

FOREST SOILS SLIDES - Kenneth A. Armson R.P.F.

ORDER	LOCATION	Type	PROPERT	DISTURB	DEPTH	DESCRIPTION	DATE	No.
SPodosol	UK	P	C	F	D	Podzol profile under heathland, from Bronze Age, Bramshill. Vegetation heather & gorse	05/15/55	1
SPodosol	ON	P	C	F	S	Profile near Nipigon, Ontario, Ae colour masked by colour of the mudstone (mesa) in which profile developed; mixed Boreal species	06/15/52	2
INCEPTISOL	ON	P	C	F	D	Profile at Dorset, Ontario in waterlaid sand; eluviated eutric brun-iso(Can); hwd litter	04/15/52	3
INCEPTISOL	ON	P	C	F	D	Profile of eluviated eutric Brunisol(Can) in silty fine sand near Key River, Georgian Bay; n.b. lack of intensity of colour	07/15/53	4
ALFISOL	ON	P	T	F	D	Profile off Hwy# 71, n. of Fort Frances; former chernozem now supporting fire-origin jack pine; n.b. colour, structure and pine root.	07/15/52	5
ENTISOL	ON	P	M		D	Orthic humic gleysol in central Ontario; n.b. typical gley colours, compaction lenses in the upper C horizon and the uncompacted lower fine sandy loam	07/15/53	6
HISTOSOL	ON	P	S		D	Deep peat(sphagnum) in Leitch Twp. Cochrane; profile part of study by Walter Stanek M.Sc.F.(1961) U.Tor. on physical properties of peats	07/15/60	7
ENTISOL	ON	P			SB	General view of a Lithosol near Lake Traverse in Algonquin Pk.; vegetation, incl. trees (red pine) rooted in fissures in granite gneiss	07/15/51	8
ALFISOL	ON	H	C	HC	D	Plow layer at St. Williams nursery, Lots 11 & 12; n.b. homogeneity of the plow layer and sharp delineation from lower soil	05/15/56	9
ALFISOL	ON	P	C	F	D	Gray-brown podzolic with plow layer; an old field soil that has been planted to red pine at York Regional Forest (Vivian); n.b. this is abisequum with podzol developing in upper A, lower B	06/15/56	10
SPodosol	ON	P	FF	F	D	Close-up of forest soil at Dorset in sandy loam; n.b. fine roots in thin Forest Floor - area has a fire history; Ae irregular and weak	05/15/56	11
SPodosol	ON	HF	FF		D	Litter from red pine plantation after 45 years; n.b. openness allowing full infiltration	05/15/56	12
SPodosol	ON	P	C	F	D	Profile in waterlaid sand; n.b. shallowness of actual profile in deep C materials; mixed forest of white pine/poplar; located near Achray in Algonquin Pk.	07/15/52	13
SPodosol	ON	HF	FF	F	D	Poplar litter showing flat 'shingle' type surface, cf. Slide #12	05/15/56	14
SPodosol	Czech'kia	P	C	F	D	Intense Ae and Bh developed in old heathland now planted with spruceside courtesy of J.A.(Steve) Brodie	06/15/57	15
SPodosol	ON	P	C	F	D	Podzol profile in deep sand near Manitowadage; supporting mixed jack pine and black spruce	07/15/57	16
MOLLISOL	ON	HC	S	E	D	Hexagonal cracking in clay at Caledon, where the upper horizons have been eroded away	07/15/58	17
SPodosol	ON	HC	S		D	Windblown sand showing the 'mare's tail' structure; taken at Forbes Creek in Algonquin Pk.	06/15/52	18
SPodosol	ON	P	C	WT	D	Buried profile near Bancroft as a result of a flood; n.b. there would appear to be long intervals between floods	07/15/57	19
SPodosol	AL	P	C	WT	D	Alluvial/colluvial near Kananaskis on mountain slope under lodgepole pine	08/15/63	20
INCEPTISOL	ON	P	C	F	SB	Acid Brown forest at Dorset; altho' over bedrock the soil acts as a deep soil with telluric water & is v. productive. See Slides Nos. 22 to 25 for details of horizons	04/15/63	21
INCEPTISOL	ON	HF	S			Litter of maple in Spring, n.b. dogtooth violets breaking up leaves Forest floor of Slide #21	04/15/63	22
INCEPTISOL	ON	HF	BSP			F layer in forest floor of profile Slide #21; n.b. the fungal hyphae	04/15/63	23
INCEPTISOL	ON	HA	C			Lower part of Forest floor - some H, but mixed to give an Aeh; n.b. fine roots & relatively sharp boundary between F and Aeh.	04/15/63	24
INCEPTISOL	ON	HB	S			B horizon of profile Slide #21; n.b. fine granular structure and the intensity of rooting.	04/15/63	25
SPodosol	ON	P	C	F	D	General view of profile at Plonski Forest adjacent to nursery; Jack pine forest; waterlaid medium/fine sand.	05/15/63	26
SPodosol	ON	P	C	F	D	General view of profile under 70yr. jack pine; waterlaid sand at the Plonski Forest; n.b. root system & concentration in upper portion of the 'soil'	06/15/67	27
MOLLISOL	AL	P	C		D	Typical black prairie soil near Irricana; n.b. gopher hole	08/15/63	28
ARIDISOL	AL	P	C		D	Photo of a black solodized solonetz by Soil survey in Alberta	06/15/63	29
INCEPTISOL	OR	P	C	F	SB	Sol brun acide in Eocene sandstone nr. Alsea, OR; mapped as the 'Bohannon' series by US soil survey; photo in Douglas fir cutover	08/15/63	30
INCEPTISOL	OR	P	C	F	D	Sol brun acide developed in what is described as a yellow-brown laterite (bisequum ?); cled 'Klickitat' series by US soil survey; nr. Alsea	08/15/63	31
INCEPTISOL	OR	P	S	F	D	Sol brun acide nr. Alsea; closeup of A to show concretionary 'shot' structure; same profile as Slide # 31	08/15/63	32
SPodosol	ON		C	WN	D	Windthrow mound in Gt.Lks-St Lwrc forest at Dorset; under maple/bch which had white pine and fire history	05/15/63	33
SPodosol	ON	P	C	WN	D	Windthrow same as Slide #33, but from angle to show buried Ae and B of profile	05/15/63	34
SPodosol	ON	P	C	WN	D	Windthrow as in Slides #33, 34 & 36; n.b. depth of buried Ae & H and the inversion; yellow/red 'firing' of the iron in B where a root burned (Pine?)	05/15/63	35
SPodosol	ON	P	C	WN	D	Profile under the fallen trunk of the windthrown pine; n.b. disturbance to the right; also Slides Nos. 33, 34, 35.	05/15/63	36
SPodosol	ON	P	C	F	D	Digging out a soil pit by hand; KAA and Ken Reese doing their thing at the Swastika Nursery where there is to be more clearing of jack pine to enlarge the nursery	06/15/67	37
SPodosol	ON	P	C	F	D	Digging the soil pit cf. Slide # 36, technology to the rescue! At Swastika nursery.	06/15/67	38
SPodosol	ON	HF	BSY			Nitrogen-fixing nodules on Alnus; actinomycetes the organisms	05/15/62	39
SPodosol	ON	HF	BSY			Cluster of nodules on Alnus; N-fixing by Actinomycetes	05/15/62	40
ALFISOL	ON	HF	BSY			Nodules on Black Locust (Robinia pseudoacacia) with Rhizobium bacteria Nitrogen-fixing; see Slides # 42 & 43	05/15/62	41
ALFISOL	ON	HF	BSY			Cross-section of Black locust nodule(x4) to show general structure and the red colour due to presence of 'leghemoglobin' which shows there is active N-fixation	05/15/62	42
ALFISOL	ON	HF	BSY			Cross-section of Black locust nodule(x360) to show Rhizobium cells the bacteria which due the N-fixation	05/15/62	43
MOLLISOL	WA	P	C		D	Profile under 300+yr Douglas fir & red cedar; Ah 25cm with worms; silt loam with gleying at 60cm.; Pack Forest nr Puyallup	08/15/63	44
MOLLISOL	BC	P	C	F	D	Brown forest with Ah under 36 yr red cedar at Haney (UBC Forest); B horizon has concretions called 'shot'	08/15/63	45
ENTISOL	BC	P	C	F	S	Thin regosol under grass and open stands of ponderosa pine; nr. Kelowna	08/15/63	46
ARIDISOL	AL	P	C		D	General view of solonchetic brown soil nr. Drumheller; n.b. the light colour of the Csk and the columnar B	08/15/63	47
ARIDISOL	AL	Ah	S		D	Closeup of the Ah horizon in the solonchetic to show the granular structure; same profile as Slide #47	08/15/63	48
INCEPTISOL	OR	P	S	F	D	Lodgepole pine forest on cobbly pumice soil (regosol-brown podzolic) nr. Chemult OR	08/15/63	49
INCEPTISOL	OR	P	S	F	D	Profile of cobbly pumice soil showing minimal development (soil ca. 1500 yrs old) nr Chemult; see slides #49 & 51	08/15/63	50

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INCEPTISOL	OR	P	Ah	F	D	Closeup of Ah horizon in cobbly pumice soil nr. Chemult Or; see Slide Nos 49 & 50	08/15/63	51
SPodosol	AL	P	S	F	D	Profile to show discontinuity, i.e. C/D horizons of water-laid sand over gravel. nr. Hinton	08/15/63	52
INCEPTISOL	OR	P	C	F	D	Sol brun acide, Alsea OR; cf. Slides Nos. 30 & 31	08/15/63	53
INCEPTISOL	OR		M	G	D	Soilfluction nr. Alsea OR	08/15/63	54
INCEPTISOL	ON	P	C	F	D	Brown podzolic nr. Dorset; n.b. L, F, and Ae horizons	05/15/61	55
SPodosol	ON		BSY			Mycorrhizal roots of white pine, x1.6	11/15/63	56
ALFISOL	ON	P	C		D	Gray-brown podzolic under maple forest, nr. Claremont, n.b. Ah; C is a loamy till	10/15/63	57
ALFISOL	ON	P	C		D	Profile of a Gray-Brown Podzolic in a calcareous till at Maple; n.b. mull Ah, dark portions in Ck are wormholes	09/15/64	58
ALFISOL	ON	HA	B		D	Surface view of Mull (Ah) in late summer showing complete decomp. of previous year's litter; this is surface of Slide #58	09/15/64	59
ALFISOL	ON	HA	B		D	Photo of earthworm in Mull(Ah) of Slides # 58 & 59; G-B podzolic at Maple in calcareous till	06/15/64	60
SPodosol	ON	P	C	F	D	Profile in waterlaid sands at Dorset under conifer(w.pine+hdwds); see Slides # 62,63,64,65 & 66 for details of horizons	05/15/62	61
SPodosol	ON	HFM	BSP	F	D	Photo of F layer showing fungal mycelia; profile in Slide # 61	05/15/62	62
SPodosol	ON	HF	S		D	Photo of forest floor(L,F,H,) and Ae of profile in Slide # 61	05/15/62	63
SPodosol	ON	HAM	C			Photo of Ae in profile in Slide # 61; n.b. dominance of silica grain illustrating weathering and removal, i.e. eluviation	05/15/62	64
SPodosol	ON	HBM	C			Photo of Bf horizon in profile Slide # 61; n.b. iron colouration and the fine particles coating the larger grains, i.e. illuviation	05/15/62	65
SPodosol	ON	HCM	CM			Photo of C horizon (waterlaid) in profile Slide # 61; n.b. individual minerals e.g. silica, feldspar and biotite	05/15/62	66
ALFISOL	ON	HF	T	WN	D	Photo at Vivian of residual old white pine stump on deep sands that eroded after clearing for agriculture in mid 1800's. Pine were app. 200+ yrs and came in on old Indian fields	06/15/58	67
SPodosol	ON	P	C	HC	D	Profile in silt loam at Kirkwood; n.b. plow layer and resulting disturbance in Ae	08/15/62	68
SPodosol	ON	HAM	C			Close-up(x20) of Ae in profile at Kirkwood Slide # 68	08/15/62	69
SPodosol	ON		HBM			Photo of close-up of Bf in profile Slide # 68 at Kirkwood	08/15/62	70
ENTISOL	WA	P	C	HC	D	Profile in central WA (Horse Heaven Hills), n.b. light brown colour with little horizon differentiation; wheat yield 10 bu/ac	09/15/63	71
ENTISOL	OR	HC	C	E	D	Photo of the boundary between two ages of pumice deposit in Oregon from My. Mazama (Crater Lake, ca. 1500 yrs); lower dark pumice is B horizon of buried profile. n.b. gopher hole	08/15/63	72
ENTISOL	OR	P	C	E	D	Profile in coarse loamy sand (pumice) at Antelope Tree Farm of Weyerhaeuser; Lapine series; n.b. lower buried old B see Slide # 72	08/15/63	73
ENTISOL	OR	P	C	G	D	Photo of upper profile in coarse loamy sand (pumice) at Antelope Tree Farm; Lapine Series. cf. Slides # 72 & 73	08/15/63	74
SPodosol	PQ	P	HB	F	D	Well-developed Bh under Balsam fir in central Quebec; humus has formed a firm 'pan'	05/15/57	75
INCEPTISOL	ON	F	T			Cumulative texture curves for profile Slide # 21 horizons	07/15/63	76
SPodosol	ON	F	T			Cumulative texture curve for profile Slide # 27	06/15/63	77
ALFISOL	ON	P	C		D	Photo of root system of red pine in calcareous soil sand at Vivian; n.b. note Ca carbonate accumulations in lower soil these developed around old roots cf. Slide # 79	06/15/57	78
ALFISOL	ON	HB	C		D	B horizon developed around successive root channels in calcareous sands at Vivian; n.b. water laid sand in C	06/15/57	79
ARIDISOL	OR	P	C		D	Photo of regosol under sage brush in central Oregon	08/15/63	80
INCEPTISOL	AL	P	C		D	Orthic alpine brown soil. Slide from Can. Dep. Agric		81
SPodosol	AL	P	C		D	Podzol developed in brown wooded an example of a bissequum; photo from Can. Dep. agric.		82
MOLLISOL	AL	P	S		D	Grumic dark brown n.b. structure of soil. Photo Can. dep. Agric.		83
ARIDISOL	AL	P	C		D	Calcareous brown soil under grass. Photo Can. Dep. Agric.		84
ALFISOL	ON	P	S		D	Gray-brown podzolic in till; N.B. nut structure of B horizon. Photo Can. Dep. Agric.		85
ALFISOL	ON	P	C		D	Gray-Brown Podzolic in clay; N.B. drainage impeded and some gleying but not very visible; photo Can. Dep. Agric.		86
ALFISOL	ON	P	C		D	Gray-Brown Podzolic in sandy loam; N.B. greater intensity of colour than if in clay loam. Photo Can. Dep. Agric		87
INCEPTISOL	PQ	P	C			Profile of an orthic gleysol; N.B. colours associated with gleying blue-grey, yellow-brown. Photo Can. Dep. Agric.		88
ALFISOL	AL	P	C		D	Profile of an acid brown wooded. photo can Dep. Agric.		89
ENTISOL	PQ	P	M		D	Carbonated rego-humic gleysol; Photo Can. dep. Agric.		90
SPodosol	PQ	P	M		D	Humic podzol; N.B. intense Ae and dark colour of Bg due to humus and iron. Photo Can. Dep. Agric		91
SPodosol	PQ	P	C	WN	D	Orthic podzol in sandy loam; N.B. intensity of horizon colouration and on left upper the Ae/H a sign of windthrow.		92
ALFISOL	AL	P	C		D	Podzol developing in upper horizon of acid brown wooded. Photo Can. Dep. agric.		93
INCEPTISOL	PQ	P	M		D	Orthic humic gleysol. Photo Can. Dep. Agric		94
ALFISOL	AL	P	C		D	Orthic Gray Wooded in sandy loam. Photo Can. Dep. Agric.		95
INCEPTISOL	AL	P	C		D	Orthic alpine brown. Photo Can. Dep. Agric.		96
INCEPTISOL	PQ	P	C		D	orthic gleysol. Photo Can. Dep. Agric.		97
INCEPTISOL	AL	P	M		D	Gleyed orthic alpine brown. Photo Can. Dep. Agric.		98
ENTISOL		P	C		D	Cutanic i.e. some modification in microstructure, podzo-regosol. Photo Can. Dep. Agric.		99
ENTISOL	ON	P	M	WT	D	Many waterlaid depositions; N.B. distribution of roots and Forest Floor development. Photo Can. Dep. Agric.		100
INCEPTISOL	AL	P	C		D	Cryic orthic brown wooded. Photo Can. Dep. Agric.		101

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ALFISOL	AL	P	C		D	Bisequum of a podzol developing in a gray brown podzolic in a calcareous material. Photo Can Dep. Agric. used in KAA's soil text		102
ALFISOL	AL	P	C		D	Bisequum of a podzol developing in a gray wooded; N.B. the lower B of the gray wooded above a darker brown C(1). Photo Can.Dep.Agric.		103
ARIDISOL	SA	P	S		D	Black solonetz, N.B. structure of columnar B and rounded tops. PhotoCan.Dep.Agric.		104
ALFISOL	AL	P	C		D	Bisequum of podzol developing in gray wooded. Photo Can.Dep. Agric.		105
SPODOSOL	PQ	P	M		D	Humic eluviated gleysol. Photo Can.Dep. Agric.		106
SPODOSOL	PQ	P	C		D	Bisequum of a well-developed podzol in a gray brown podzolic (?acid)Photo can. Dep. Agric.		107
ALFISOL	AL	P	C		D	Orthic acid brown wooded, N.B. little differentiation in colour Photo Can. Dep. Agric.		108
INCEPTISOL	BC	P	S		D	Concretionary brown soil under Douglas fir i.e. 'shot' soil. Photo Can. Dep. Agric.		109
SPODOSOL	PQ	P	M		D	Gleyed podzol Lac Ste. Jean. Photo Can. Dep. Agric.		110
INCEPTISOL	ON	P	C		D	Orthic brown forest. Photo Can.Dep.Agric.		111
SPODOSOL	PQ	P	S		D	Ortstein i.e. iron pan in a podzol due to impeded drainage. Photo Can.Dep. Agric.		112
INCEPTISOL	BC	P	S		D	Concretionary brown i.e. 'shot' soil under conifers. Photo Can. Dep. Agric.		113
SPODOSOL	PQ	P	C		D	Humic podzol showing intense colouration of Bh. Photo Can. Dep. Agric.		114
INCEPTISOL	AL	P	M		D	Gleyed alpine brown; N.B. humic A horizon. Photo Can.Dep.Agric.		115
OXISOL	KENYA	P	C		D	Soil pit near Diraja; n.b. depth f weathering; slide by Lloyd Burridge		116
OXISOL	KENYA		B	I		Termite mound in Kenya; slide by Lloyd Burridge		117
ARIDISOL	KENYA	L	V	HC		Vegetation on solodized sites near Galole, at end of irrigation system; slide by lloyd Burridge		118
ALFISOL	AL	P	C		D	Bisequum in a calcareous material;n.b upper podzolic Bf and the und-ulating lower B; cover white spruce & lodgepole pine	03/15/75	119
ULTISOL	NC	P	C		D	Plinthic paleudult in loamy south central North Carolina(Sandhills)	07/15/68	120
ULTISOL	NC	P	C		D	Plinthic paleudult showing rooting of Loblolly pine(P.taeda) near Sandhills in South central NC	07/15/68	121
ULTISOL	NC	P	C		D	Arenic paleudult with clay lenses(plastic)	07/15/68	122
ULTISOL	NC	P	S		D	Arenic paleudult nr. Sandhills NC, under Loblolly pine(P.taeda); n.b. clay lenses	07/15/68	123
ULTISOL	NC	P	HA	E	D	Typic hapludult, Cecil fst; non-eroded phase; cf. Slide # 125 for the eroded phase; in Schenk Forest	07/15/68	124
ULTISOL	NC	P	HA	E	D	Typic hapludult, Cecil fst, eroded phase, cf. Slide # 124; in SchenkForest	07/15/68	125
ULTISOL	NC	HA	C		D	View of Ah in Hernden silt loam in Duke Forest under oak, hickory & tulip; n.b. colour and degree of mineralization	07/15/68	126
ULTISOL	NC	P	C		D	Typic hapludult under oak, hickory & tulip in Duke Forest, cf Slide # 126 for close-up of Ah	07/15/68	127
ENTISOL	NC	P	C		D	Quartzic psamment in the Sandhills; n.b. colour difference with difference in moisture, & lack of horizon differentiation	07/15/68	128
ENTISOL	NC	L	B	I		Stump of Loblolly pine(P.taeda) two years after thinning growing in a quartzic psamment(sand); stump hollowed out by termites	07/15/68	129
ENTISOL	NC	P	C		D	Profile of a quartzic psamment in Sandhills	07/15/68	130
ULTISOL	NC	P	C		D	Typic hapludult, Durham loamy sand derived from weathering of granite	07/15/68	131
ULTISOL	NC	P	M		D	Poor drainage in a typic hapludult, Duke Forest	07/15/68	132
	NF	L	S			Frost polygons in central Newfoundland; person is Bob Van Nostrand of Canadian Forestry Service, St.John's Nfld	09/15/68	133
INCEPTISOL	ON	P	C		S/B	Poorly developed Podzol in ablation till(granite gneiss) over bedrock at Dorset, n.b. dark B and roots	05/15/69	134
ENTISOL	ON	P	S	F	S/B	Very thin materials over fractured granite gneiss bedrock nr.Dorset,n.b. soil/root occurrence in openings	05/15/69	135
ENTISOL	ON	P	C	F	S/B	Note intensity of rooting in this very shallow over granite gneiss bedrock	05/15/68	136
INCEPTISOL	ON	P	C	WN	D	Evidence of perturbation due to windthrow after fire under a white pine stump in till nr. Dorset	05/15/59	137
	ON	HAM	T			Closeup to show quartz and feldspar particles from the Ae of Podzol profile in the Kirkwood Forest, nr Thessalon	03/15/62	138
ENTISOL	OR	P	T		D	Roots of young poderosa pine in pumice soil(1500 yrs ago) n.b. the two-tiered root system	09/15/63	139
ALFISOL	ON	P	C		D	Grey-brown podzolic in a clay loam ubder maple,beech,ash at the Dunlap Observatory, Richmond Hill; photo used in KAA text	09/15/69	140
ALFISOL	ON	HB	S			Clay illuviation in Bt of a grey-brown podzolic nr. maple	04/15/59	141
ALFISOL	ON	HB	S			Clay illuvation in Bt of Grey-brown podzolic nr. Maple; N.B. the biotite mineral	04/15/59	142
ALFISOL	ON	HB	M			Gleying in the lower part of a grey-brown podzolic nr. Maple	04/15/59	143
SPODOSOL	ON	HF	FF	F		Surface after an August fire in a jack pine cutover, Burt Twp in thePlonski Forest, Swastika,N.B. intensity of burning to mineral soil due to slash fuel; cf.Slide # 145	09/15/68	144
SPODOSOL	ON	HF	FF	F		Surface after an August fire in a jack pine cutover in Burt Twp. of Plonski Forest, Swastika; n.b. some exposure of mineral soil and theevidence of surface erosion by lining up of fine twigs	09/15/68	145
INCEPTISOL	ON	HF	FF	F		Forest floor under maple after a Spring(April) prescribed burn; n.b.only partial removal, floor remains intact;cf. #144 & 145	04/15/59	146
ULTISOL	NC	P	C		D	Plinthic paleudult, n.b. the paleogley in the upper portion of the profile(very ancient,i.e. 1+m yrs); forest is Longleaf pine, P.palustris in Sandhills, N.C.	02/15/69	147
ULTISOL	NC	HB	C			Closeup of the paleogley in the plinthic paleudult in the Sandhills N.C. under Longleaf pine; cf Slide # 146	02/15/69	148
SPODOSOL	ON	P	C	A	D	Buried podzol under peat in Dunmore Twp, Plonski Forest nr. SwastikaChang in drainage was sudden and caused by a beaver dam located in the bog down from where photo was taken	07/15/70	149
SPODOSOL	ON	P	S	A		Closeup of buried profile under peat in Dunmore Twp. Plonski Forest,Swastika;for cause see slide # 149. n.b. weak colour of Bf and the structure of the peat with remains of tree roots	09/15/70	150
ALFISOL	ON	P	C	HC	D	Bisequum in sandy loam at Glen Williams; was site of indian bonepit,n.b lower Bf above calcareous sand; plow layer at top; see slide # 152	09/15/69	151
ALFISOL	ON	B	C	HA	D	Tongues of Bf horizon excavated at bone pit site Glen Williams, cf. slide # 151	06/15/69	152

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SPodosol	NB	P	C	F		Podzol developed in stony till, Miramichi; n.b. dense root mat in the Forest floor	09/15/69	153
INCEPTISOL	ON	P	C		SB	Acid brown soil at Dorset to show roots of Hard maple in a dump tillove rgranite gneiss bedrock	04/15/58	154
	TN	L	SY			Aerial view of a rural area in Hawkins Co., Tennessee; area is app. 1.5x1mile; phot prior to being mapped cf. Slide # 156		155
	TN	L	SY			Area in hawkins Co. Tennessee which has been typed for soil survey n.b. differnet intensity of cleared areas compared with forested ones		156
	ON	F	SY			Map of the soil associations of Ontario; see slides # 158 & 159 for closeups of two areas in this map	01/15/65	157
	ON	F	SY			Closeup of slide # 157 to show soils in Toronto region; n.b. yellow is interlobate(Oak ridges)moraine, blue are clay tills, brown are also tills of coarser texture	01/15/65	158
	ON	F	SY			Closeup of the Simcoe Co. area in Slide # 157 to show soil variation	01/15/65	159
ENTISOL	ON	P	S	WT	D	Bedded alluvial deposits overlain by clay(till?); location unknown		160
ALFISOL	ON	P	C		D	II yr UT students examining soil profile in interlobate sands nr. Maple	09/15/69	161
ALFISOL	ON	HF	V			General view of forest floor under maple at Dunlap Observatory, Richmond Hill. cf. Slide #140	09/15/69	162
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ALFISOL	ON	HAM	S			Thin section in Ae to show cleaved biotite;from pi slide # 172	10/15/68	177
ALFISOL	ON	HAM	S			Thin section x200 in Ae to show sesquioxide nodule, voids are light coloured. from pit Slide # 172	10/15/68	178
ALFISOL	ON	HBM	S			Thin section x200, showing striated neo cutans in Bt of profile slide # 172	10/15/68	179
ALFISOL	ON	HBM	S			Thin section x200; meta vugh orientated neo cutan, in Bt; n.b. blackvoid & to right of it is microcline particle. from pit slide #172	10/15/68	180
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ALFISOL	ON	HB	M			Mottles(gley) in Btjg of profile slide #184	06/15/68	185
ALFISOL	ON	HAM				Thin section of Ae in slide #184; x200; shows quartz, microcline & biotite	10/15/68	186
ALFISOL	ON	HAM				Low power mounting of grains showing red garnet, violet garnet & amphibolite.	10/15/68	187
ALFISOL	ON	HAM	P			Thin section of Ah in slide # 140 showing root channel; x200	10/15/68	188
ALFISOL	ON	HAM				Thin section of Ah in slide #140; showing same as in slide #188, x200 but in ordinary light	10/15/68	189
ALFISOL	ON	HAM				Thin section (x200) of Ah in slide #140, showing weathering of biotite in an organic matrix	10/15/68	190
ALFISOL	ON	HAM				Thin section (x400) in Ae of slide #140, showing clay matrix cuttingacross a piece of hornblende	10/15/68	191
ALFISOL	ON	HAM				Thin section (x400) of a sesquioxidic nodule in Ae of slide #140; ordinary light	10/15/68	192
ALFISOL	ON	HAM				Thin section (x200) in Ae of slide #140 showing minerals such as quartz and feldspars	10/15/68	193
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ALFISOL	ON	HBM				Thin section(x200) of BC in slide #140 showing a calcareous nodule and note the surrounding cutans	10/15/68	195
ALFISOL	ON	HCM				Thin section (x200) showing secondary carbonate deposition in the C of slide #140	10/15/68	196
ALFISOL	ON	HAM				Thin section in the AeJ showing plasmic fabric	10/15/68	197
ALFISOL	ON	HAM				Thin section (x200) showing neo-cutan in a channel; white areas are pores	10/15/68	198
ALFISOL	ON	HAM				Thin section same as #198, but with different light; dark areas are pores	10/15/68	199
ALFISOL	ON	HBM				Thin section (x200) showing calcareous nodule in a ferro-argillaceous matrix; black areas are voids	10/15/68	200
ALFISOL	ON	HBM				Thin section (x200) in Bt showing neo cutans	10/15/68	201
ALFISOL	ON	HBM				This section same as slide #201, but with xNicol; other was in ordinary light	10/15/68	202
ALFISOL	ON	HA	S			Crumb structure of Ah in profile of slide #140, at Dunlap Observ. at Richmond Hill woodlot	10/15/68	203

ORDER	LOCATION	Type	PROPERT	DISTURB	DEPTI	DESCRIPTION	DATE	No.
ALFISOL	ON	HB	S			Blocky structure in the Bt of the profile in slide #140; n.b. the ped , the pores and the argillaceous coating on the ped	10/15/68	204
INCEPTISOL	BC	HB	S			Iron concretions (Bfcc) in a Douglas fir soil on Vancouver Island	10/15/70	205
ALFISOL	ON	HB	S			Blocky, angular structure in the B of Slide #140 at Dunlap Observ. Richmond Hill	10/15/70	206
ALFISOL	ON	L				Winter and snow cover at the Dunlap Observatory, Richmond Hill the location of profile in slide #140	02/15/70	207
ALFISOL	ON	L				Same location as slide #207, but in March as snow is melting n.b. the litter layer of the forest floor	03/15/70	208
ALFISOL	ON	HF	S			View of same location as slides # 207 and 208 showing litter after snow has gone, n.b. the curling of the leaves and the exposure of the surface of the Ah	04/15/70	209
SPODOSOL	ON		BSY			Nodules of Comptonia peregrina N-fixing	06/15/69	210
	AUS	BPA				Mycelium of Phytophthora cinnamomi in W. Australia		211
SPODOSOL	ON		BSY			Comptonia peregrina plant in Plonski Forest; this is the plant which had the nodules shown in slide #210	10/15/70	212
SPODOSOL	ON	HF	BSY			Nodules on roots of Alnus glutinosa from Dorset area; x10	05/15/70	213
SPODOSOL	ON	HF	BSY			Nodules from roots of Alnus glutinosa in Dorset area; n.b. scale	05/15/70	214
SPODOSOL	ON	HF	BSY			Cross-section of nodule on Alnus glandulosa showing infected cortical cells(actinomycetes?) stained red; central red tissue are the vascular elements	05/15/70	215
SPODOSOL	ON	HF	BSY			Microsection of Alnus nodule to show the infected cortical cells; n.b. the mycelia of the actinomycete which terminate in the vesiclescf. slides # 213-217	05/15/70	216
SPODOSOL	ON	HF	BSY			Microsection of the cortical cells of an Alnus nodule to show the vesicles (stained red) within the cell which are thought to be the site of Nitrogen fixation	05/15/70	217
	NAF	HF	BSY			Algal growth on soil surface which is fixing Nitrogen	05/15/70	218
INCEPTISOL	ON	P	C			Close-up of the L, H., Ah, Bm horizons in a Dystric Brunisol at Dorset	04/15/69	219
SPODOSOL	ON	P	C	F	D	Profile in a basal till (sandy loam) under mixed boreal forest; n.b.compaction lines in till; location Cairo Twp. in Plonski Forest nr. Swastika	06/15/70	220
SPODOSOL	ON	HC	S		D	Close-up of the basal till in slide #220, showing the "lenses" or lines of compaction in the till	05/15/70	221
ALFISOL	ON	P	C		D	Profile of an orthic gray brown luvisol;n.b. light colour area to right in Ah is due to dry soil; Located at Dunlap Observatory w/dlot Richmond Hill; same profile as slide #223	10/15/70	222
ALFISOL	ON	P	C		D	Sam profile as slide # 222, but from different angle; gray-brown luvisol	10/15/70	223
ALFISOL	ON	HC	B		D	Root channel just below Bt, in Ck; in profile of gray-brown luvisol slide # 222 & 223	10/15/70	224
ALFISOL	ON	HB	B		D	Root in the Bt of gray-brown luvisol profile , slide #223	10/15/70	225
ALFISOL	ON	HA	S			Ah of the profile in slide # 223; n.b. granular structure and roots; a typical mull	10/15/70	226
SPODOSOL	ON	P	C	WN	D	Windthrow in a till(sandy loam) at Dorset under w.pine; n.b. inversion of horizon; windthrow was after forest fire; intensity of heat in burning root shown by firing at right.Monolith at U.T.f.a	05/15/68	227
INCEPTISOL	ON	P	C		D	Profile of a eutric brunisol in lacustrine silt loam with Ck; in Burt Twp. Plonski Forest, nr. Swastika	06/15/70	228
INCEPTISOL	ON	P	C		D	Showing L, H, Bm horizons of profile in slide # 228, in Burt Twp. Plonski Forest, nr. swastika	06/15/70	229
INCEPTISOL	ON	HB	S		D	Platy structure in silt loam in Bm merging into C; close-up of soil profile in slide # 228	06/15/70	230
INCEPTISOL	ON	HC	S		D	Extracted portion of C to show laminations in silt loam, roots and gleying; this is from profile in slide # 228	06/15/70	231
INCEPTISOL	ON	P	B		D	Root system of Acer saccharum(sugar maple) in sandy loam till; dystric brunisol(despite Ae!); tree approx. 85yrs old; n.b. "tight" root system	04/15/73	232
ALFISOL	ON	HA	S			Surface view of Ah (mull) in gray-brown luvisol at Dulap ObservatoryRichmond Hill; cf. slides # 223 & 226	06/15/70	233
ALFISOL	ON	P	C		D	View of Foestry Soils class, Sept. 1970 ll yr students in their field work at Dunlap Observatory.	09/15/70	234
INCEPTISOL	ON	P	S		D	Ablation(dump) till of loamy sand over a basal till of sandy loam, which is compacted; n.b. roots mainly in the upper loose dump till	04/15/70	235
ALFISOL	ON	P	C		D	Gray-wooded luvisol in Truax Twp., Plonski Forest nr. Swastika; in silty clay; n.b. Ah	05/15/70	236
INCEPTISOL	ON	HA	S			Close-up of H,Ah-Ae of gray-wooded luvisol in slide # 236; n.b. roots and lack of F.	06/15/70	237
SPODOSOL	ON	P	C	F	D	Profile of a podsol in medium-coarse sand; davison Twp. Plonski Forest, nr.Swastika;n.b. relatib=ve lack of intensity of profile development due to coarse texture	05/15/70	238
SPODOSOL	ON	L		F		General view of area 30 yrs after fire; soil material is a washed, loamy till; see slide # 240 for profile; located in Truax Twp., Plonski Forest	05/15/70	239
SPODOSOL	ON	P	C	F	D	Podsol profile in dump loamy till Truax Twp. Plonski Forest; see slide # 239 for vegetation	05/15/70	240
SPODOSOL	ON	L		F		Forest of poplar & w.spruce after fire(50 yrs); location of profile in slide # 242	05/15/70	241
SPODOSOL	ON	P	C	F	D	Profile of weak podsol in fine sand over a silt loam; after fire 50 yrs ago; cf slide # 240 for landscape; Truax Twp. Plonski Forest	05/15/70	242
SPODOSOL	ON	P	C	F	D	Podsol profile in a deep medium/fine sand; Dunmore Twp. Plonski Forest nr. Swastika; under jack pine & poplar; n.b. shallowness of the profile	05/15/70	243
SPODOSOL	ON	BP	S		D	Bisequum of sandy loam/silty clay/silt loam; n.b. Bt of a gray-wdedluvisol; Truax Twp. Plonski Forest nr Swastika	05/15/70	244
		F				World wide distribution of Phytophthora cinnamomi		245
SPODOSOL	ON	P	C	WN	D	Disturbed podsol in the Plonski Forest due to windthrow after fire	05/15/71	246
ULTISOL	AUS	P	C		D	general view of a laterite in Western Australia; slide by S.R.Shea		247
ULTISOL	AUS	L	C			Jarrah forest (Eucalyptus marginata) on laterite in Western Australia. slide by S.R.Shea		248
ULTISOL	AUS	L				Young Jarrah(Eucalyptus marginata) in western Australia; slide by S.R.Shea		249
ULTISOL	AUS		BSP			photo of "black boy", Zanthoraceae pressii which is susceptible to Phytophthora cinnamomi and therefore spreads the disease		250
ULTISOL	AUS	L	BPA			Eucalyptus marginata killed by P.cinnamomi, n.b. blackboys, dead & alive in centre of photo		251
ULTISOL	AUS	L	BPA			Dead Eucalyptus marginata(jarrah) on coast in western Australia due to Phytophthora cinnamomi; photo by S.R.Shea		252
ULTISOL	AUS	L	BPA			Typical dieback in jarrah due to Phytphthora cinnamomi; photo by S. R.Shea		253
ULTISOL	AUS	L	BPA			Killed forest of Jarrah from Phytophthora cinnamomi; photo by S.R. Shea		254

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ULTISOL	AUS	L	BPA			Eucalyptus calophylla, alive but remaining forest of Jarrah killed by Phytophthora cinnamomi; photo S.R.Shea		255
ULTISOL	AUS	L	BPA			Nature reserve on coastal plain in western Australia; vegetation largely killed by Phytophthora cinnamomi; photo by S.R.Shea		256
ULTISOL	AUS	HF	BPA			Mycelium of Phytophthora cinnamomi (x100)		257
ULTISOL	AUS	HF	BPA			Mycelium and sporangia of Phytophthora cinnamomi (x400)		258
ULTISOL	AUS	HF	BPA			Oospore of Phytophthora cinnamomi in Banksia grandis		259
ULTISOL	AUS		BPA			Plate cultivation of Phytophthora cinnamomi from jarrah; photo by Zentmyer		260
	AUS		BPA			Blue lupin culture grown in Banksia trays (infected with P.cinnamomi) see Newhook article		261
	AUS		BPA			Culture of Banksia grandis with infected area of Phytophthora cinn. in the centre		262
	AUS		BPA			Pot trial of Banksia grandis in soil infected with Phytophthora cinn; n.b. dead seedlings		263
		F				Slide listing types of diagnostic relationships used in nutritional studies		264
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		F				Changes in nutrient concentration with plant size to show the Steenbjerg effect		267
		F				Seedling growth plotted against Nitrogen concentration to show a linear relationship		268
		F				Growth of seedlings at three fertility levels and four seedbed densities to show interrelationships		269
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		F				Graph showing relationship between growth and Nitrogen content in plantation trees over rotation; data of Switzer, Smith & Nelson		272
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	NY	L				General view of Pack Forest at Warrensburg, N.Y. site of the first nutrient trials of Heiberg	08/15/65	275
	NY	L				View of 30yr old red pine plantation in early June 1965	08/15/65	276
INCEPTISOL	NY	P	C	HC	D	Hinckley Series sandy loam in outwash. Typical profile at Pack Forest, site of Heiberg's trials	08/15/65	277
	NY	HC	R		D	Red pine plantation root deep in C horizon in old root channel cf. with root slides	08/15/65	278
	NY	L				View of white spruce plantations at Warrensburg; background fertilized with K @ 200lb/ac. foreground - untreated	08/15/65	279
	NY	L				Dr. H. Lowenstein in 25yr. old red pine of Heiberg's trial. This is the humus series control plot at Warrensburg	08/15/60	280
	NY	L				Dr. Howard Lowenstein in Heiberg's 25 yr. old red pine in which in 1935 Heiberg dug in Zins. on humus into the soil before planting	08/15/60	281
	NY	L				Red pine 30 yrs. old at Warrensburg, left is untreated control; right was treated with K @ 200lb/ac when stand was 15yrs	08/15/60	282
	NY	L				Untreated red pine plantation, 35yrs. old, planted at 1.5x1.5m at Warrensburg	08/15/65	283
	NY	L				Red pine plantation 35 yrs. old treated with K @ 200lb/ac. at age 20cf. with #283 and note much less light on forest floor due to denser foliage	08/15/65	284
	NY					View of branch of deficient white pine. Treated in May with K fertilizer, photo in October. N.B. size and colour of current vs. last year's foliage	08/15/65	285
SPODOSOL	NB	P	T	WN	D	Spodosol in clay loam, under full hardwood (maple etc) at Camp #2 of J.D. Irving at Black Brook. N.B. disturbed Ae on right most likely from windthrow	06/15/73	286
SPODOSL	PQ	P	C		D	Humoferric podzol at Montmorency in dump till over basal till. Underconifer (ABb mainly)	09/15/73	287
SPODOSOL	PQ	P	C	WN	D	Humoferric podzol at Montmorency showing irregular Ae and evidence of windthrow on right. Stand is balsam fir	08/15/73	288
SPODOSOL	PQ	P	C	WN	D	General view of humoferric podzol in dump/basal till. N.B. nature of Ae, Bh and the effect of the boulder; also windthrow perturbation on left	08/15/73	289
SPODOSOL	PQ	P	C	WN	D	General view of perturbation due to windthrow in humoferric podzol under balsam fir at Montmorency	08/15/73	290
SPODOSOL	PQ	P	C	WN	D	Closer view of windthrow perturbation at Montmorency. N.B. Inversion of Ae & Bh on left	08/15/73	291
SPODOSOL	PQ	P	C		D	Humoferric podzol at Lac Jacques Cartier. LFH-16cm; Ae-10cm; Bhfc; Bfc: Bfi. This phot was used in the Armson Forest Soils text	08/15/73	292
SPODOSOL	PQ	P	C		D	View of orthic humoferric podzol at Lac Jacques Cartier. Rod divisions in decimetres. N.B. Brown soil at bottom of phot is Bf that has fallen down - ignore	09/15/73	293
SPODOSOL	PQ	P	C		D	Humoferric podzol at Lac Jacques Cartier showing profile and with the forest floor pulled back to show how the root mat holds it together	09/15/73	294
						Soil moisture measuring equipment. L>R: tensiometer; gypsum blocks for electrical resistance; sampler; tensiometer & case	10/15/73	295
SPODOSOL	ON	P	T		D	Wind blown fine sand over waterlaid, ferric podzol at Plonski Forest Burt Twp. N.B. fine layering	09/15/73	296
SPODOSOL	ON	P	T	WN	D	Fine windblown sand over waterlaid. Burt Twp. Plonski Forest. N.B. disturbed Ae due to windthrow	09/15/73	297
		F				Graph showing change in available phosphorus with increase in pH values. Data from set of trials at Glendon Hall, UofT 1973	10/15/73	298
SPODOSOL	ON	P	C		D	Weak ferric profile in sandy loam till Algonquin Park, under hemlock	09/15/73	299
SPODOSOL	NB	P	C		D	Orthic humoferric podzol at JD Irving, Black Brook. N.B. irregular Ae	06/15/74	300
SPODOSOL	NB	P	C		D	Orthic humoferric podzol in till at J.D. Irving, Black Brook. N.B. irregular Ae lower boundary	06/15/74	301
SPODOSOL	FRANCE	P	C	HC	D	Podzol after disturbance near Poitiers. Disturbance in heathland profile from cultivation	12/15/73	302
INCEPTISOL	FRANCE	P	C	HC	D	Sol brun acide in heathland soil that has been cultivated. N.B. the plow layer and a root channel. Near Razes	12/15/73	303
SPODOSOL	ON	P	C	WN	D	Orthic ferropodzol in windblown sand at Plonski Forest Burt Twp. N.B. perturbation on left side Stand was fire origin jack pine	09/15/75	304
	BC	F				Portion of soil map for SE Vancouver Island	04/15/74	305

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	BC	F				Closeup of soil map for part of SE Vancouver Isld.cf.305	04/15/74	306
	ON	F				Soil map for part of Plonski Forest(EMU) in NE Ontario. Mapped in 1970 at scale of 1:15,840, cf #308 for FRI of same area	04/15/74	307
	ON	F				FRI cover type map for portion of Plonski(EMU) Forest for same areaas covered by #307 in soil survey map	04/15/74	308
	ON	F				Map with overlay of FRI cover types and soil types for portion of Plonski Forest(EMU) in NE Ontario, cf. #307 & 308	04/15/74	309
SPodosol	BC	P	S		D	Brown podzolic under Douglas fir, nr. Campbell River. N.B. upper fine sandy loam over coarse gravel. e.g. fine/coarse	06/15/74	310
Entisol	AR	P	C		D	Fine sandy loam under ponderosa pine, Coconino National Forest, Flagstaff AR. N.B. lack of horizon differentiation	11/15/74	311
	NT	L	S	CR	D	Black spruce on soil subject to cryoturbation. Photo by S. Zoltai	12/15/74	312
SPodosol	NT	P	S	CR	D	ross-section through a hummock of a Cryorthod. N.B. Ah layer under hummock and ice wedge	12/15/74	313
SPodosol	BC	P	S	WN	D	Disturbed podzol Dewdney PSYU, nr. Chilliwack. under Doug fir at 3700ft. Due to windthrow after fire and colluvial movement	06/15/75	314
Ultisol	NIGERIA	P	S		D	sandy-silt alluvial well-drained soil. N.B. strata Phot of Roger Pitblado	01/15/75	315
Mollisol	NIGERIA	P	C		D	Soil under woodland developed in gneiss, imperfectly drained. Photo Roger Pitblado	01/15/75	316
Mollisol	NIGERIA	P	S		D	Profile in well-drained gneiss material. Photo Roger Pitblado	01/15/75	317
Ultisol	NIGERIA	P	C		D	Well-developed profile impectctly drained. Photo Roger Pitblado	01/15/75	318
Ultisol	NIGERIA	P	C		D	Profile in well-drained sandy alluvial material, under Sisal. Photo Roger Pitblado	01/15/75	319
Mollisol	NIGERIA	P	S		D	Profile in sandy clay alluvium, imperfectly drained; under wooded grassland. Photo Roger Pitblado	01/15/75	320
Mollisol	NIGERIA	L	FF		D	Surface view of #320 to show cracks as a result of drying in clay soil, also surface vegetation	01/15/75	321
Mollisol	NIGERIA	L	S		D	Surface of # 320 with no vegetation to show major cracks in clay soil. Photo Roger Pitblado	01/15/75	322
Ultisol	NIGERIA	P	C		D	sandy well-drained under woodland. Photo Roger Pitblado	01/15/75	323
Ultisol	NIGERIA	P	C		D	Profile in weathered gneissic drift, under bush. Phto Roger Pitblado	01/15/75	324
Inceptisol	NIGERIA	P	S		D	Poorly drained recent alluvial under sugar cane. Photo Roger Pitblado	01/15/75	325
Mollisol	NIGERIA	P	S		D	Alluvial sandy clay, poorly drained. Photo Roger Pitblado	01/15/75	326
Ultisol	NIGERIA	P	C		D	Wel-drained under wooded grassland in gneissic drift. Photo Roger Pitblado	01/15/75	327
Ultisol	NIGERIA	P	C		D	Well-drained under woodland - Nguru series. Photo Roger Pitblado	01/15/75	328
Luvisol	ON	P	S		D	Profile under hardwood(mainly maple) showing Ah,Bt and Cca. Pit at Richmond Hill Observatory	11/15/78	329
Luvisol	ON	P	S		D	Profile under hardwood(Mainly maple) showing Ah;Bt; Cca. N.B. the structure of the Bt. Same as # 329. but different lighting	11/15/78	330
Luvisol	ON	P	S		D	General view of pit showing clay loam under hardwood. Same location as # 329 & 330. Richmond Hill Obseratory	11/15/78	331
Ultisol	ON	HB	S			Closeup of structure in lower Bt/Cca showing prismatic-columnar structure; also N.B. roots and rot channels	11/15/78	332
Luvisol	ON	HC	S			Closeup view of weathering of pieceof gneiss in top of C horizon at the profiles in # 331 & 332	11/15/78	333
SPodosol	ON	P	C		D	Well-drained sandy loam, with Ah;Ae; Bf. under poplar and oak. Next to indian burial mound at Rainy River.	10/15/75	334
Luvisol	ON	HF	FF			Surface of wooded soil(Hardwoods) in June after complete decompisition of previous year's litter. Woodlot nr. Wingham	06/15/76	335
ARIDISOL	CA	P	C		D	Profile under brush. San Bernadino National Forest	11/15/77	336
ARIDISOL	CA	P	C		D	Profile under brush same as # 336, but closer. N.B. lack of humus in upper layer and stones	11/15/77	337
SPodosol	ON	P	S		D	Profile in dump till over basal till N.B. restriction of rooting. Under mixed wood in Haliburton	09/15/63	338
SPodosol	ON	P	S		D	Profile in dump till/basal till, under mixed wood. Haliburton. N.B. sharp boundary between tills and restriction of roots	09/15/63	339
	ON	HC	S			Boundary between dump till and basal till to show pressure lenses orlines in basal till. Same as # 338 & 339. nr. Haliburton	09/15/63	340
SPodosol	ON	P	S		D	Profile in well-drained varved clays. LFH;Ae;B:C. Under 65yr.old black spruce(fire origin), stand net vol. 147cu.m.; mai 2.26cu.m/ha/yr. Nr. little Abitibi R. A-P Inc. Iroquois Falls	06/15/77	341
	ON	P	S			Till over limestone boulders. Photo G.K.Rutherford		342
	ON	P	C	HC	D	Digging a soil pit in old agicultural land in eastern Ontario. BrianBarkley. N.B. plow layer.	06/15/79	343
SPodosol	MN		S		D	Profile in clay loam under white spruce and hardwood. N.B. platy structure and limited depth of rooting. Pine Falls	08/15/76	344
SPodosol	BC	P	S				07/15/96	345