

ROOTS SLIDES - Kenneth A. Armson R.P.F.

SPECIES	DESCRIPTION	DATE	SLIDE No.
Radiata pine	Plantation system in pumice soil, North Island		1
Radiata pine	Plantation system in pumice soil, North Island		2
	Graph of crown volume(cone wall) x tree height		3
Ponderosa pine	Roots in pumice, N.B. tiered system	09/15/63	4
Ponderosa pine	Roots in pumice showing two-tiered system	09/15/63	5
Ponderosa pine	Soil profile showing two layers of pumice including buried profile	09/15/63	6
Eastern hemlock	Horizontal root system over bedrock, nr. Dorset	05/15/68	7
Jack pine	Roots of 70 yr. jack pine in windblown sand, N.B. vertical roots, Swastika	07/15/69	8
Jack pine	Roots of 25 yr planted pine after extraction at Midhurst nursery	07/15/61	9
Jack pine	Pretzel" root of jack pine in medium sand, nr. Dorset	05/15/69	10
Sugar maple	Root mat of maple, Harvard Forest	08/15/68	11
Red maple	Root mat of red maple in upper soil layers, Harvard Forest	08/15/68	12
Red maple	View of change in density and form of roots with depth, Harvard Forest	08/15/68	13
Silver maple	Fine root in gravel. photo D.C.F.Fayle	07/15/63	14
Silver maple	Fine root in humus, Photo D.C.F.Fayle	07/15/63	15
Yellow birch	Adventitious roots in tree's own rot, nr. Dorset	06/15/60	16
Sugar maple	Roots in upper dump till over basal till, Swan Lake, Algonquin Pk.	04/15/60	17
Sugar maple	Roots in dump till over bedrock, tree 100yrs+, nr. Dorset	04/15/69	18
Red maple	Roots over bedrock, nr. Dorset	04/15/69	19
Red oak	Roots in dump till over bedrock, nr. Dorset	04/15/69	20
Black spruce	Roots of 140 yr black spruce in peat, Leitch Twp. Cochrane. W.Stanek's thesis	06/15/61	21
Black spruce	Drawing of root system of spruce showing original layer origin in peat	06/15/61	22
Longleaf pine	Tap root of longleaf pine, Sandhills	08/15/68	23
Longleaf pine	Root system of old pine. Person is Prof. J.T.May(U.Georgia), Sandhills	08/15/68	24
Red pine	Fomes annosus in 45 yr. plantation red pine, St.Williams	07/15/59	25
Loblolly pine	Fomes annosus killed loblolly pine , Sandhills	08/15/68	26
Eastern white pine	Air layering root development in sphagnum casing, Glendon Hall	04/15/57	27
Eastern white pine	Live stump, 5 yrs after thinning in plantation, St. Williams, N.B. callus	08/15/61	28
Eastern white pine	Root grafting in natural white pine(80 yrs.), nr. Dorset	05/15/59	29
Eastern white pine	Root grafting in natural white pine, nr. Dorset	05/15/60	30
Eastern white pine	Tiered system of pine in fractured granite/gneiss, nr. Dorset	05/15/60	31
Eastern white pine	Root system in shallow till over bedrock, nr. Dorset	05/15/60	32
Eastern white pine	Root system in shallow till over bedrock, nr. Dorset	05/15/60	33

SPECIES	DESCRIPTION	DATE	SLIDE No.
Eastern white pine	Lateral root at 38 ft. from stump in natural white pine, nr. Dorset	05/15/60	34
Eastern white pine	Roots exploiting deep fissure in bedrock, nr. Dorset	05/15/60	35
Eastern white pine	Roots exploiting deep fissure in bedrock, nr. Dorset	05/15/60	36
Eastern white pine	Roots in surface over bedrock, nr. Dorset	05/15/60	37
Eastern white pine	Roots exploiting horizontal fissures in bedrock, nr. Dorset	05/15/60	38
Eastern white pine	Roots exploiting horizontal fissures in bedrock, nr. Dorset	05/15/60	39
Eastern white pine	Roots of 7 yr plantation tree, vertical root @17.3ft., tree ht.6ft. person is KAA	06/15/58	40
Red pine	Plantation 45 yr. root system, St.Williams	08/15/61	41
Red pine	Plantation 45 yr. root system, general view St.Williams	08/15/61	42
Red pine	Plantation 45 yr. sytem showing grafting, St. Williams	08/15/61	43
Red pine	Plantation 45 yrs. showing network of roots, St.Williams	08/15/61	44
Red pine	Plantation 45 yrs tree showing detail of one tree's system	08/15/61	45
Red pine	Plantation 45 yrs tree showing detail of one tree's system	08/15/61	46
Red pine	Plantation tree (15. yrs) showing roots following B horizon, Vivian Forest	06/15/58	47
Red pine	Plantation tree (15. yrs) showing roots following B horizon, Vivian Forest	06/15/58	48
Red pine	Plantation tree(15yrs). root" bunch" at bottom of B horizon tongue, Vivian	06/15/58	49
Red pine	Drawing of root sytem of 33yr plantation tree, Northumberland Co. Forest	06/15/57	50
Red pine	Drawing of naural root sytem(106 yrs.) Northumberland Co. Forest	06/15/57	51
Red pine	Roots of pine 7 yrs after planting, Vibvian Forest	06/15/58	52
Red pine	Roots of tree in No.52, N.B. avoidance of plow layer, Vivian Forest	06/15/58	53
Red pine	Roots of tree in No.52, showing vertical limit, Vivian Forest	06/15/58	54
Red pine	Roots of red pine in B horizon tongue in waterlaid calcareous sand, Vivian	06/15/58	55
Red pine	Roots of red pine in B horizon tongue in waterlaid calcareous sand, Vivian	06/15/58	56
Red pine	Roots following B horizon tongue at depth, N.B. Calcium carbonate casing, Viv	06/15/58	57
Red pine	Calcium carbonate accumulation around roots, Adjala Twp. photo D.C.F.Fayle	02/15/64	58
Red pine	Calcium carbonate accumulation around roots, Adjala Twp. photo D.C.F.Fayle	02/15/64	59
Red pine	Roots in B horizon tongue + calcium carbonates, Adjala Twp. photo D.C.F.Fay	02/15/64	60
E. white cedar	Roots of cedar in old rabbit burrow, Adjala Twp. Photo D.C.F.Fayle	02/15/64	61
Red pine	Root graft in 45 yr old plantation red pine, St.Williams	08/15/61	62
White spruce	Roots of planted 16yr tree, N.B. roots in plow layer. Victory Tract, Wellington C	07/15/58	63
Red pine	Roots showing dead tip and origin of laterals to give ultimate root form, Vivian	06/15/58	64
Red pine	Roots showing dead tip and origin of laterals to give rt. angle root form, Vivian	06/15/58	65
Red pine	Brush" root at junction with coarse texture, Vivian	06/15/58	66
Eastern white pine	Stump of large white pine exposed after erosion. nr. Orono. Photo W.R.Bunting	06/15/65	67
Red pine	Roots of 5x5ft spaced trees. Petawawa F.E.S. photo W.Stiell	05/15/70	68

SPECIES	DESCRIPTION	DATE	SLIDE No.
Sugar maple	Root system of 80-100yr tre in shallow till over bedrock, nr. Dorset	05/15/70	69
Jack pine	Lateral roots of planted tree 6 yrs after planting, Davidson Twp, Swastika	09/15/70	70
Jack pine	Excavating root system with backhoe. Syd Shea study, Swastika	07/15/70	71
Jack pine	Excavating root system with backhoe. Syd Shea study, Swastika	07/15/70	72
Jack pine	Soil profile away from root system of pine, Syd Shea study pit#62D, Swastika	07/15/70	73
Jack pine	Syd Shea taking soil samples at pit#62D, Swastika	07/15/70	74
Jack pine	Start of pit ready to proceed with root excavation, pit #62D, Swastika	07/15/70	75
Jack pine	Taking samples as roots are progressively exposed, N.B. painted roots	07/15/70	76
Jack pine	Exposed and painted roots at pit #62D, Swastika	07/15/70	77
Jack pine	Existing roots cut off, and face ready for next exposure, pit#62D, Swastika	07/15/70	78
Jack pine	Main roots pit#62D, Syd Shea study, Swastika	07/15/70	79
Jack pine	Stump & heart of root, N.B.buried Ae, pit#62D, Syd Shea study, Swastika	07/15/70	80
Jack pine	General view from undisturbed side of tree at pit #62D, Syd Shea study, Swast	07/15/70	81
Jack pine	Proliferation of roots at depth in fine sand under coarse sand, pit#62D, Swastik	07/15/70	82
Jack pine	Sampling 2+0 seedlings with a nailboard, Swastika Nursery	07/15/69	83
Jack pine	Nailboard with seedlings prior to removal of soil, Swastika Nursery	07/15/69	84
Jack pine	Nailboard with soil removed to expose roots for measurement, Swastika Nurse	07/15/69	85
Black spruce	Drawings of roots in peat, W Stanek study, Leitch Twp. Cochrane	06/15/61	86
Jack pine	Roots of 50yr tree pit#57E, Syd Shea study, Swastika	07/15/69	87
Jack pine	Profile(bisequum) at Pit#1, Syd Shea study, Truax Twp. Swastika	07/15/70	88
Jack pine	Root system at Pit #1, Syd Shea study, Truax Twp. Swastika	07/15/70	89
Jack pine	Root system at pit #1 showing stump and major roots, Syd Shea study, Truax	07/15/70	90
Jack pine	Stump and root collar with main roots, pit#1, Truax Twp, Syd Shea study,	07/15/70	91
Jack pine	Excavating planted tree 8 yrs after planting, Davidson Twp, Swastika	09/15/71	92
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Jack pine	Root system to show influence of Sandvik in distorting roots, Davidson Twp	09/15/71	107
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Jack pine	Root system to show influence of Sandvik in distorting roots, Davidson Twp	09/15/71	109
Beech	Root system 50yr large beech in dump till, nr, Dorset	05/15/72	110
Sugar maple	Root system of 80 yr sugar maple in dump til, nr. Dorset	05/15/72	111
Jack pine	Root system of 57yr tree, in waterlaid sand, Holmes Twp, Swastika	07/15/72	112
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Black spruce	Root system of 56yr tree in waterlaid sand, Holmes Twp. Swastika	09/15/72	115
Red oak	Roots of red oak in dump till, nr. Dorset	05/15/72	116
Jack pine	Jack pine after being windthrown, Holmes Twp. Swastika	06/15/72	117
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Jack pine	Pit#54, coarse/fine sands, Main roots, Syd Shea study, Swastika	07/15/69	138

SPECIES	DESCRIPTION	DATE	SLIDE No.
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Jack pine	Plot 70, Dunmore Twp. also showing last 20yr crown growth, S.Shea study	07/15/69	140
Jack pine	Profile at plot#70 prior to root extraction, S.Shea Study, Swastika	07/15/69	141
Jack pine	Plot 70 showing laterals at distance from stump, S.Shea study, Swastika	07/15/69	142
Jack pine	Plot 70 showing vertical roots at silt layer, S.Shea study, Swastika	07/15/69	143
Jack pine	Plot 70 showing tap root at silt layer, S.Shea study, Swastika	07/15/69	144
Jack pine	Plot 70 showing small fine roots in silt at depth, S.Shea study, Swastika	07/15/69	145
Jack pine	Plot 70 showing small fine roots in silt @ 2m. at silt layer, S.Shea study, Swast	07/15/69	146
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Jack pine	Plot 70 showing roots distorted in compact silt loam, S.Shea study, Swastika	07/15/69	148
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Jack pine	Showing roots truncated at compact layer, S.Shea study, Swastika	07/15/69	151
Jack pine	Showing intensity of roots in fine/coarse textures, S.Shea study, Swastika	07/15/69	152
Jack pine	Pit#64 roots in medium/coarse textures, S.Shea study, Swastika	07/15/69	153
Jack pine	Knobkerry" root pit#64. S.Shea study, Swastika	07/15/69	154
Jack pine	Sinker roots all ending in medium/fine textures, S.Shea Study, Swastika	07/15/69	155
Jack pine	Profile to show windblown features of sand at Dunmore, Swastika	07/15/69	156
White spruce	Roots of planted tree after 7yrs, JDI, Black Brook	06/15/73	157
Black spruce	Roots of planted tree after 8yrs,N.B. shallowness JDI, Black Brook	06/15/73	158
Black spruce	Roots of planted tree after 8yrs,N.B. shallowness JDI, Black Brook	06/15/73	159
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Slash pine	Roots of 10yr planted tree after disking, photo R.P.Schultz		162
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Tamarack	Roots of natural tamarack in waterlaid sand. Swastika	09/15/73	168
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Douglas fir	Roots of natural tree on dump/basal tills, Vanc. Island	07/15/74	172
Jack pine	Roots of planted tree showing distortion due to planting tool(Sandvik)	04/15/74	173

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Black spruce	Roots of tree 10 yr after planting, Sandra Twp, Beardmore	06/15/75	177
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Jack pine	General view of Nelder #11, Swastika	09/15/77	180
Jack pine	Lateral roots of pine planted @ 0.6m. spacing in 1968	09/15/77	181
Jack pine	tree & lateral roots of pine planted @ 1.8m. spacing in 1968	09/15/77	182
Jack pine	tree & lateral roots of pine planted @ 3.7m. spacing in 1968	09/15/77	183
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Sugar maple	Trees showing layered origin, photo D.C.Fayle		190
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Jack pine	Roots of Ontario tube planted 1966, after 12 yrs, Geraldton	07/15/78	194
Jack pine	Roots of Ontario tube planted 1966. Swastika	08/15/80	195
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