Larix sibirica* Class 3 V (m³)	*Pinus sylvestris* Class 1/2 n	*Pinus sylvestris* Class 1/2 V (m³)	*Pinus sylvestris* Class 3 n	*Pinus sylvestris* Class 3 V (m³)	*Betula platyphylla* Class 1/2 n	*Betula platyphylla* Class 1/2 V (m³)	*Betula platyphylla* Class 3 n	*Betula platyphylla* Class 3 V (m³)	*Populus tremula* Class 1/2 n	*Populus tremula* Class 1/2 V (m³)	*Populus tremula* Class 3 n	*Populus tremula* Class 3 V (m³)
≤ 13					83	8.052	16	1.128	1	0.074	3	0.293				
13 < ≤ 17					79	13.761	15	2.223	6	0.965	2	0.372				
17 < ≤ 21					82	21.051	13	3.200			1	0.233				
21 < ≤ 25					60	30.878	8	3.070								
25 < ≤ 29					37	19.847	7	3.833								
29 < ≤ 33					8	5.616	1	0.769								
33 < ≤ 37					2	1.927	1	0.784								
37 < ≤ 41					4	4.602	1	1.287								
41 < ≤ 45					2	2.756	3	4.115								
45 < ≤ 49					2	3.368	2	3.345								
49 < ≤ 53																
53 <																
Total					379	107.668	69	23.554	7	1.039	6	0.898				

Plot No. 6

General Summing Results

Species	DBH MAX (cm)	DBH AVG (cm)	DBH MIN (cm)	H MAX (m)	H AVG (m)	H MIN (m)	Class n 1 (n)	Class n 2 (n)	Class n 3 (n)	Class n Sum (n)	Class Total V 1 (m³)	Class Total V 2 (m³)	Class Total V 3 (m³)	Class Total V Total (m³)
Larix sibirica														
Pinus sylvestris	50	15	10	23	13	6	187	124	28	339	38.430	14.995	2.679	54.104
Betula platyphylla	48	15	10	22	12	3	64	73	28	165	15.090	13.685	3.315	32.490
Populus tremula														
Grand/Total	50	15	10	23	12	3	251	197	56	504	52.520	28.080	5.994	86.594

Summing by Species; DBH Class; Quality

DBH Range (cm)	*Larix sibirica* Class 1/2 n	*Larix sibirica* Class 1/2 V (m³)	*Larix sibirica* Class 3 n	*Larix sibirica* Class 3 V (m³)	*Pinus sylvestris* Class 1/2 n	*Pinus sylvestris* Class 1/2 V (m³)	*Pinus sylvestris* Class 3 n	*Pinus sylvestris* Class 3 V (m³)	*Betula platyphylla* Class 1/2 n	*Betula platyphylla* Class 1/2 V (m³)	*Betula platyphylla* Class 3 n	*Betula platyphylla* Class 3 V (m³)	*Populus tremula* Class 1/2 n	*Populus tremula* Class 1/2 V (m³)	*Populus tremula* Class 3 n	*Populus tremula* Class 3 V (m³)
≤ 13					140	7.128	20	1.052	60	5.005	16	1.123				
13 < ≤ 17					76	8.798	3	0.355	40	5.934	7	1.002				
17 < ≤ 21					42	8.552	2	0.447	16	3.862	5	1.190				
21 < ≤ 25					23	7.713	3	0.825	7	2.566						
25 < ≤ 29					13	6.558			4	1.981						
29 < ≤ 33					8	5.548			5	3.253						
33 < ≤ 37					2	1.659										
37 < ≤ 41					2	1.886			2	2.081						
41 < ≤ 45																
45 < ≤ 49					1	1.610			3	4.493						
49 < ≤ 53					1	1.722										
53 <																
Total					311	51.425	28	2.679	137	29.175	28	3.315				

Plot No. 7

General Summing Results

Species	DBH MAX (cm)	DBH AVG (cm)	DBH MIN (cm)	H MAX (m)	H AVG (m)	H MIN (m)	Class n 1 (n)	Class n 2 (n)	Class n 3 (n)	Class n Sum (n)	Class Total V 1 (m³)	Class Total V 2 (m³)	Class Total V 3 (m³)	Class Total V Total (m³)
Larix sibirica														
Pinus sylvestris	76	27	10	25	18	7	72	79	59	210	55.276	59.943	18.670	133.889
Betula platyphylla	68	19	10	24	12	7	1	6	34	41	3.084	2.446	7.775	13.305
Populus tremula	24	14	10	18	11	6		13	33	46		1.758	2.724	4.482
Grand/Total	76	23	10	25	16	7	73	98	126	297	58.360	64.147	29.169	151.676

Summing by Species; DBH Class; Quality

DBH Range (cm)	*Larix sibirica* Class 1/2 n	*Larix sibirica* Class 1/2 V (m³)	*Larix sibirica* Class 3 n	*Larix sibirica* Class 3 V (m³)	*Pinus sylvestris* Class 1/2 n	*Pinus sylvestris* Class 1/2 V (m³)	*Pinus sylvestris* Class 3 n	*Pinus sylvestris* Class 3 V (m³)	*Betula platyphylla* Class 1/2 n	*Betula platyphylla* Class 1/2 V (m³)	*Betula platyphylla* Class 3 n	*Betula platyphylla* Class 3 V (m³)	*Populus tremula* Class 1/2 n	*Populus tremula* Class 1/2 V (m³)	*Populus tremula* Class 3 n	*Populus tremula* Class 3 V (m³)
≤ 13					1	0.063	17	1.099			15	1.155	2	0.108	17	0.810
13 < ≤ 17					6	0.783	13	1.676	2	0.235	8	1.054	4	0.435	11	1.122
17 < ≤ 21					21	5.363	11	2.330			4	1.042	6	0.960	2	0.319
21 < ≤ 25					26	9.306	7	2.568	1	0.414	3	1.164	1	0.235	1	0.338
25 < ≤ 29					32	18.666	2	0.873	2	1.116	1	0.342				
29 < ≤ 33					22	15.130	4	2.668	1	0.679						
33 < ≤ 37					14	12.061										
37 < ≤ 41					11	12.562	1	1.107			2	1.865				
41 < ≤ 45					2	2.766	2	2.768			1	1.133				
45 < ≤ 49					4	8.937	2	3.503								
49 < ≤ 53					1	2.054										
53 <					11	31.126			1	3.084						
Total					158	115.219	59	18.670	7	5.530	34	7.775	13	1.758	33	2.724

Plot No. 8

General Summing Results

Species	DBH MAX (cm)	DBH AVG (cm)	DBH MIN (cm)	H MAX (m)	H AVG (m)	H MIN (m)	Class n 1 (n)	Class n 2 (n)	Class n 3 (n)	Class n Sum (n)	Class Total V 1 (m³)	Class Total V 2 (m³)	Class Total V 3 (m³)	Class Total V Total (m³)
Larix sibirica														
Pinus sylvestris	46	17	10	18	12	6	34	31	8	73	9.631	3.760	0.507	13.898
Betula platyphylla	36	14	10	18	12	6	44	114	61	219	6.107	18.270	12.856	37.233
Populus tremula														
Grand/Total	46	15	10	18	12	6	78	145	69	292	15.734	22.030	13.363	51.131

Summing by Species; DBH Class; Quality

DBH Range (cm)	*Larix sibirica* Class 1/2 n	*Larix sibirica* Class 1/2 V (m³)	*Larix sibirica* Class 3 n	*Larix sibirica* Class 3 V (m³)	*Pinus sylvestris* Class 1/2 n	*Pinus sylvestris* Class 1/2 V (m³)	*Pinus sylvestris* Class 3 n	*Pinus sylvestris* Class 3 V (m³)	*Betula platyphylla* Class 1/2 n	*Betula platyphylla* Class 1/2 V (m³)	*Betula platyphylla* Class 3 n	*Betula platyphylla* Class 3 V (m³)	*Populus tremula* Class 1/2 n	*Populus tremula* Class 1/2 V (m³)	*Populus tremula* Class 3 n	*Populus tremula* Class 3 V (m³)
≤ 13					18	0.715	7	0.319	86	6.798	20	1.472				
13 < ≤ 17					18	2.053			35	5.151	17	2.438				
17 < ≤ 21					9	3.632	1	0.197	22	5.242	8	2.220				
21 < ≤ 25					9	2.237			7	2.669	6	2.730				
25 < ≤ 29					4	1.370			4	1.992	3	1.252				
29 < ≤ 33					4	2.404			4	2.525	2	1.193				
33 < ≤ 37					1	0.744					2	1.551				
37 < ≤ 41					1	0.906										
41 < ≤ 45																
45 < ≤ 49					1	1.326										
49 < ≤ 53																
53 <																
Total					65	13.391	8	0.507	158	24.377	61	12.858				

Plot No. 9

General Summing Results

Species	DBH MAX	DBH AVG	DBH MIN	H MAX	H AVG	H MIN	Class n 1	Class n 2	Class n 3	Class n Sum	Class Total V 1	Class Total V 2	Class Total V 3	Class Total V Total
	cm	cm	cm	m	m	m	n	n	n	n	m³	m³	m³	m³
Larix sibirica														
Pinus sylvestris														
Betula platyphylla	44	15	10	20	13	5	18	126	91	237	4.149	24.054	18.448	46.651
Populus tremula	34	13	10	19	12	6	9	159	100	264	1.212	17.199	8.386	24.797
Grand/Total	44	14	10	20	12	5	27	287	191	505	5.361	41.253	24.834	71.448

Summing by Species; DBH Class; Quality

DBH Range	*Larix sibirica* Class 1/2 n	V	*Larix sibirica* Class 3 n	V	*Pinus sylvestris* Class 1/2 n	V	*Pinus sylvestris* Class 3 n	V	*Betula platyphylla* Class 1/2 n	V	*Betula platyphylla* Class 3 n	V	*Populus tremula* Class 1/2 n	V	*Populus tremula* Class 3 n	V
cm – cm		m³		m³		m³		m³		m³		m³		m³		m³
≤ 13									52	4.707	48	3.705	74	4.296	83	4.079
13 < ≤ 17									51	8.676	19	2.880	73	8.695	15	1.655
17 < ≤ 21									28	6.772	5	1.159	13	2.458	2	0.332
21 < ≤ 25									9	3.334	7	2.458	6	1.857	1	0.256
25 < ≤ 29									2	0.999	3	1.438				
29 < ≤ 33									1	0.704	5	3.204	1	0.545		
33 < ≤ 37											2	1.507	1	0.520		
37 < ≤ 41									3	3.058	1	0.880				
41 < ≤ 45											1	1.219				
45 < ≤ 49																
49 < ≤ 53																
53 <																
Total									146	28.203	91	18.448	168	18.431	100	6.386

Plot No. 10

General Summing Results

Species	DBH MAX	DBH AVG	DBH MIN	H MAX	H AVG	H MIN	Class n 1	Class n 2	Class n 3	Class n Sum	Class Total V 1	Class Total V 2	Class Total V 3	Class Total V Total
	cm	cm	cm	m	m	m	n	n	n	n	m³	m³	m³	m³
Larix sibirica														
Pinus sylvestris	42	20	10	30	16	8	105	102	89	276	46.794	25.410	9.901	82.105
Betula platyphylla	46	16	10	25	12	7	6	13	8	27	1.919	1.433	3.225	6.577
Populus tremula														
Grand/Total	46	19	10	30	15	7	111	115	77	303	48.713	26.843	13.126	88.682

Summing by Species; DBH Class; Quality

DBH Range	*Larix sibirica* Class 1/2 n	V	*Larix sibirica* Class 3 n	V	*Pinus sylvestris* Class 1/2 n	V	*Pinus sylvestris* Class 3 n	V	*Betula platyphylla* Class 1/2 n	V	*Betula platyphylla* Class 3 n	V	*Populus tremula* Class 1/2 n	V	*Populus tremula* Class 3 n	V
cm – cm		m³		m³		m³		m³		m³		m³		m³		m³
≤ 13					20	1.371	32	1.825	9	0.678	4	0.306				
13 < ≤ 17					38	5.086	21	2.219	6	0.975						
17 < ≤ 21					49	12.009	8	1.574	2	0.520						
21 < ≤ 25					35	12.554	2	0.472	1	0.428	2	0.615				
25 < ≤ 29					34	17.679	3	1.324								
29 < ≤ 33					16	10.511	1	0.459	1	0.751	1	0.692				
33 < ≤ 37					13	10.907										
37 < ≤ 41					2	2.087										
41 < ≤ 45							2	2.228								
45 < ≤ 49											1	1.612				
49 < ≤ 53																
53 <																
Total					207	72.204	69	9.901	19	3.352	8	3.225				

Plot No. 11

General Summing Results

Species	DBH MAX	DBH AVG	DBH MIN	H MAX	H AVG	H MIN	Class n 1	Class n 2	Class n 3	Class n Sum	Class Total V 1	Class Total V 2	Class Total V 3	Class Total V Total
	cm	cm	cm	m	m	m	n	n	n	n	m³	m³	m³	m³
Larix sibirica														
Pinus sylvestris														
Betula platyphylla	42	15	10	18	11	6	45	134	156	335	10.382	26.358	23.271	60.011
Populus tremula	10	10	10	11	10	9	1	3	2	6	0.045	0.125	0.076	0.246
Grand/Total	42	15	10	18	11	6	46	137	158	341	10.427	26.483	23.347	60.257

Summing by Species; DBH Class; Quality

DBH Range	*Larix sibirica* Class 1/2 n	V	*Larix sibirica* Class 3 n	V	*Pinus sylvestris* Class 1/2 n	V	*Pinus sylvestris* Class 3 n	V	*Betula platyphylla* Class 1/2 n	V	*Betula platyphylla* Class 3 n	V	*Populus tremula* Class 1/2 n	V	*Populus tremula* Class 3 n	V
cm – cm		m³		m³		m³		m³		m³		m³		m³		m³
≤ 13									48	4.234	106	7.333	4	0.179	2	0.076
13 < ≤ 17									58	8.827	27	3.534				
17 < ≤ 21									43	10.680	11	2.412				
21 < ≤ 25									22	7.794	1	0.256				
25 < ≤ 29									4	1.994	1	0.540				
29 < ≤ 33									1	0.679	3	1.966				
33 < ≤ 37									2	1.586						
37 < ≤ 41									1	0.946	4	3.975				
41 < ≤ 45											3	3.255				
45 < ≤ 49																
49 < ≤ 53																
53 <																
Total									179	36.740	156	23.271	4	0.179	2	0.076

Plot No. 12

General Summing Results

Species	DBH MAX	DBH AVG	DBH MIN	H MAX	H AVG	H MIN	Class n 1	Class n 2	Class n 3	Class n Sum	Class Total V 1	Class Total V 2	Class Total V 3	Class Total V Total
	cm	cm	cm	m	m	m	n	n	n	n	m³	m³	m³	m³
Larix sibirica														
Pinus sylvestris														
Betula platyphylla	44	22	10	19	13	8	26	48	135	209	15.316	21.626	40.862	77.804
Populus tremula	32	24	10	17	14	7	4	3	3	10	1.720	1.032	0.648	3.400
Grand/Total	44	22	10	19	13	8	30	51	138	219	17.038	22.658	41.510	81.204

Summing by Species; DBH Class; Quality

DBH Range	*Larix sibirica* Class 1/2 n	V	*Larix sibirica* Class 3 n	V	*Pinus sylvestris* Class 1/2 n	V	*Pinus sylvestris* Class 3 n	V	*Betula platyphylla* Class 1/2 n	V	*Betula platyphylla* Class 3 n	V	*Populus tremula* Class 1/2 n	V	*Populus tremula* Class 3 n	V
cm – cm		m³		m³		m³		m³		m³		m³		m³		m³
≤ 13									2	0.149	27	2.119	1	0.040	1	0.027
13 < ≤ 17									4	0.692	30	4.070				
17 < ≤ 21									8	1.958	24	5.364				
21 < ≤ 25									18	6.709	16	5.866			1	0.300
25 < ≤ 29									14	7.129	12	5.714	2	0.734	1	0.321
29 < ≤ 33									18	12.147	10	5.715	4	1.974		
33 < ≤ 37									8	6.233	10	7.692				
37 < ≤ 41									2	2.015	2	2.103				
41 < ≤ 45											2	2.219				
45 < ≤ 49																
49 < ≤ 53																
53 <																
Total									74	36.942	135	40.862	7	2.752	3	0.648

Plot No. 13

General Summing Results

Species	DBH MAX	DBH AVG	DBH MIN	H MAX	H AVG	H MIN	Class n 1	Class n 2	Class n 3	Class n Sum	Class Total V 1	Class Total V 2	Class Total V 3	Class Total V Total
	cm	cm	cm	m	m	m	n	n	n	n	m³	m³	m³	m³
Larix sibirica														
Pinus sylvestris	66	27	10	25	18	10	66	38	44	148	55.950	20.940	18.464	95.354
Betula platyphylla	26	13	10	18	11	7	3	20	37	60	0.744	2.004	4.720	7.468
Populus tremula	12	10	10	14	12	11		4	2	6		0.229	0.111	0.340
Grand Total	66	22	10	25	16	7	69	62	83	214	56.694	23.173	23.295	103.162

Summing by Species; DBH Class; Quality

DBH Range	*Larix sibirica* Class 1/2 n	V	Class 3 n	V	*Pinus sylvestris* Class 1/2 n	V	Class 3 n	V	*Betula platyphylla* Class 1/2 n	V	Class 3 n	V	*Populus tremula* Class 1/2 n	V	Class 3 n	V
cm		m³		m³		m³		m³		m³		m³		m³		m³
≤ 13					9	0.609	8	0.478	15	1.168	21	1.553	4	0.229	2	0.111
13 < ≤ 17					9	1.242	10	1.329	6	0.667	10	1.526				
17 < ≤ 21					11	2.647	4	0.919	1	0.223	4	0.862				
21 < ≤ 25					4	1.582	5	1.572			1	0.414				
25 < ≤ 29					15	7.812	3	1.374	1	0.492	1	0.363				
29 < ≤ 33					18	13.374	5	2.406								
33 < ≤ 37					18	17.020	2	1.749								
37 < ≤ 41					10	11.540	4	4.082								
41 < ≤ 45					2	2.957	2	2.945								
45 < ≤ 49					3	5.185	1	1.610								
49 < ≤ 53					2	3.942										
53 <					3	8.580										
Total					104	76.890	44	18.464	23	2.746	37	4.720	4	0.229	2	0.111

Plot No. 14

General Summing Results

Species	DBH MAX	DBH AVG	DBH MIN	H MAX	H AVG	H MIN	Class n 1	Class n 2	Class n 3	Class n Sum	Class Total V 1	Class Total V 2	Class Total V 3	Class Total V Total
	cm	cm	cm	m	m	m	n	n	n	n	m³	m³	m³	m³
Larix sibirica														
Pinus sylvestris	30	14	10	20	10	5	264	132	56	452	30.184	10.662	3.551	44.397
Betula platyphylla	36	18	10	14	11	5	2	12	38	52	0.467	1.921	9.320	11.708
Populus tremula														
Grand Total	36	14	10	20	10	5	266	144	94	504	30.651	12.583	12.871	56.105

Summing by Species; DBH Class; Quality

DBH Range	*Larix sibirica* Class 1/2 n	V	Class 3 n	V	*Pinus sylvestris* Class 1/2 n	V	Class 3 n	V	*Betula platyphylla* Class 1/2 n	V	Class 3 n	V	*Populus tremula* Class 1/2 n	V	Class 3 n	V
cm		m³		m³		m³		m³		m³		m³		m³		m³
≤ 13					169	8.232	40	1.416	3	0.223	10	0.732				
13 < ≤ 17					120	10.880	8	0.659	5	0.751	6	0.609				
17 < ≤ 21					62	9.684	6	0.958	5	1.127	7	1.503				
21 < ≤ 25					33	7.941	1	0.217	1	0.287	5	1.435				
25 < ≤ 29					11	3.650	1	0.301			6	2.405				
29 < ≤ 33					1	0.459					2	1.029				
33 < ≤ 37											2	1.407				
37 < ≤ 41																
41 < ≤ 45																
45 < ≤ 49																
49 < ≤ 53																
53 <																
Total					396	40.846	56	3.551	14	2.388	38	9.320				

Plot No. 15

General Summing Results

Species	DBH MAX	DBH AVG	DBH MIN	H MAX	H AVG	H MIN	Class n 1	Class n 2	Class n 3	Class n Sum	Class Total V 1	Class Total V 2	Class Total V 3	Class Total V Total
	cm	cm	cm	m	m	m	n	n	n	n	m³	m³	m³	m³
Larix sibirica														
Pinus sylvestris	38	13	10	23	15	8	474	230	50	754	74.024	20.560	4.700	99.284
Betula platyphylla	18	10	10	15	10	7		4	14	18		0.321	1.122	1.443
Populus tremula														
Grand Total	38	13	10	23	15	7	474	234	64	772	74.024	20.881	5.822	100.727

Summing by Species; DBH Class; Quality

DBH Range	*Larix sibirica* Class 1/2 n	V	Class 3 n	V	*Pinus sylvestris* Class 1/2 n	V	Class 3 n	V	*Betula platyphylla* Class 1/2 n	V	Class 3 n	V	*Populus tremula* Class 1/2 n	V	Class 3 n	V
cm		m³		m³		m³		m³		m³		m³		m³		m³
≤ 13					343	23.901	37	2.097	4	0.321	13	0.919				
13 < ≤ 17					230	31.641	7	0.676								
17 < ≤ 21					85	19.499	4	0.924			1	0.203				
21 < ≤ 25					27	9.334	2	0.803								
25 < ≤ 29					15	6.811										
29 < ≤ 33					1	0.554										
33 < ≤ 37					3	2.844										
37 < ≤ 41																
41 < ≤ 45																
45 < ≤ 49																
49 < ≤ 53																
53 <																
Total					704	94.584	50	4.700	4	0.321	14	1.122				

Plot No. 16

General Summing Results

Species	DBH MAX	DBH AVG	DBH MIN	H MAX	H AVG	H MIN	Class n 1	Class n 2	Class n 3	Class n Sum	Class Total V 1	Class Total V 2	Class Total V 3	Class Total V Total
	cm	cm	cm	m	m	m	n	n	n	n	m³	m³	m³	m³
Larix sibirica														
Pinus sylvestris	40	14	10	25	13	8	312	156	35	505	49.126	13.224	8.301	68.651
Betula platyphylla	15	12	10	15	12	8	1	7	8	16	0.182	0.947	0.522	1.651
Populus tremula														
Grand Total	40	14	10	25	13	8	313	165	41	519	49.308	14.171	8.823	70.302

Summing by Species; DBH Class; Quality

DBH Range	*Larix sibirica* Class 1/2 n	V	Class 3 n	V	*Pinus sylvestris* Class 1/2 n	V	Class 3 n	V	*Betula platyphylla* Class 1/2 n	V	Class 3 n	V	*Populus tremula* Class 1/2 n	V	Class 3 n	V
cm		m³		m³		m³		m³		m³		m³		m³		m³
≤ 13					225	13.339	25	1.286	3	0.323	5	0.371				
13 < ≤ 17					154	18.645	2	0.177	5	0.806	1	0.151				
17 < ≤ 21					62	13.034	2	0.498								
21 < ≤ 25					11	3.466										
25 < ≤ 29					6	2.967	3	1.699								
29 < ≤ 33					5	3.489	1	0.660								
33 < ≤ 37					5	4.916	1	0.784								
37 < ≤ 41					2	2.503	1	1.179								
41 < ≤ 45																
45 < ≤ 49																
49 < ≤ 53																
53 <																
Total					470	62.350	35	6.301	8	1.129	6	0.522				

Plot No. 17

General Summing Results

Species	DBH MAX cm	DBH AVG cm	DBH MIN cm	H MAX m	H AVG m	H MIN m	Class n 1 n	Class n 2 n	Class n 3 n	Class n Sum n	Class Total V 1 m³	Class Total V 2 m³	Class Total V 3 m³	Class Total V Total m³
Larix sibirica														
Pinus sylvestris	60	29	10	26	19	6	84	43	40	167	90.484	21.032	17.457	128.973
Betula platyphylla	36	17	10	18	13	7	13	20	35	68	4.875	3.726	6.793	15.394
Populus tremula	12	10	10	14	10	6	1	5	3	9	0.080	0.254	0.104	0.438
Grand/Total	60	25	10	26	17	6	98	68	78	244	95.439	25.012	24.354	144.805

Summing by Species; DBH Class; Quality

DBH Range cm	*Larix sibirica* Class 1/2 n	V m³	Class 3 n	V m³	*Pinus sylvestris* Class 1/2 n	V m³	Class 3 n	V m³	*Betula platyphylla* Class 1/2 n	V m³	Class 3 n	V m³	*Populus tremula* Class 1/2 n	V m³	Class 3 n	V m³
≤ 13					6	0.422	12	0.552	14	1.208	12	0.846	6	0.334	3	0.104
13 < ≤ 17					4	0.568	9	1.111	4	0.604	9	1.357				
17 < ≤ 21					12	2.998	6	1.012	7	1.948	4	0.849				
21 < ≤ 25					19	7.370	4	0.892	1	0.428	7	2.577				
25 < ≤ 29					21	11.257	1	0.398	3	1.436	3	1.164				
29 < ≤ 33					16	12.067			2	1.334						
33 < ≤ 37					16	15.992	3	2.624	2	1.643						
37 < ≤ 41					6	6.880	1	1.118								
41 < ≤ 45					7	9.636										
45 < ≤ 49					5	8.771										
49 < ≤ 53					6	13.492	1	2.054								
53 <					9	22.063	3	7.491								
Total					127	111.516	40	17.457	33	8.601	35	6.793	6	0.334	3	0.104

Plot No. 18

General Summing Results

Species	DBH MAX cm	DBH AVG cm	DBH MIN cm	H MAX m	H AVG m	H MIN m	Class n 1 n	Class n 2 n	Class n 3 n	Class n Sum n	Class Total V 1 m³	Class Total V 2 m³	Class Total V 3 m³	Class Total V Total m³
Larix sibirica														
Pinus sylvestris	46	28	10	22	18	6	81	73	19	173	53.746	39.660	6.216	99.622
Betula platyphylla														
Populus tremula														
Grand/Total	46	28	10	22	18	6	81	73	19	173	53.746	39.660	6.216	99.622

Summing by Species; DBH Class; Quality

DBH Range cm	*Larix sibirica* Class 1/2 n	V m³	Class 3 n	V m³	*Pinus sylvestris* Class 1/2 n	V m³	Class 3 n	V m³	*Betula platyphylla* Class 1/2 n	V m³	Class 3 n	V m³	*Populus tremula* Class 1/2 n	V m³	Class 3 n	V m³
≤ 13					15	0.890	7	0.279								
13 < ≤ 17					13	1.556	1	0.129								
17 < ≤ 21					8	1.625	2	0.335								
21 < ≤ 25					7	2.353	3	0.815								
25 < ≤ 29					10	8.678	1	0.398								
29 < ≤ 33					24	15.099	1	0.556								
33 < ≤ 37					33	26.031	1	0.664								
37 < ≤ 41					24	23.563	2	1.691								
41 < ≤ 45					10	12.357	1	1.349								
45 < ≤ 49					1	1.254										
49 < ≤ 53																
53 <																
Total					154	93.406	19	6.216								

Plot No. 19

General Summing Results

Species	DBH MAX cm	DBH AVG cm	DBH MIN cm	H MAX m	H AVG m	H MIN m	Class n 1 n	Class n 2 n	Class n 3 n	Class n Sum n	Class Total V 1 m³	Class Total V 2 m³	Class Total V 3 m³	Class Total V Total m³
Larix sibirica														
Pinus sylvestris	58	16	10	26	9	5	37	118	18	173	20.238	18.066	0.685	38.989
Betula platyphylla														
Populus tremula														
Grand/Total	58	16	10	26	9	5	37	118	18	173	20.238	18.066	0.685	38.989

Summing by Species; DBH Class; Quality

DBH Range cm	*Larix sibirica* Class 1/2 n	V m³	Class 3 n	V m³	*Pinus sylvestris* Class 1/2 n	V m³	Class 3 n	V m³	*Betula platyphylla* Class 1/2 n	V m³	Class 3 n	V m³	*Populus tremula* Class 1/2 n	V m³	Class 3 n	V m³
≤ 13					62	2.341	16	0.538								
13 < ≤ 17					54	4.087	2	0.147								
17 < ≤ 21					17	2.162										
21 < ≤ 25					2	0.364										
25 < ≤ 29																
29 < ≤ 33					2	1.323										
33 < ≤ 37					2	1.991										
37 < ≤ 41					1	0.970										
41 < ≤ 45					5	6.725										
45 < ≤ 49					7	11.655										
49 < ≤ 53					2	3.737										
53 <					1	2.947										
Total					155	38.304	18	0.685								

Plot No. 20

General Summing Results

Species	DBH MAX cm	DBH AVG cm	DBH MIN cm	H MAX m	H AVG m	H MIN m	Class n 1 n	Class n 2 n	Class n 3 n	Class n Sum n	Class Total V 1 m³	Class Total V 2 m³	Class Total V 3 m³	Class Total V Total m³
Larix sibirica														
Pinus sylvestris	50	19	10	20	14	5	106	64	86	256	40.873	16.556	13.280	70.811
Betula platyphylla	12	12	12	14	14	14		1		1		0.111		0.111
Populus tremula														
Grand/Total	50	19	10	20	14	5	106	65	86	259	40.873	16.669	13.280	70.922

Summing by Species; DBH Class; Quality

DBH Range cm	*Larix sibirica* Class 1/2 n	V m³	Class 3 n	V m³	*Pinus sylvestris* Class 1/2 n	V m³	Class 3 n	V m³	*Betula platyphylla* Class 1/2 n	V m³	Class 3 n	V m³	*Populus tremula* Class 1/2 n	V m³	Class 3 n	V m³
≤ 13					22	1.272	43	2.153	1	0.111						
13 < ≤ 17					28	3.609	20	2.108								
17 < ≤ 21					32	6.950	8	1.729								
21 < ≤ 25					33	10.236	8	2.181								
25 < ≤ 29					24	10.676	4	1.446								
29 < ≤ 33					18	10.761	1	0.591								
33 < ≤ 37					8	5.676	2	1.360								
37 < ≤ 41					3	2.856	1	0.851								
41 < ≤ 45																
45 < ≤ 49					3	3.947	1	1.361								
49 < ≤ 53					1	1.638										
53 <																
Total					172	57.531	86	13.258	1	0.111						

Plot No. 21

General Summing Results

Species	DBH MAX	DBH AVG	DBH MIN	H MAX	H AVG	H MIN	Class n 1	2	3	Sum	Class Total V 1	2	3	Total
	cm	cm	cm	m	m	m	n	n	n	n	m³	m³	m³	m³
Larix sibirica														
Pinus sylvestris	70	24	10	24	16	8	38	36	41	115	22.057	19.787	15.882	57.726
Betula platyphylla	36	19	10	19	12	6	1	16	49	66	0.520	4.083	12.721	17.324
Populus tremula	12	11	10	10	9	7		2	1	3		0.112	0.027	0.139
Grand/Total	70	22	10	24	15	6	39	54	91	184	22.577	23.982	28.630	75.189

Summing by Species; DBH Class; Quality

DBH Range	*Larix sibirica* Class 1/2 n	V	Class 3 n	V	*Pinus sylvestris* Class 1/2 n	V	Class 3 n	V	*Betula platyphylla* Class 1/2 n	V	Class 3 n	V	*Populus tremula* Class 1/2 n	V	Class 3 n	V
cm cm		m³		m³		m³		m³		m³		m³		m³		m³
≤ 13					6	0.370	12	0.569	3	0.221	12	0.954	2	0.112	1	0.027
13 < ≤ 17					9	1.183	14	1.557	5	0.835	13	1.862				
17 < ≤ 21					10	2.571	2	0.464	3	0.758	9	2.029				
21 < ≤ 25					12	4.516	5	1.519	3	1.181	5	1.840				
25 < ≤ 29					9	4.610			2	1.019	3	1.382				
29 < ≤ 33					13	8.456	2	1.240	1	0.539	6	3.614				
33 < ≤ 37					6	4.960	1	0.919			1	0.832				
37 < ≤ 41					5	4.751	1	0.821								
41 < ≤ 45							1	1.234								
45 < ≤ 49							1	1.397								
49 < ≤ 53					1	2.214										
53 <					3	8.213	2	6.062								
Total					74	41.844	41	15.882	17	4.603	49	12.721	2	0.112	1	0.027

Plot No. 22

General Summing Results

Species	DBH MAX	DBH AVG	DBH MIN	H MAX	H AVG	H MIN	Class n 1	2	3	Sum	Class Total V 1	2	3	Total
	cm	cm	cm	m	m	m	n	n	n	n	m³	m³	m³	m³
Larix sibirica	36	20	10	22	15	10	2	1		3	1.320	0.059		1.379
Pinus sylvestris														
Betula platyphylla	54	15	10	25	14	8	2	284	33	320	1.005	55.129	8.090	64.224
Populus tremula	25	13	10	19	13	7		56	15	71		5.741	1.110	6.851
Grand/Total	54	15	10	25	14	7	4	341	48	394	2.325	60.929	9.200	72.454

Summing by Species; DBH Class; Quality

DBH Range	*Larix sibirica* Class 1/2 n	V	Class 3 n	V	*Pinus sylvestris* Class 1/2 n	V	Class 3 n	V	*Betula platyphylla* Class 1/2 n	V	Class 3 n	V	*Populus tremula* Class 1/2 n	V	Class 3 n	V
cm cm		m³		m³		m³		m³		m³		m³		m³		m³
≤ 13	1	0.059							100	9.271	14	1.223	27	1.208	10	0.501
13 < ≤ 17	1	0.181							91	14.723	7	1.126	22	2.547	5	0.609
17 < ≤ 21									66	17.193	7	1.813	5	1.065		
21 < ≤ 25									18	6.643	1	0.361	1	0.323		
25 < ≤ 29									6	3.180	2	1.102				
29 < ≤ 33									3	1.928	1	0.651				
33 < ≤ 37	1	1.139							2	1.839						
37 < ≤ 41																
41 < ≤ 45																
45 < ≤ 49									1	1.489						
49 < ≤ 53																
53 <											1	1.794				
Total	3	1.379							267	56.296	33	8.090	56	5.741	15	1.110

Plot No. 23

General Summing Results

Species	DBH MAX	DBH AVG	DBH MIN	H MAX	H AVG	H MIN	Class n 1	2	3	Sum	Class Total V 1	2	3	Total
	cm	cm	cm	m	m	m	n	n	n	n	m³	m³	m³	m³
Larix sibirica	52	31	10	27	20	6	4	6	8	18	6.664	5.063	5.728	17.455
Pinus sylvestris	70	39	12	27	22	8	51	17	12	80	85.273	18.986	8.113	112.372
Betula platyphylla	36	18	10	18	10	6	1	6	16	23	0.329	1.206	3.217	4.752
Populus tremula	20	11	10	14	11	6	39	21	21	81	2.910	1.169	1.006	5.085
Grand/Total	70	24	10	27	16	6	95	50	57	202	95.176	26.424	18.064	139.664

Summing by Species; DBH Class; Quality

DBH Range	*Larix sibirica* Class 1/2 n	V	Class 3 n	V	*Pinus sylvestris* Class 1/2 n	V	Class 3 n	V	*Betula platyphylla* Class 1/2 n	V	Class 3 n	V	*Populus tremula* Class 1/2 n	V	Class 3 n	V
cm cm		m³		m³		m³		m³		m³		m³		m³		m³
≤ 13			1	0.039	1	0.124			4	0.279	8	0.526	48	2.580	20	0.933
13 < ≤ 17	1	0.223					3	0.276			2	0.266	10	1.032	1	0.073
17 < ≤ 21							2	0.394			3	0.482	2	0.367		
21 < ≤ 25	1	0.341	2	0.754	2	0.789			2	0.757						
25 < ≤ 29					4	2.158	1	0.651	1	0.499						
29 < ≤ 33			3	2.565	6	4.455	1	0.663			2	1.061				
33 < ≤ 37	5	5.338	2	2.370	7	6.930	2	1.727			1	0.862				
37 < ≤ 41	1	1.349			10	12.332	1	1.395								
41 < ≤ 45	1	1.937			18	27.865	1	1.114								
45 < ≤ 49					6	11.023	1	1.893								
49 < ≤ 53	1	2.539			5	11.255										
53 <					9	27.517										
Total	10	11.727	8	5.728	68	104.259	12	8.613	7	1.535	16	3.217	60	4.078	21	1.006

Plot No. 24

General Summing Results

Species	DBH MAX	DBH AVG	DBH MIN	H MAX	H AVG	H MIN	Class n 1	2	3	Sum	Class Total V 1	2	3	Total
	cm	cm	cm	m	m	m	n	n	n	n	m³	m³	m³	m³
Larix sibirica	56	37	10	24	18	9	11	4	15	30	17.409	5.277	14.772	37.458
Pinus sylvestris														
Betula platyphylla	38	17	10	19	11	4	7	33	94	134	2.376	9.690	18.699	28.765
Populus tremula	52	20	10	22	14	6	33	16	40	91	21.286	2.939	4.148	28.373
Grand/Total	56	20	10	24	13	4	51	55	149	255	41.071	17.906	35.619	94.596

Summing by Species; DBH Class; Quality

DBH Range	*Larix sibirica* Class 1/2 n	V	Class 3 n	V	*Pinus sylvestris* Class 1/2 n	V	Class 3 n	V	*Betula platyphylla* Class 1/2 n	V	Class 3 n	V	*Populus tremula* Class 1/2 n	V	Class 3 n	V
cm cm		m³		m³		m³		m³		m³		m³		m³		m³
≤ 13	1	0.095	2	0.158					2	0.149	42	3.039	12	0.540	26	1.334
13 < ≤ 17			1	0.134					9	1.346	22	2.952	7	0.994	5	0.819
17 < ≤ 21									11	2.574	12	2.543	1	0.192	2	0.294
21 < ≤ 25			1	0.415					12	4.156	8	2.562	3	1.095	2	0.556
25 < ≤ 29									2	0.896	6	2.778	9	4.580	2	0.696
29 < ≤ 33			2	1.563					2	1.191	2	1.147	1	0.480	1	0.649
33 < ≤ 37	3	3.051	2	2.003					1	0.808	2	1.578	8	6.578		
37 < ≤ 41	3	3.976	2	2.292					1	0.946			6	7.210		
41 < ≤ 45	3	4.354	3	4.889									1	1.117		
45 < ≤ 49	2	3.962	2	3.318												
49 < ≤ 53	1	1.906											1	1.639		
53 <	2	5.342														
Total	15	22.588	15	14.772					40	12.066	94	16.699	51	24.225	40	6.148

Plot No. 25

General Summing Results

Species	DBH MAX cm	DBH AVG cm	DBH MIN cm	H MAX m	H AVG m	H MIN m	Class n 1 n	Class n 2 n	Class n 3 n	Class n Sum n	Class Total V 1 m³	Class Total V 2 m³	Class Total V 3 m³	Class Total V Total m³
Larix sibirica	72	26	10	26	18	8	26	34	12	72	29.333	16.804	8.843	55.980
Pinus sylvestris	54	54	54	27	27	27	1			1	2.667			2.667
Betula platyphylla	54	19	10	27	14	5		80	28	108		35.147	5.326	40.473
Populus tremula	22	13	10	19	11	5	1	29	23	53	0.058	3.068	1.669	4.795
Grand/Total	72	20	10	27	14	5	28	143	63	234	32.058	55.019	16.838	103.915

Summing by Species; DBH Class; Quality

DBH Range cm	*Larix sibirica* Class 1/2 n	*Larix sibirica* Class 1/2 V m³	*Larix sibirica* Class 3 n	*Larix sibirica* Class 3 V m³	*Pinus sylvestris* Class 1/2 n	*Pinus sylvestris* Class 1/2 V m³	*Pinus sylvestris* Class 3 n	*Pinus sylvestris* Class 3 V m³	*Betula platyphylla* Class 1/2 n	*Betula platyphylla* Class 1/2 V m³	*Betula platyphylla* Class 3 n	*Betula platyphylla* Class 3 V m³	*Populus tremula* Class 1/2 n	*Populus tremula* Class 1/2 V m³	*Populus tremula* Class 3 n	*Populus tremula* Class 3 V m³
≤ 13	9	0.776	2	0.137					23	1.720	17	1.230	11	0.554	14	0.617
13 < ≤ 17	14	2.033	1	0.128					19	2.733	4	0.465	15	1.740	6	0.560
17 < ≤ 21	6	1.383	5	1.150					10	2.692	2	0.557	3	0.576	3	0.492
21 < ≤ 25	6	1.958							3	1.156	1	0.413	1	0.256		
25 < ≤ 29	1	0.409									1	0.439				
29 < ≤ 33	6	5.138							6	4.224	1	0.608				
33 < ≤ 37	4	4.733							7	6.060	2	1.618				
37 < ≤ 41	5	7.061	2	1.939					7	8.094						
41 < ≤ 45	3	5.042														
45 < ≤ 49	3	5.997							4	6.239						
49 < ≤ 53																
53 <	3	11.579	2	6.491	1	2.667			1	2.279						
Total	60	46.137	12	9.843	1	2.667			80	35.147	28	5.326	30	3.126	23	1.669

Plot No. 26

General Summing Results

Species	DBH MAX cm	DBH AVG cm	DBH MIN cm	H MAX m	H AVG m	H MIN m	Class n 1 n	Class n 2 n	Class n 3 n	Class n Sum n	Class Total V 1 m³	Class Total V 2 m³	Class Total V 3 m³	Class Total V Total m³
Larix sibirica														
Pinus sylvestris														
Betula platyphylla	56	23	10	22	14	5	4	66	41	111	1.238	25.859	25.908	53.005
Populus tremula	14	11	10	12	8	6	14	29	9	52	0.608	1.140	0.306	2.054
Grand/Total	56	19	10	22	12	5	18	95	50	163	1.846	26.999	26.214	55.059

Summing by Species; DBH Class; Quality

DBH Range cm	*Larix sibirica* Class 1/2 n	*Larix sibirica* Class 1/2 V m³	*Larix sibirica* Class 3 n	*Larix sibirica* Class 3 V m³	*Pinus sylvestris* Class 1/2 n	*Pinus sylvestris* Class 1/2 V m³	*Pinus sylvestris* Class 3 n	*Pinus sylvestris* Class 3 V m³	*Betula platyphylla* Class 1/2 n	*Betula platyphylla* Class 1/2 V m³	*Betula platyphylla* Class 3 n	*Betula platyphylla* Class 3 V m³	*Populus tremula* Class 1/2 n	*Populus tremula* Class 1/2 V m³	*Populus tremula* Class 3 n	*Populus tremula* Class 3 V m³
≤ 13									26	1.748	8	0.362	38	1.389	8	0.248
13 < ≤ 17									7	0.875	3	0.309	5	0.359	1	0.058
17 < ≤ 21									1	0.256	8	1.291				
21 < ≤ 25									8	3.068	2	0.710				
25 < ≤ 29									7	3.643	5	2.535				
29 < ≤ 33									10	6.887	2	1.423				
33 < ≤ 37									6	5.256	6	5.062				
37 < ≤ 41									4	4.164	4	4.410				
41 < ≤ 45									1	1.200	3	3.738				
45 < ≤ 49											3	4.158				
49 < ≤ 53																
53 <											1	1.910				
Total									70	27.097	41	25.308	43	1.748	9	0.306

Plot No. 27

General Summing Results

Species	DBH MAX cm	DBH AVG cm	DBH MIN cm	H MAX m	H AVG m	H MIN m	Class n 1 n	Class n 2 n	Class n 3 n	Class n Sum n	Class Total V 1 m³	Class Total V 2 m³	Class Total V 3 m³	Class Total V Total m³
Larix sibirica	70	35	12	30	22	8	34	15	17	66	67.167	16.111	7.607	90.865
Pinus sylvestris	70	44	18	28	24	10	12	15	3	30	26.834	28.186	1.699	56.719
Betula platyphylla	46	17	10	22	11	3		20	41	61		6.408	9.072	15.480
Populus tremula	10	10	10	10	10	10		1		1		0.040		0.040
Grand/Total	70	30	10	30	18	3	46	51	61	158	94.001	50.745	18.378	163.124

Summing by Species; DBH Class; Quality

DBH Range cm	*Larix sibirica* Class 1/2 n	*Larix sibirica* Class 1/2 V m³	*Larix sibirica* Class 3 n	*Larix sibirica* Class 3 V m³	*Pinus sylvestris* Class 1/2 n	*Pinus sylvestris* Class 1/2 V m³	*Pinus sylvestris* Class 3 n	*Pinus sylvestris* Class 3 V m³	*Betula platyphylla* Class 1/2 n	*Betula platyphylla* Class 1/2 V m³	*Betula platyphylla* Class 3 n	*Betula platyphylla* Class 3 V m³	*Populus tremula* Class 1/2 n	*Populus tremula* Class 1/2 V m³	*Populus tremula* Class 3 n	*Populus tremula* Class 3 V m³
≤ 13			2	0.150					6	0.544	12	0.833	1	0.040		
13 < ≤ 17	2	0.240	3	0.312					8	1.072	17	2.072				
17 < ≤ 21	3	1.063	3	0.926			1	0.125	1	0.192	2	0.402				
21 < ≤ 25	2	1.012	4	1.729	1	0.465	1	0.341			2	0.583				
25 < ≤ 29	1	0.680	1	0.487	1	0.589					3	1.268				
29 < ≤ 33	5	4.856	3	2.779	2	1.689			1	0.796	4	2.691				
33 < ≤ 37	7	8.586	1	1.224	3	3.101										
37 < ≤ 41	10	15.856			3	4.028	1	1.233	2	2.273						
41 < ≤ 45	3	5.569			1	1.479					1	1.125				
45 < ≤ 49	7	15.160			4	8.258			1	1.404						
49 < ≤ 53	1	2.699			4	9.579										
53 <	8	27.527			8	25.825										
Total	49	83.273	17	7.607	27	55.020	3	1.699	20	6.408	41	9.072	1	0.040		

Plot No. 28

General Summing Results

Species	DBH MAX cm	DBH AVG cm	DBH MIN cm	H MAX m	H AVG m	H MIN m	Class n 1 n	Class n 2 n	Class n 3 n	Class n Sum n	Class Total V 1 m³	Class Total V 2 m³	Class Total V 3 m³	Class Total V Total m³
Larix sibirica														
Pinus sylvestris														
Betula platyphylla	46	18	10	25	14	5		66	19	85		16.401	3.679	22.080
Populus tremula	50	16	10	25	18	5	11	74	11	96	3.475	17.237	2.282	22.994
Grand/Total	50	16	10	25	18	5	11	140	30	181	3.475	35.638	5.961	45.074

Summing by Species; DBH Class; Quality

DBH Range cm	*Larix sibirica* Class 1/2 n	*Larix sibirica* Class 1/2 V m³	*Larix sibirica* Class 3 n	*Larix sibirica* Class 3 V m³	*Pinus sylvestris* Class 1/2 n	*Pinus sylvestris* Class 1/2 V m³	*Pinus sylvestris* Class 3 n	*Pinus sylvestris* Class 3 V m³	*Betula platyphylla* Class 1/2 n	*Betula platyphylla* Class 1/2 V m³	*Betula platyphylla* Class 3 n	*Betula platyphylla* Class 3 V m³	*Populus tremula* Class 1/2 n	*Populus tremula* Class 1/2 V m³	*Populus tremula* Class 3 n	*Populus tremula* Class 3 V m³
≤ 13									28	2.070	12	0.957	19	1.187	6	0.299
13 < ≤ 17									17	3.010	3	0.537	29	5.518	2	0.285
17 < ≤ 21									7	1.995	1	0.252	23	6.444	1	0.205
21 < ≤ 25									5	2.307	1	0.369	9	3.511	1	0.409
25 < ≤ 29									2	1.066			6	2.191		
29 < ≤ 33											1	0.732				
33 < ≤ 37									3	2.758	1	0.832				
37 < ≤ 41																
41 < ≤ 45									3	3.783					1	1.044
45 < ≤ 49									1	1.612						
49 < ≤ 53													1	1.861		
53 <																
Total									66	18.401	19	3.679	85	20.712	11	2.282

Plot No. 29

General Summing Results

Species	DBH MAX	DBH AVG	DBH MIN	H MAX	H AVG	H MIN	Class n 1	2	3	Sum	Class Total V 1	2	3	Total
	cm	cm	cm	m	m	m	n	n	n	n	m³	m³	m³	m³
Larix sibirica	50	25	10	22	15	7	25	42	17	84	22.546	19.800	3.374	45.720
Pinus sylvestris	34	34	34	13	13	13			1	1			0.543	0.543
Betula platyphylla	60	14	10	22	12	5	33	142	61	236	7.329	22.600	11.291	41.220
Populus tremula	20	18	14	17	14	12		2	1	3		0.187	0.247	0.434
Grand/Total	60	17	10	22	13	5	58	186	80	324	29.875	42.587	15.455	87.917

Summing by Species; DBH Class; Quality

DBH Range	*Larix sibirica* Class 1/2 n	V	Class 3 n	V	*Pinus sylvestris* Class 1/2 n	V	Class 3 n	V	*Betula platyphylla* Class 1/2 n	V	Class 3 n	V	*Populus tremula* Class 1/2 n	V	Class 3 n	V
cm	cm	m³		m³		m³		m³		m³		m³		m³		m³
≤ 13	5	0.394	5	0.298					99	8.334	40	3.049				
13 < ≤ 17	4	0.542	4	0.504					45	7.042	10	1.345	2	0.187		
17 < ≤ 21	10	2.810	5	0.956					12	2.707	6	0.256			1	0.247
21 < ≤ 25	10	3.676							4	1.498	2	0.635				
25 < ≤ 29	12	8.522	2	0.872					2	0.914	5	2.324				
29 < ≤ 33	10	7.296	1	0.744					5	3.109						
33 < ≤ 37	5	5.029					1	0.543	3	2.150	2	1.602				
37 < ≤ 41	5	6.125							4	4.049						
41 < ≤ 45	2	2.724														
45 < ≤ 49	3	5.401														
49 < ≤ 53	1	1.827														
53 <											1	2.680				
Total	67	42.346	17	3.374			1	0.543	175	29.929	61	11.291	2	0.187	1	0.247

Plot No. 30

General Summing Results

Species	DBH MAX	DBH AVG	DBH MIN	H MAX	H AVG	H MIN	Class n 1	2	3	Sum	Class Total V 1	2	3	Total
	cm	cm	cm	m	m	m	n	n	n	n	m³	m³	m³	m³
Larix sibirica	68	30	10	24	16	7	16	4	4	24	18.873	2.219	1.386	22.478
Pinus sylvestris	62	24	10	26	14	6	86	20	8	114	53.824	7.549	0.773	62.146
Betula platyphylla	36	13	10	20	10	4	16	87	30	133	4.266	11.744	2.789	18.801
Populus tremula	28	14	10	17	11	7	7	26	8	41	1.813	2.463	0.378	4.654
Grand/Total	62	19	10	26	12	4	125	137	50	312	78.778	23.975	5.326	108.079

Summing by Species; DBH Class; Quality

DBH Range	*Larix sibirica* Class 1/2 n	V	Class 3 n	V	*Pinus sylvestris* Class 1/2 n	V	Class 3 n	V	*Betula platyphylla* Class 1/2 n	V	Class 3 n	V	*Populus tremula* Class 1/2 n	V	Class 3 n	V
cm	cm	m³		m³		m³		m³		m³		m³		m³		m³
≤ 13	6	0.404	1	0.044	20	0.869	6	0.287	52	3.512	18	1.158	18	0.810	6	0.229
13 < ≤ 17			1	0.114	24	2.458			32	4.359	9	1.027	8	0.857	2	0.149
17 < ≤ 21					13	2.560			7	1.662	3	0.604	3	0.484		
21 < ≤ 25			1	0.262	11	3.784	1	0.219	3	0.946			3	1.029		
25 < ≤ 29					4	1.828			5	2.369			3	1.096		
29 < ≤ 33	2	1.771			9	6.006	1	0.267	1	0.608						
33 < ≤ 37	3	3.198			7	5.933			3	2.556						
37 < ≤ 41	4	4.868	1	0.966	4	4.393										
41 < ≤ 45	2	3.203														
45 < ≤ 49	1	1.707			3	4.884										
49 < ≤ 53	1	2.215			5	9.663										
53 <	1	3.725			6	18.935										
Total	20	21.092	4	1.386	106	61.373	8	0.773	103	16.012	30	2.789	33	4.276	8	0.378

Plot No. 31

General Summing Results

Species	DBH MAX	DBH AVG	DBH MIN	H MAX	H AVG	H MIN	Class n 1	2	3	Sum	Class Total V 1	2	3	Total
	cm	cm	cm	m	m	m	n	n	n	n	m³	m³	m³	m³
Larix sibirica	80	38	12	32	23	11	44	28	18	90	84.895	34.399	20.167	139.461
Pinus sylvestris														
Betula platyphylla	40	20	10	23	14	6	3	15	28	46	0.877	4.842	11.206	16.965
Populus tremula	48	15	10	22	13	9	8	34	24	66	3.040	6.499	3.629	13.168
Grand/Total	50	26	10	32	18	6	55	77	70	202	88.812	45.780	35.002	169.594

Summing by Species; DBH Class; Quality

DBH Range	*Larix sibirica* Class 1/2 n	V	Class 3 n	V	*Pinus sylvestris* Class 1/2 n	V	Class 3 n	V	*Betula platyphylla* Class 1/2 n	V	Class 3 n	V	*Populus tremula* Class 1/2 n	V	Class 3 n	V
cm	cm	m³		m³		m³		m³		m³		m³		m³		m³
≤ 13	1	0.086							9	0.730	11	0.750	25	1.456	19	0.941
13 < ≤ 17	1	0.117	4	0.709					2	0.283	3	0.352	8	0.856	2	0.195
17 < ≤ 21	1	0.319	2	0.447												
21 < ≤ 25	4	1.616	2	0.720					2	0.796	2	0.668	2	0.821		
25 < ≤ 29	6	4.182	3	1.853					2	1.209	3	1.612	2	1.079	1	0.346
29 < ≤ 33	4	3.706	2	1.603					1	0.692	3	2.134				
33 < ≤ 37	12	14.990									4	3.419			1	0.601
37 < ≤ 41	14	21.293	1	1.256					2	2.049	2	2.273	3	2.789		
41 < ≤ 45	8	14.379	1	1.878									1	1.280	1	1.346
45 < ≤ 49	9	19.472											1	1.458		
49 < ≤ 53	2	5.061														
53 <	10	33.923	3	11.701												
Total	72	119.294	18	20.167					16	5.759	28	11.206	42	9.539	24	3.629

Plot No. 32

General Summing Results

Species	DBH MAX	DBH AVG	DBH MIN	H MAX	H AVG	H MIN	Class n 1	2	3	Sum	Class Total V 1	2	3	Total
	cm	cm	cm	m	m	m	n	n	n	n	m³	m³	m³	m³
Larix sibirica	50	32	15	24	17	12	2	1		3	0.479	3.078		3.557
Pinus sylvestris														
Betula platyphylla	54	22	10	20	12	6	9	42	76	127	2.379	12.114	33.821	48.314
Populus tremula	22	13	10	18	12	9	19	13	9	32	1.464	1.324	0.476	3.264
Grand/Total	50	29	10	24	12	6	21	56	85	162	4.322	16.516	34.297	55.135

Summing by Species; DBH Class; Quality

DBH Range	*Larix sibirica* Class 1/2 n	V	Class 3 n	V	*Pinus sylvestris* Class 1/2 n	V	Class 3 n	V	*Betula platyphylla* Class 1/2 n	V	Class 3 n	V	*Populus tremula* Class 1/2 n	V	Class 3 n	V
cm	cm	m³		m³		m³		m³		m³		m³		m³		m³
≤ 13									12	0.948	18	1.187	8	0.499	9	0.476
13 < ≤ 17	1	0.160							16	2.186	12	1.509	9	1.316		
17 < ≤ 21	1	0.319							8	1.847	7	1.434	5	0.917		
21 < ≤ 25									4	1.215	8	2.426	1	0.256		
25 < ≤ 29									2	0.920	6	2.623				
29 < ≤ 33									2	1.241	8	5.278				
33 < ≤ 37									5	4.097	4	3.298				
37 < ≤ 41									1	0.914	5	4.784				
41 < ≤ 45									1	1.125	5	5.851				
45 < ≤ 49											2	2.256				
49 < ≤ 53											1	1.625				
53 <	1	3.078									1	1.550				
Total	3	3.557							51	14.493	28	33.821	23	2.788	9	0.476

Plot No. 33

General Summing Results

Species	DBH MAX cm	DBH AVG cm	DBH MIN cm	H MAX m	H AVG m	H MIN m	Class n 1	Class n 2	Class n 3	Class n Sum	Class Total V 1 m³	Class Total V 2 m³	Class Total V 3 m³	Class Total V Total m³
Larix sibirica	60	29	10	23	15	6	6	7	2	15	5.446	7.676	0.149	13.273
Pinus sylvestris	48	44	40	22	16	15	1	1	1	3	1.233	1.515	1.021	3.769
Betula platyphylla	32	14	10	19	10	4	15	154	86	255	2.889	22.301	9.244	34.434
Populus tremula	24	12	10	22	10	5	18	119	36	171	1.696	8.443	1.814	11.953
Grand/Total	60	14	10	23	10	4	38	281	125	444	11.264	39.937	12.228	63.429

Summing by Species; DBH Class; Quality

DBH Range cm	*Larix sibirica* Class 1/2 n	V m³	*Larix sibirica* Class 3 n	V m³	*Pinus sylvestris* Class 1/2 n	V m³	*Pinus sylvestris* Class 3 n	V m³	*Betula platyphylla* Class 1/2 n	V m³	*Betula platyphylla* Class 3 n	V m³	*Populus tremula* Class 1/2 n	V m³	*Populus tremula* Class 3 n	V m³
≤ 13	3	0.147	2	0.149					76	5.902	51	3.527	70	3.526	26	1.048
13 < ≤ 17	1	0.126							51	7.122	19	2.287	56	4.891	9	0.626
17 < ≤ 21									23	5.035	13	2.550	7	1.031	1	0.140
21 < ≤ 25	2	0.842							13	4.278	3	0.559	2	0.591		
25 < ≤ 29									5	2.158	1	0.321				
29 < ≤ 33									1	0.654						
33 < ≤ 37	2	2.003														
37 < ≤ 41	1	1.161			1	1.233										
41 < ≤ 45							1	1.021								
45 < ≤ 49	2	3.682			1	1.515										
49 < ≤ 53																
53 <	2	5.163														
Total	13	13.124	2	0.149	2	2.748	1	1.021	169	25.190	86	9.244	135	10.139	36	1.814

Plot No. 34

General Summing Results

Species	DBH MAX cm	DBH AVG cm	DBH MIN cm	H MAX m	H AVG m	H MIN m	Class n 1	Class n 2	Class n 3	Class n Sum	Class Total V 1 m³	Class Total V 2 m³	Class Total V 3 m³	Class Total V Total m³
Larix sibirica	82	35	10	25	19	7	35	21	6	62	56.017	16.015	2.642	76.674
Pinus sylvestris														
Betula platyphylla	40	18	10	19	11	5	8	32	14	54	1.729	7.079	1.805	10.613
Populus tremula	52	21	10	26	17	8	67	117	20	204	24.790	33.932	3.283	62.005
Grand/Total	82	23	10	28	16	5	110	170	40	320	82.536	59.026	7.730	149.292

Summing by Species; DBH Class; Quality

DBH Range cm	*Larix sibirica* Class 1/2 n	V m³	*Larix sibirica* Class 3 n	V m³	*Pinus sylvestris* Class 1/2 n	V m³	*Pinus sylvestris* Class 3 n	V m³	*Betula platyphylla* Class 1/2 n	V m³	*Betula platyphylla* Class 3 n	V m³	*Populus tremula* Class 1/2 n	V m³	*Populus tremula* Class 3 n	V m³
≤ 13	2	0.122	1	0.044					7	0.561	6	0.842	6	0.458	1	0.050
13 < ≤ 17	2	0.516	2	0.268					16	2.201	5	0.715	40	5.542	8	0.725
17 < ≤ 21	5	1.471							11	2.582	3	0.548	34	7.880	7	1.605
21 < ≤ 25	3	1.539	1	0.393					2	0.826			50	17.201	2	0.531
25 < ≤ 29	7	4.055							2	0.974			39	17.565	1	0.321
29 < ≤ 33	4	2.832							1	0.630			12	7.033		
33 < ≤ 37	7	6.941	1	0.871									2	1.755		
37 < ≤ 41	4	4.720	1	1.060					1	1.034						
41 < ≤ 45	8	11.777														
45 < ≤ 49	3	5.051														
49 < ≤ 53	1	2.138											1	1.284		
53 <	10	32.870														
Total	56	74.032	5	2.642					40	9.308	14	1.805	154	58.722	20	3.283

Plot No. 35

General Summing Results

Species	DBH MAX cm	DBH AVG cm	DBH MIN cm	H MAX m	H AVG m	H MIN m	Class n 1	Class n 2	Class n 3	Class n Sum	Class Total V 1 m³	Class Total V 2 m³	Class Total V 3 m³	Class Total V Total m³
Larix sibirica	86	25	10	25	15	5	26	27	18	73	21.457	13.672	9.482	44.611
Pinus sylvestris	62	26	10	25	14	6	39	11	1	51	27.257	5.798	0.237	33.292
Betula platyphylla	52	18	10	22	12	5	23	76	20	119	6.852	18.916	6.185	31.953
Populus tremula														
Grand/Total	80	22	10	25	13	5	90	114	39	243	55.566	38.386	15.904	109.856

Summing by Species; DBH Class; Quality

DBH Range cm	*Larix sibirica* Class 1/2 n	V m³	*Larix sibirica* Class 3 n	V m³	*Pinus sylvestris* Class 1/2 n	V m³	*Pinus sylvestris* Class 3 n	V m³	*Betula platyphylla* Class 1/2 n	V m³	*Betula platyphylla* Class 3 n	V m³	*Populus tremula* Class 1/2 n	V m³	*Populus tremula* Class 3 n	V m³
≤ 13	4	0.240	5	0.297	14	0.687			42	3.071	6	0.478				
13 < ≤ 17	5	0.566	4	0.483	5	0.603			13	1.874	3	0.264				
17 < ≤ 21	9	2.234	2	0.459	9	1.567			14	3.373	4	0.837				
21 < ≤ 25	7	2.823	2	0.541	5	1.382	1	0.237	11	3.919						
25 < ≤ 29	6	3.203	2	0.826					6	3.647	4	1.705				
29 < ≤ 33	7	5.486	1	0.744	3	1.969			2	1.450						
33 < ≤ 37	8	7.596	1	0.785	2	1.749			6	4.843						
37 < ≤ 41	6	6.879			1	1.070			2	1.726	2	1.844				
41 < ≤ 45	2	2.904			1	1.349										
45 < ≤ 49					1	1.593										
49 < ≤ 53					3	5.957			1	1.625	1	1.067				
53 <	1	3.098	1	5.353	6	15.129										
Total	55	35.129	18	9.482	50	33.055	1	0.237	99	25.766	20	5.195				

Plot No. 36

General Summing Results

Species	DBH MAX cm	DBH AVG cm	DBH MIN cm	H MAX m	H AVG m	H MIN m	Class n 1	Class n 2	Class n 3	Class n Sum	Class Total V 1 m³	Class Total V 2 m³	Class Total V 3 m³	Class Total V Total m³
Larix sibirica														
Pinus sylvestris														
Betula platyphylla	34	15	10	18	12	6	7	64	126	197	1.922	14.029	19.597	35.548
Populus tremula														
Grand/Total	34	15	10	18	12	6	7	64	126	197	1.922	14.029	19.597	35.548

Summing by Species; DBH Class; Quality

DBH Range cm	*Larix sibirica* Class 1/2 n	V m³	*Larix sibirica* Class 3 n	V m³	*Pinus sylvestris* Class 1/2 n	V m³	*Pinus sylvestris* Class 3 n	V m³	*Betula platyphylla* Class 1/2 n	V m³	*Betula platyphylla* Class 3 n	V m³	*Populus tremula* Class 1/2 n	V m³	*Populus tremula* Class 3 n	V m³
≤ 13									12	1.083	48	3.831				
13 < ≤ 17									21	3.722	46	7.038				
17 < ≤ 21									24	6.067	18	4.094				
21 < ≤ 25									12	4.005	8	2.559				
25 < ≤ 29									1	0.479	3	1.377				
29 < ≤ 33									1	0.575						
33 < ≤ 37											1	0.698				
37 < ≤ 41																
41 < ≤ 45																
45 < ≤ 49																
49 < ≤ 53																
53 <																
Total									71	15.951	126	19.597				

Plot No. 37

General Summing Results

Species	DBH MAX	DBH AVG	DBH MIN	H MAX	H AVG	H MIN	Class n 1	2	3	Sum	Class Total V 1	2	3	Total
	cm	cm	cm	m	m	m	n	n	n	n	m³	m³	m³	m³
Larix sibirica	74	36	16	29	19	10	20	21	26	67	32.321	32.667	31.674	96.662
Pinus sylvestris														
Betula platyphylla	38	17	10	19	12	6	4	42	75	121	0.993	12.829	14.631	28.453
Populus tremula	40	15	10	20	11	7	4	6	12	22	2.325	1.103	0.659	4.087
Grand/Total	74	24	10	29	14	6	28	69	113	210	35.639	46.599	46.964	129.202

Summing by Species; DBH Class; Quality

DBH Range cm	cm	*Larix sibirica* Class 1/2 n	V m³	*Larix sibirica* Class 3 n	V m³	*Pinus sylvestris* Class 1/2 n	V m³	*Pinus sylvestris* Class 3 n	V m³	*Betula platyphylla* Class 1/2 n	V m³	*Betula platyphylla* Class 3 n	V m³	*Populus tremula* Class 1/2 n	V m³	*Populus tremula* Class 3 n	V m³
≤	13									4	0.303	27	1.861	3	0.142	7	0.260
13 < ≤	17			2	0.341					9	1.334	17	2.258	1	0.145	5	0.399
17 < ≤	21	2	0.495	5	1.116					14	1.583	15	3.468				
21 < ≤	25	3	1.136	5	1.663					13	4.605	10	3.423	3	0.860		
25 < ≤	29	2	1.043	3	1.641					3	1.459	4	1.964				
29 < ≤	33	2	1.261	1	0.760							1	0.679	1	0.576		
33 < ≤	37	8	7.779														
37 < ≤	41	6	7.733	1	1.168					2	1.556						
41 < ≤	45	5	8.278	1	1.818					1	0.978	1	0.978	2	1.663		
45 < ≤	49	5	9.583														
49 < ≤	53	2	4.668	3	6.165												
53 <		5	23.062	5	16.752												
Total		41	64.988	26	31.674					46	13.872	75	14.631	10	3.428	12	0.659

Plot No. 38

General Summing Results

Species	DBH MAX	DBH AVG	DBH MIN	H MAX	H AVG	H MIN	Class n 1	2	3	Sum	Class Total V 1	2	3	Total
	cm	cm	cm	m	m	m	n	n	n	n	m³	m³	m³	m³
Larix sibirica	10	10	10	7	7	7	1			1	0.044			0.044
Pinus sylvestris	49	26	10	24	17	6	41	8	3	52	23.878	4.701	0.584	28.863
Betula platyphylla	54	17	10	23	14	2	40	123	68	231	15.425	33.344	14.462	63.231
Populus tremula														
Grand/Total	54	19	10	24	14	2	82	131	71	284	39.447	32.545	15.146	92.138

Summing by Species; DBH Class; Quality

DBH Range cm	cm	*Larix sibirica* Class 1/2 n	V m³	*Larix sibirica* Class 3 n	V m³	*Pinus sylvestris* Class 1/2 n	V m³	*Pinus sylvestris* Class 3 n	V m³	*Betula platyphylla* Class 1/2 n	V m³	*Betula platyphylla* Class 3 n	V m³	*Populus tremula* Class 1/2 n	V m³	*Populus tremula* Class 3 n	V m³
≤	13	1	0.044			4	0.185			46	4.170	31	2.043				
13 < ≤	17					5	0.503	2	0.226	49	7.909	13	1.739				
17 < ≤	21					6	1.196			15	3.173	13	2.592				
21 < ≤	25					6	2.096			17	6.309	4	1.436				
25 < ≤	29					7	3.649	1	0.458	16	8.467	2	1.039				
29 < ≤	33					5	3.352			10	7.073						
33 < ≤	37					6	7.324			5	4.344	3	2.759				
37 < ≤	41					7	8.055										
41 < ≤	45									3	3.412	1	1.066				
45 < ≤	49					1	1.817			1	1.434						
49 < ≤	53											1	1.768				
53 <										1	1.508						
Total		1	0.044			49	28.179	3	0.684	163	46.769	68	14.462				

Plot No. 39

General Summing Results

Species	DBH MAX	DBH AVG	DBH MIN	H MAX	H AVG	H MIN	Class n 1	2	3	Sum	Class Total V 1	2	3	Total
	cm	cm	cm	m	m	m	n	n	n	n	m³	m³	m³	m³
Larix sibirica	74	28	10	30	17	10	16	10	3	29	16.945	12.629	1.194	30.768
Pinus sylvestris	94	33	10	26	15	9	22	8	5	35	21.627	16.761	2.248	40.636
Betula platyphylla	68	18	10	20	14	7	19	54	54	127	5.701	14.483	15.621	35.805
Populus tremula	46	19	10	22	15	11	3	6	4	13	2.345	0.616	0.693	3.654
Grand/Total	94	22	10	30	15	7	60	78	66	204	46.618	44.489	19.756	110.863

Summing by Species; DBH Class; Quality

DBH Range cm	cm	*Larix sibirica* Class 1/2 n	V m³	*Larix sibirica* Class 3 n	V m³	*Pinus sylvestris* Class 1/2 n	V m³	*Pinus sylvestris* Class 3 n	V m³	*Betula platyphylla* Class 1/2 n	V m³	*Betula platyphylla* Class 3 n	V m³	*Populus tremula* Class 1/2 n	V m³	*Populus tremula* Class 3 n	V m³
≤	13	9	0.750	1	0.059	4	0.182	2	0.095	20	1.617	22	1.796	3	0.212	1	0.062
13 < ≤	17	3	0.377			2	0.155	1	0.109	16	2.451	8	1.277	3	0.404		
17 < ≤	21	2	0.636			5	0.938			17	4.665	7	1.871			1	0.155
21 < ≤	25	1	0.284	1	0.284	4	1.387			8	2.778	4	1.309	1	0.201	2	0.476
25 < ≤	29					2	1.027			4	2.100	3	1.312				
29 < ≤	33			1	0.851	4	2.448			4	2.548	4	2.624	1	0.586		
33 < ≤	37					2	1.648			2	1.615	4	3.265				
37 < ≤	41	3	4.261							1	0.946	1	0.924				
41 < ≤	45	1	1.727					1	0.994								
45 < ≤	49	1	1.839							1	1.464	1	1.223	1	1.458		
49 < ≤	53	2	5.324					1	1.050								
53 <		4	14.346			7	30.603										
Total		26	29.574	3	1.194	30	38.388	5	2.248	73	20.184	54	15.621	9	2.961	4	0.693

Plot No. 40

General Summing Results

Species	DBH MAX	DBH AVG	DBH MIN	H MAX	H AVG	H MIN	Class n 1	2	3	Sum	Class Total V 1	2	3	Total
	cm	cm	cm	m	m	m	n	n	n	n	m³	m³	m³	m³
Larix sibirica	54	22	10	24	14	10	10	12	6	28	3.063	10.730	1.271	15.064
Pinus sylvestris	56	56	56	24	24	24	1			1	2.551			2.551
Betula platyphylla	50	17	10	20	12	6	17	77	72	166	2.142	13.318	27.702	43.162
Populus tremula														
Grand/Total	56	18	10	24	12	6	28	89	78	195	7.756	24.048	28.973	60.777

Summing by Species; DBH Class; Quality

DBH Range cm	cm	*Larix sibirica* Class 1/2 n	V m³	*Larix sibirica* Class 3 n	V m³	*Pinus sylvestris* Class 1/2 n	V m³	*Pinus sylvestris* Class 3 n	V m³	*Betula platyphylla* Class 1/2 n	V m³	*Betula platyphylla* Class 3 n	V m³	*Populus tremula* Class 1/2 n	V m³	*Populus tremula* Class 3 n	V m³
≤	13	6	0.387	3	0.223					53	4.126	27	1.819				
13 < ≤	17	3	0.428							29	4.332	8	1.105				
17 < ≤	21	3	0.769	2	0.435					5	1.350	8	1.949				
21 < ≤	25	3	1.042							1	0.356	4	1.496				
25 < ≤	29	1	0.512	1	0.613					1	0.559	2	0.823				
29 < ≤	33	1	0.780							2	1.407	5	3.101				
33 < ≤	37									1	0.781	6	6.317				
37 < ≤	41	1	1.209							1	0.978	6	5.561				
41 < ≤	45	1	1.758									2	2.383				
45 < ≤	49	1	1.986									2	2.868				
49 < ≤	53	1	2.377							1	1.571						
53 <		1	2.545			1	2.551										
Total		22	13.793	6	1.271	1	2.551			94	15.460	72	27.702				

Plot No. 41

General Summing Results

Species	DBH MAX	DBH AVG	DBH MIN	H MAX	H AVG	H MIN	Class n 1	Class n 2	Class n 3	Class n Sum	Class Total V 1	Class Total V 2	Class Total V 3	Class Total V Total
	cm	cm	cm	m	m	m	n	n	n	n	m³	m³	m³	m³
Larix sibirica														
Pinus sylvestris	46	18	10	22	16	9	254	146	54	454	74.955	32.642	10.908	118.505
Betula platyphylla	10	10	10	8	8	8			1	1			0.057	0.057
Populus tremula														
Grand/Total	46	18	10	22	16	8	254	146	55	455	74.955	32.642	10.965	118.562

Summing by Species; DBH Class; Quality

DBH Range	*Larix sibirica* Class 1/2 n	V	Class 3 n	V	*Pinus sylvestris* Class 1/2 n	V	Class 3 n	V	*Betula platyphylla* Class 1/2 n	V	Class 3 n	V	*Populus tremula* Class 1/2 n	V	Class 3 n	V
cm		m³		m³		m³		m³		m³		m³		m³		m³
≤ 13					70	4.717	26	1.602			1	0.057				
13 < ≤ 17					91	12.841	10	1.219								
17 < ≤ 21					107	25.517	7	1.475								
21 < ≤ 25					62	21.215	2	0.730								
25 < ≤ 29					45	21.514	4	2.026								
29 < ≤ 33					11	7.271	2	1.140								
33 < ≤ 37					6	5.196	1	0.824								
37 < ≤ 41					5	5.249	2	1.830								
41 < ≤ 45					2	2.467										
45 < ≤ 49					1	1.610										
49 < ≤ 53																
53 <																
Total					400	107.597	54	10.908			1	0.057				

Plot No. 42

General Summing Results

Species	DBH MAX	DBH AVG	DBH MIN	H MAX	H AVG	H MIN	Class n 1	Class n 2	Class n 3	Class n Sum	Class Total V 1	Class Total V 2	Class Total V 3	Class Total V Total
	cm	cm	cm	m	m	m	n	n	n	n	m³	m³	m³	m³
Larix sibirica	90	49	10	30	21	10	7	12	1	20	23.005	23.967	2.811	49.783
Pinus sylvestris	76	60	42	25	23	19	4	1	1	6	12.105	4.756	1.174	18.035
Betula platyphylla	28	14	10	20	11	5	6	62	20	88	1.680	10.091	2.155	13.926
Populus tremula	34	19	10	24	18	7	79	94	33	206	29.984	21.105	4.140	55.229
Grand/Total	90	20	10	30	15	5	96	169	55	320	66.774	59.919	10.280	136.973

Summing by Species; DBH Class; Quality

DBH Range	*Larix sibirica* Class 1/2 n	V	Class 3 n	V	*Pinus sylvestris* Class 1/2 n	V	Class 3 n	V	*Betula platyphylla* Class 1/2 n	V	Class 3 n	V	*Populus tremula* Class 1/2 n	V	Class 3 n	V
cm		m³		m³		m³		m³		m³		m³		m³		m³
≤ 13	2	0.146							32	2.496	12	0.783	24	1.390	15	0.610
13 < ≤ 17	1	0.137							15	2.269	5	0.654	37	4.787	8	0.624
17 < ≤ 21									11	2.689	2	0.431	32	7.845	7	1.406
21 < ≤ 25									6	2.319	1	0.287	38	13.359	2	0.612
25 < ≤ 29									4	1.958			30	15.221		
29 < ≤ 33													9	6.069	1	0.686
33 < ≤ 37	2	2.014											3	2.418		
37 < ≤ 41	2	2.669														
41 < ≤ 45	3	5.817					1	1.174								
45 < ≤ 49																
49 < ≤ 53	1	2.291			2	4.160										
53 <	8	34.658	1	2.811	3	12.701										
Total	19	46.972	1	2.811	5	16.861	1	1.174	68	11.726	20	2.155	173	51.039	33	4.140

Plot No. 43

General Summing Results

Species	DBH MAX	DBH AVG	DBH MIN	H MAX	H AVG	H MIN	Class n 1	Class n 2	Class n 3	Class n Sum	Class Total V 1	Class Total V 2	Class Total V 3	Class Total V Total
	cm	cm	cm	m	m	m	n	n	n	n	m³	m³	m³	m³
Larix sibirica														
Pinus sylvestris	66	44	10	27	21	6	43	19	19	81	63.174	31.394	23.934	138.502
Betula platyphylla	10	10	10	7	7	7		1		1		0.053		0.053
Populus tremula														
Grand/Total	66	44	10	27	21	6	43	20	19	82	63.174	31.447	23.934	138.555

Summing by Species; DBH Class; Quality

DBH Range	*Larix sibirica* Class 1/2 n	V	Class 3 n	V	*Pinus sylvestris* Class 1/2 n	V	Class 3 n	V	*Betula platyphylla* Class 1/2 n	V	Class 3 n	V	*Populus tremula* Class 1/2 n	V	Class 3 n	V
cm		m³		m³		m³		m³		m³		m³		m³		m³
≤ 13					1	0.035	1	0.037	1	0.053						
13 < ≤ 17																
17 < ≤ 21					2	0.430	1	0.212								
21 < ≤ 25					3	1.093	1	0.321								
25 < ≤ 29					3	1.334										
29 < ≤ 33					6	3.789	3	2.057								
33 < ≤ 37							1	0.824								
37 < ≤ 41					2	2.365	1	1.118								
41 < ≤ 45					5	7.006	4	5.772								
45 < ≤ 49					7	13.602	3	4.828								
49 < ≤ 53					10	20.668	2	3.440								
53 <					23	64.246	2	5.325								
Total					62	114.568	19	23.934	1	0.053						

Plot No. 44

General Summing Results

Species	DBH MAX	DBH AVG	DBH MIN	H MAX	H AVG	H MIN	Class n 1	Class n 2	Class n 3	Class n Sum	Class Total V 1	Class Total V 2	Class Total V 3	Class Total V Total
	cm	cm	cm	m	m	m	n	n	n	n	m³	m³	m³	m³
Larix sibirica	82	44	18	27	22	11	16	19	14	49	28.644	40.147	20.873	89.714
Pinus sylvestris	70	42	10	27	20	6	4	3	8	13	4.175	4.271	10.599	19.045
Betula platyphylla	50	14	10	21	13	6	29	113	85	227	6.439	20.438	12.663	39.540
Populus tremula														
Grand/Total	70	21	10	27	15	6	49	135	105	289	39.302	64.856	44.141	148.299

Summing by Species; DBH Class; Quality

DBH Range	*Larix sibirica* Class 1/2 n	V	Class 3 n	V	*Pinus sylvestris* Class 1/2 n	V	Class 3 n	V	*Betula platyphylla* Class 1/2 n	V	Class 3 n	V	*Populus tremula* Class 1/2 n	V	Class 3 n	V
cm		m³		m³		m³		m³		m³		m³		m³		m³
≤ 13					1	0.025			37	3.292	49	3.887				
13 < ≤ 17									56	9.056	24	3.440				
17 < ≤ 21	1	0.349	1	0.211					32	7.893	8	2.032				
21 < ≤ 25	1	0.415					1	0.341	14	5.072						
25 < ≤ 29	4	2.371	1	0.696					3	1.564						
29 < ≤ 33	1	0.921	1	0.695	1	0.734					1	0.872				
33 < ≤ 37			2	1.549												
37 < ≤ 41	2	2.960	2	2.732	3	3.753	1	1.070			1	0.961				
41 < ≤ 45	5	8.100	1	1.758			1	1.609								
45 < ≤ 49	4	8.080	2	3.443	1	2.179										
49 < ≤ 53	4	9.190	3	6.715	1	1.805					1	1.671				
53 <	13	36.449	1	3.040			3	7.579								
Total	35	68.835	14	20.879	7	8.446	6	10.599	142	26.877	85	12.663				

Plot No. 45

General Summing Results

Species	DBH MAX	DBH AVG	DBH MIN	H MAX	H AVG	H MIN	Class n 1	Class n 2	Class n 3	Class n Sum	Class Total V 1	Class Total V 2	Class Total V 3	Class Total V Total
	cm	cm	cm	m	m	m	n	n	n	n	m³	m³	m³	m³
Larix sibirica														
Pinus sylvestris	34	26	18	16	14	13	4		1	5	1.770		0.279	2.049
Betula platyphylla	52	17	10	19	13	6	31	103	154	288	8.535	20.874	40.320	69.729
Populus tremula	28	14	10	17	12	8	17	20	17	54	2.804	1.691	1.603	6.098
Grand Total	52	17	10	19	13	6	53	123	172	348	13.109	22.565	42.202	77.876

Summing by Species, DBH Class, Quality

DBH Range	*Larix sibirica* Class 1/2 n	V	*Larix sibirica* Class 3 n	V	*Pinus sylvestris* Class 1/2 n	V	*Pinus sylvestris* Class 3 n	V	*Betula platyphylla* Class 1/2 n	V	*Betula platyphylla* Class 3 n	V	*Populus tremula* Class 1/2 n	V	*Populus tremula* Class 3 n	V
cm		m³		m³		m³		m³		m³		m³		m³		m³
≤ 13									24	2.058	59	4.605	15	0.861	8	0.446
13 < ≤ 17									42	6.655	37	5.482	10	1.175	7	0.699
17 < ≤ 21					1	0.161			39	9.761	27	6.514	10	1.712		
21 < ≤ 25					1	0.321	1	0.279	23	7.969	10	3.491	1	0.294	2	0.458
25 < ≤ 29									6	2.946	4	1.867	1	0.453		
29 < ≤ 33											1	0.608				
33 < ≤ 37					2	1.288					3	2.166				
37 < ≤ 41											3	2.839				
41 < ≤ 45											3	3.258				
45 < ≤ 49											4	5.226				
49 < ≤ 53											3	4.264				
53 <																
Total					4	1.770	1	0.279	134	29.409	154	40.320	37	4.495	17	1.603

Plot No. 46

General Summing Results

Species	DBH MAX	DBH AVG	DBH MIN	H MAX	H AVG	H MIN	Class n 1	Class n 2	Class n 3	Class n Sum	Class Total V 1	Class Total V 2	Class Total V 3	Class Total V Total
	cm	cm	cm	m	m	m	n	n	n	n	m³	m³	m³	m³
Larix sibirica														
Pinus sylvestris														
Betula platyphylla	32	16	10	20	12	2	31	174	96	301	8.151	37.333	11.469	57.953
Populus tremula	34	16	10	20	14	7	97	81	19	197	20.132	11.246	1.763	33.141
Grand Total	34	16	10	20	13	2	128	255	115	498	29.283	48.579	13.232	91.094

Summing by Species, DBH Class, Quality

DBH Range	*Larix sibirica* Class 1/2 n	V	*Larix sibirica* Class 3 n	V	*Pinus sylvestris* Class 1/2 n	V	*Pinus sylvestris* Class 3 n	V	*Betula platyphylla* Class 1/2 n	V	*Betula platyphylla* Class 3 n	V	*Populus tremula* Class 1/2 n	V	*Populus tremula* Class 3 n	V
cm		m³		m³		m³		m³		m³		m³		m³		m³
≤ 13									45	3.774	52	3.562	44	2.456	13	0.590
13 < ≤ 17									58	9.316	26	3.709	49	5.965	5	0.340
17 < ≤ 21									62	16.154	11	2.282	54	11.569	2	0.468
21 < ≤ 25									27	9.944	2	0.558	21	6.478	1	0.365
25 < ≤ 29									8	4.020	3	1.358	7	3.074		
29 < ≤ 33									5	3.276			2	1.156		
33 < ≤ 37													1	0.682		
37 < ≤ 41																
41 < ≤ 45																
45 < ≤ 49																
49 < ≤ 53																
53 <																
Total									205	46.484	96	11.469	178	31.378	19	1.763

Plot No. 47

General Summing Results

Species	DBH MAX	DBH AVG	DBH MIN	H MAX	H AVG	H MIN	Class n 1	Class n 2	Class n 3	Class n Sum	Class Total V 1	Class Total V 2	Class Total V 3	Class Total V Total
	cm	cm	cm	m	m	m	n	n	n	n	m³	m³	m³	m³
Larix sibirica	88	39	16	28	21	7	10	23	41	74	18.288	44.381	51.221	113.890
Pinus sylvestris	62	49	34	26	22	14	6	4	11	21	13.190	6.368	22.035	41.593
Betula platyphylla	40	13	10	19	10	6	15	38	56	110	1.952	4.579	7.875	14.406
Populus tremula	20	16	10	18	15	12	5	1		6	0.954	0.114		1.068
Grand Total	88	26	10	28	15	6	37	66	108	211	34.384	55.442	81.131	170.957

Summing by Species, DBH Class, Quality

DBH Range	*Larix sibirica* Class 1/2 n	V	*Larix sibirica* Class 3 n	V	*Pinus sylvestris* Class 1/2 n	V	*Pinus sylvestris* Class 3 n	V	*Betula platyphylla* Class 1/2 n	V	*Betula platyphylla* Class 3 n	V	*Populus tremula* Class 1/2 n	V	*Populus tremula* Class 3 n	V
cm		m³		m³		m³		m³		m³		m³		m³		m³
≤ 13									32	2.304	39	2.559	1	0.058		
13 < ≤ 17			2	0.320					15	2.093	9	1.218	2	0.311		
17 < ≤ 21			4	0.812					3	0.658	2	0.395	3	0.699		
21 < ≤ 25	1	0.399	5	2.005					2	0.543						
25 < ≤ 29	1	0.723	2	1.026					2	0.932	2	0.674				
29 < ≤ 33	3	2.665	6	4.475							3	1.795				
33 < ≤ 37	4	4.709	5	5.169			2	1.547								
37 < ≤ 41	4	5.303	5	6.664	2	1.840					1	1.034				
41 < ≤ 45	7	12.643	7	12.630	1	1.472	1	1.216								
45 < ≤ 49	6	12.720			1	2.053	1	1.747								
49 < ≤ 53	3	7.444	1	2.566	2	3.942	1	2.125								
53 <	4	15.663	4	15.734	4	10.251	6	15.398								
Total	33	62.669	41	51.221	10	19.558	11	22.035	54	6.531	56	7.675	6	1.068		

Plot No. 48

General Summing Results

Species	DBH MAX	DBH AVG	DBH MIN	H MAX	H AVG	H MIN	Class n 1	Class n 2	Class n 3	Class n Sum	Class Total V 1	Class Total V 2	Class Total V 3	Class Total V Total
	cm	cm	cm	m	m	m	n	n	n	n	m³	m³	m³	m³
Larix sibirica	68	26	10	24	14	6	6	12	23	41	4.345	12.489	12.015	28.849
Pinus sylvestris	54	40	34	21	17	14	2	5		7	1.826	5.262		7.088
Betula platyphylla	40	17	10	20	14	5	38	110	97	245	10.776	28.602	16.219	55.797
Populus tremula														
Grand Total	68	18	10	24	14	5	46	127	120	293	16.967	46.553	28.234	91.774

Summing by Species, DBH Class, Quality

DBH Range	*Larix sibirica* Class 1/2 n	V	*Larix sibirica* Class 3 n	V	*Pinus sylvestris* Class 1/2 n	V	*Pinus sylvestris* Class 3 n	V	*Betula platyphylla* Class 1/2 n	V	*Betula platyphylla* Class 3 n	V	*Populus tremula* Class 1/2 n	V	*Populus tremula* Class 3 n	V
cm		m³		m³		m³		m³		m³		m³		m³		m³
≤ 13	3	0.205	8	0.664					28	2.463	42	3.255				
13 < ≤ 17	4	0.623	6	0.820					36	5.923	29	4.401				
17 < ≤ 21	1	0.289	3	0.893					43	11.028	18	3.982				
21 < ≤ 25	3	1.325							26	10.086	6	2.079				
25 < ≤ 29	1	0.536							10	5.335	2	0.977				
29 < ≤ 33									3	2.032	1	0.679				
33 < ≤ 37					1	0.583			1	0.808						
37 < ≤ 41			2	1.783	5	4.995			1	1.103	1	0.846				
41 < ≤ 45	2	2.884														
45 < ≤ 49	1	1.905	2	2.623												
49 < ≤ 53																
53 <	3	9.097	3	5.452	1	1.510										
Total	18	16.874	23	12.015	7	7.088			148	39.578	97	16.219				

Plot No. 49

General Summing Results

Species	DBH MAX	DBH AVG	DBH MIN	H MAX	H AVG	H MIN	Class n 1	Class n 2	Class n 3	Class n Sum	Class Total V 1	Class Total V 2	Class Total V 3	Class Total V Total
	cm	cm	cm	m	m	m	n	n	n	n	m³	m³	m³	m³
Larix sibirica														
Pinus sylvestris	38	23	14	18	13	6	3		2	5	1.627		0.151	1.788
Betula platyphylla	42	17	10	19	11	5	8	41	97	146	2.153	9.637	19.875	31.665
Populus tremula	30	16	10	16	10	5	8	18	48	74	1.466	2.381	4.837	8.684
Grand/Total	42	17	10	19	11	5	19	59	147	225	5.246	12.018	24.873	42.137

Summing by Species; DBH Class; Quality

DBH Range	*Larix sibirica* Class 1/2 n	V	Class 3 n	V	*Pinus sylvestris* Class 1/2 n	V	Class 3 n	V	*Betula platyphylla* Class 1/2 n	V	Class 3 n	V	*Populus tremula* Class 1/2 n	V	Class 3 n	V
cm		m³		m³		m³		m³		m³		m³		m³		m³
≤ 13									6	0.493	36	2.599	1	0.063	12	0.548
13 < ≤ 17							1	0.085	16	2.458	24	3.090	12	1.125	19	1.492
17 < ≤ 21					1	0.270	1	0.076	13	3.223	14	3.165	10	1.571	12	1.596
21 < ≤ 25									11	3.792	10	3.188			4	0.808
25 < ≤ 29					1	0.486					6	2.678	2	0.688	1	0.395
29 < ≤ 33									3	1.824	2	1.053	1	0.383		
33 < ≤ 37											4	2.942				
37 < ≤ 41					1	0.871										
41 < ≤ 45											1	1.163				
45 < ≤ 49																
49 < ≤ 53																
53 <																
Total					3	1.627	2	0.151	43	11.790	97	19.875	26	3.847	43	4.837

Plot No. 50

General Summing Results

Species	DBH MAX	DBH AVG	DBH MIN	H MAX	H AVG	H MIN	Class n 1	Class n 2	Class n 3	Class n Sum	Class Total V 1	Class Total V 2	Class Total V 3	Class Total V Total
	cm	cm	cm	m	m	m	n	n	n	n	m³	m³	m³	m³
Larix sibirica	78	35	10	31	19	5	21	27	24	72	32.129	36.462	30.381	98.972
Pinus sylvestris	28	28	28	20	20	20			1	1			0.569	0.569
Betula platyphylla	44	17	10	22	12	4	8	58	79	145	1.357	14.238	15.847	31.842
Populus tremula														
Grand/Total	78	23	10	31	14	4	29	85	104	218	33.886	50.700	46.797	131.383

Summing by Species; DBH Class; Quality

DBH Range	*Larix sibirica* Class 1/2 n	V	Class 3 n	V	*Pinus sylvestris* Class 1/2 n	V	Class 3 n	V	*Betula platyphylla* Class 1/2 n	V	Class 3 n	V	*Populus tremula* Class 1/2 n	V	Class 3 n	V
cm		m³		m³		m³		m³		m³		m³		m³		m³
≤ 13	5	0.343	2	0.156					17	1.474	31	2.283				
13 < ≤ 17	2	0.275	6	0.848					22	3.610	16	2.565				
17 < ≤ 21	3	0.758	3	0.653					6	1.587	12	2.861				
21 < ≤ 25	3	1.524	1	0.377					9	3.031	11	3.453				
25 < ≤ 29	3	1.741	2	1.205			1	0.569	9	4.221	3	1.241				
29 < ≤ 33	4	3.415							1	0.630	2	1.357				
33 < ≤ 37	5	5.017	1	1.216					2	1.442						
37 < ≤ 41	3	3.982	2	2.652							1	0.961				
41 < ≤ 45	6	10.859									1	1.176				
45 < ≤ 49	2	4.237	1	2.290												
49 < ≤ 53	4	9.529														
53 <	8	26.901	8	20.986												
Total	48	68.581	24	30.381			1	0.569	66	15.995	79	15.847				

Plot No. 51

General Summing Results

Species	DBH MAX	DBH AVG	DBH MIN	H MAX	H AVG	H MIN	Class n 1	Class n 2	Class n 3	Class n Sum	Class Total V 1	Class Total V 2	Class Total V 3	Class Total V Total
	cm	cm	cm	m	m	m	n	n	n	n	m³	m³	m³	m³
Larix sibirica	68	27	10	28	15	7	23	33	28	84	24.270	32.871	5.031	62.172
Pinus sylvestris	36	36	36	17	17	17		1		1		0.785		0.785
Betula platyphylla	50	22	10	22	13	5	29	70	38	137	11.883	30.144	12.533	54.560
Populus tremula	12	12	12	6	6	6			1	1			0.032	0.032
Grand/Total	68	24	10	28	14	5	52	104	67	223	36.153	63.800	17.596	117.549

Summing by Species; DBH Class; Quality

DBH Range	*Larix sibirica* Class 1/2 n	V	Class 3 n	V	*Pinus sylvestris* Class 1/2 n	V	Class 3 n	V	*Betula platyphylla* Class 1/2 n	V	Class 3 n	V	*Populus tremula* Class 1/2 n	V	Class 3 n	V
cm		m³		m³		m³		m³		m³		m³		m³		m³
≤ 13	6	0.378	4	0.222					22	1.652	9	0.667			1	0.032
13 < ≤ 17	6	0.881	13	1.745					11	1.894	2	0.307				
17 < ≤ 21	4	1.114	6	1.252					10	2.525	11	2.310				
21 < ≤ 25	3	1.202	3	1.014					16	6.000	8	2.035				
25 < ≤ 29	3	1.815	1	0.303					12	5.857	2	0.862				
29 < ≤ 33	8	6.196							7	4.329	1	0.539				
33 < ≤ 37	7	7.197	1	0.495	1	0.785			11	8.693	4	3.100				
37 < ≤ 41	7	9.373							7	6.850	3	2.713				
41 < ≤ 45	1	1.505							1	1.086						
45 < ≤ 49	1	1.915														
49 < ≤ 53	5	11.126							2	3.341						
53 <	5	14.439														
Total	58	57.141	28	5.031	1	0.785			99	42.027	38	12.533			1	0.032

Plot No. 52

General Summing Results

Species	DBH MAX	DBH AVG	DBH MIN	H MAX	H AVG	H MIN	Class n 1	Class n 2	Class n 3	Class n Sum	Class Total V 1	Class Total V 2	Class Total V 3	Class Total V Total
	cm	cm	cm	m	m	m	n	n	n	n	m³	m³	m³	m³
Larix sibirica	68	44	14	24	19	10		3	1	4		4.008	3.592	7.600
Pinus sylvestris	70	33	10	24	15	5	26	9	27	62	22.130	8.034	29.100	59.264
Betula platyphylla	24	14	10	17	11	5	24	51	96	171	3.306	7.797	13.142	24.245
Populus tremula	14	13	12	12	10	9		1	1	2		0.089	0.050	0.139
Grand/Total	70	20	10	24	12	5	50	64	125	239	25.936	19.928	45.884	91.748

Summing by Species; DBH Class; Quality

DBH Range	*Larix sibirica* Class 1/2 n	V	Class 3 n	V	*Pinus sylvestris* Class 1/2 n	V	Class 3 n	V	*Betula platyphylla* Class 1/2 n	V	Class 3 n	V	*Populus tremula* Class 1/2 n	V	Class 3 n	V
cm		m³		m³		m³		m³		m³		m³		m³		m³
≤ 13					2	0.124	8	0.199	32	2.461	34	2.439			1	0.050
13 < ≤ 17	1	0.108			5	0.524	4	0.252	19	2.638	37	4.980	1	0.089		
17 < ≤ 21					1	0.151	1	0.153	19	4.736	21	4.474				
21 < ≤ 25					3	0.831	2	0.453	5	1.758	4	1.249				
25 < ≤ 29					2	0.912										
29 < ≤ 33					5	2.741										
33 < ≤ 37					4	3.408										
37 < ≤ 41					4	3.834										
41 < ≤ 45					2	2.643	3	3.326								
45 < ≤ 49	2	3.900			3	4.742	1	1.326								
49 < ≤ 53					2	3.578	2	3.063								
53 <			1	3.592	2	6.666	8	20.328								
Total	3	4.008	1	3.592	35	30.164	27	29.100	75	11.603	96	13.142	1	0.089	1	0.050

Plot No. 53

General Summing Results

Species	DBH MAX	DBH AVG	DBH MIN	H MAX	H AVG	H MIN	Class n 1	2	3	Sum	Class Total V 1	2	3	Total
	cm	cm	cm	m	m	m	n	n	n	n	m³	m³	m³	m³
Larix sibirica	64	42	14	24	18	8	9	9	18	35	16.839	12.062	22.507	51.408
Pinus sylvestris	44	35	30	16	14	10	1	2	3	6	1.218	1.258	1.481	3.957
Betula platyphylla	46	17	10	21	13	5	20	101	70	191	3.867	23.520	17.687	45.074
Populus tremula														
Grand Total	64	21	10	24	14	5	30	111	91	232	21.924	36.840	41.675	100.439

Summing by Species; DBH Class; Quality

DBH Range	*Larix sibirica* Class 1/2 n	V	Class 3 n	V	*Pinus sylvestris* Class 1/2 n	V	Class 3 n	V	*Betula platyphylla* Class 1/2 n	V	Class 3 n	V	*Populus tremula* Class 1/2 n	V	Class 3 n	V
cm		m³		m³		m³		m³		m³		m³		m³		m³
≤ 13									40	3.467	24	1.808				
13 < ≤ 17	1	0.090	1	0.149					32	5.129	17	2.603				
17 < ≤ 21									20	5.335	9	2.123				
21 < ≤ 25	1	0.303							16	5.821	4	1.344				
25 < ≤ 29			1	0.641					6	2.904	7	3.278				
29 < ≤ 33			2	1.325	1	0.426	1	0.332	5	3.041	4	2.302				
33 < ≤ 37	1	0.878	3	2.545	1	0.830	2	1.149	1	0.726	3	2.508				
37 < ≤ 41			1	1.168					1	0.924	1	0.698				
41 < ≤ 45	5	7.613	5	8.001	1	1.218										
45 < ≤ 49	2	3.612	1	1.839							1	1.223				
49 < ≤ 53	4	8.475	2	3.873												
53 <	3	7.932	2	5.168												
Total	17	28.901	18	22.507	3	2.476	3	1.481	121	27.367	70	17.687				

Plot No. 54

General Summing Results

Species	DBH MAX	DBH AVG	DBH MIN	H MAX	H AVG	H MIN	Class n 1	2	3	Sum	Class Total V 1	2	3	Total
	cm	cm	cm	m	m	m	n	n	n	n	m³	m³	m³	m³
Larix sibirica														
Pinus sylvestris														
Betula platyphylla	74	19	10	20	12	5	14	54	170	238	4.667	13.789	48.145	66.601
Populus tremula														
Grand Total	74	19	10	20	12	5	14	54	170	238	4.667	13.789	48.145	66.601

Summing by Species; DBH Class; Quality

DBH Range	*Larix sibirica* Class 1/2 n	V	Class 3 n	V	*Pinus sylvestris* Class 1/2 n	V	Class 3 n	V	*Betula platyphylla* Class 1/2 n	V	Class 3 n	V	*Populus tremula* Class 1/2 n	V	Class 3 n	V
cm		m³		m³		m³		m³		m³		m³		m³		m³
≤ 13									10	0.897	70	5.318				
13 < ≤ 17									22	3.745	48	8.914				
17 < ≤ 21									14	3.331	13	3.104				
21 < ≤ 25									13	4.834	9	3.119				
25 < ≤ 29									8	3.184	6	2.808				
29 < ≤ 33									1	0.679	8	3.605				
33 < ≤ 37									1	0.781	6	4.695				
37 < ≤ 41									1	1.010	1	1.034				
41 < ≤ 45											2	2.434				
45 < ≤ 49											6	8.371				
49 < ≤ 53											1	1.621				
53 <											2	5.118				
Total									66	16.456	170	48.145				

Plot No. 55

General Summing Results

Species	DBH MAX	DBH AVG	DBH MIN	H MAX	H AVG	H MIN	Class n 1	2	3	Sum	Class Total V 1	2	3	Total
	cm	cm	cm	m	m	m	n	n	n	n	m³	m³	m³	m³
Larix sibirica	60	36	12	24	18	4	6	3	6	15	5.429	3.516	9.342	18.287
Pinus sylvestris	66	38	10	24	18	6	14	2	2	18	16.733	0.433	4.152	21.318
Betula platyphylla	38	17	10	22	12	5	11	57	55	123	3.178	13.853	12.031	29.062
Populus tremula	28	17	10	25	12	6	5	10	5	20	1.079	1.476	0.666	3.221
Grand Total	66	28	10	25	13	4	36	72	68	176	26.419	19.278	26.191	71.888

Summing by Species; DBH Class; Quality

DBH Range	*Larix sibirica* Class 1/2 n	V	Class 3 n	V	*Pinus sylvestris* Class 1/2 n	V	Class 3 n	V	*Betula platyphylla* Class 1/2 n	V	Class 3 n	V	*Populus tremula* Class 1/2 n	V	Class 3 n	V
cm		m³		m³		m³		m³		m³		m³		m³		m³
≤ 13	1	0.095	1	0.038	3	0.099			21	1.395	17	1.165	6	0.187		
13 < ≤ 17									12	1.895	16	2.251	1	0.043	3	0.245
17 < ≤ 21	1	0.269							15	4.240	7	1.645	2	0.490	1	0.201
21 < ≤ 25	1	0.508			1	0.321			13	5.083	7	2.390	4	1.079	1	0.220
25 < ≤ 29					3	1.433			2	0.878	5	2.267	2	0.716		
29 < ≤ 33	1	0.866			2	1.298			4	2.856	2	1.263				
33 < ≤ 37					1	0.784	1	0.943	1	0.884						
37 < ≤ 41	3	3.764	1	0.814							1	1.010				
41 < ≤ 45	1	1.616	1	1.157												
45 < ≤ 49					2	3.433										
49 < ≤ 53	1	1.769	2	4.361	1	2.125										
53 <			1	2.972	3	7.673	1	3.209								
Total	9	8.945	6	9.342	16	17.166	2	4.152	68	17.031	55	12.031	15	2.555	5	0.666

Plot No. 56

General Summing Results

Species	DBH MAX	DBH AVG	DBH MIN	H MAX	H AVG	H MIN	Class n 1	2	3	Sum	Class Total V 1	2	3	Total
	cm	cm	cm	m	m	m	n	n	n	n	m³	m³	m³	m³
Larix sibirica	72	53	12	26	22	11	8	8	7	22	12.168	24.130	19.861	56.157
Pinus sylvestris	38	29	12	20	16	11	2	1	1	4	0.804	1.019	0.621	2.444
Betula platyphylla	38	14	10	21	13	4	50	179	74	303	10.778	29.748	11.922	52.448
Populus tremula														
Grand Total	72	17	10	26	14	4	58	189	82	329	23.548	54.897	32.604	111.049

Summing by Species; DBH Class; Quality

DBH Range	*Larix sibirica* Class 1/2 n	V	Class 3 n	V	*Pinus sylvestris* Class 1/2 n	V	Class 3 n	V	*Betula platyphylla* Class 1/2 n	V	Class 3 n	V	*Populus tremula* Class 1/2 n	V	Class 3 n	V
cm		m³		m³		m³		m³		m³		m³		m³		m³
≤ 13	1	0.068			1	0.063			106	9.645	41	3.339				
13 < ≤ 17									62	10.148	14	2.112				
17 < ≤ 21									36	8.465	13	2.981				
21 < ≤ 25									14	5.166	3	1.140				
25 < ≤ 29	1	0.512			1	0.541			8	3.689						
29 < ≤ 33									1	0.630	2	1.430				
33 < ≤ 37									1	0.669	1	0.920				
37 < ≤ 41					1	1.019	1	0.821	1	0.914						
41 < ≤ 45																
45 < ≤ 49	1	2.057	1	1.843												
49 < ≤ 53	5	10.762	1	2.459												
53 <	7	22.677	5	15.559												
Total	15	36.296	7	19.861	3	1.623	1	0.821	229	40.526	74	11.922				

Plot No. 57

General Summing Results

Species	DBH MAX (cm)	DBH AVG (cm)	DBH MIN (cm)	H MAX (m)	H AVG (m)	H MIN (m)	Class n 1 (n)	Class n 2 (n)	Class n 3 (n)	Class n Sum (n)	Class Total V 1 (m^3)	Class Total V 2 (m^3)	Class Total V 3 (m^3)	Class Total V Total (m^3)
Larix sibirica	58	30	10	30	20	8	30	33	56	119	47.794	31.129	34.779	113.702
Pinus sylvestris	66	45	34	27	21	14	3	1	3	7	7.566	1.234	2.979	11.799
Betula platyphylla	38	13	10	18	10	6	12	28	35	75	1.656	2.820	5.445	9.901
Populus tremula	40	14	10	20	13	7	10	10	13	33	1.654	1.864	1.611	5.129
Grand/Total	66	23	10	30	16	6	55	72	107	234	58.870	37.047	44.814	140.531

Summing by Species; DBH Class; Quality

DBH Range (cm)	*Larix sibirica* Class 1/2 n	*Larix sibirica* Class 1/2 V (m^3)	*Larix sibirica* Class 3 n	*Larix sibirica* Class 3 V (m^3)	*Pinus sylvestris* Class 1/2 n	*Pinus sylvestris* Class 1/2 V (m^3)	*Pinus sylvestris* Class 3 n	*Pinus sylvestris* Class 3 V (m^3)	*Betula platyphylla* Class 1/2 n	*Betula platyphylla* Class 1/2 V (m^3)	*Betula platyphylla* Class 3 n	*Betula platyphylla* Class 3 V (m^3)	*Populus tremula* Class 1/2 n	*Populus tremula* Class 1/2 V (m^3)	*Populus tremula* Class 3 n	*Populus tremula* Class 3 V (m^3)
≤ 13			5	0.302					22	1.697	19	1.241	8	0.554	11	0.481
13 < ≤ 17			4	0.635					18	2.244	9	1.174	8	1.075		
17 < ≤ 21	4	1.301	8	1.878					1	0.243	4	1.036	2	0.474		
21 < ≤ 25	4	1.474	9	3.449					1	0.272	1	0.350				
25 < ≤ 29	7	4.454	7	3.969									1	0.447	1	0.481
29 < ≤ 33	8	7.440	9	6.975											1	0.649
33 < ≤ 37	12	13.677	8	9.587			1	0.583			1	0.698				
37 < ≤ 41	17	26.125	4	5.463			1	1.070			1	0.945	1	0.968		
41 < ≤ 45	5	9.026	1	1.616	2	2.778										
45 < ≤ 49	4	8.720	1	1.905	1	2.129	1	1.326								
49 < ≤ 53																
53 <	2	6.262			1	3.913										
Total	63	78.923	56	34.779	4	8.820	3	2.979	40	4.456	35	5.445	20	3.516	13	1.611

Plot No. 58

General Summing Results

Species	DBH MAX (cm)	DBH AVG (cm)	DBH MIN (cm)	H MAX (m)	H AVG (m)	H MIN (m)	Class n 1 (n)	Class n 2 (n)	Class n 3 (n)	Class n Sum (n)	Class Total V 1 (m^3)	Class Total V 2 (m^3)	Class Total V 3 (m^3)	Class Total V Total (m^3)
Larix sibirica	60	33	12	26	18	8	21	8	24	51	30.250	6.906	18.946	56.102
Pinus sylvestris	62	35	12	27	18	8	27	15	29	71	31.023	12.529	30.861	74.413
Betula platyphylla	34	14	10	18	11	5	6	25	28	59	0.765	3.693	4.962	9.420
Populus tremula														
Grand/Total	62	28	10	27	16	5	54	46	81	181	62.038	23.128	54.769	139.935

Summing by Species; DBH Class; Quality

DBH Range (cm)	*Larix sibirica* Class 1/2 n	*Larix sibirica* Class 1/2 V (m^3)	*Larix sibirica* Class 3 n	*Larix sibirica* Class 3 V (m^3)	*Pinus sylvestris* Class 1/2 n	*Pinus sylvestris* Class 1/2 V (m^3)	*Pinus sylvestris* Class 3 n	*Pinus sylvestris* Class 3 V (m^3)	*Betula platyphylla* Class 1/2 n	*Betula platyphylla* Class 1/2 V (m^3)	*Betula platyphylla* Class 3 n	*Betula platyphylla* Class 3 V (m^3)	*Populus tremula* Class 1/2 n	*Populus tremula* Class 1/2 V (m^3)	*Populus tremula* Class 3 n	*Populus tremula* Class 3 V (m^3)
≤ 13			2	0.190	1	0.058			18	1.327	14	0.948				
13 < ≤ 17	2	0.279	3	0.438	2	0.154			8	1.078	4	0.665				
17 < ≤ 21	2	0.447	4	0.899	2	0.511	3	0.410	2	0.483	5	1.206				
21 < ≤ 25	1	0.360	3	1.148	3	1.041	4	1.024	1	0.356	3	0.858				
25 < ≤ 29	1	0.633	3	1.411	8	3.973	3	1.267			1	0.559				
29 < ≤ 33	1	0.758	2	1.311	6	3.928	1	0.523	2	1.214						
33 < ≤ 37	5	5.220	1	1.182	1	1.141	4	3.417			1	0.726				
37 < ≤ 41	3	3.691			5	5.632	2	2.166								
41 < ≤ 45	3	5.092	2	3.005	5	7.838	6	8.237								
45 < ≤ 49	2	3.566	1	1.571	2	3.078	2	3.076								
49 < ≤ 53	5	11.533			3	6.391										
53 <	2	5.583	3	7.793	4	9.807	4	10.741								
Total	27	37.156	24	18.948	42	43.552	29	30.861	31	4.458	28	4.962				

Plot No. 59

General Summing Results

Species	DBH MAX (cm)	DBH AVG (cm)	DBH MIN (cm)	H MAX (m)	H AVG (m)	H MIN (m)	Class n 1 (n)	Class n 2 (n)	Class n 3 (n)	Class n Sum (n)	Class Total V 1 (m^3)	Class Total V 2 (m^3)	Class Total V 3 (m^3)	Class Total V Total (m^3)
Larix sibirica	66	42	24	27	21	16	12	3	15	30	21.600	4.663	21.508	47.971
Pinus sylvestris	52	36	14	23	18	7	9	8	8	25	8.535	8.534	7.936	25.005
Betula platyphylla	44	14	10	25	12	3	39	119	88	246	7.716	19.893	12.704	40.313
Populus tremula														
Grand/Total	66	19	10	27	13	3	50	130	111	301	38.051	33.090	42.148	113.289

Summing by Species; DBH Class; Quality

DBH Range (cm)	*Larix sibirica* Class 1/2 n	*Larix sibirica* Class 1/2 V (m^3)	*Larix sibirica* Class 3 n	*Larix sibirica* Class 3 V (m^3)	*Pinus sylvestris* Class 1/2 n	*Pinus sylvestris* Class 1/2 V (m^3)	*Pinus sylvestris* Class 3 n	*Pinus sylvestris* Class 3 V (m^3)	*Betula platyphylla* Class 1/2 n	*Betula platyphylla* Class 1/2 V (m^3)	*Betula platyphylla* Class 3 n	*Betula platyphylla* Class 3 V (m^3)	*Populus tremula* Class 1/2 n	*Populus tremula* Class 1/2 V (m^3)	*Populus tremula* Class 3 n	*Populus tremula* Class 3 V (m^3)
≤ 13									58	4.774	55	4.231				
13 < ≤ 17					1	0.114	1	0.055	62	9.939	14	1.917				
17 < ≤ 21					1	0.149			27	6.615	7	1.768				
21 < ≤ 25			2	0.864					4	1.413	8	2.887				
25 < ≤ 29	2	1.097	1	0.585	2	0.999			1	0.432	4	1.881				
29 < ≤ 33			2	1.356	3	1.937	1	0.428	4	2.515						
33 < ≤ 37	1	0.950	1	0.871	1	0.475	2	1.600	1	0.639						
37 < ≤ 41	3	4.079	2	2.495	2	2.242	1	0.921								
41 < ≤ 45	3	5.006	2	3.453	4	5.481			1	1.219						
45 < ≤ 49	1	1.839			1	1.438	2	3.078								
49 < ≤ 53	2	4.874	3	6.733	2	3.834	1	1.946								
53 <	3	8.818	2	5.151												
Total	15	26.463	15	21.508	17	17.069	8	7.936	158	27.609	88	12.704				

Plot No. 60

General Summing Results

Species	DBH MAX (cm)	DBH AVG (cm)	DBH MIN (cm)	H MAX (m)	H AVG (m)	H MIN (m)	Class n 1 (n)	Class n 2 (n)	Class n 3 (n)	Class n Sum (n)	Class Total V 1 (m^3)	Class Total V 2 (m^3)	Class Total V 3 (m^3)	Class Total V Total (m^3)
Larix sibirica	70	33	14	27	20	9	45	20	31	96	59.804	22.032	23.056	104.892
Pinus sylvestris	62	50	36	27	20	17	1	2		3	2.481	3.004		5.485
Betula platyphylla	22	13	10	19	10	5	5	27	28	60	1.054	3.329	2.698	7.081
Populus tremula	20	13	10	15	11	9	9	6	3	18	1.056	0.358	0.288	1.704
Grand/Total	70	24	10	27	16	5	60	55	62	177	64.397	28.723	26.042	119.162

Summing by Species; DBH Class; Quality

DBH Range (cm)	*Larix sibirica* Class 1/2 n	*Larix sibirica* Class 1/2 V (m^3)	*Larix sibirica* Class 3 n	*Larix sibirica* Class 3 V (m^3)	*Pinus sylvestris* Class 1/2 n	*Pinus sylvestris* Class 1/2 V (m^3)	*Pinus sylvestris* Class 3 n	*Pinus sylvestris* Class 3 V (m^3)	*Betula platyphylla* Class 1/2 n	*Betula platyphylla* Class 1/2 V (m^3)	*Betula platyphylla* Class 3 n	*Betula platyphylla* Class 3 V (m^3)	*Populus tremula* Class 1/2 n	*Populus tremula* Class 1/2 V (m^3)	*Populus tremula* Class 3 n	*Populus tremula* Class 3 V (m^3)
≤ 13									13	1.156	18	1.062	6	0.341	2	0.072
13 < ≤ 17	2	0.242	4	0.507					15	2.156	10	1.210	6	0.555		
17 < ≤ 21	3	1.107	6	1.562					3	0.890	2	0.426	3	0.520	1	0.218
21 < ≤ 25	3	1.538	6	2.089					1	0.381						
25 < ≤ 29	8	5.329	4	2.224												
29 < ≤ 33	12	10.789	3	1.984												
33 < ≤ 37	15	15.688	1	0.950	1	0.785										
37 < ≤ 41	6	7.724	1	1.168												
41 < ≤ 45	6	10.788														
45 < ≤ 49	1	2.035	2	3.885												
49 < ≤ 53	4	9.254	2	3.967	1	2.481										
53 <	5	17.342	2	4.720	1	2.219										
Total	65	81.836	31	23.056	3	5.485			32	4.383	28	2.698	15	1.416	3	0.288

Plot No. 61

General Summing Results

Species	DBH MAX	DBH AVG	DBH MIN	H MAX	H AVG	H MIN	Class n 1	Class n 2	Class n 3	Class n Sum	Class Total V 1	Class Total V 2	Class Total V 3	Class Total V Total
	cm	cm	cm	m	m	m	n	n	n	n	m³	m³	m³	m³
Larix sibirica	62	26	12	29	17	5	14	8	16	38	17.009	6.568	11.315	34.992
Pinus sylvestris	70	35	14	28	18	7	21	18	10	49	24.778	23.705	5.638	54.121
Betula platyphylla	42	17	10	22	13	6	31	44	57	132	8.577	8.663	17.158	32.596
Populus tremula														
Grand/Total	70	23	10	29	15	5	66	70	83	219	48.364	39.236	34.111	121.711

Summing by Species; DBH Class; Quality

DBH Range cm	*Larix sibirica* Class 1/2 n	V m³	*Larix sibirica* Class 3 n	V m³	*Pinus sylvestris* Class 1/2 n	V m³	*Pinus sylvestris* Class 3 n	V m³	*Betula platyphylla* Class 1/2 n	V m³	*Betula platyphylla* Class 3 n	V m³	*Populus tremula* Class 1/2 n	V m³	*Populus tremula* Class 3 n	V m³
≤ 13	1	0.095	2	0.190					29	2.170	15	1.196				
13 < ≤ 17	1	0.159	5	0.802	2	0.229	4	0.354	21	3.573	14	2.148				
17 < ≤ 21	2	0.683	3	0.540	5	1.024	2	0.314	10	2.694	5	1.076				
21 < ≤ 25	1	0.341			2	0.730			8	2.884	5	1.756				
25 < ≤ 29	6	3.397	3	1.461	6	2.854			4	2.056	8	3.713				
29 < ≤ 33					1	0.491	1	0.876	2	1.355	7	4.367				
33 < ≤ 37	2	2.092			4	3.461			1	0.754	1	0.808				
37 < ≤ 41	3	3.977			1	0.871										
41 < ≤ 45	2	3.263	2	3.088	3	4.060	1	1.087			2	2.092				
45 < ≤ 49	2	4.425			3	4.759	2	3.007								
49 < ≤ 53	1	2.061			4	7.568										
53 <	1	3.194	2	5.434	8	22.696										
Total	22	23.677	16	11.315	39	48.463	10	5.638	75	15.440	57	17.158				

Plot No. 62

General Summing Results

Species	DBH MAX	DBH AVG	DBH MIN	H MAX	H AVG	H MIN	Class n 1	Class n 2	Class n 3	Class n Sum	Class Total V 1	Class Total V 2	Class Total V 3	Class Total V Total
	cm	cm	cm	m	m	m	n	n	n	n	m³	m³	m³	m³
Larix sibirica														
Pinus sylvestris	78	35	10	24	17	7	28	15	38	81	25.534	25.018	31.568	82.118
Betula platyphylla	44	23	10	18	11	6	4	15	19	38	3.138	5.701	5.269	14.108
Populus tremula	54	19	10	17	10	6	8	4	10	20	0.632	1.115	3.207	4.954
Grand/Total	78	30	10	24	14	6	38	34	67	139	29.304	31.834	40.042	101.180

Summing by Species; DBH Class; Quality

DBH Range cm	*Larix sibirica* Class 1/2 n	V m³	*Larix sibirica* Class 3 n	V m³	*Pinus sylvestris* Class 1/2 n	V m³	*Pinus sylvestris* Class 3 n	V m³	*Betula platyphylla* Class 1/2 n	V m³	*Betula platyphylla* Class 3 n	V m³	*Populus tremula* Class 1/2 n	V m³	*Populus tremula* Class 3 n	V m³
≤ 13					8	0.344			1	0.079	3	0.239	8	0.313	5	0.173
13 < ≤ 17					4	0.447	1	0.122	1	0.102	7	0.755				
17 < ≤ 21							5	0.773	4	0.911	3	0.619			1	0.110
21 < ≤ 25							3	0.747	3	0.967	1	0.267			1	0.183
25 < ≤ 29					1	0.514	4	1.397	3	1.253	1	0.435				
29 < ≤ 33							5	3.101	3	1.847	1	0.515	1	0.415		
33 < ≤ 37					2	1.608	5	4.330	2	1.407	2	1.473				
37 < ≤ 41					2	2.252	6	5.858	1	1.034	1	0.946			1	0.896
41 < ≤ 45					8	10.959	1	1.234	1	1.219			1	1.019	1	0.760
45 < ≤ 49					8	12.277	4	5.791								
49 < ≤ 53					6	11.308	1	2.125								
53 <					4	10.843	3	8.068							1	1.265

Appendix 10 Measurements of Sampled Core by Species

Pinus sylvestris Number of samples: 92

DBH (cm)	Annual Ring Width of Sampled Core (mm)						Average (mm)
10	4.5	1.5	1.5				2.5
12	6.0						6.0
14	6.0						6.0
16	5.0	2.0					3.5
18	6.0	8.0	8.0	5.0	7.0	6.0	6.7
20	6.0	2.5					4.3
22	5.0	5.0	6.0				5.3
24	10.5	2.0	7.0	4.5	12.0		7.2
26	11.0	14.5	10.0				11.8
28	11.0						11.0
30	9.0						9.0
32	4.0	5.5	2.5				4.0
34	5.5	5.5					5.5
36	5.0						5.0
38	9.0	13.0	2.5	4.5	4.0		6.6
40	2.0						2.0
42	6.5	7.0					6.8
44	2.0	4.0					3.0
45	2.0						2.0
46	2.5	3.0	6.0				3.8
48	7.0	4.0	4.0				5.0
53	6.0						6.0
54	4.0						4.0
55	7.0						7.0
56	3.0	7.0	7.0				5.7
58	10.0	5.0	6.0				7.0
59	10.0						10.0
60	8.5	7.0					7.8
62	8.0	7.5	3.5	7.5			6.6
63	6.0						6.0
64	6.0						6.0
65	8.0	5.0	8.0	8.0			7.3
66	4.0						4.0
70	3.0	5.0					4.0
72	5.0	3.0	4.0				4.0
74	4.0	3.5					3.8
76	3.0	5.0	3.0				3.7
78	4.0						4.0
80	5.0						5.0
82	4.0						4.0
84	5.0						5.0
86	4.0						4.0
88	2.0	7.0					4.5
94	1.5						1.5

Larix sibirica Number of samples: 89

DBH (cm)	Annual Ring Width of Sampled Core (mm)						Average (mm)
10	6.0						6.0
12	1.0						1.0
14	2.5	12.0	13.5				9.3
16	14.0	7.0	11.0				10.7
18	4.0	1.5	3.0				2.8
20	4.0	3.0	3.5				3.5
22	2.0	5.0					3.5
24	13.0						13.0
26	5.0	10.0					7.5
28	3.0	3.0	4.5				3.5
30	5.5	5.0					5.3
32	3.5	5.0	5.5	2.0			4.0
34	5.0	3.0	2.0				3.3
36	3.5	4.0	1.5				3.0
38	7.0	9.0					8.0
40	6.0	10.0					8.0
42	4.5	7.5	3.5				5.2
44	5.0	5.0	3.0				4.3
46	2.5	3.5					3.0
48	6.0	4.5	4.5	4.0			4.8
50	2.0	4.0	3.5				3.2
52	1.5	3.0					2.3
54	3.5	5.0	5.0				4.5
56	2.0	4.0	3.0	6.0			3.8
60	3.5	2.0	3.0	5.0			3.4
62	3.0	3.5					3.3
64	5.5	6.0					5.8
66	4.0						4.0
68	2.5	6.0	2.5				3.7
72	6.0	1.5	1.0	3.5	1.5	1.0	2.4
74	2.5	3.5	1.0				2.3
76	2.5						2.5
81	3.5						3.5
82	3.0						3.0
88	1.5						1.5
90	2.5						2.5
92	2.5						2.5

Betula platyphylla Number of samples: 54

DBH (cm)	Annual Ring Width of Sampled Core (mm)						Average (mm)
10	7.5	9.0					8.3
12	5.0						5.0
14	6.5						6.5
16	5.5	7.0	7.0				6.5
18	4.0	10.5	6.5	4.5	15.0	10.0	8.4
20	7.5	6.5	6.0	6.5			6.6
22	19.0	7.0	4.0				10.0
24	8.0						8.0
26	6.0	6.0	10.5	5.0			6.9
28	8.0						8.0
30	9.0	5.0					7.0
34	10.0	8.0	8.0	7.0	9.5		8.5
36	7.0	5.0	8.0				6.7
38	8.0	9.0	4.0				7.0
40	6.5	4.0	3.0				4.5
42	6.5	9.0	7.0				7.5
44	6.5	6.0	2.5				5.0
46	2.5	5.0	3.0				3.5
52	3.5						3.5
54	17.0						17.0
56	4.0						4.0

Populus tremula Number of samples: 54

DBH (cm)	Annual Ring Width of Sampled Core (mm)						Average (mm)
10	4.5						4.5
12	6.0	9.0	2.5				5.8
14	7.0	7.0	4.0	4.0	7.5	10.0	6.6
16	9.0						9.0
18	8.0	8.5	4.0	10.0	8.0		7.7
20	6.0	6.0					6.0
22	10.5	8.0					9.3
24	9.0	8.0	8.0				8.3
26	7.5	9.5	11.0	10.0	6.0		8.8
28	8.0	5.0	8.0	4.0			6.3
30	4.0	6.0					5.0
32	7.0	11.5	11.0				9.8
34	5.0	5.0	9.0	8.0			6.8
36	7.0	7.0					7.0
38	7.5	6.0	8.0				7.2
40	7.0	8.0					7.5
42	6.0	10.0					8.0
44	7.0						7.0
48	8.0						8.0
52	7.0	6.0					6.5

Appendix 11 Calculation of Volume Increment Rate by Each Species for Each DBH Class

Larix sibirica				
DBH (cm)	Annual Ring Width (mm)			Volume Increment Rate (%)
	Average	Revised n	Annual	
10	6.0	6.36	2.544	7.73
12	1.0	6.26	2.504	6.47
14	9.3	6.16	2.464	5.24
16	10.7	6.06	2.424	4.33
18	2.8	5.96	2.384	3.73
20	3.5	5.86	2.344	3.15
22	3.5	5.76	2.304	2.79
24	13.0	5.66	2.264	2.44
26	7.5	5.56	2.224	2.15
28	3.5	5.46	2.184	1.93
30	5.3	5.36	2.144	1.72
32	4.0	5.26	2.104	1.60
34	3.3	5.16	2.064	1.49
36	3.0	5.06	2.024	1.38
38	8.0	4.96	1.984	1.27
40	8.0	4.86	1.944	1.17
42	5.2	4.76	1.904	1.07
44	4.3	4.66	1.864	0.97
46	3.0	4.56	1.824	0.89
48	4.8	4.46	1.784	0.83
50	3.2	4.36	1.744	0.77
52	2.3	4.26	1.704	0.72
54	4.5	4.16	1.664	0.67
56	3.8	4.06	1.624	0.61
58		3.96	1.584	0.57
60	3.4	3.86	1.544	0.52
62	3.3	3.76	1.504	0.49
64	5.8	3.66	1.464	0.47
66	4.0	3.56	1.424	0.44
68	3.7	3.46	1.384	0.42
70		3.36	1.344	0.40
72	2.4	3.26	1.304	0.37
74	2.3	3.16	1.264	0.34
76	2.5	3.06	1.224	0.31
78		2.96	1.184	0.28
80		2.86	1.144	0.24
81	3.5			
82	3.0			
88	1.5			
90	2.5			
92	2.5			

Pinus sylvestris				
DBH (cm)	Annual Ring Width (mm)			Volume Increment Rate (%)
	Average	Revised n	Annual	
8		6.64	2.658	9.28
10	2.5	6.64	2.658	8.07
12	6.0	6.64	2.658	6.86
14	6.0	6.64	2.658	5.65
16	3.5	6.64	2.658	4.75
18	6.7	6.64	2.658	4.15
20	4.3	6.64	2.658	3.56
22	5.3	6.64	2.658	3.22
24	7.2	6.64	2.658	2.89
26	11.8	6.64	2.658	2.60
28	11.0	6.64	2.658	2.37
30	9.0	6.64	2.658	2.13
32	4.0	6.64	2.658	2.02
34	5.5	6.64	2.658	1.91
36	5.0	6.64	2.658	1.81
38	6.6	6.64	2.658	1.70
40	2.0	6.64	2.658	1.59
42	6.8	6.64	2.658	1.49
44	3.0	6.64	2.658	1.38
45	2.0			
46	3.8	6.64	2.658	1.30
48	5.0	6.64	2.658	1.23
50		6.64	2.658	1.16
52		6.64	2.658	1.12
53	6.0	6.64	2.658	
54	4.0	6.64	2.658	1.08
55	7.0			
56	5.7	6.64	2.658	1.04
58	7.0	6.64	2.658	1.00
59	10.0			
60	7.8	6.64	2.658	0.96
62	6.6	6.64	2.658	0.93
63	6.0			
64	6.0	6.64	2.658	0.90
65	7.3			
66	4.0	6.64	2.658	0.86
68		6.64	2.658	0.83
70	4.0	6.64	2.658	0.80
72	4.0	6.64	2.658	0.76
74	3.8	6.64	2.658	0.73
76	3.7	6.64	2.658	0.70
78	4.0	6.64	2.658	0.66
80	8.0	6.64	2.658	0.63
82	4.0			
84	5.0			
86	4.0			
88	4.5			
94	1.5			

Betula platyphylla				
DBH (cm)	Annual Ring Width (mm)			Volume Increment Rate (%)
	Average	Revised n	Annual	
10	8.3	7.33	2.934	8.41
12	5.0	7.33	2.934	7.23
14	6.5	7.33	2.934	6.06
16	6.5	7.33	2.934	5.14
18	8.4	7.33	2.934	4.48
20	6.6	7.33	2.934	3.81
22	10.0	7.33	2.934	3.46
24	8.0	7.33	2.934	3.11
26	6.9	7.33	2.934	2.82
28	8.0	7.33	2.934	2.58
30	7.0	7.33	2.934	2.35
32		7.33	2.934	2.23
34	8.5	7.33	2.934	2.11
36	6.7	7.33	2.934	2.00
38	7.0	7.33	2.934	1.88
40	4.5	7.33	2.934	1.76
42	7.5	7.33	2.934	1.68
44	5.0	7.33	2.934	1.60
46	3.5	7.33	2.934	1.52
48		7.33	2.934	1.52
50		7.33	2.934	1.37
52	3.5	7.33	2.934	1.33
54	17.0	7.33	2.934	1.29
56	4.0	7.33	2.934	1.25
58		7.33	2.934	1.21
60		7.33	2.934	1.17
62		7.33	2.934	1.11
64		7.33	2.934	1.06
66		7.33	2.934	1.00
68		7.33	2.934	0.94
70		7.33	2.934	0.88

Populus tremula				
DBH (cm)	Annual Ring Width (mm)			Volume Increment Rate (%)
	Average	Revised n	Annual	
10	4.5	6.71	2.685	7.69
12	5.8	6.71	2.685	6.61
14	6.6	6.71	2.685	5.54
16	9.0	6.71	2.685	4.70
18	7.7	6.71	2.685	4.10
20	6.0	6.71	2.685	3.49
22	9.3	6.71	2.685	3.17
24	8.3	6.71	2.658	2.85
26	8.8	6.71	2.658	2.58
28	6.3	6.71	2.658	2.36
30	5.0	6.71	2.658	2.15
32	9.8	6.71	2.658	2.04
34	6.8	6.71	2.658	1.93
36	7.0	6.71	2.658	1.83
38	7.2	6.71	2.658	1.72
40	7.5	6.71	2.658	1.61
42	8.0	6.71	2.658	1.53
44	7.0	6.71	2.658	1.45
46		6.71	2.658	1.38
48	8.0	6.71	2.658	1.38
50		6.71	2.658	1.27
52	6.5	6.71	2.658	1.23
54		6.71	2.658	1.19
56		6.71	2.658	1.15
58		6.71	2.658	1.11
60		6.71	2.658	1.07
62		6.71	2.658	1.02
64		6.71	2.658	0.97
66		6.71	2.658	0.91
68		6.71	2.658	0.86
70		6.71	2.658	0.81

Appendix 12 Stand Increment Rate, Crown Density and Tree Height of Sample Plots

Plot No.	Forest Physiognomy Category	Stand Increment Rate (%)	Crown Density Class	Tree Height (m)
1	NP	2.370	3	17
2	NP	2.890	2	16
3	NP	3.246	2	17
4	NP	2.890	3	18
5	NP	3.261	1	19
6	M	4.274	2	17
7	NP	2.195	1	21
8	M	4.711	2	15
9	L	4.848	1	16
10	NP	3.264	2	18
11	L	4.493	1	15
12	L	3.088	1	16
13	NP	2.331	2	18
14	NP	4.554	2	12
15	NP	4.786	1	15
16	NP	4.781	2	15
17	NP	2.197	1	22
18	NP	2.020	2	19
19	NP	2.600	3	11
20	NP	3.226	2	17
21	M	2.525	1	17
22	L	5.121	1	16
23	NP	1.755	2	21
24	M	2.396	1	19
25	M	2.297	2	21
26	L	2.730	1	14
27	N	1.410	2	23
28	L	3.958	1	12
29	M	3.449	2	18
30	N	2.522	2	21
31	NL	1.462	1	21
32	L	2.818	2	15
33	L	4.182	1	14
34	M	2.236	2	23
35	N	2.253	2	19
36	L	5.140	2	14
37	NL	1.665	2	20
38	M	3.286	1	18
39	M	2.128	2	20
40	M	3.176	2	16
41	NP	3.562	1	19
42	M	2.145	1	21
43	NP	1.233	3	21
44	NL	2.076	1	22
45	L	3.842	1	15
46	L	4.342	1	16
47	N	1.455	2	24
48	M	3.308	1	16
49	L	3.809	2	14
50	NL	1.902	2	21
51	M	2.111	2	19
52	M	2.417	2	18
53	M	2.237	2	18
54	L	3.460	2	16
55	M	2.403	3	18
56	M	2.781	2	19
57	NL	1.885	1	21
58	N	1.701	2	22
59	M	2.581	2	20
60	NL	1.694	2	20
61	N	2.080	2	21
62	NP	1.718	1	18

Appendix 13 Examples of Mortality Rates of Natural Forests

Stand Type	Density	Tree Diameter	Volume (m^3)	Increment Rate (%)	Mortality Rate (%)	Reference
Coniferous Stand	High	Small and Large	263.99	0.866	1.027	All figures are per ha.
		Medium and Large	328.51	0.791	0.933	
	Medium	Small and Large	137.81	1.000	0.957	
		Small, Medium and Large	203.09	1.317	0.804	
Mixed Stand of Coniferous and Broad-Leaved Trees	High	Small and Large	259.24	1.085	0.819	
		Medium and Large	303.47	0.819	0.913	
	Medium	Small and Large	180.76	0.877	0.934	
		Small, Medium and Large	198.03	1.310	0.883	
Broad-Leaved Stand	High	Small and Large	221.61	0.893	0.991	
	Medium	Small and Large	152.79	0.918	1.007	
		Small, Medium and Large	182.60	0.995	0.947	
	Low	Small and Large	104.64	0.718	1.132	
		Small, Medium and Large	109.81	0.771	1.068	

Notes

1) The data were obtained from a national forest located between 42°30'N and 43°E and between 142°30'E and 143°E in Hokkaido and managed by the Obihiro Regional Forest Branch Office.
2) A coniferous forest has a minimum ratio of coniferous trees of 75% by volume. Similarly, a broad-leaved stand has a minimum ratio of broad-leaved trees of 75% by volume. All other stands are classified as mixed stands.
3) Crown density categories: High = 75% or more, Medium = 50% or more but less than 75%, Low = 25% or more but less than 50%.
4) Small diameter trees are those with a DBH of 6 cm or more but less than 22 cm. Medium diameter trees are those with a DBH of 22 cm or more but less than 34 cm while large diameter trees are those with a DBH of 34 cm or more.
5) The main local coniferous species are *Picea jezoensis* and *Abies sachalinensis* while the main local broad-leaved species are *Ulmus davidiana* var. *japonica*, *Tilia japonica*, *Acer mono*, *Quercus mongolica* var. *grosseserrata*, *Kalopanax pictus* and *Betula maximowicziana*.

Appendix 14 Minutes of Explanation of and Discussions on Interim Report

MINUTES OF MEETING
FOR
THE FOREST RESOURCES MANAGEMENT STUDY
IN SELENGE AIMAK,
MONGOLIA

In pursuance of the Scope of Work of the Forest Resources Management Study in Selenge Aimak, Mongolia (hereinafter referred to as "the Study") signed on January 20,1994. Japan International Cooperation Agency (hereinafter referred to as "JICA") dispatched the Study Team to Mongolia.

The Study Team headed by Mr. Ikuo SUZUKI, and the Advisory Team composed of a member of JICA Advisory Committee and a development specialist of JICA, visited Mongolia from June 18, 1996, and had a series of discussions with the responsible officials of Research Institute of Forestry and Wildlife (hereinafter referred to as "RIFW"), Ministry of Nature and Environment on the Interim Report of the above Study and related outstanding issues.

The salient results of discussions are described in Annex as attached hereto.

June 25,1996
Ulaanbaatar

鈴木郁雄

Mr. Ikuo SUZUKI
Leader
JICA Study Team

Dr. Damdinsurengin Enkhsaikhan
Director
Research Institute of Forestry and Wildlife
Ministry of Nature and Environment

山縣光晶

Mr. Mitsuaki YAMAGATA
Member
JICA Advisory Committee

柳原保邦

Mr. Yasukuni YANAGIHARA
Development Specialist
JICA

Annex

1. **Presentation of the Interim Report**
   The Study Team submitted 20 copies of the Interim Report to the Mongolian side, which was agreed in principle upon the contents. The thematic maps were also submitted as indicated in the Scope of Work.

2. **Influence of the Forest Fires**
   Both sides observed the Intensive Area to examine the situation and the damage of the forest fires, and considered a countermeasure against the damage of the forest fires within the framework of the Scope of Work signed on January 20, 1994.

   As a result of the observations and discussions, it was appeared that some additional study would be necessary to modify or renew the draft of the forest management plan and the draft of some thematic maps, which were already prepared using the information before the forest fires occurred.

   The both sides agreed in principle upon the idea mentioned above.

   The Japanese side explained that this matter would be considered by a certain authorities concerned in Japan based on the report of the Advisory Team and further information to be collected by the Study Team.

   The Japanese side also explained that the result of the consideration in Japan would be informed to the Mongolian side immediately after the decision was made by the Japanese authorities concerned, and JICA was planning to dispatch its staff to make an official agreement.

Appendix 15 Minutes for Extension of the Study

MINUTES OF MEETING
FOR
THE FOREST RESOURCES MANAGEMENT STUDY
IN SELENGE AIMAK,
MONGOLIA

In pursuance of the Scope of Work of the Forest Resources Management Study in Selenge Aimak, Mongolia (hereinafter referred to as "the Study") signed on January 20,1994. Japan International Cooperation Agency (hereinafter referred to as "the JICA") dispatched the Advisory Team to Mongolia with regard to the Minutes of Meeting signed on June 25, 1996.

The Advisory Team headed by Mr. Haruo SAWADA (hereinafter referred to as "the Japanese Side"), a member of JICA Advisory Committee, visited Mongolia from July 20, 1996, and had a series of discussions with the responsible officials of Research Institute of Forestry and Wildlife, Ministry of Nature and Environment (hereinafter referred to as "the Mongolian Side") on the additional work of the Study and related outstanding issues.

The salient results discussed and agreed upon by the both sides are described in Annex as attached hereto.

July 25,1996
Ulaanbaatar

沢田治雄

Mr. Haruo SAWADA
Member
JICA Advisory Committee

Dr. Damdinsurengin Enkhsaikhan
Director
Research Institute of Forestry and Wildlife
Ministry of Nature and Environment

下平忠弘

Mr. Tadahiro SHIMODAIRA
Coordinator
JICA

Annex

1 Study Purposes for the Additional Work

The Study will continue and be concentrated on the fire damage occurred from May to June in 1996. The following issues will be incorporated into the Study:

(1) Utilization of fire damaged trees
(2) Rehabilitation of damaged sites by forest fire
(3) Secondary damage on trees such as pest damage
(4) Fire fighting and prevention on forest fire

1 - 1 Additional Work

The work plan of the additional work will comprise the following issues:

(1) Aerial photography on the fire damaged forest area of the Intensive Area
(2) Collection of data and field survey on the Intensive Area and Model Areas within the purposes of the Study:
(3) Preparation of maps and books of the Intensive Area and Model Areas:
   a. Land use and vegetation maps of the Intensive Area (Scale: 1/50,000)
   b. Forest type maps of the Model Areas (Scale: 1/25,000)
   c. Forest management plan maps of the Model Areas (Scale: 1/25,000)
   d. Forest Inventory Books

1 - 2 Others

Holding a seminar on the result of the Study at the end of the additional work.

1 - 3 Reports

JICA shall prepare the following reports in English for the Government of Mongolia.

(1) Draft Final Report:
twenty (20) copies at the end of the additional work. The Government of Mongolia will provide the JICA with its comments on the Draft Final Report within one (1) month after receipt of the Draft Final Report.
(2) Final Report:
fifty (50) copies within two (2) months after receipt of the comments from the Government of Mongolia on the Draft Final Report.
(3) Maps and Others:
   a. Intensive Area

Aerial photos	(1 set)
Land use and vegetation maps	(Scale: 1/50,000 1 set)

   b. Model Areas

Forest type maps	(Scale: 1/25,000 1 set)
Forest management plan maps	(Scale: 1/25,000 1 set)
Forest Inventory Book	(1 set)

2 Tentative Schedule of Additional Work

Both the Japanese Side and the Mongolian Side found the difficulty of procurement of an airplane which is suitable to carry out the aerial photography needed for the additional work. The Mongolian Side, however, will put the best efforts to settle this difficulty and continue to discuss with the JICA.

With the assumption that the aerial photography will be finalized as the both sides expects, the tentative schedule of the additional work will be started from the aerial photography taken in May or June, 1997. The remaining work in Japan and Mongolia will follow the aerial photography and the Final Report will be submitted until March, 1998.

3 Others

The Mongolian Side will be responsible to manage the related procedures needed for the implementation of the aerial photography for the Study.

Appendix 16 Meteorological Data Regarding Forest Fires (1997 Survey)

Source: Sukhbaatar Aimak Meteorological Research Centre

Rainfall at Sukhbaatar Unit: mm

Month	1989	1990	1991	1992	1993	1994	1995	1996	1997
1	5.9	1.4	3.0	4.2	1.5	3.5	2.3	2.0	5.7
2	0.0	2.2	1.6	0.0	2.2	4.4	1.5	6.3	1.3
3	3.0	4.4	1.7	0.2	4.5	0.0	3.7	2.4	3.5
4	2.3	12.1	8.6	11.4	7.2	21.6	12.6	3.2	1.1
5	5.1	7.6	62.5	27.7	14.6	11.7	16.6	2.5	59.6
6	33.5	65.3	64.7	31.0	33.5	72.8	64.5	30.9	73.1
7	44.5	134.3	69.8	23.9	87.3	31.3	89.9	43.4	
8	37.4	158.6	39.9	126.1	75.2	32.3	70.6	49.7	
9	45.9	31.6	42.3	54.5	46.4	27.8	46.8	25.4	
10	6.1	1.9	7.9	2.1	0.3	7.6	3.9	10.2	
11	1.5	5.9	9.7	9.5	1.9	6.0	9.3	4.7	
12	6.4	6.1	3.2	6.4	5.6	4.8	2.3	13.2	
Total	191.6	431.4	314.9	297.0	280.2	223.8	324.0	193.9	144.3

Snowfall at Sukhbaatar Unit: cm

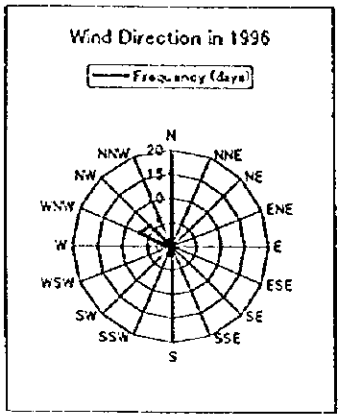
Month	1989	1990	1991	1992	1993	1994	1995	1996
1	9	5	6	3	8	–	9	3
2	5	3	6	4	9	5	11	4
3	–	0	2	–	5	5	7	1
4	–	–	1	–	3	–	–	0
5	–	–	–	–	–	–	–	–
6	–	–	–	–	–	–	–	
7	–	–	–	–	–	–	–	
8	–	–	–	–	–	–	–	
9	–	–	–	–	–	–	–	
10	–	3	–	–	–	3	–	
11	1	3	1	2	1	5	1	3
12	4	3	2	8	3	8	3	8
Total	19	17	18	17	29	26	31	

DAILY METEOROLOGICAL DATA IN 1996

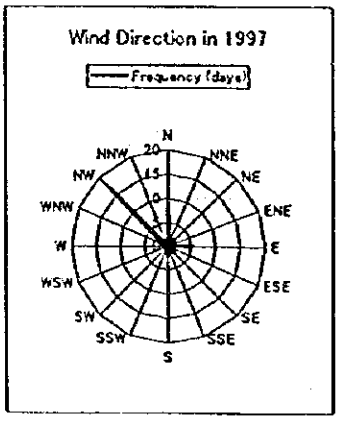
No.	Date	Ave. Temperature	Ave. Relative Humidity	Lowest Humidity	Rainfall	Ave. Wind Speed	Max Wind Speed	Dominant Wind Direction	Fire Hazard Index	Accum.Fire Hazard Index	Effective Humidity (r =0.7)
	Unit	°C	%	%	mm	m/sec	m/sec				%
1	4/28	14.7	62	52	0.0	3.2	10	N	180	560	
2	4/29	6.8	78	58	0.0	4.5	11	N	96	656	
3	4/30	5.3	73	46	0.0	4.1	7	N	80	736	
4	5/1	3.9	71	55	0.1	1.6	5	N	36	772	54
5	5/2	5.0	61	53	0.0	1.2	4	N	81	853	52
6	5/3	5.0	68	55	0.1	3.2	6	NW	81	934	51
7	5/4	6.5	61	44	0.0	0.0	0		140	1074	49
8	5/5	9.5	52	44	0.0	2.0	6	N	195	1269	45
9	5/6	6.6	74	50	0.0	5.5	14	NW	63	1332	49
10	5/7	6.8	62	41	0.0	2.1	6	N	132	1464	48
11	5/8	4.2	71	69	0.2	5.6	12	N	25	1489	51
12	5/9	6.8	74	56	0.0	2.5	12	N	96	1585	54
13	5/10	10.2	62	40	0.0	0.2	2	W/NW	144	1729	51
14	5/11	13.5	58	41	0.0	0.0	0		273	2002	49
15	5/12	15.1	60	53	0.0	1.4	4	W/NW	168	2170	47
16	5/13	15.2	66	34	0.0	2.5	16	W/NW	448	2618	47
17	5/14	21.4	42	36	0.0	4.8	12	S	448	3066	41
18	5/15	9.6	64	46	0.0	3.6	16	W/NW	104	3170	44
19	5/16	9.7	68	30	0.3	0.9	10	N	228	3398	47
20	5/17	12.2	48	43	0.0	4.9	13	N	150	3548	42
21	5/18	13.4	41	25	1.1	2.2	13	N	315	3863	39
22	5/19	10.8	48	30	0.0	3.6	13	W/NW	210	4073	37
23	5/20	15.0	44	25	0.0	0.0	0		500	4573	34
24	5/21	21.5	39	25	0.0	1.5	5	S	640	5213	32
25	5/22	21.1	39	26	0.0	0.0	0		570	5783	31
26	5/23	22.6	47	34	0.0	1.6	12	NW	378	6161	33
27	5/24	15.9	52	34	0.0	4.4	14	N	170	6331	35
28	5/25	12.2	52	26	0.0	1.1	5	N	253	6584	37
29	5/26	18.8	60	28	0.0	1.2	4	S/SW	600	7184	41
30	5/27	18.0	66	46	0.0	5.2	12	N	231	7415	45
31	5/28	15.0	78	38	0.0	1.9	10	S/SW	220	7635	51
32	5/29	13.5	80	41	0.2	3.0	7	N	45	7680	56
33	5/30	15.4	78	41	0.0	3.4	5	W/NW	231	7911	58
34	5/31	13.1	84	49	0.5	6.0	12	W/NW	84	7995	61
35	6/1	8.4	90	45	0.7	1.9	12	NW	77	8072	64
36	6/2	12.2	87	47	0.2	8.2	12	W	160	8232	65
37	6/3	13.7	75	39	0.0	0.7	5	NW			63
38	6/4	14.0	78	68	3.9	0.5	7	NW			61

DAILY METEOROLOGICAL DATA IN 1997

No.	Date	Ave. Temperature	Ave. Relative Humidity	Lowest Humidity	Rainfall	Ave. Wind Speed	Max Wind Speed	Dominant Wind Direction	Fire Hazard Index	Accum.Fire Hazard Index	Effective Humidity (r =0.7)
	Unit	°C	%	%	mm	m/sec	m/sec				%
1	4/28	8.0	47	26	0.0	1.6	5	E	144	7576	
2	4/29	10.4	45	27	0.0	2.5	9	E	324	7900	
3	4/30	10.8	40	26	0.0	4.9	16	NW	154	8054	
4	5/1	7.0	41	18	0.0	0.2	2	NE	300	8354	32
5	5/2	10.2	37	24	0.0	1.6	10	S	342	8696	30
6	5/3	9.6	38	30	0.0	4.0	9	N	47	8743	29
7	5/4	9.4	42	26	0.0	3.1	17	NW	323	9066	30
8	5/5	7.3	32	24	0.0	3.8	15	NW	160	9226	28
9	5/6	8.3	37	17	0.0	0.4	1	E	375	9601	28
10	5/7	11.8	35	20	0.0	0.9	6	N	342	9943	27
11	5/8	14.9	42	21	0.0	0.2	1	E	552	10495	29
12	5/9	17.0	38	35	0.0	4.6	12	N	255	10750	29
13	5/10	12.5	52	31	0.0	0.9	4	SE			33
14	5/11	14.7	52	41	0.0	0.5	4	NE			36
15	5/12	14.3	73	64	1.1	2.8	9	NW			44
16	5/13	8.0	82	56	38.9	6.0	10	NW			53
17	5/14	6.7	61	54	0.9	2.1	5	N			52
18	5/15	5.6	60	24	0.0	0.9	5	W/NW			50
19	5/16	8.6	51	24	0.0	0.4	2	N	272	272	45
20	5/17	11.4	46	24	0.0	1.2	3	NW	360	632	40
21	5/18	13.8	43	16	0.0	1.6	5	NW	437	1069	36
22	5/19	13.4	45	23	0.0	0.1	1	E	441	1510	35
23	5/20	16.2	45	24	0.0	1.6	5	N	462	1972	34
24	5/21	18.8	37	18	0.0	1.5	5	NW	525	2497	32
25	5/22	18.0	42	19	0.0	0.6	5	NW	675	3172	32
26	5/23	19.7	46	21	0.0	0.8	6	NW	560	3732	33
27	5/24	17.9	62	41	0.4	2.1	9	NW			38
28	5/25	8.6	67	50	18.0	5.9	10	NW			44
29	5/26	8.4	55	36	0.0	3.5	7	NW			44
30	5/27	10.5	44	32	0.3	2.4	7	NW			41
31	5/28	12.4	55	38	0.0	1.5	3	N	208	208	41
32	5/29	13.1	48	24	0.0	3.2	5	NW	360	568	38
33	5/30	10.4	34	18	0.0	3.2	7	NW	336	904	33
34	5/31	12.8	40	39	0.0	1.8	3	SE	221	1125	32
35	6/1	15.2	53	28	0.1	0.6	3	S	280	1405	34
36	6/2	16.8	57	39	0.0	0.4	3	N/NE	308	1713	38
37	6/3	15.3	55	48	18.6	2.0	8	N			40
38	6/4	9.4	70	57	12.4	1.9	7	NW			46



Wind Direction		Frequency (days)
N	1	16
NNE	2	0
NE	3	0
ENE	4	0
E	5	0
ESE	6	0
SE	7	0
SSE	8	0
S	9	2
SSW	10	2
SW	11	0
WSW	12	0
W	13	1
WNW	14	7
NW	15	6
NNW	16	0
	Total	34



Wind Direction		Frequency (days)
N	1	8
NNE	2	1
NE	3	2
ENE	4	0
E	5	5
ESE	6	0
SE	7	2
SSE	8	0
S	9	2
SSW	10	0
SW	11	0
WSW	12	0
W	13	0
WNW	14	1
NW	15	17
NNW	16	0
	Total	38

Appendix 17 Statistic Data on the Fire Damage in 1996 in Mongolia

Aimak	Number of Fire	Engaged Staff	Engaged Cars	Deads	Injuries	Fire-Damaged Forest and Grassland (km^2)			Gel	Livestock (Head)	Livestock Shed (House)	Electric Pole (Pole)	House (House)	Forage (ton)	Suffered Household
						Grassland	Forest	Total							
Arhangai	37	14,482	516	3		1,765	2,293	4,058			10				234
Ovor Hangai	4	589	20			48	42	90							
Zavhan	21	3,477	73			172	831	1,003			16				42
Selenge	69	8,078	422	6	1	2,822	2,427	5,249	15	1,261	39	450		7	44
Hovsgol	87	24,857	2,312			1,599	2,601	4,200	13	486	126		4	15	535
Uvs	21	2,549	115	6		608	18	626	15	165	40			7	92
Hentii	33	4,675	262		37	18,074	4,785	22,859	44	744	147	618			368
Bulgan	53	6,963	186		1	3,310	6,277	9,587	37	76	50	57	6		198
Hovd	4	1,240	15			430		430		36					
Bayan Olgii	2	125	7				0.4	0.4							
Orhon	3	1,323	57			100	181.7	281.7		12	2				13
Sukhbaatar	1	323	34			672		672							13
Dornod	16	4,089	234	9	22	45,544	1,902	47,446	80	4,765	112	1,647	25		272
Center	32	13,170	160	1		3,164	2,277	5,441	1	81	34	6		4	199
Total	383	85,940	4,413	25	61	78,308	23,635	101,943	205	7,626	576	2,778	35	33	2,010

Note : Gel is a traditional tent used by grazing people.
Source : Ministry of Defense, Department of Public Safety

Appendix 18 Forest Management Book

Aimak	Selenge	District	Altanbulag

(1/3)

Model Area	Compart-ment	Sub-Compart-ment	Section No.	Area (ha)	Legal Designa-tion	Manage-ment Category	Forest Type	N/L Rate (%)	Volume (m³) N	Volume (m³) L	Growth (m³) N	Growth (m³) L	Cutting Plan: Method	Cutting Plan: Cutting Rate (%)	Cutting Plan: Area (ha)	Cutting Volume (m³) N	Cutting Volume (m³) L	Regeneration Plan (ha): Species	Regeneration Plan (ha): Rate (%)	Regeneration Plan (ha): Reforest-ation	Regeneration Plan (ha): Enrich-ment	Regeneration Plan (ha): Natural Seeding	Regeneration Plan (ha): Coppicing
1	1	2	2	28	GZ	H	NP	100	(3,640) 1,120				Clearing of Damaged Trees	50	28	(1,420)		NP	100		[8] 28		
													"	40	2	(260)		"	"	2			
1	2	1	5	6	"	"	UN	"	(780)				"	30	15	(670)		"	"		[5] 15		
1	2	2	2	15	"	"	NP	"	(1,650) 600														
													"	"	15	(670)		"	"		[5] 15		
			3	15	"	"	"	"	(1,650) 600														
													"	40	158	(23,700)		"	"	158			
			4	397	"	"	UN	"	(59,550)				"	30	2	(90)		"	"		[1] 2		
			5	2	"	"	NP	"	(160) 140														
													"	"	3	(270)		"	"		[1] 3		
			6	3	"	"	"	"	(660) 240														
													"	"	3	(310)		"	"		[1] 3		
			7	3	"	"	"	"	(840) 210														
													"	"	18	(810)		"	"		[5] 18		
			8	18	"	"	"	"	(1,440) 1,260														
																		"	"	9			
1	3	1		29	"	"	P											"	"	6			
1	3	2		9	"	"	UN											"	"	10			
1	3	3	1	26	"	"	UN	100	(2,600)				"	40	10	(1,000)							
			2	25	"	"	NP	"	(1,750) 250				"	30	12	(360)		"	"		[4] 12		
			7	19	"	"	"	"	(1,330) 570				"	"	19	(570)		"	"		[6] 19		
			8	16	"	"	UN	"	(1,600)				"	40	6	(600)		"	"	6			
1	3	4		68	"	"	P											"	"	20			
1	3	5		71	"	"	UN											"	"	30			
1	3	6		17	"	"	"	100	(2,890)				"	40	6	(1,020)		"	"	6			
1	3	7		69	"	"	"											"	"	48			
1	3	8	1	175	"	"	"	100	(36,750)				"	40	70	(14,700)		"	"	70			
			2	46	"	"	NP	"	(4,600) 5,060				"	30	46	(2,890)		"	"		[14] 46		
			3	7	"	"	"	"	(980) 490				"	"	7	(440)		"	"		[2] 7		
1	3	10	1	11	"	"	UN		(990)				"	40	4	(360)		"	"	4			
			2	70	"	"	NP	100	(3,500) 2,800				"	30	70	(1,890)		"	"		[21] 70		
			3	106	"	"	"	"	(4,240) 5,300				"	"	106	(2,860)		"	"		[32] 106		
																		"	"	29			
1	3	11		42	"	"	UN											"	"	6			
1	3	12		8	"	"	"											"	"	1			
1	4	3	2	3	"	"	"	100	(780)				"	40	1	(260)							
		4	1	29	"	"	NP	"	(3,770) 3,480				"	30	29	(2,170)		"	"		[9] 29		
			2	120	"	"	UN		(30,000)				"	40	48	(12,000)		"	"	48			
			3	26	"	"	NP	"	(3,380) 3,120				"	30	26	(1,950)		"	"		[8] 26		
			4	49	"	"	"	"	(4,900) 7,350				"	30	49	(3,670)		"	"		[15] 49		
			5	27	"	"	"	"	(2,700) 4,050				"	"	14	(1,050)		"	"		[4] 14		
1	4	6	1	4	"	"	UN	"	(560) 480				"	"	4	(310)		"	"		[1] 4		
			2	5	"	"	"	"	(700) 600				"	"	5	(390)		"	"		[2] 5		
			3	16	"	"	"	"	(4,160)				"	40	6	(1,560)		"	"	6			

Note: 1) In the columns of "Volume" and "Cutting Volume", the amount of fire-damaged trees (or dead trees) is described with round brackets. "N" means needle-leaved trees and "L" does broad-leaved trees.
2) In the column of "Enrichment", the substantial planting area is described with square brackets.

(2/3)

Model Area	Compart-ment	Sub-Compart-ment	Section No.	Area (ha)	Legal Designa-tion	Manage-ment Category	Forest Type	N/L Rate (%)	Volume (m³) N	Volume (m³) L	Growth (m³) N	Growth (m³) L	Cutting Plan: Method	Cutting Rate (%)	Area (ha)	Cutting Volume (m³) N	Cutting Volume (m³) L	Species	Rate (%)	Regeneration Plan (ha): Reforest-ation	Enrich-ment	Natural Seeding	Coppicing
1	8	1	2	5	G/L	H	UL											NP	100	5			
			3	6	"	"	"											"	"	6			
1	8	2	1	4	"	"	"											"	"	4			
			3	6	"	"	"											"	"	6			
1	8	8	3	23	"	"	"											"	"	23			
1	9	1	2	5	"	"	"											"	"	5			
1	9	3	2	5	"	"	"											"	"	5			
1	9	4	1	3	"	"	"											"	"	3			
Sub-total															782	(78,250)		"	"	336	[144] 471		
2	2	2	3	41		T	L	0		(2,460) 2,050			Group Selec-tive Cutting	30	31		(1,000)	L	100				31
			5	157		"	"	"		17,270		511	Single Tree Selective Cutting	25	32		1,000	"	"				32
2	5	9		162		"	M	50	23,490	23,490			Group Selec-tive Cutting	N 25 L 25	90	3,260	3,260	NP NL	70 30		[19] [8] 90		
2	5	11		34		"	"	40	3,128	4,690	52	77	"	N 25 L 25	22	540	820	NL	100		[7] 22		
2	5	13		205		"	NL	80	57,400	14,350			"	N 25 L 25	148	10,360	2,590	NP NL	8 92		[4] [41] 148		
2	5	14		43		"	M	40	3,956	5,934			"	N 25 L 25	31	710	1,070	NL	100		[9] 31		
2	5	15		15		"	L	0		1,650		48	Shelterwood Cutting	L 40	15		750	L	"				15
2	5	16		25		"	NL	90	9,000	1,000			Group Selec-tive Cutting	N 25 L 25	25	2,250	250	NP	"		[8] 25		
2	5	17		89		"	M	50	12,015	12,015				N 25 L 25	89	3,000	3,000	"	"		[27] 89		
2	6	4		127		"	L	0		13,970			Shelterwood Cutting	L 40	115		5,060	L	"				115
2	6	5		46		"	M	40	4,416	6,624			Group Selec-tive Cutting	N 25 L 25	15	360	540	NL	"		[5] 15		
2	6	7		78		"	"	60	13,572	9,048			"	N 25 L 25	40	1,740	1,160	NP NL	30 70		[3] [9] 40		
2	6	8	2	56		"	NL	90	14,616	1,624			"	N 25 L 25	50	3,260	360	NP NL	65 35		[10] [5] 50		
2	6	9	3	36		"	M	60	2,592	1,728	76	51	"	N 25 L 25	10	200	130	NP	100		[3] 10		
2	19	14	1	8		"	UN	90	(1,944)	(216)			Single Tree Selective Cutting	25	8	(580)						8	
2	19	22	2	9		"	"	"	(2,166)	(234)			"	"	9	(420)						9	
2	19	24		51		"	NP	80	8,568	2,142	142	25	Thinning	20	28	1,000							
2	20	2	1	8		"	"	100	(480) 640				Group Selec-tive Cutting	30	8	(330)		NP	100		[2] 8		
			2	22		"	"	"	(2,640) 440				"	30	22	(920)		"	"		[7] 22		
2	20	3	1	7		"	"	80	(616) 112	(154) 28			"	"	7	(210)		"	"		[2] 7		
			2	8		"	UN	"	(832)	(208)			"	"	8	(240)		"	"		[2] 8		
2	20	4	1	12		"	M	60	(792) 144	(528) 96			"	"	12	(280)		"	"		[3] 12		
			2	13		"	UN	"	(1,014)	(676)			"	"	13	(300)		"	"		[3] 13		
2	20	5	1	12		"	"	"	(1,008)	(672)			"	"	12	(300)		"	"		[3] 12		
			2	19		"	M	60	(912) 684	(608) 456			"	"	19	(470)		"	"		[5] 19		
2	20	7	1	14		"	UN	50	(1,890)	(1,890)			"	"	14	(560)		"	"		[3] 14		
			2	4		"	M	"	(320) 220	(320) 220			"	"	4	(160)		"	"		[1] 4		
2	20	9	1	2		"	UN	70	(224)	(96)			"	"	2	(60)		"	"		[1] 2		

Model Area	Compart-ment	Sub-Compart-ment	Section No.	Area (ha)	Legal Designa-tion	Manage-ment Category	Forest Type	N/L Rate (%)	Volume (m³) N	Volume (m³) L	Growth (m³) N	Growth (m³) L	Cutting Plan: Method	Cutting Rate (%)	Cutting Area (ha)	Cutting Volume (m³) N	Cutting Volume (m³) L	Regeneration Plan (ha): Species	Rate (%)	Reforest-ation	Enrich-ment	Natural Seeding	Coppicing
2	20	9	2	24		T	M	70	(1,680) 1,008	(720) 432			Group Selec-tive Cutting	30	24	(800)		NP	100		[8] 24		
			3	25		"	"	"	(1,050) 1,250	(450) 750			"	"	25	(840)		"	"		[6] 25		
			4	7		"	UN	"	(784)	(336)			"	"	7	(230)		"	"		[2] 7		
2	20	10		5		T	H											"	"	5			
2	20	22	1	18		"	UN	70	(1,386)	(594)			Group Selec-tive Cutting	30	18	(410)		"	"		[5] 18		
2	22	25	1	6		"	NP	60	(432) 612	(288) 408			"	"	6	(310)		"	"		[2] 6		
			2	6		"	UN	"	(1,044)	(696)			"	"	6	(310)		"	"		[2] 6		
2	23	3	2	17		"	"	"	(2,958)	(1,972)			"	"	17	(880)		"	"		[5] 17		
2	23	4		9		"	H											"	"	9			
2	23	6	2	6		"	UN	80	(1,248)	(312)			Group Selec-tive Cutting	30	6	(370)		"	"		[2] 6		
			3	30		"	NP	"	(5,040) 1,200	(1,260) 300			"	"	30	(1,870)		"	"		[9] 30		
			4	11		"	UN	"	(2,288)	(572)			"	"	11	(680)		"	"		[3] 11		
			5	29		"	NP	"	(2,784) 3,248	(696) 812			"	"	23	(1,800)		"	"		[7] 23		
2	23	7		13		"	H											"	"	13			
2	23	9		32		"	H											"	"	32			
2	23	10	1	20		"	NP	100	(3,000) 1,600				Group Selec-tive Cutting	30	2	(90)		"	"		[1] 2		
			2	12		"	UN	"	(2,760)				"	"	3	(200)		"	"		[1] 3		
2	24	7	1	12		"	"	"	(2,040)				"	"	12	(610)		"	"		[4] 12		
			2	12		"	NP	"	(1,200) 840				"	"	12	(610)		"	"		[4] 12		
2	24	8		4		"	UN	20	(88)	(352)			"	"	4	(20)		"	"		[1] 4		
2	24	14	2	16		"	"	100	(3,360)				"	"	16	(1,000)		"	"		[5] 16		
			3	13		"	NP	"	(1,690) 1,040				"	"	13	(810)		"	"		[4] 13		
			4	7		"	UN	"	(1,470)				"	"	7	(440)		"			[2] 7		
			5	11		"	"	"	(2,310)				"	"	11	(690)		"	"		[3] 11		
			6	4		"	NP	"	(680) 160				"	"	4	(250)		"	"		[1] 4		
			7	4		"	UN	"	(840)				"	"	4	(250)		"	"		[1] 4		
2	24	16	2	15		"	"	"	(2,250)				"	"	15	(760)		"	"		[5] 15		
			3	12		"	NP	"	(1,680) 250				"	"	12	(610)		"	"		[4] 12		
2	26	6	1	27		"	"	"	(4,320) 2,430				Single Tree Selective Cutting	25	25	(1,000)						25	
			5	23		"	"	"	5,750		133		Thinning	20	23	1,280							
2	26	9		5		"	"	"	1,250		29		"	"	5	270							
2	31	2	1	17		"	L	0		2,890			Single Tree Selective Cutting	25	12		510	L	100				12
			2	18		"	"	"		(2,340) 720			Group Selec-tive Cutting	30	17		(850)	"	"				17
2	31	15	2	5		"	"	"		(400) 150			"	"	4		(150)	"	"				4
			4	93		"	"	"		10,230			Single Tree Selective Cutting	25	18		490	"	"				18
Sub-total															1,271	(20,670) 28,230	(2,000) 20,990			59	[275] 929	42	244
Total															2,053	(98,920) 28,230	(2,000) 20,990			595	[419] 1,819	42	244

Appendix 19 Minutes Meeting on Explanations and Discussions of Draft Final Report

MINUTES OF MEETING
ON
THE DRAFT FINAL REPORT
OF
THE FOREST RESOURCES MANAGEMENT STUDY
IN SELENGE AIMAK, MONGOLIA

In pursuance of the Scope of Work of the Forest Resources Management Study in Selenge Aimak, Mongolia (hereinafter referred to as "the Study") signed on January 20,1994. Japan International Cooperation Agency (hereinafter referred to as "JICA") dispatched the Study Team to Mongolia.

The Study Team headed by Mr. Ikuo SUZUKI, and the Advisory Team composed of a member of JICA Advisory Committee visited Mongolia from November 26, 1997, and had a series of discussions with the responsible officials of Forest Management Center (hereinafter referred to as "FMC") and related department, Ministry of Nature and the Environment on the Draft Final Report of the above Study and related issues.

The salient results of discussions are described in Annex as attached hereto.

December 3,1997
Ulaanbaatar

鈴木郁雄

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渡邊 定元

Dr. Sadamoto WATANABE
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JICA Advisory Committee

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Director
Forest Management Center
Ministry of Nature and the Environment

Mr. Yukihide KATSUTA
Coordinator
JICA

Annex

1. **Presentation of the Draft Final Report and the Thematic Maps, etc.**
   The Study Team submitted twenty (20) copies of the Draft Final Report to FMC. The thematic maps and forest inventory book were also submitted to FMC as indicated in MINUTES OF MEETING concluded between the JICA side and the Mongolian sides on July 25,1996.

   All of the results were accepted in principle upon the contents by the Mongolian side.

   Both Japanese and Mongolian sides achieved to the recognition that introduction of the latest technology and equipment for forest survey will be indispensable for the proper implementation of the contents described in the recommendation of the Draft Final Report. This point should be more emphasized in the Final Report.

2. **Comments on the Draft Final Report from the Mongolian Side**
   The Mongolian side will send its comments on the Report to the JICA Mongolia Office not later than January 3, 1998.

3. **Final Report**
   Within two (2) months after receiving the comments, the JICA will send fifty (50) copies of the Final Report to the Mongolian side through the JICA Mongolia Office as described in the Scope of Work.

   In addition two (2) copies of the Final Report in Japanese language will be sent together for supporting the technology transfer.

   The Mongolian side agreed that the Final Report will be open to the public.

4. **Survey Equipment**
   The Mongolian side requested donation of the survey equipment and two vehicles with four-wheel drive used by the Study Team. The Study Team explained the necessary procedure for the donation and accepted to convey the request to JICA.

5. **Prospective Cooperation**
   The Mongolian side stressed the importance of rehabilitation of fire-damaged forests and human resources development in terms of the prospective cooperation.

JICA