

Glossary

- Ash (volcanic) - Fine pyroclastic material under 4.0 mm diameter (pertaining to fragmental materials produced by usually explosive, aerial ejection of clastic particles from a volcanic vent).
- Backslope - The geomorphic component that forms the steepest inclined surface and principal element of many hillslopes. Backslopes in profile are commonly steep, linear, and may or may not include cliff segments; also called "gravity slopes" or "free faces".
- Brow - The geomorphic component that forms the upper-most inclined surface at the top of a hillslope. It comprises the transition zone from backslope to summit of a ridge. The surface is dominantly convex in profile and erosional in origin.
- Colluvium - Unconsolidated earth material deposited on or at the base of steep slopes by mass wasting (direct gravitational action) and local unconcentrated runoff.
- Community (plant) - A grouping of plants that often occur together which may or may not continue to co-exist in a predictable fashion.
- Deflation depressions - An area lower than the surrounding surface that has been eroded of soil particles by wind erosion with the aid of rainwash. Common in high elevation steppe communities.
- Disclimax - A vegetative community that is maintained at an earlier seral stage by continuing disturbance (i.e., fire and grazing).
- Erosion pavement - A concentration of gravel or coarser fragments (1/8 to 3/4 inch in size) that remains on the soil surface as a layer after finer particles have been removed by running water or wind.
- Footslope - The geomorphic component that forms the gently inclined surface at the base of a hillslope. The surface profile is dominantly concave; and in terms of gradational processes, it is a transition zone between upslope sites of erosion (backslope) and downslope sites of deposition (toeslope).
- Glacial till - Unsorted and unstratified glacial drift, generally unconsolidated, deposited directly by a glacier without subsequent reworking by water from the glacier, and consisting of a heterogeneous mixture of clay, sand, gravel, and boulders varying widely in size and shape.
- Hillslope-sideslope - The steeper part of a hill between its summit and the drainage line, valley flat or depression floor at the base of the hill. In descending order, geomorphic components of a simple hillslope may include shoulder, backslope, footslope, and toeslope. Complex hillslopes may include two or more backslope to toeslope sequences.

Loess - Fine grained wind-deposited material predominantly of silt-size particles.

Mesic - A habitat characterized by moderate moisture conditions. The old-growth forest community is usually dominated by more juvenile vegetation of the climax tree species.

Old-growth - Forested stands of old, relict or fire resistant trees occurring in a succeeding forest community that is usually dominated by more juvenile vegetation of the climax tree species.

Patterned ground - A term for the more or less symmetrical forms such as circles, polygons, nets, stripes, and garlands that are characteristic of, but not confined to, mantles subjected to intense first action resulting from a periglacial environment.

Plant association - A plant community of definite plant composition, having a similar overall appearance, growing in a uniform habitat that can reproduce its vegetative components in perpetuity barring disturbance.

Retrogression - The directional change in species composition resulting from the replacement of a more stable community by earlier seral vegetation.

Ridgebrow - See "brow".

Seral - A stage of temporary communities in a successional sequence.

Shrub-steppe - A steppe vegetation in which scattered shrubs form a layer rising above the grasses.

Slump - The downward slipping of a mass of rock or unconsolidated material of any size, moving as a unit or as several subsidiary units, usually with backward rotation on a more or less horizontal axis parallel to the cliff or slope from which it descends.

Steppe - Vegetation dominated by grasses and occurring where climate is too dry to support tree growth.

Structural bench (or bench) - A platform-type, nearly level to gently inclined erosional surface developed on resistant strata in areas where valleys are cut in alternating strong and weak layers with an essentially horizontal attitude. Structural benches, in contrast to stream terraces, have no geomorphic implication of former, partial erosion cycles and base-level controls, nor do they represent a stage of flood-plain development following an episode of valley trenching.

Succession - The unidirectional change in species composition resulting from the replacement of one community with another toward some stable end point. This may be progressive from early seral stages toward climax or retrogressive from late seral stages toward very early seral stages.

- Talus - Rock fragments of any size or shape (usually coarse and angular) derived from and lying at the base of a cliff or very steep rock slope; the accumulated mass of such loose broken rock formed chiefly by falling, rolling, or sliding.
- Terrace - A step-like surface bordering a valley floor or shoreline, that represents the former position of an alluvial plain, lake, or sea shore. The term is usually applied to both the relatively flat summit surface (platform tread), cut or built by stream or wave action, and the steeper descending slope (scarp, riser) graded to a lower base level of erosion.
- Terracettes - Small, irregular step-like forms on steep hillslopes, formed by creep of surficial materials that may or may not be accentuated by trampling animals.
- Toeslope - The geomorphic component that forms the outermost, gently-inclined surface at the base of a hillslope. Toeslopes in profile are commonly gentle and linear; and in terms of gradational processes, they are constructional surfaces forming the distal part of a hillslope continuum that grades to the valley.
- Trafficking - The non-specific movement by animals across a slope which can cause surface soil displacement and site degradation often resulting in plant displacement and eventual loss.
- Trampling - The site-specific impact by animals on trails or gentle surfaces where soils are compacted often resulting in plant loss.
- Type - A term synonymous to plant association and used to facilitate readability of the text.
- Union - A group of plants of the same life form type occurring together in the same habitat. A union of plants can therefore occur in different plant associations where habitat requirements are similar.

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Appendix

Appendix A
Table of Ecoclass Codes
Wallowa-Snake Province
Area 3

STEPPE VEGETATION

Green Fescue Series

Green fescue-Hood's sedge plant community type	GS11 11
Green fescue/spurred lupine plant association	GS11 12

Idaho Fescue Series

Idaho fescue-prairie junegrass (ridgetops) plant association . . .	GB59 11
Idaho fescue-prairie junegrass (mounds) plant association	GB59 12
Snake River degenerated bench plant community type	MD31 12
Idaho fescue-prairie junegrass (high elevation) plant association.	GB59 13
Common snowberry/Idaho fescue-prairie junegrass plant community type	GB59 19
Idaho fescue-prairie junegrass (low elevation) plant association .	GB59 14
Idaho fescue-bluebunch wheatgrass (ridgetops) plant community type	GB59 15

Idaho fescue-bluebunch wheatgrass/silky lupine plant association .	GB59	16
Common snowberry/Idaho fescue-bluebunch wheatgrass/silky lupine plant community type	GB51	21
Idaho fescue-bluebunch wheatgrass/arrowleaf balsamroot plant assn.	GB59	17
Idaho fescue-bluebunch wheatgrass/Snake River phlox plant assn. .	GB59	18
Idaho fescue-timber oatgrass-sedge plant association	GB59	20
Idaho fescue-Hood's sedge plant association	GB59	21
Idaho fescue-elk sedge plant community type	GB59	22

Bluebunch Wheatgrass Series

Bluebunch wheatgrass/Wyeth's buckwheat plant association	GB41	11
Bluebunch wheatgrass-Sandberg's bluegrass/narrow-leaved skullcap plant association	GB41	12
Bluebunch wheatgrass-Sandberg's bluegrass (basalt) plant association	GB41	13
Bluebunch wheatgrass-Sandberg's bluegrass/Cusick's milkvetch plant association	GB41	14
Bluebunch wheatgrass-Sandberg's bluegrass/shaggy fleabane plant association	GB41	15
Bluebunch wheatgrass-Sandberg's bluegrass (granite) plant association	GB41	16
Bluebunch wheatgrass-Sandberg's bluegrass/Snake River phlox plant association	GB41	17
Bluebunch wheatgrass-Sandberg's bluegrass/prickly pear plant association	GB41	18
Bluebunch wheatgrass-sand dropseed-red three awn plant community type	GB19	11

Scablands

Bluebunch wheatgrass-Sandberg's bluegrass scabland plant community type	GB49	11
Stiff sagebrush/Sandberg's bluegrass plant association	SD91	11
Sandberg's bluegrass-onespike oatgrass plant association	GB91	11
Douglas' buckwheat/Sandberg's bluegrass plant community type . . .	FM91	11
Strict buckwheat/Sandberg's bluegrass plant community type	FM91	12

Shrublands

Mountain big sagebrush/Idaho fescue plant association	SD29	11
Mountain big sagebrush/elk sedge plant community type	SD29	15
Mountain big sagebrush-bitterbrush/Idaho fescue plant community type	SD29	16
Mountain big sagebrush-mountain snowberry/mountain brome plant community type	SD29	17
Mountain snowberry plant community type	SM32	
Bitterbrush/Idaho fescue-bluebunch wheatgrass plant association .	SD31	11
Bitterbrush/bluebunch wheatgrass plant association	SD31	12
Squaw apple-mountain snowberry plant community type	SD30	
Ninebark/common snowberry plant community type	SM19	
Talus garland plant community type	NTS1	11
Western juniper/Idaho fescue-bluebunch wheatgrass plant assn. .	CJG1	11
bluebunch wheatgrass/sticky cinquefoil plant community type .	CJG1	11
Common snowberry-rose plant association	SM31	11
Curlleaf mountain-mahogany plant community type	SD49	
Spiny green-bush/bluebunch wheatgrass plant association	SD65	

Netleaf hackberry/bluebunch wheatgrass plant association	SD56	11
Smooth sumac/bluebunch wheatgrass plant association	SD61	21
Buckwheat/Oregon bladderpod plant association	SD93	22

Other Incidental Types

Sand dropseed plant association	GB12	11
Giant wildrye plant community type	GB71	11
Cusick's camas seepage plant community type	FW39	11
Wallowa lewisia rim plant community type	FX41	11
Sulfurflower ridge plant community type	FM91	13
Meadows		
ridgetop meadows	FW	
tufted hairgrass-moist sedge meadows	MM19	21
tufted hairgrass-wet sedge meadows	MM19	22
wet sedge meadows	MW19	
Quaking aspen plant community type	HQG1	

FOREST VEGETATION

Mountain Hemlock Series (CM)

Mountain hemlock/grouse huckleberry plant association	CMS1	31
Mountain hemlock/big huckleberry plant association	CMS2	31

Subalpine Fir series (CE/CL)

Subalpine fir/fool's huckleberry plant association	CES2	21
Subalpine fir/grouse huckleberry/skunk-leaved polemonium plant association	CES4	15
lodgepole pine/grouse huckleberry plant community type	CLS4	15
Subalpine fir/big huckleberry plant association	CES3	15
lodgepole pine/big huckleberry plant community type	CLS5	15
Subalpine fir/queen's cup plant association	CES1	31
Subalpine fir/twinflower plant association	CEF2	21
Subalpine fir/skunk-leaved polemonium plant community type	CEF4	11
Subalpine fir/twisted stalk plant community type	CEF3	11
Subalpine fir/pinegrass plant community type	CEG3	12

Grand Fir Series (CW)

Grand fir/queen's cup plant association	CWF4	21
Grand fir/Pacific yew/queen's cup plant association	CWF4	22
Grand fir/big huckleberry plant association	CWS2	11
Grand fir/twinflower plant association	CWF3	11
lodgepole pine/twinflower plant community type	CLF2	11
Grand fir/goldthread plant association	CWF5	11
Grand fir/Rocky Mountain maple plant association	CWS9	12
Grand fir/spiraea plant community type	CWS3	21
Grand fir/pinegrass plant community type	CWG1	12
Grand fir/Rocky Mountain maple-ninebark plant community type	CWS4	12

Douglas-fir Series (CD)

Douglas-fir/pinegrass plant association	CDG1	21
Douglas-fir/Rocky Mountain maple-ninebark plant association . . .	CDS7	22
Douglas-fir/ninebark plant association	CDS7	11
Douglas-fir/spiraea plant association	CDS6	34
Douglas-fir/common snowberry plant association	CDS6	22
Douglas-fir/big huckleberry plant association	CDS8	12
Douglas-fir/mountain snowberry plant community type	CDS6	23

Ponderosa Pine Series (CP)

Ponderosa pine/common snowberry plant association	CPS5	22
Ponderosa pine/spiraea plant community type	CPS5	23
Ponderosa pine/Idaho fescue plant association	CPG1	31
Ponderosa pine/bluebunch wheatgrass plant association	CPG1	32
Ponderosa pine/bitterbrush/bluebunch wheatgrass plant community type	CPS2	31

Appendix B

Species List: Latin Name, Species Code, Common Name

<u>LATIN NAME</u>	<u>CODE</u>	<u>COMMON NAME</u>
Trees		
ABIES GRANDIS	ABGR	GRAND FIR (WHITE FIR)
ABIES LASIOCARPA	ABIA2	SUBALPINE FIR
JUNIPERUS OCCIDENTALIS	JUOC	WESTERN JUNIPER
JUNIPERUS SCOPULORUM	JUSC	ROCKY MT. JUNIPER
LARIX OCCIDENTALIS	LAOC	WESTERN LARCH (TAMARACK)
PICEA ENGELMANNII	PIEN	ENGELMANN SPRUCE
PINUS ALBICAULIS	PIAL	WHITEBARK PINE
PINUS CONTORTA	PICO	LODGEPOLE PINE
PINUS FLEXILIS	PIFL	LIMBER PINE
PINUS PONDEROSA	PIPO	PONDEROSA PINE
POPULUS TREMULOIDES	POTR	QUAKING ASPEN
PSEUDOTSUGA MENZIESII	PSME	DOUGLAS-FIR (RED FIR)
TSUGA MERTENSIANA	TSME	MT. HEMLOCK
Shrubs		
ACER GLABRUM	ACGL	ROCKY MOUNTAIN MAPLE
ALNUS INCANA	ALIN	MOUNTAIN ALDER
ALNUS SINUATA	ALSI	SITKA OR THIN-LVD. ALDER
ALNUS SPP.	ALNUS	ALDER SPP.
AMELANCHIER ALNIFOLIA	AMAL	WESTERN SERVICEBERRY
ARCTOSTAPHYLOS UVA-URSI	ARUV	BEARBERRY, KINNIKINNICK
ARTEMISIA RIGIDA	ARRI	STIFF OR SCABLAND SAGEBRUSH
ARTEMISIA TRIDENTATA VASEYANA	ARTRV	MOUNTAIN BIG SAGEBRUSH
BERBERIS REPENS	BERE	CREEPING OREGON GRAPE
BETULA OCCIDENTALIS	BEOC	WATER BIRCH
CASSIOPE MERTENSIANA	CAME	MOUNTAIN HEATHER
CEANOTHUS SANGUINEUS	CESA	REDSTEM CEANOTHUS
CEANOTHUS VELUTINUS	CEVE	CEANOTHUS, BUCKBRUSH, STICKY-LAUREL
CELTIS RETICULATA	CERE2	HACKBERRY, NETLEAF HACKBERRY
CERCOCARPUS LEDIFOLIUS	CELE	CURL LEAF MOUNTAIN MAHOGANY
CHIMAPHILA MENZIESII	CHME	LITTLE PIPSISSEWA
CHIMAPHILA UMBELLATA	CHUM	COMMON PIPSISSEWA, PRINCE'S PINE
CHRYSOTHAMNUS NAUSEOSUS	CHNA	COMMON RABBITBRUSH, GRAY RABBITBRUSH
CHRYSOTHAMNUS VISCIDIFLORUS	CHVI	GREEN RABBITBRUSH
CORNUS CANADENSIS	COCA	BUNCBERRY, DWARF DOGWOOD
CORNUS STOLONIFERA	COST	RED OSIER DOGWOOD
CRATAEGUS DOUGLASII	CRDO	BLACK HAWTHORN
GAULTHERIA SPP.	GAULT	WINTERGREEN, SALAL, GAULTHERIA
GLOSSOPETALON NEVADENSE	GLNE	SPINY OR 'SNAKE RIVER GREEN-BUSH
HOLIDISCUS DISCOLOR	HODI	CREAMBUSH OCEAN-SPRAY
JUNIPERUS COMMUNIS	JUCO4	COMMON JUNIPER
JUNIPERUS COMMUNIS MONTANA	JUCOM	COMMON OR MOUNTAIN JUNIPER

<u>LATIN NAME</u>	<u>CODE</u>	<u>COMMON NAME</u>
KAIMIA POLIFOLIA MICROPHYLLA	KAPOM	SMALL LEAVED OR ALPINE LAUREL
LEDUM GLANDULOSUM	LEGL	SMOOTH LABRADOR-TEA, TRAPPER'S TEA
LINNAEA BOREALIS	LIBO2	TWINFLOWER
LONICERA INVOLUCRATA	LOIN	BEARBERRY HONEYSUCKLE, BLACK TWIN-BERRY
LONICERA UTAHENSIS	LOUT2	UTAH HONEYSUCKLE
MENZIESIA FERRUGINEA	MEFE	FOOLS HUCKLEBERRY
PACHISTIMA MYRSINITES	PAMY	OREGON BOXWOOD
PERAPHYLLUM RAMOSSISIMUM	PERA3	SQUAW APPLE
PHILADELPHUS LEWISII	PHLE2	SYRINGA, MOCK ORANGE
PHYLLODOCE EMPETRIFORMIS	PHEM	PINK MOUNTAIN HEATH
PHYSOCARPUS MALVACEUS	PHMA	MALLOW NINEBARK
POTENTILLA FRUTICOSA	POFR	SHRUBBY CINQUEFOIL
PRUNUS EMARGINATA	PREM	BITTER CHERRY
PRUNUS VIRGINIANA	PRVI	COMMON CHOCHECHERRY
PRUNUS VIRGINIANA MELANOCARPA	PRVIM	COMMON CHOCHECHERRY
PURSHIA TRIDENTATA	PUTR	BITTER BRUSH
RHAMNUS PURSHIANA	RHPU	CASCARA
RHUS GLABRA	RHGL	WESTERN OR SMOOTH SUMAC
RHUS RADICANS	RHRA	POISON IVY
RIBES CEREUM	RICE	SQUAW CURRANT
RIBES CEREUM CEREUM	RICEC	SQUAW CURRANT
RIBES COGNATUM	RICO	UMATILLA GOOSEBERRY
RIBES INERME	RIIN	WHITESTEM GOOSEBERRY
RIBES IRRIGUUM	RIIR	IDAHO GOOSEBERRY
RIBES LACUSTRE	RIIA	SWAMP GOOSEBERRY
RIBES MONTIGENUM	RIMO	MOUNTAIN GOOSEBERRY
RIBES NIVEUM	RINI	SNOW GOOSEBERRY
RIBES SETOSUM	RISE	MISSOURI GOOSEBERRY
RIBES SPP.	RIBES	CURRANT, GOOSEBERRY
RIBES VELUTINUM GOODINGII	RIVEG	GOODING S GOOSEBERRY
RIBES VISCOSISSIMUM	RIVI	STICKY CURRANT
RIBES WOLFII	RIWO	WOLF S CURRANT
ROSA GYMNOCARPA	ROGY	BALDHIP OR LITTLE WILD ROSE
ROSA NUTKANA	RONU	BRISTLY NOOTKA ROSE
ROSA NUTKANA HISPIDA	RONUH	NOOTKA ROSE
ROSA SPP.	ROSA	ROSE
ROSA WOODSII	ROWO	WOOD S ROSE
ROSA WOODSII ULTRAMONTANA	ROWOU	PEARHIP ROSE
RUBUS IDAEUS	RUID	RED RASPBERRY
RUBUS PARVIFLORUS	RUPA	THIMBLEBERRY
SALIX ARCTICA	SAAR5	ARCTIC WILLOW
SALIX COMMUTATA	SACO2	UNDERGREEN OR VARIABLE WILLOW
SALIX COMMUTATA DENUDATA	SACOD	UNDERGREEN OR VARIABLE WILLOW
SALIX SCOULERIANA	SASC	SCOULER WILLOW
SALIX SPP.	SALIX	WILLOW
SAMBUCUS CERULEA	SACE	BLUE ELDERBERRY
SAMBUCUS RACEMOSA	SARA	BLACK ELDERBERRY
SHEPHERDIA CANADENSIS	SHCA	CANADA BUFFALO BERRY
SORBUS SCOPULINA	SOSC2	MOUNTAIN-ASH, CASCADE MOUNTAIN-ASH
SORBUS SPP.	SORBU	MOUNTAIN-ASH
SPIRAEA BETULIFOLIA	SPBE	SHINY LEAF SPIRAEA, BIRCHLEAF SPIRAEA

LATIN NAME	CODE	COMMON NAME
SPITRAEA SPP.	SPIRA	SPITRAEA
SYMPHORICARPOS ALBUS	SYAL	COMMON SNOWBERRY
SYMPHORICARPOS OREOPHILLUS	SYOR	MOUNTAIN SNOWBERRY
TAXUS BREVIIFOLIA	TABR	PACIFIC YEW
VACCINIUM CAESPITOSUM	VACA	DWARF HUCKLEBERRY
VACCINIUM GLOBULARE	VAGL	GLOBE HUCKLEBERRY
VACCINIUM MEMBRANACEUM	VAME	BIG HUCKLEBERRY
VACCINIUM SCOPARIUM	VASC	GROUSE HUCKLEBERRY, WHORTLEBERRY

Grasses and Grass-like

AGROPYRON CANINUM	AGCA	AWNED OR BEARDED WHEATGRASS
AGROPYRON CANINUM MAJUS ANDINUM	AGCAA	BEARDED WHEATGRASS
AGROPYRON CANINUM MAJUS MAJUS	AGCAM	SLENDER WHEATGRASS
AGROPYRON CANINUM MAJUS LATI GLUME	AGCAM	BROADGLUMED WHEATGRASS
AGROPYRON CANINUM MAJUS UNILATERALE	AGCAU	BEARDED WHEATGRASS
AGROPYRON DASYTACHYUM	AGDA	THICK-SPIKED WHEATGRASS, DOWNY WHEATGRASS
AGROPYRON INTERMEDIUM	AGIN2	INTERMEDIATE WHEATGRASS
AGROPYRON SPICATUM	AGSP	BLUEBUNCH WHEATGRASS
AGROPYRON SPP.	AGROP	WHEATGRASS
AGROPYRON TRICHOPHORUM	AGTR2	PUBESCENT WHEATGRASS
AGROSTIS ALBA	AGAL	REDFOP
AGROSTIS DIEGOENSIS	AGDI	THIN BENTGRASS, LEAFY BENTGRASS
AGROSTIS HUMILIS	AGHU	ALPINE BENTGRASS
AGROSTIS INTERRUPTA	AGIN3	INTERRUPTED BENTGRASS
AGROSTIS SCABRA	AGSC	ROUGH OR WINTER BENTGRASS
AGROSTIS SPP.	AGROS	BENTGRASS
AGROSTIS TENUIS	AGTE	COLONIAL BENTGRASS
ALOPECURUS AEQUALIS	AIAE	SHORTLAWN FOXTAIL
ARISTIDA LONGISETA	ARLO3	RED THREEAWN, DEMOCRAT GRASS
ARRHENATHERUM ELIATIS	AREL	TALL OATGRASS
BROMUS BRIZAEFORMIS	BRBR	RATTLESNAKE BROME
BROMUS CARINATUS (B. MARGINATUS)	BRCA	MOUNTAIN BROME
BROMUS COMMUTATUS	BRCO	HAIKY BROME, HAIKY CHES
BROMUS INERMIS	BRIN	SMOOTH BROME
BROMUS JAPONICUS	BRJA	JAPANESE BROME
BROMUS MOLLIS	BRMO	SOFT CHES
BROMUS ORCUTTIANUS	BROR	ORCUTT BROME
BROMUS RUBENS	BRRU	FOXTAIL BROME
BROMUS SECALINUS	BRSE	RYEBROME
BROMUS SPP.	BROMU	BROME
BROMUS STERILIS	BRST	BARREN BROME
BROMUS TECTORUM	BRTE	CHEATGRASS
BROMUS VULGARIS	BRVU	COLUMBIA BROME
CALAMAGROSTIS CANADENSIS	CACA	BLUEJOINT REEDGRASS
CALAMAGROSTIS PURPURASCENS	CAPU	PURPLE REEDGRASS, PURPLE PINEGRASS
CALAMAGROSTIS RUBESCENS	CARU	PINEGRASS
CALAMAGROSTIS SESQUIFLORA	CASE2	ONE AND ONE HALF FLW, REEDGRASS
CAREX AQUATILIS	CAAQ	WATER SEDGE
CAREX CANESCENS	CACA4	GRAY OR HOARY SEDGE
CAREX CONCINNOIDES	CACO	NORTHWESTERN SEDGE

<u>LATIN NAME</u>	<u>CODE</u>	<u>COMMON NAME</u>
CAREX GEYERI	CAGE	ELK SEDGE
CAREX HOODII	CAHO	HOOD'S SEDGE
CAREX ILLOTA	CAIL	SHEEP SEDGE
CAREX LENTICULARIS	CALE5	LENTICULAR SEDGE
CAREX LEPORINELLA	CALE3	SIERRA-HARE SEDGE
CAREX LIMNOPHILA	CALI3	POND SEDGE
CAREX LUZULINA	CALU	WOODRUSH SEDGE
CAREX MICROPTERA	CAMI	SMALL WINGED SEDGE
CAREX MULTICOSTATA	CAMU	MANY RIBBED SEDGE
CAREX NEBRASKENSIS	CANE	NEBRASKA SEDGE
CAREX NIGRICANS	CANI2	BLACK ALPINE SEDGE
CAREX NORVEGICA	CANOR	NORWAY OR SCANDINAVIAN SEDGE
CAREX PACHYSTACHYA	CAPA	THICK-HEADED SEDGE
CAREX PAYSONIS	CAPAY	PAYSON'S OR SHORT-STALKED SEDGE
CAREX PETASATA	CAPE	LIDDON'S SEDGE
CAREX PHAEOCEPHALA	CAPH	DUNHEAD SEDGE, MT. HARE SEDGE
CAREX PRATICOLA	CAPR	MEADOW SEDGE
CAREX PRESLII (CAREX PACHYSTACHYA)	CAPR2	PRESL'S OR THICK-HEADED SEDGE
CAREX RAYNOLDSII	CARA	RAYNOLD'S SEDGE
CAREX ROSSII	CARO	ROSS SEDGE
CAREX ROSTRATA	CARO2	BEAKED SEDGE
CAREX SCOPULORUM	CASC5	HOLM'S ROCKY MT. SEDGE
CAREX SPP.	CAREX	SEdge
CAREX VESICARIA	CAVE	INFLATED SEDGE
CINNA LATIFOLIA	CILA2	DROOPING WOODREED
DACTYLIS GLOMERATA	DAGL	ORCHARD GRASS
DANTHONIA CALIFORNICA	DACA	CALIFORNIA OATGRASS
DANTHONIA INTERMEDIA	DAIN	TIMBER OATGRASS
DANTHONIA UNISPICATA	DAUN	ONE-SPIKE OATGRASS
DESCHAMPSIA CAESPITOSA	DECA	TUFTED HAIRGRASS
DESCHAMPSIA DANTHONIOIDES	DEDA	ANNUAL HAIRGRASS
DESCHAMPSIA ELONGATA	DEEL	SLENDER HAIRGRASS
ELEOCHARIS PALUSTRIS	ELPA	COMMON OR CREEPING SPIKE-RUSH
ELEOCHARIS PAUCIFLORA	ELPA2	FEW FLD. SPIKE-RUSH
ELYMUS CINEREUS	ELCI	GIANT WILD RYE
ELYMUS GLAUCUS	ELGL	BLUE WILD RYE, WESTERN RYEGRASS
ELYMUS GLAUCUS JEPSONI	ELGLJ	JEPSON'S BLUE WILD RYE
ELYMUS MACOUNI	EIMA2	MACOUN'S WILD RYE
ELYMUS SPP.	ELYMU	WILD RYE
FESTUCA IDAHOENSIS	FEID	IDAHO FESCUE
FESTUCA MEGALURA	FEME	FOXTAIL FESCUE, SIX WEEKS FESCUE
FESTUCA MICROSTACHYS	FEMI	SMALL FESCUE
FESTUCA OCCIDENTALIS	FEOC	WESTERN FESCUE
FESTUCA OCTOFLORA	FEOC2	SLENDER FESCUE, SIX WEEKS FESCUE
FESTUCA OVINA	FEOV	SHEEP FESCUE
FESTUCA RUBRA	FERU	RED FESCUE
FESTUCA SCABRELLA	FESC	ROUGH FESCUE
FESTUCA VIRIDULA	FEVI	GREEN FESCUE
GLYCERIA OCCIDENTALIS	GLOC	WESTERN MANNAGRASS
JUNCUS BRACHYPHYLLUS	JUBR	SHORTLEAVED RUSH
JUNCUS CONFUSUS	JUCO	COLORADO RUSH

LATIN NAME	CODE	COMMON NAME
JUNCUS DRUMMONDII	JUDR	DRUMMOND'S RUSH
JUNCUS MERTENSIANUS	JUME	MERTEN'S RUSH
JUNCUS ORITHOPHYLLUS	JUOR	STRAIGHT LEAVED RUSH
JUNCUS PARRYI	JUPA	PARRY'S RUSH
JUNCUS SPP.	JUNCU	RUSH
JUNCUS TENUIS	JUTE	SLENDER RUSH
JUNCUS TENUIS CONGESTUS	JUTEC	SLENDER RUSH
JUNCUS TENUIS DUDLEYI	JUTED	SLENDER RUSH
JUNCUS TENUIS TENUIS	JUTET	SLENDER RUSH
KOELERIA CRISTATA	KOCR	PRAIRIE JUNEGRASS
LOLIUM SPP.	LOLIU	RYEGRASS
LUZUIA CAMPESTRIS	LUCA2	FIELD WOODRUSH, SWEEPS BRUSH
LUZUIA CAMPESTRIS MULTIFLORA	LUCAM	FIELD WOODRUCH, SWEEPS BRUSH
LUZUIA GLABRATA	LUGL	SMOOTH WOODRUSH
LUZUIA HITCHCOCKII	LUHI	HITCHCOCK'S WOODRUSH
LUZUIA PARVIFLORA	LUPA	SMALLFLOWERED WOODRUSH
LUZUIA SPP.	LUZUL	WOODRUSH
MELICA BULBOSA	MEBU	ONIONGRASS
MELICA SPECTABILIS	MESP	SHOWY OR PURPLE ONIONGRASS
MELICA SPP.	MELIC	ONIONGRASS
MELICA SUBULATA	MESU	ALASKA ONIONGRASS
MUHLENBERGIA FILIFORMIS	MUFI	PULLUP MUHLY, SLENDER MUHLY
ORYZOPSIS EXIGUA	OREX	LITTLE RICEGRASS
ORYZOPSIS HENDERSONI	ORHE	HENDERSON RICEGRASS
OTHER GRAMINOIDS	OGRAM	FOR FORAGE DESIGNATION
PHLEUM ALPINUM	PHAL	ALPINE TIMOTHY, MT. TIMOTHY
PHLEUM PRATENSE	PHPR	COMMON TIMOTHY
PHLEUM SPP.	PHLEU	TIMOTHY
POA BULBOSA	POBU	BULBOUS BLUEGRASS
POA COMPRESSA	POCO	CANADA BLUEGRASS
POA CURTA	POCU3	SHORT BLUEGRASS
POA CUSICKII	POCU	CUSICK'S BLUEGRASS
POA CUSICKII CUSICKII	POCUC	CUSICK'S BLUEGRASS
POA CUSICKII EPILIS	POCUE	SKYLINE BLUEGRASS
POA EPILIS	POEP	SKYLINE BLUEGRASS
POA GRACILLIMA	POGR4	SLENDER BLUEGRASS
POA INCURVA	POIN3	CURLY BLUEGRASS
POA LEPTOCOMA	POLE	BOG BLUEGRASS
POA LEIBERGII	POLE2	LEIBERG'S BLUEGRASS
POA NERVOSA	PONE	WHEELER'S BLUEGRASS
POA NERVOSA WHEELERI	PONEW	WHEELER'S BLUEGRASS
POA NEVADENSIS	PONE2	NEVADA BLUEGRASS
POA PRATENSIS	POPR	KENTUCKY BLUEGRASS
POA RUPICOLA	PORU	TIMBERLINE BLUEGRASS
POA SANDBERGII	POSA3	SANDBERG'S BLUEGRASS
POA SCABRELLA	POSC	PINE BLUEGRASS, HILLSIDE BLUEGRASS
POA SPP.	POA	BLUEGRASS
SITANIAN HYSTRIX	SIHY	BOTTLEBRUSH SQUIRRELTAIL
SITANIAN HYSTRIX HORDEOIDES	SIHYH	BOTTLEBRUSH SQUIRRELTAIL
SPOROBOLUS CRYPTANDRUS	SPCR	SAND DROPSEED
STIPA COMATA	STCO2	NEEDLE AND THREAD

<u>LATIN NAME</u>	<u>CODE</u>	<u>COMMON NAME</u>
STIPA LEMMONII	STLE2	LEMMON'S NEEDLEGRASS
STIPA LETTERMANII	STLE	LETTERMAN'S NEEDLEGRASS
STIPA OCCIDENTALIS	STOC	WESTERN NEEDLEGRASS
STIPA OCCIDENTALIS CALIFORNICA	STOCC	CALIFORNIA NEEDLEGRASS
STIPA OCCIDENTALIS OCCIDENTALIS	STOCO	WESTERN NEEDLEGRASS
STIPA OCCIDENTALIS MINOR	STOCM	SMALL NEEDLEGRASS
STIPA SPP.	STIPA	NEEDLEGRASS
TRisetum CANESCENS	TRCA	TALL TRisetum
TRisetum SPICATUM	TRSP	SPIKE TRisetum, DOWNY OATGRASS
TRisetum SPP.	TRISE	TRisetum
TRisetum WOLFII	TRWO	WOLF'S TRisetum, BEARDLESS TRisetum
VENTENATA DUBIA	VEDU	VENTENATA

Forbs

ACHILLEA LANULOSA	ACLA	COMMON YARROW
ACHILLEA MILLEFOLIUM	ACML	COMMON YARROW
ACONITUM COLUMBIANUM	ACCO	COLUMBIA MONKSHOOD
ACTAEA RUBRA	ACRU	WILD RED BANE BERRY
ADENOCaulon BICOLOR	ADBI	TRAIL PLANT, PATHFINDER
AGASTACHE URTICIFOLIA	AGUR	NETTLELEAF HORSEMINT
AGOSERIS AURANTIACA	AGUA	ORANGE AGOSERIS
AGOSERIS GLAUCA	AGGL	PALE AGOSERIS
AGOSERIS GLAUCA AGRESTIS	AGGLA	PALE AGOSERIS
AGOSERIS GLAUCA DASYCEPHALA	AGGLD	PALE AGOSERIS
AGOSERIS GLAUCA MONTICOIA	AGGLM	PALE AGOSERIS
AGOSERIS GRANDIFLORA	AGGR	LARGE FLOWERED AGOSERIS
AGOSERIS HETEROPHYLLA	AGHE	ANNUAL AGOSERIS
AGOSERIS SPP.	AGOSE	FALSE DANDELION, AGOSERIS
ALLIUM ACUMINATUM	AIAC	TAPERTIP ONION
ALLIUM CAMPANULATUM	AIKA	SIERRA ONION
ALLIUM DOUGLASII	ALDO	DOUGLAS'S ONION
ALLIUM FIBRILLUM	ALFI	FRINGED ONION
ALLIUM SPP.	ALLIU	WILD ONION
ALLIUM TEXTILE	ALTE2	TEXTILE ONION
ALLIUM TOLMIEI	ALTO	TOLMIE'S ONION
ALLIUM TOLMIEI PLATYPHYLLUM	ALTOP	TOLMIE'S ONION
ALLIUM VALIDUM	ALVA	TALL SWAMP ONION
ALYSSUM ALYSSOIDES	ALAL	PALE ALYSSUM
AMSINKIA INTERMEDIA	AMIN	RANCHER'S FIDDLENECK, FIREWEED F.
AMSINKIA LYCOPSOIDES	AMLY	TARWEED FIDDLENECK
AMSINKIA RETRORSA	AMRE2	RIGID FIDDLENECK
AMSINKIA SPP.	AMSIN	FIDDLENECK
ANAPHALIS, MARGARITACEA	ANMA	COMMON PEARLY-EVERLASTING
ANEMONE OREGANA	ANOR	OREGON ANEMONE
ANEMONE PIPERI	ANPI	PIPER'S ANEMONE
ANGELICA ARGUTA	ANAR2	LYALL'S ANGELICA, SHARPTOOTH A.
ANTENNARIA ALPINA	ANAL	ALPINE PUSSY-TOES OR EVERLASTING
ANTENNARIA ANAPHALOIDES	ANAN	TALL PUSSY-TOES
ANTENNARIA DIMORPHA	ANDI	LOW PUSSY-TOES
ANTENNARIA FLAGELLARIS	ANFL	STOLONOUS EVERLASTING

LATIN NAME	CODE	COMMON NAME
ANTENNARIA LANATA	ANIA	WHOLLY PUSSY-TOES
ANTENNARIA LUZULOIDES	ANLU	WOODRUSH PUSSY-TOES
ANTENNARIA MICROPHYLLA	ANMI	ROSY PUSSY-TOES
ANTENNARIA NEGLECTA	ANNE2	FIELD PUSSY-TOES
ANTENNARIA NEGLECTA HOWELLII	ANNEH	FIELD PUSSY-TOES
ANTENNARIA RACEMOSA	ANRA	SLENDER EVERLASTING
ANTENNARIA ROSEA	ANRO	ROSY PUSSY-TOES
ANTENNARIA SPP.	ANTEN	EVERLASTING, PUSSY-TOES
ANTENNARIA STENOPHYLLA	ANST	NARROW-LEAF PUSSY-TOES
ANTENNARIA UMBRINELLA	ANUM	BROWN PUSSY-TOES OR EVERLASTING
ANTHRISCUS SCANDICINA	ANSC2	CHERVIL, ANTHRISCUS
APOCYNUM ANDROSAEMIFOLIUM	APAN	SPREADING DOGBANE, FLYTRAP DOGBANE
APOCYNUM ANDROSAEMIFOLIUM PUMILUM	APANP	SPREADING DOGBANE
AQUILEGIA FLAVESCENS	AQFL	YELLOW COLUMBINE
AQUILEGIA FORMOSA	AQFO	RED COLUMBINE, SITKA COLUMBINE
ARABIS CUSICKII	ARCU	CUSICKS' ROCKCRESS
ARABIS DIVARICARPA	ARDI3	SPREADING POD ROCKCRESS
ARABIS GLABRA	ARGL	TOWERMUSTARD
ARABIS HIRSUTA	ARHI	HAIRY ROCKCRESS
ARABIS HIRSUTA GLABRATA	ARHIG	HAIRY ROCKCRESS
ARABIS HOLBOELLII	ARHO	HOLBOELL'S ROCKCRESS
ARABIS HOLBOELLII PENDULOCARPA	ARHOP	HOLBOELL'S ROCKCRESS
ARABIS HOLBOELLII RETROFRACTA	ARHOR	HOLBOELL'S ROCKCRESS
ARABIS LEMMONII	ARLE	LEMMON'S ROCKCRESS
ARABIS LYALLII	ARLY	LYALL'S ROCKCRESS
ARABIS MICROPHYLLA SAXIMONTANA	ARM12	SMALL-LEAVED ROCKCRESS
ARABIS SPARSIFLORA	ARSP2	ELEGANT ROCKCRESS
ARABIS SPP.	ARABI	ROCKCRESS
ARABIS SUFFRUTESCENS	ARSU	WOODY ROCKCRESS
ARENARIA ACULEATA	ARAC2	PRICKLY SANDWORT
ARENARIA CONGESTA	ARCO2	CAPITATE SANDWORT
ARENARIA MACROPHYLLA	ARMA3	BIGLEAF SANDWORT
ARENARIA SERPYLLIFOLIA	ARSE	THYME LEAF SANDWORT
ARENARIA SPP.	ARENA	SANDWORT
ARNICA CORDIFOLIA	ARCO	HEARTLEAF ARNICA
ARNICA LATIFOLIA	ARIAL	MOUNTAIN ARNICA
ARNICA MOLLIS	ARMO	HAIRY ARNICA
ARNICA PARRYI	ARPA3	NODDING ARNICA
ARNICA SORORIA	ARSO	TWIN ARNICA
ARNICA SPP.	ARNIC	ARNICA
ARTEMISIA DRACUNCULUS	ARDR	TARRAGON, DRAGON SAGEWORT
ARTEMISIA LUDOVICIANA	ARLU	WESTERN MUGWORT
ARTEMISIA LUDOVICIANA INCOMPTA	ARLUI	WESTERN MUGWORT
ARTEMISIA MICHAUXIANA	ARMI	MICHAUX'S MUGWORT
ASCLEPIAS CRYPTOCERUS	ASCR	PALLID MILKWEED
ASCLEPIAS FASCICULARIS	ASFA2	MEXICAN MILKWEED
ASCLEPIAS SPECIOSA	ASSP	SHOWY MILKWEED
ASCLEPIAS SPP.	ASCLE	MILKWEED
ASPERUGO PROCUMBENS	ASPR	MADWORT, CATCHWEED
ASPIDOTUS DENSA	ASDE	PODFERN
ASTER ALPIGENUS	ASAL	ALPINE ASTER

LATIN NAME	CODE	COMMON NAME
ASTER ALPIGENUS HAYOENII	ASALH	ALPINE ASTER
ASTER CAMPESTRIS	ASCA2	WESTERN MEADOW ASTER
ASTER CONSPICUUS	ASCO	SHOWY ASTER
ASTER FOLIACEUS	ASFO	LEAFY ASTER
ASTER FOLIACEUS APRICUS	ASFOA	LEAFY ASTER
ASTER FOLIACEUS LYALLII	ASFOL	LEAFY ASTER
ASTER FOLIACEUS PARRYI	ASFOP	LEAFY ASTER
ASTER INTEGRIFOLIUS	ASTJN	THICK-STEMMED OR STICKY ASTER
ASTER OCCIDENTALIS	ASOC	WESTERN MOUNTAIN ASTER
ASTER OCCIDENTALIS OCCIDENTALIS	ASOCO	WESTERN MOUNTAIN ASTER
ASTER PERELEGANS	ASPE	ELEGANT ASTER
ASTER SPP.	ASTER	ASTER
ASTRAGALUS ALPINUS	ASAL2	ALPINE MILKVETCH
ASTRAGALUS ARTHURI	ASAR3	ARTHUR'S MILK-VETCH
ASTRAGALUS ATROPUBESCENS	ASAT2	KELSEY'S MILK-VETCH
ASTRAGALUS BECKWITHII	ASBE	BECKWITH'S MILK-VETCH
ASTRAGALUS CANADENSIS	ASCA7	CANADA MILKVETCH
ASTRAGALUS CANADENSIS MORTONII	ASCAM	MORTON'S MILKVETCH
ASTRAGALUS CUSICKII CUSICKII	ASCU2	CUSICK'S MILKVETCH
ASTRAGALUS FILIPES	ASFI	BASALT MILKVETCH
ASTRAGALUS INFLEXUS	ASIN2	HAIRY MILKVETCH
ASTRAGALUS LENTIGINOSUS	ASLE	FRECKLED MILKVETCH
ASTRAGALUS PURSHII GLAREOSUS	ASPUG	WHOOPLY-POD MILKVETCH
ASTRAGALUS PORSHII TINCTUS	ASPUT	WHOOPLY-POD MILKVETCH
ASTRAGALUS REVENTUS SHELDONII	ASRES	SHELDON'S MILKVETCH
ASTRAGALUS ROBBINSII ALPINITIFORMIS	ASROA	ROBBINS' MILKVETCH
ASTRAGALUS SONNEANUS (A. WHITNEYI)	ASSO	BALLOONPOD MILKVETCH
ASTRAGALUS SPALDINGII	ASSP2	SPALDING'S MILKVETCH
ASTRAGALUS SPP.	ASTRA	LOCOWEED, MILKVETCH
ATHYRIUM FILIX-FEMINA	ATFI	LADY FERN
BALSAMORHIZA INCANA	BAIN	HOARY BALSAMROOT
BALSAMORHIZA SAGITTATA	BASA	ARROWLEAF BALSAMROOT
BALSAMORHIZA SERRATA	BASE	SERRATE BALSAMROOT, TOOTHED B.
BESSEYA RUBRA	BERU	RED BESSEYA
BLEPHARIPAPPUS SCABER	BLSC	BLEPHARIPAPPUS
BOTRYCHIUM SIMPLEX	BOSI2	LITTLE GRAPEFERN
BRODIAEA DOUGLASII	BRDO	DOUGLAS' BRODIAEA, WILD HYACINTH
BUPLEURUM AMERICANUM	BUAM	AMERICAN THOROUGH-WAX
CALANDRINIA CILIATA	CACI	RED MAIDS, DESERT ROCK PURSLANE
CALOCHORTUS ELEGANS	CAEL	ELEGANT MARIPOSA
CALOCHORTUS EURYCARPUS	CAEU2	WIDE FRUIT MARIPOSA, BIG POD M
CALOCHORTUS MACROCARPUS	CAMA	SAGEBRUSH MARIPOSA
CALOCHORTUS NITIDUS	CANI	BROAD FRUITED MARIPOSA
CALOCHORTUS SPP	CALOC	MARIPOSA, SEGO LILY
CALTHA LEPTOSEPALA	CALE2	WHITE MARSH MARIGOLD
CALYPSO BULBOSA	CABU2	FAIRY-SLIPPER, VENUS SLIPPER
CAMASSIA CUSICKII	CACU	CUSICK'S CAMAS
CAMASSIA QUAMASH	CAQU	COMMON CAMAS
CAMELINA MICROCARPA	CAMI3	LITTLEPOD FALSE FLAX
CAMPANULA ROTUNDIFOLIA SACAIAWEANA	CAR03	SCOTCH BELLFLOWER, LADY'S-THIMBLE
CARDAMINE CORDIFOLIA LYALLII	CAC02	LARGE MT. BITTERCRESS

<u>LATIN NAME</u>	<u>CODE</u>	<u>COMMON NAME</u>
CARDARIA SPP.	CARDA	WHITETOP,HOARY CRESS
CASTILLEJA APPLGATEI	CAAP2	WAVY-LEAVED PAINTBRUSH
CASTILLEJA APPLGATEI FRAGILIS	CAAPF	WAVY-LEAVED PAINTBRUSH
CASTILLEJA CHROMOSA	CACH2	DESERT PAINTBRUSH
CASTILLEJA CHRYSANTHA	CACH3	COMMON WALLOWA PAINTBRUSH, YELLOW P
CASTILLEJA CUSICKII	CACU3	CUSICK 'S PAINTBRUSH
CASTILLEJA FRATERNA	CAFR2	FRATERNAL PAINTBRUSH, LIMESTONE P
CASTILLEJA HISPIDA	CAHI2	HARSH PAINTBRUSH
CASTILLEJA HISPIDA ACUTA	CAHIA	HARSH PAINTBRUSH
CASTILLEJA LUFESCENS	CALU3	YELLOWISH PAINTBRUSH
CASTILLEJA MINIATA	CAMI2	SCARLET PAINTBRUSH, COMMON RED PAINTBRUSH
CASTILLEJA ORESBIA	CAOR3	PALE WALLOWA PAINTBRUSH
CASTILLEJA RHEXIFOLIA	CARH	ALPINE PAINTBRUSH
CASTILLEJA SPP.	CASTI	PAINTBRUSH
CERASTIUM ARVENSE	CEAR	FIELD CHICKWEED, STARRY CERASTIUM
CERASTIUM NUTANS	CENU	NODDING CHICKWEED
CERASTIUM VISCOSUM	CEVI	STICKY CHICKWEED
CHAENACTIS DOUGLASII	CHDO	HOARY CHAENACTIS OR FALSE YARROW
CHEILANTHES FEELI	CHFE	FEE'S LIPFERN
CHEILANTHES GRACILLIMA	CHGR	LACE LIPFERN
CHRYSOPSIS VILLOSA	CHVI2	HAIRY GOLDEN ASTER
CIRCAEA ALPINA	CIAL	ENCHANTER'S NIGHTSHADE
CIRSTIUM BREVIFOLIUM	CIBR	PALOUSE THISTLE
CIRSTIUM CANOVIRENS	CICA2	GRAY-GREEN THISTLE
CIRSTIUM SPP.	CIRSI	THISTLE
CIRSTIUM UNDULATUM	CIUN	WAVY-LEAVED THISTLE
CIRSTIUM UTAHENSE	CIUT	UTAH THISTLE
CIRSTIUM VULGARE	CIVU	COMMON THISTLE, BULL THISTLE
CLARKIA PULCHELLA	CLPU	PINK FAIRIES, DEER HORN, RAGGED ROBIN
CLARKIA RHOMBOIDEA	CLRH	COMMON CLARKIA, RHOMBIC-PETALED CLARKIA
CLAYTONIA LANCEOLATA	CLLA	WESTERN SPRINGBEAUTY
CLAYTONIA MEGARHIZA BELLIDIFOLIA	CLMEB	ALPINE SPRINGBEAUTY
CLEMATIS COLUMBIANA	CLCO	COLUMBIA CLEMATIS, VIRGINS BOWER
CLEMATIS HIRSUTISSIMA	CLHI	LEATHER FLOWER, VASE FLR., SUGARBOWLS
CLEMATIS LIGUSTICIFOLIA	CLLI	WESTERN CLEMATIS OR VIRGINS BOWER
CLEMATIS SPP.	CLEMA	CLEMATIS
CLINTONIA UNIFLORA	CLUN	QUEEN'S CUP, BEADLILY
COLLINSIA PARVIFLORA	COPA	SMALL FLOWERED BLUE EYED MARY
COLLOMIA DEBILIS	CODE	ALPINE COLLOMIA
COLLOMIA GRANDIFLORA	COGR2	LARGE FLOWERED COLLOMIA
COLLOMIA LINEARIS	COLI2	NARROW LEAVED COLLOMIA
CONVOLVULUS JAPONICUS	COJA	JAPANESE, MORNING GLORY
CONYZA CANADENSIS	COCA2	HORSEWEED
COPTIS OCCIDENTALIS	COCC2	WESTERN GOLDTHREAD, IDAHO G.
CORALLORHIZA MACULATA	COMA3	PACIFIC CORAL-ROOT, SPOTTED CORAL-ROOT
CORALLORHIZA MERTENSIANA	COME	WESTERN CORAL ROOT
CORALLORHIZA STRIATA	COST2	HOODED CORAL ROOT
CORDYLANTHUS CAPITATUS	COCA4	CLUSTERED OR YAKIMA BIRDBEAK
CREPIS ACUMINATA	CRAC	LONG LEAVED HAWKSBEARD, TAPER TIP HAWKSBEARD
CREPIS ATRABARBA	CRAT	SLENDER HAWKSBEARD
CREPIS INTERMEDIA	CRIN	GRAY HAWKSBEARD

<u>LATIN NAME</u>	<u>CODE</u>	<u>COMMON NAME</u>
CREPIS NANA	CRNA	DWARF HAWKSBEARD
CREPIS OCCIDENTALIS	CROC	WESTERN HAWKSBEARD
CREPIS OCCIDENTALIS COSTATA	CROCC	WESTERN HAWKSBEARD
CREPIS SPP.	CREPI	HAWKSBEARD
CRUCIFERAE (UNKNOWN GENUS)	CRUCI	MUSTARD
CRYPTANTHA AMBIGUA	CRAM	OBSCURE CRYPTANTHA
CRYPTANTHA CELOSIOIDES	CRCE	COCKSCOMB CRYPTANTHA
CRYPTANTHA FIACCIDA	CRFL	WEAK-STD. CRYPTANTHA
CRYPTANTHA INTERMEDIA	CRIN2	COMMON CRYPTANTHA
CRYPTANTHA INTERRUPTA	CRIN3	BRISTLY CRYPTANTHA
CRYPTANTHA PTEROCARYA	CRPT	WINGED CRYPTANTHA,
CRYPTANTHA SIMULANS	CRSI	PINE WOODS CRYPTANTHA
CRYPTANTHA SPP.	CRYPT	CRYPTANTHA
CRYPTANTHA TORREYANA	CRTO	TORREY'S CRYPTANTHA
CRYPTOGRAMMA CRISPA	CRCR	ROCK BRAKE
CUSCUTA APPROXIMATA	CUAP	CLUSTERED DODDER, SMALL SEED ALFALFA DODDER
CYMOPTERUS TEREBINTHINUS FOENICULACEUS	CYTEF	TURPENTINE CYMOPTERUS
CYNOGLOSSUM OCCIDENTALE	CYOC	WESTERN HOUNDSTONGUE
CYNOGLOSSUM OFFICINALE	CYOF	COMMON HOUNDSTONGUE
CYPRIPEDIUM MONTANUM	CYMO	MT. LADY'S-SLIPPER
CYSTOPTERIS FRAGILIS	CYFR	BRITTLE BLADDER-FERN
DELPHINIUM BICOLOR	DEBI	LITTLE LARKSPUR
DELPHINIUM DEPAUPERATUM	DEDE	SLIM LARKSPUR, DWARF LARKSPUR
DELPHINIUM NUTTALLIANUM	DENU3	UPLAND LARKSPUR
DELPHINIUM SPP.	DELPH	LARKSPUR, DELPHINIUM
DESCURAINIA PINNATA	DEPI	TANSY MUSTARD
DESCURAINIA PINNATA FILIPES	DEPIF	WESTERN TANSYMUSTARD
DESCURAINIA RICHARDSONII	DERI	MOUNTAIN TANSY MUSTARD
DESCURAINIA RICHARDSONII, VAR SONNEI	DERIS	MOUNTAIN TANSY MUSTARD
DESCURAINIA RICHARDSONII VISIOSA	DERIV	MOUNTAIN TANSY MUSTARD
DESCURAINIA SPP.	DESCU	TANSY MUSTARD
DIANTHUS ARMERIA	DIAR	GRASS PINK, DEPTFORD PINK
DIPSACUS SYLVESTRIS	DISY	TEASEL
DISPORUM TRACHYCARPUM	DITR	FAIRY-BELLS, SIERRA FAIRYBELLS
DODECATHEON ALPINUM	DOAL	ALPINE SHOOTING STAR
DODECATHEON CONJUGENS	DOCO	SLIMPOD SHOOTING STAR
DODECATHEON SPP.	DODEC	SHOOTING STAR
DRABA SPP.	DRABA	WHITLOW-GRASS, WHITLOW WORT
DRABA VERNA	DRVE2	SPRING WHITLOW-GRASS, WHITLOW-WORT
EBUROPHYTON AUSTINIAE	EBAU	PHANTOM ORCHID
EPILOBIUM ALPINUM LACTIFLORUM	EPALL	ALPINE WILLOW-WEED
EPILOBIUM ALPINUM NOTANS	EPAH	ALPINE WILLOW-WEED
EPILOBIUM ANGUSTIFOLIUM	EPAN	FIREWEED,
EPILOBIUM MINUTUM	EPMI	SMALL-FLOWERED WILLOW-WEED
EPILOBIUM PANICULATUM	EPPA	AUTUMN FIREWEED, TALL ANNUAL WILLOWWEED
EPILOBIUM SPP.	EPILO	WILLOW-HERB, WILLOW-WEED
EQUISETUM ARVENSE	EQAR	COMMON HORSETAIL
EQUISETUM SPP.	EQUIS	HORSETAIL, SCOURING RUSH
ERIGERON BLOOMERI	ERBL	SCABLAND FLEABANE
ERIGERON CHRYSOPSIDIS	ERCH	DWARF YELLOW FLEABANE, DWARF GOLDEN DAISY
ERIGERON COMPOSITUS	ERCO	CUT-LEAVED DAISY

LATIN NAME	CODE	COMMON NAME
ERIGERON COMPOSITUS GLABRATUS	ERCOG	CUT-LEAVED DAISY
ERIGERON CORYMBOSUS	ERCO3	FOOTHILL DAISY, LONG-LEAF FLEABANE
ERIGERON COULTERI	ERCO4	COULTER'S DAISY OR FLEABANE
ERIGERON DISPARIPILUS	ERDI4	SNAKE RIVER DAISY
ERIGERON EATONII	EREA	EATON'S DAISY
ERIGERON EATONII VILLOSUS	EREAV	EATON'S DAISY
ERIGERON FILIFOLIUS	ERFI	THREAD-LEAVED FLEABANE
ERIGERON INORNATUS	ERIN2	RAYLESS DAISY
ERIGERON PEREGRINUS	ERPE	SUBALPINE DAISY, WANDERING DAISY
ERIGERON PEREGRINUS CALLIANTHEMUS	ERPEC	SUBALPINE DAISY, WANDERING DAISY
ERIGERON PUMILUS	ERPU	SHAGGY FLEABANE
ERIGERON SIMPLEX	ERSI	ALPINE DAISY
ERIGERON SPECIOSUS	ERSP	SHOWY FLEABANE
ERIGERON SPECIOSUS MACRANTHUS	ERSPM	SHOWY FLEABANE
ERIGERON SPP.	ERIGE	DAISY, FLEABANE
ERIOGONUM CAESPITOSUM	ERCA	CUSHION OR MAT BUCKWHEAT
ERIOGONUM COMPOSITUM	ERCO5	HEART-LEAVED OR NORTHERN BUCKWHEAT
ERIOGONUM DOUGLASII	ERDO	DOUGLAS' BUCKWHEAT
ERIOGONUM FLAVUM	ERFL	GOLDEN BUCKWHEAT
ERIOGONUM HERACLEOIDES	ERHE	CREAMY OR WYETH'S BUCKWHEAT
ERIOGONUM MICROTHECUM	ERMI	SLENDERBUSH BUCKWHEAT
ERIOGONUM NIVEUM	ERNI	SNOW BUCKWHEAT
ERIOGONUM OVALIFOLIUM NIVALE	EROVN	OVAL LEAVED ERIOGONUM,
ERIOGONUM SPAEROCEPHALUM	ERSP3	ROCK BUCKWHEAT, ROUND-HEADED ERIOGONUM
ERIOGONUM SPACROCEPHALUM HALIMIOIDES	ERSPH	ROCK BUCKWHEAT
ERIOGONUM STRICTUM	ERST2	STRICT BUCKWHEAT, BLUE MOUNTAIN ERIOGONUM
ERIOGONUM STRICTUM PROLIFERUM	ERSTP	PROLIFEROUS BUCKWHEAT
ERIOGONUM THYMOIDES	ERTH	THYME-LEAF BUCKWHEAT
ERIOGONUM UMBELLATUM	ERUM	SULFURFLOWER, SULFUR BUCKWHEAT
ERIOGONUM UMBELLATUM SUBALPINUM	ERUMS	SULFURFLOWER, SULFUR BUCKWHEAT
ERIOGONUM VIMINEUM	ERVI	BROOM BUCKWHEAT
ERIOPHYLLUM LANATUM	ERLA	COMMON ERIOPHYLLUM, WHOLLY SUNFLOWER
ERODIUM CICUTARIUM	ERCI	FILAREE, CRANE'S OR STORK'S BILL
ERYSIMUM ASPERUM	ERAS	ROUGH WALLFLOWER
ERYSIMUM CAPITATUM	ERCA4	WALLFLOWER
ERYSIMUM REPANDUM	ERRE	SPREADING WALLFLOWER
ERYTHRONIUM GRANDIFLORUM	ERGR	DOGTOOTH VIOLET, YELLOW FAWN LILY
FILAGO ARVENSIS	FIAR	FIELD FILAGO
FRAGARIA VESCA	FRVE	WOODS STRAWBERRY
FRAGARIA VIRGINIANA	FRVI	BLUELEAF STRAWBERRY
FRASERA ALBICAULIS	FRAL2	WHITE STEMMED FRASERA
FRASERA ALBICAULIS IDAHOENSIS	FRALI	IDAHO FRASERA
FRASERA SPECIOSA	FRSP	GIANT FRASERA
FRASERA SPP.	FRASE	FRASERA
FRITILLARIA ATROPURPUREA	FRAT	CHECKER LILLY, PURPLE FRITILLARY
FRITILLARIA PUDICA	FRPU	YELLOW BELLS
GAILLARDIA ARISTATA	GAAR	BLANKET FLOWER
GALIUM APARINE	GAAP	CLEAVERS, GOOSE-GRASS
GALIUM BIFOLIUM	GABI	THINLEAF BEDSTRAW
GALIUM BOREALE	GABO	NORTHERN BEDSTRAW
GALIUM MULTIFLORUM	GAMU	SHRUBBY BEDSTRAW, MANY FLOWERED B.

<u>LATIN NAME</u>	<u>CODE</u>	<u>COMMON NAME</u>
GALIUM SPP.	GALIU	BEDSTRAW
GALIUM TRIFIDUM	GATRX	SMALL BEDSTRAW
GALIUM TRIFLORUM	GATR	SWEETSCENTED BEDSTRAW,FRAGRANT BEDSTRAW
GAYOPHYTUM DECIPIENS	GADE	DECEPTIVE GROUNDSMOKE
GAYOPHYTUM DIFFUSUM	GADI	SPREADING GROUNDSMOKE
GAYOPHYTUM NUTTALLII	GANU	DWARF GROUNDSMOKE
GAYOPHYTUM SPP.	GAYOP	GROUNDSMOKE
GENTIANA AFFINIS	GEAF	PLEATED GENTIAN, PRAIRIE GENTIAN
GENTIANA CALYCOSA	GECA	EXPLORERS GENTIAN,MOUNTAIN BOG G.
GENTIANA SPP.	GENTI	GENTIAN
GERANIUM PUSILLUM	GEPU	SMALL FLOWERED CRANE'S BILL
GERANIUM VISCOSISSIMUM	GEVI	STICKY GERANIUM
GEUM MACROPHYLLUM	GEMA	LARGELEAVED AVENS
GEUM TRIFLORUM	GETR	OLD MAN'S WHISKERS,PRAIRIE SMOKE AVENS
GEUM SPP.	GEUM	AVENS
GILIA AGGREGATA	GIAG	SCARLET GILIA,SKYROCKET
GILIA CONGESTA CONGESTA	GICOC	BALLHEAD GILIA, MANY FLOWERED GILIA
GILIA SPP.	GILIA	GILIA
GILIA TRIFLORUM CILIATUM	GIIRC	OLD MAN'S WHISKERS
GNAPHALIUM MICROCEPHALUM	GNMI	SLENDER CUDWEED
GOODYERA OBLONGIFOLIA	GOOB	WESTERN RATTLESNAKE PLANTAIN
GRINDELIA NANA	GRNA	LOW GUMWEED
GRINDELIA SQUARROSA SERRULATA	GRSQS	RESIN-WEED
GYMNOCARPIUM DRYOPTERIS	GYDR	OAKFERN
HABENARIA DILATATA LEUCOSTACHYS	HADIL	WHITE BOG-ORCHID
HABENARIA ELEGANS	HAEL	CALIFORNIA HILLSIDE HABENARIA
HABENARIA SACCATA	HASA	SLENDER BOG-ORCHID
HABENARIA SPP.	HABEN	BOG-ORCHID
HABENARIA UNALASKENSIS	HAUN	ALASKAN BOG-ORCHID
HACKELIA FLORIBUNDA	HAFL	MANY FLOWERED STICKSEED
HACKELIA JESSICAE	HAJE	BLUE STICKSEED
HACKELIA SPP.	HACKE	STICKSEED, WILD FORGET ME NOT, HACKELIA
HALIMOLOBOS PERPLEXA PERPLEXA	HAPEP	PUZZLING HALIMOLOBOS
HAPLOPAPPUS CARTHAMOIDES	HACA	LARGE FLOWERED GOLDENWEED,COLUMBIA GOLDENWEED
HAPLOPAPPUS GREENEI	HAGR	GREEN'S GOLDENWEED
HAPLOPAPPUS HIRTUS	HAHI	STICKY GOLDENWEED, HAIRY GOLDENWEED
HAPLOPAPPUS LANUGINOSUS	HATA	WHOLLY GOLDENWEED
HAPLOPAPPUS LYALLII	HALY	LYALL'S GOLDENWEED
HELIANTHELLA UNIFLORA	HEUN	LITTLE SUNFLOWER
HELIANTHELLA UNIFLORA DOUGLASII	HEUND	ROCKY MOUNTAIN HELIANTHELLA
HELIANTHUS ANNUUS	HEAN	COMMON SUNFLOWER
HERACLEUM LANATUM	HELA	COW-PARSNIP
HESPEROCHIRON PUMILIS	HEPU	DWARF HESPEROCHIRON
HEUCHERA CYLINDRICA	HECY	ROUNDEAVED ALUMROOT, LAVA A.
HEUCHERA CYLINDRICA ALPINA	HECYA	ALPINE ROUND-LEAVED ALUMROOT
HEUCHERA CYLINDRICA GLABELLA	HECYG	ROUNDEAVED ALUMROOT
HEUCHERA GROSSULARIFOLIA	HEGR	GOOSEBERRY LEAVED ALUMROOT
HEUCHERA GROSSULARIFOLIA GROSSULARIFOLIA	HEGRG	GOOSEBERRY LEAVED ALUMROOT
HEUCHERA GROSSULARIFOLIA TENUIFOLIUM	HEGRT	GOOSEBERRY LEAVED ALUMROOT
HEUCHERA MICRANTHA	HEMI	SMALL FLOWERED ALUMROOT
HEUCHERA SPP.	HEUCH	ALUMROOT,HEUCHERA

<u>LATIN NAME</u>	<u>CODE</u>	<u>COMMON NAME</u>
HIERACIUM ALBERTINUM	HIAL2	WESTERN HAWKWEED
HIERACIUM ALBIFLORUM	HIAL	WHITE FLOWERED HAWKWEED
HIERACIUM CYNOGLOSSOIDES	HICY	HOUNDSTONGUE HAWKWEED
HIERACIUM GRACILE	HIGR	SLENDER HAWKWEED, ALPINE HAWKWEED
HIERACIUM SPP.	HIERA	HAWKWEED
HYDROPHYLLUM CAPITATUM	HYCA	WATERLEAF, WOOLY BREECHES
HYDROPHYLLUM FENDLERI	HYFE	FENDLER'S WATERLEAF
HYPERICUM FORMOSUM	HYFO	WESTERN ST. JOHNS WORT
HYPERICUM PERFORATUM	HYPE	COMMON ST. JOHN'S WORT
HYPOPHYTYS MONOTROPA	HYMO	FRINGED PINESAP
IVESIA GORDONII	IVGO	GORDON'S IVESIA
KELLOGGIA GALIODES	KEGA	KELLOGGIA
LACTUCA SERRIOLA	LASE	PRICKLY LETTUCE
LACTUCA SERRIOLA INTEGRATA	LASEI	PRICKLY LETTUCE
LACTUCA SPP.	LACTU	LETTUCE
LATHYRUS LANSZWERTII	LALA2	THICK-LEAVED PEAVINE
LATHYRUS NEVADENSIS	LANE	SIERRAN PEAVINE
LATHYRUS NEVADENSIS CUSICKII	LANEC	CUSICK'S PEAVINE
LATHYRUS PAUCIFLORUS	LAPA2	FEW-FLOWERED PEAVINE
LATHYRUS PAUCIFLORUS UTAHENSIS	LAPAU	UTAH FEW-FLOWERED PEAVINE
LATHYRUS SPP.	LATHY	PEAVINE
LEPIDIUM PERFOLIATUM	LEPE	CLASPING PEPPERGRASS
LEPIDIUM RAMOSISSIMUM	LERA	BRANDED PEPPERGRASS
LEPIDIUM SPP.	LEPID	PEPPERGRASS, PEPPERWEED
LEPIDIUM VIRGINICUM	LEVI	TALL PEPPERGRASS
LEPIDIUM VIRGINICUM MEDIUM	LEVIM	TALL PEPPERGRASS
LESQUERELIA OCCIDENTALIS DIVERSIFOLIA	LEOD	WESTERN BLADDERPOD
LEWISIA COLUMBIANA WALLOWENSIS	LEOW	WALLOWA LEWISIA
LEWISIA PYGMAEA	LEPY	DWARF LEWISIA
LIGUSTICUM CANBYI	LICA2	CANBY'S LOVAGE
LIGUSTICUM FILICINUM	LIFI	FERNLEAF LOVAGE
LIGUSTICUM FILICINUM TENUIFOLIUM	LIFIT	FERNLEAF LOVAGE
LIGUSTICUM GRAYI	LIGR	GRAY'S LOVAGE
LIGUSTICUM SPP.	LIGUS	LOVAGE, LICORICE-ROOT
LIGUSTICUM TENUIFOLIUM	LITE2	SLENDER LEAVED LOVAGE
LINANTHASTRUM NUTTALLI	LINU	NUTTALL'S LINANTHASTRUM
LINANTHUS HARKNESSII	LIHA	HARKNESS' LINANTHUS
LINANTHUS SPP.	LINAN	LINANTHUS
LINUM PERENNE LEWISII	LIPE	WILD BLUE FLAX
LISTERA CAURINA	LICA3	WESTERN OR NW TWAYBLADE
LISTERA CONVALLARIOIDES	LICO3	BROAD-LIPPED TWAYBLADE
LISTERA SPP.	LISTE	LISTERA; TWAYBLADE
LITHOPHRAGMA BULBIFERA	LIBU	BULBIFEROUS FRINGECUP
LITHOPHRAGMA PARVIFLORA	LIPA	SMALL FLOWERED FRINGECUP
LITHOSPERMUM ARVENSE	LIAR	CORN GROMWELL
LITHOSPERMUM RUDERALE	LIRU	WAYSIDE GROMWELL
LOMATIUM AMBIGUUM	LOAM	SWALE DESERT-PARSLEY
LOMATIUM COUS	LOCO2	COUS BISCUIT-ROOT
LOMATIUM DISSECTUM	LODI2	FERN-LEAVED LOMATIUM
LOMATIUM DISSECTUM EATONII	LODIE	FERN-LEAVED LOMATIUM
LOMATIUM DISSECTUM MULTIFIDUM	LODIM	FERN-LEAVED LOMATIUM

<u>LATIN NAME</u>	<u>CODE</u>	<u>COMMON NAME</u>
LOMATIUM GRAYI	LOGR	GRAY'S LOMATIUM
LOMATIUM LEPTOCARPUM	LOLE	SLENDERFRUIT LOMATIUM, BICOLOR BISCUITROOT
LOMATIUM MACROCARPUM	LOMA	LARGE FRUITED LOMATIUM
LOMATIUM NUDICAULE	LONU	BARESTEM LOMATIUM
LOMATIUM SERPENTINUM	LOSE	SNAKE RIVER CANYON LOMATIUM
LOMATIUM SPP.	LOMAT	BISCUIT-ROOT, DESERT-PARSLEY
LOMATIUM TRITERNATUM	LOTR	NINE-LEAF LOMATIUM
LOMATIUM TRITERNATUM ANOMALUM	LOTRA	NINE-LEAF LOMATIUM
LOMATIUM TRITERNATUM PLATYCARPUM	LOTRP	NINE-LEAF LOMATIUM
LOMATIUM TRITERNATUM TRITERNATUM	LOTRT	NINE-LEAF LOMATIUM
LOTUS PURSHIANUS	LOPU	SPANISH CLOVER
LOTUS SPP.	LOTUS	BIRDSFOOT-TREFOIL
LUPINUS CAUDATUS	LUCA	TAILCUP LUPINE
LUPINUS LAXIFLORUS	LULA2	SPURRED LUPINE
LUPINUS LAXIFLORUS PSEUDOPARVIFLORUS	LULAP	SPURRED LUPINE
LUPINUS LEPIDIS	LULE2	PRAIRIE LUPINE
LUPINUS LEPIDUS ARIDUS	LULEA	PRAIRIE LUPINE
LUPINUS LEUCOPHYLLUS	LULE	WOOLY OR VELVET LUPINE
LUPINUS SERICEUS	LUSE	SILKY LUPINE
LUPINUS SERICEUS SERICEUS	LUSES	SILKY LUPINE
LUPINUS SPP.	LUPIN	LUPINE
LUPINUS SULPHUREUS	LUSU	SULPHUR LUPINE
LUPINUS SULPHUREUS SUBSACCATUS	LUSUS	SULPHUR LUPINE
LYCHNIS ALBA	LYAL	WHITE CAMPION, EVENING CAMPION
LYCHNIS CORONARIA	LYCO	ROSE CAMPION
LYCOPODIUM ANNOTINUM	LYAN	STIFF CLUBMOSS
MACHAERANTHERA CANESCENS	MACA2	HOARY ASTER
MADIA CITRIODORA	MACI	LEMON-SCENTED TARWEED
MADIA EXIGUA	MAEX	LITTLE TARWEED
MADIA GLOMERATA	MAGL	CLUSTER TARWEED
MADIA GRACILIS	MAGR	SLENDER OR COMMON TARWEED, GUMWEED
MADIA SPP.	MADIA	TARWEED, MADIA
MARRUBIUM VULGARE	MAVU	HOREHOUND
MELILOTUS ALBA	MEAL	WHITE SWEET-CLOVER
MELILOTUS OFFICINALIS	MEOF	COMMON YELLOW SWEET-CLOVER
MENTZELIA ALBICAULIS	MEAL2	WHITE STEMMED MENTZELIA
MENTZELIA DISPERSA	MEDI	BUSH MENTZELIA
MENTZELIA LAEVICAULIS	MEIA2	BLAZING-STAR
MERTENSIA CILIATA	MECI	CILIATE BLUEBELLS, BROADLEAVED BLUEBELLS
MERTENSIA OBLONGIFOLIA	MEOB	LEAFY BLUEBELLS
MERTENSIA PANICULATA	MEPA	TALL BLUEBELLS
MERTENSIA SPP.	MERTE	LUNGWORT, BLUEBELLS, MERTENSIA
MICROSERIS NUTANS	MINU	NODDING MICROSERIS
MICROSERIS SPP.	MICR3	MICROSERIS
MICROSERIS TROXIMOIDES	MITR	FALSE AGOSERIS
MICROSTERIS GRACILIS	MIGR	PINK MICROSTERIS
MICROSTERIS SPP.	MICR4	MICROSTERIS
MIMULUS CUSICKII	MICU	CUSICK'S MONKEY-FLOWER
MIMULUS GUTTATUS	MIGU	YELLOW MONKEY-FLOWER
MIMULUS MOSCHATUS	MIMO	MUSK FLOWERS
MIMULUS NANUS	MINA	DWARF PURPLE MONKEY-FLOWER

<u>LATIN NAME</u>	<u>CODE</u>	<u>COMMON NAME</u>
MIMULUS PRIMULOIDES	MIPR	PRIMROSE MONKEY-FLOWER
MIMULUS TILINGII	MITI	TILING'S MONKEY-FLOWER
MIRABILIS MACFARLANEI	MIMA	MACFARLANE'S FOUR-O'CLOCK
MITELIA PENTANDRA	MIFE	ALPINE MITREWORT, BISHOP'S CAP
MITELIA SPP.	MITEL	MITREWORT, MITELIA
MITELIA STAUROPETALA	MIST2	SIDE FLOWERED MITREWORT
MITELIA TRIFIDA	MITR2	THREE-TOOTHED MITREWORT
MONARDELIA ODORATISSIMA	MOOD	MOUNTAIN MONARDELIA, MOUNTAIN BAIM
MONOTROPA UNIFLORA	MOUN2	INDIAN PIPE
MONTIA CORDIFOLIA	MOCO	BROAD-LVD. MINERS LETTUCE
MONTIA LINEARIS	MOLI	NARROW-LVD. MINERS LETTUCE
MONTIA PARVIFOLIA	MOPA	LITTLE-LEAVED MONTIA, SMALL LVD. M.
MONTIA PERFOLIATA	MOPE	MINER'S LETTUCE
MONTIA SIBIRICA	MOSI	SIBERIAN MONTIA
MYOSOTIS DISCOLOR	MYDI	YELLOW OR BLUE FORGET ME NOT
MYOSOTIS MICRANTHA	MYMI	BLUE SCORPION GRASS
NAVARRETTIA INTERTEXTA	NAIN	NEEDLELEAVED NAVARRETTIA
NAVARRETTIA INTERTEXTA PROPINQUA	NAINP	PIN CUSHION PLANT
NEMOPHILA SPP.	NEMOP	NEMOPHILA
OENOTHERA CAESPITOSA	OECA2	ROCK ROSE, DESERT EVENING PRIMROSE
OPUNTIA POLYCANTHA	OPPO	PRICKLY PEAR
OROBANCHE FASCICULATA	ORFA2	CLUSTERED BROOMRAPE
OROBANCHE SPP.	OROBA	BROOMRAPE, CANCER-ROOT
OROBANCHE UNIFLORA	ORUN	NAKED BROOMRAPE
OROBANCHE UNIFLORA MINUTA	ORUM	NAKED BROOMRAPE
OROBANCHE UNIFLORA PURPUREA	ORUNP	NAKED BROOMRAPE
ORTHOCAARPUS HISPIDUS	ORHI	HAIRY OWL-CLOVER
ORTHOCAARPUS TENUIFOLIUS	ORTE	THIN-LEAVED OWL-CLOVER
OXYRIA DIGYNA	OXDI	MOUNTAIN SORREL
OSMORHIZA CHILENSIS	OSCH	MOUNTAIN SWEET-CICELY
OSMORHIZA OCCIDENTALIS	OSOC	WESTERN SWEETROOT
OSMORHIZA SPP.	OSMOR	SWEET-CICELY
PAEONIA BROWNII	PABR	BROWN'S PEONY
PARIETARIA PENNSYLVANICA	PAPE	PELLITORY
PARNASSIA FIMBRIATA	PAFI	FRINGED GRASS OF PARNASSAS
PASTINACA SATIVA	PASA	COMMON PARSNIP
PEDICULARIS BRACTEOSA	PEBR	BRACTED LOUSEWORT
PEDICULARIS CONTORTA	PECO2	WHITE COILED-BEAK LOUSEWORT
PEDICULARIS GROENLANDICA	PEGR	PINK ELEPHANT'S, ELEPHANT'S HEAD
PEDICULARIS RACEMOSA	PERA	LEAFY LOUSEWORT, SICKLETOP LOUSEWORT
PEDICULARIS RACEMOSA ALBA	PERAA	LEAFY LOUSEWORT, SICKLETOP LOUSEWORT
PEDIOCACTUS SIMPSONII ROBUSTIOR	PESIR	HEDGEHOG CACTUS
PENSTEMON ATTENUATUS	PEAT	SULFUR PENSTEMON, TAPERLEAVED PENSTEMON
PENSTEMON ATTENUATUS MILITARIS	PEATM	SULFUR PENSTEMON, TAPERLEAVED PENSTEMON
PENSTEMON ATTENUATUS PSEUDOPROCERUS	PEATP	SULFUR PENSTEMON, TAPERLEAVED PENSTEMON
PENSTEMON DEUSTUS	PEDE	HOT ROCK PENSTEMON
PENSTEMON DEUSTUS DEUSTUS	PEDED	HOT ROCK PENSTEMON
PENSTEMON ELEGANTULUS	PEEL	LOVELY PENSTEMON
PENSTEMON ERIANTHERUS	PEER	FUZZY TONGUE PENSTEMON, CRESTED TONGUE P.
PENSTEMON ERIANTHERUS REDACTUS	PEERR	FUZZY TONGUE PENSTEMON, CRESTED TONGUE P.
PENSTEMON FRUTICOSUS	PEFR3	SHRUBBY OR BUSH PENSTEMON

LATIN NAME	CODE	COMMON NAME
PENSTEMON FRUTICOSUS SERRATUS	PEFRS	SHRUBBY OR BUSH PENSTEMON
PENSTEMON GAIRDNERI	PEGA	GAIRDNER'S PENSTEMON
PENSTEMON GAIRDNERI OREGANA	PEGAO	GAIRDNER'S PENSTEMON
PENSTEMON GLANDULOSUS	PEGL	GLANDULAR PENSTEMON, STICKY STEM PENSTEMON
PENSTEMON GLOBOSUS	PEGL4	GLOBE PENSTEMON
PENSTEMON HUMILUS	PEHU	LOWLY PENSTEMON
PENSTEMON PAYETTENSIS	PEPA2	PAYETTE PENSTEMON
PENSTEMON PROCERUS	PEPR	TINY BLOOM PENSTEMON, SMALL FLOWERED PENSTEMON
PENSTEMON PROCERUS BRACHYANTHUS	PEPRB	TINY BLOOM PENSTEMON, SMALL FLOWERED PENSTEMON
PENSTEMON PROCERUS PROCERUS	PEPRP	TINY BLOOM PENSTEMON, SMALL FLOWERED PENSTEMON
PENSTEMON RYDBERGII	PERY	RYDBERG'S PENSTEMON
PENSTEMON SPATULATUS	PESP3	WALLOWA PENSTEMON
PENSTEMON SPP.	PENST	PENSTEMON, BEARDTONGUE
PENSTEMON TRIPHYLLUS	PETR	WHORLED PENSTEMON
PENSTEMON VENUSTUS	PEVE	BLUE MOUNTAIN PENSTEMON
PENSTEMON WILCOXII	PEWI	WILCOX'S PENSTEMON
PERIDERIDIA BOLANDERI	PEBO	BOLANDER'S YAMPAH
PERIDERIDIA GAIRDNERI	PEGA2	GAIRDNER'S YAMPAH
PERIDERIDIA SPP.	PERID	YAMPAH, FALSE-CARAWAY
PETALOSTAMEN ORNATUM	PEOR4	WESTERN PRAIRIE-CLOVER
PHACELIA HASTATA	PHHA	SILVERLEAF PHACELIA
PHACELIA HASTATA LEPTOSEPALA	PHHAL	SILVERLEAF PHACELIA
PHACELIA HETEROPHYLLA	PHHE	VARILEAF PHACELIA
PHACELIA HETEROPHYLLA HETEROPHYLLA (P. VIRGATA)	PHHEH	VARILEAF PHACELIA
PHACELIA LINEARIS	PHLI	THREADLEAF PHACELIA
PHACELIA SERICEA	PHSE	SILKY PHACELIA
PHLOX CAESPITOSA	PHCA2	TUFTED PHLOX, CLUMPED PHLOX
PHLOX COLUBRINA	PHCO2	SNAKE RIVER PHLOX
PHLOX DIFFUSA LONGISTYLIS	PHDIL	SPREADING PHLOX
PHLOX LONGIFOLIA (P. LINEARIFOLIA)	PHLO	LONGLEAF PHLOX
PHLOX PULVINATA	PHPU	CUSHION PHLOX
PHLOX SPP.	PHLOX	PHLOX, WILD SWEET WILLIAM
PHLOX VISCIDA	PHVI3	STICKY PHLOX
PHOENICAILIS CHEIRANTHOIDES	PHCH	DAGGERPOD
PHYSALIS LONGIFOLIA	PHLO2	LONG LEAVED GROUND-CHERRY
PHYSARIA OREGANA	PHOR	OREGON TWINPOD
PLANTAGO MAJOR	PLMA	COMMON PLANTAIN
PLANTAGO PATAGONICA	PLPA	INDIAN WHEAT, WOOLY PLAIN TAIN
PLECTRITUS CILIOSA	PLCI	LONG-SPURRED PLECTRITIS
PLECTRITUS MACROCERA	PLMA3	LONGHORN PLECTRITIS, WHITE P.
PLECTRITUS SPP.	PLECT	PLECTRITIS
POLEMONIUM PULCHERRIMUM	POPU	SKUNK LEAVED POLEMONIUM, JACOB'S LADDER
POLEMONIUM PULCHERRIMUM PULCHERRIMUM	POPUP	SKUNK LEAVED POLEMONIUM, JACOB'S LADDER
POLEMONIUM SPP.	POLEM	POLEMONIUM
POLYGONUM AUSTINIAE	POAU	AUSTIN'S KNOTWEED
POLYGONUM BISTORTOIDES	POBI	AMERICAN BISTORT, WESTERN B., SNAKEWEED
POLYGONUM DOUGLASII	PODO	DOUGLAS' KNOTWEED
POLYGONUM KELLOGGII	POKE	KELLOGG'S KNOTWEED
POLYGONUM MAJUS	POMA2	WIRY KNOTWEED, PALOUSE KNOTWEED
POLYGONUM PHYTOLACCAEFOLIUM	POPH	ALPINE KNOTWEED, POKWEED, FLEECE FLOWER
POLYGONUM POLYGALOIDES	POPO	WHITE MARGINED KNOTWEED

<u>LATIN NAME</u>	<u>CODE</u>	<u>COMMON NAME</u>
	SA	
POLYGONUM SAWATCHENSE	POMI2	SAWATCH KNOTWEED
POLYGONUM SPP.	POLYG	KNOTWEED, POKEWEEED, FLEECE FLOWER
POLYSTICHUM LONCHITIS	POLO2	MOUNTAIN HOLLY-FERN
POLYSTICHUM MUNITUM	POMU	CRISTMAS FERN, SWORD FERN
POLYTRICHUM COMMUNE	NOCODE	HAIR CAP MOSS
POTENTILLA ARGUTA CONVALLARIA	POARC	TALL CINQUEFOIL
POTENTILLA DIVERSIFOLIA	PODI	DIVERSE-LVD. CINQUEFOIL
POTENTILLA FLABELLIFOLIA	POFL	FRINGE LEAF CINQUEFOIL
POTENTILLA GLANDULOSA	POGL	STICKY CINQUEFOIL, GLAND CINQUEFOIL
POTENTILLA GLANDULOSA NEVADENSIS	POGLN	STICKY CINQUEFOIL, GLAND CINQUEFOIL
POTENTILLA GLANDULOSA PSEUDORUPESTRIS	POGLP	STICKY CINQUEFOIL, GLAND CINQUEFOIL
POTENTILLA GRACILIS	POGR	SLENDER CINQUEFOIL
POTENTILLA SPP.	POTEN	CINQUEFOIL, FIVEFINGER
PRUNELLA VULGARIS	PRVU	SELF HEAL, ALL HEAL
PTERIDIUM AQUILINUM	PTAQ	BRAKEN, BRAKE FERN
PTEROSPORA ANDROMEDEA	PTAN	WOODLAND PINEDROPS
PYROLA ASARIFOLIA	PYAS	PINK WINTERGREEN
PYROLA CHLORANTHA	PYCH	GREENISH WINTERGREEN
PYROLA DENTATA	PYDE	TOOTHLEAF WINTERGREEN
PYROLA MINOR	PYMI	SNOWLINE WINTERGREEN
PYROLA PICTA	PYPI	WHITEVEIN WINTERGREEN
PYROLA SECUNDA	PYSE	SIDEBELLS PYROLA, ONE-SIDED WINTERGREEN
PYROLA SPP.	PYROL	PYROLA, SHINLEAF, WINTERGREEN
PYROLA UNIFLORA	PYUN	WOODNYMPH, SINGLE DELIGHT, WAX FLOWER
RANUNCULUS ESCHOLTZII	RAES	SUBALPINE BUTTERCUP, TIMBERLINE BUTTERCUP
RANUNCULUS POPULAGO	RAPO	BLUE MOUNTAIN BUTTERCUP
RANUNCULUS SPP.	RANUN	BUTTERCUP, CROWFOOT
RANUNCULUS UNCINATUS	RAUN2	LITTLE BUTTERCUP
RANUNCULUS UNCINATUS PARVIFLORUS	RAUNP	LITTLE BUTTERCUP
RUDBECKIA OCCIDENTALIS	RUOC	WESTERN CONEFLOWER
RUMEX ACETOSELLA	RUAC	RED OR SHEEP SORREL
SANGUISORBA OCCIDENTALIS	SAOC	ANNUAL BURNET
SANICULA GRAVEOLENS	SAGR	SIERRA SANICLE
SAUSSUREA AMERICANA	SAAM	AMERICAN SAWWORT
SAXIFRAGA ARGUTA	SAAR4	BROCK SAXIFRAGE
SAXIFRAGA BRONCHIALIS AUSTROMONTANA	SABRA	MATTED SAXIFRAGE
SAXIFRAGA INTEGRIFOLIA	SAIN	SWAMP SAXIFRAGE
SAXIFRAGA INTEGRIFOLIA COLUMBIANA	SAINC	SWAMP SAXIFRAGE
SAXIFRAGA MERTENSIANA	SAME3	WOOD SAXIFRAGE, MERTENS SAXIFRAGE
SAXIFRAGA SPP.	SAXIF	SAXIFRAGE
SCUTELLARIA ANGUSTIFOLIA	SCAN	NARROWLEAVED SKULLCAP
SEDUM LANCEOLATUM	SELA2	LANCELEAVED STONECROP
SEDUM SPP.	SEDUM	STONECROP
SEDUM STENOPETALUM	SEST	WORMLEAF STONECROP
SENECIO CANUS	SECA	WHOLLY GROUNDSEL
SENECIO CRASSULUS	SECR	THICK-LEAVED GROUNDSEL
SENECIO CYMBALARIOIDES	SECY2	FEW LEAVED BUTTERWEED, ALPINE MEADOW BUTTERWEED
SENECIO INTEGERRIMUS	SEIN	WESTERN GROUNDSEL, ONE STEMMED BUTTERWEED
SENECIO INTEGERRIMUS EXALTATUS	SEINE	WESTERN GROUNDSEL, ONE STEMMED BUTTERWEED
SENECIO INTEGERRIMUS VASEYI	SEINV	WESTERN GROUNDSEL, ONE STEMMED BUTTERWEED
SENECIO PSEUDAUREUS	SEPS	STREAMBANK BUTTERWEED

<u>LATIN NAME</u>	<u>CODE</u>	<u>COMMON NAME</u>
SENECIO SPHAEROCEPHALUS	SESP2	MOUNTAIN MARSH BUTTERWEED
SENECIO SPP.	SENEC	GROUNDSEL, RAGWORT, BUTTERWEED
SENECIO STREPTANTHIFOLIUS	SEST2	ROCKY MOUNTAIN BUTTERWEED
SENECIO TRIANGULARIS	SETR	ARROWLEAF GROUNDSEL
SIBBALDIA PROCUMBENS	SIPR	CREEPING SIBBALDIA
SIDALCEA OREGANA	SIOR	OREGON CHECKER-MALLOW
SILENE ANTIRRHINA	SIAN2	SLEPPY CAT
SILENE DOUGLASII DOUGLASII	SIDO2	DOUGLAS' CAMPION
SILENE MENZIESII	SIME	MENZIE'S CAMPION
SILENE OREGANA	SIOR2	OREGON CATCHFLY
SILENE SCOULERI	SISC	SCOULER'S CATCHFLY
SILENE SPALDINGII	SISP2	SPALDING'S CAMPION
SILENE SPP.	SILEN	CAMPION, CATCHFLY, SILENE
SISYMBRIUM ALTISSIMUM	SIAL	JIM HILL MUSTARD, TUMBLEMUSTARD
SMILACINA RACEMOSA	SMRA	WESTERN FALSE SOLOMON'S SEAL
SMILACINA STELIATA	SMST	STARRY FALSE SOLOMON'S SEAL
SOLIDAGO CANADENSIS SALEBROSA	SOCAS	CANADA GOLDENROD, MEADOW GOLDENROD
SOLIDAGO MISSOURIENSIS	SOMI	MISSOURI GOLDENROD
SOLIDAGO MULTIRADIATA SCOPULORUM	SOMJ	NORTHERN GOLDENROD, ALPINE GOLDENROD
SOLIDAGO SPP.	SOLID	GOLDENROD
SPHAERALCEA MUNROANA	SPMU	MUNRO'S GLOBEMALLOW
SPIRANTHES ROMANZOFFIANA	SPRO	HOODED LADIES TRESSES, PEARL-TWIST
SPRAGUEA UMBELLATA	SPUM	PUSSYPAWS
STELIARIA JAMESIANA	STJA	STICKY CHICKWEED
STELIARIA MEDIA	SIME	COMMON CHICKWEED
STELIARIA NITENS	STNI	SHINING CHICKWEED
STELIARIA SPP.	STELL	STARWORT
STEPHANOMERIA TENUIFOLIA	STTE	NARROW LEAVED SKELETONWEED
STREPTOPUS AMPLEXIFOLIUS	STAM	CLASPING LEAVED TWISTED STALK
SYNTHESIS MISSURICA	SYMI	MOUNTAIN KITTENTAILS
TARAXACUM OFFICINALE	TAOFF	COMMON DANDELION
TARAXACUM SPP.	TARAX	DANDELION
THALICTRUM FENDLERI	THFE2	FENDLER'S MEADOWRUE
THALICTRUM OCCIDENTALE	THOC	WESTERN MEADOWRUE
THELYPODIUM LACINIATUM STREPTANTHOIDES	THLAS	THICKLEAVED THELYPODY
THERMOPSIS MONTANA	THMO	MOUNTAIN THERMOPSIS, GOLDEN-PEA
THLASPI ARVENSE	THAR	FIELD PENNYCRESS
TIARELLA TRIFOLIATA	TITR	TREFOIL FOAMFLOWER
TIARELLA TRIFOLIATA UNIFOLIATA (T. UNIFOLIATA) TITRU		COOLWORT FOAMFLOWER
TONELLA FLORIBUNDA	TOFL2	LARGE FLOWERED TONELLA
TRAGOPOGON DUBIUS	TRDU	YELLOW SALSIFY
TRAITVETTERIA CAROLINIENSIS	TRCA3	FALSE BUGBANE
TRIFOLIUM ERIOCEPHALUM	TRER	WOOLLYHEAD CLOVER
TRIFOLIUM ERIOCEPHALUM CUSICKII	TRERC	WOOLLYHEAD CLOVER
TRIFOLIUM ERIOCEPHALUM PIPERI	TRERP	WOOLLYHEAD CLOVER
TRIFOLIUM LONGIPES	TRLO	LONG STALKED CLOVER
TRIFOLIUM LONGIPES MULTIPENDUNCULATUM	TRL0M	LONG STALKED CLOVER
TRIFOLIUM LONGIPES REFLEXUM	TRLOR	LONG STALKED CLOVER
TRIFOLIUM MACROCEPHALUM	TRMA	BIG HEAD CLOVER
TRIFOLIUM REPENS	TRRE	WHITE CLOVER, DUTCH CLOVER
TRIFOLIUM SPP.	TRIFO	CLOVER, TREFOIL

<u>LATIN NAME</u>	<u>CODE</u>	<u>COMMON NAME</u>
TRILLIUM OVATUM	TROV	WHITE TRILLIUM, WESTERN WAKE-ROBIN
TRILLIUM PETIOLATUM	TRPE	PURPLE TRILLIUM
TRIODANIS PERFOLIATA	TRPE2	TRIODANIS, VENUS'-LOOKING-GLASS
TROLLIUS LAXUS ALBIFLORUS	TRIAA	AMERICAN GLOBEFLOWER
URTICA DIOICA	URDI	STINGING NETTLE
VALERIANA EDULIS	VAED	EDIBLE VALERIAN, TOBACCO ROOT
VALERIANA OCCIDENTALIS	VAOC	WESTERN VALERIAN
VALERIANA SITCHENSIS	VASI	MT.HELIOTROPE,SITKA VALERIAN
VALERIANA SPP.	VALER	VALERIAN
VERATRUM CALIFORNICUM	VECA	CALIFORNIA FALSE HELLEBORE
VERATRUM VIRIDE	VEVI	GREEN FALSE HELLEBORE
VERBASCUM BLATTARIA	VEBL	MOTH MULLEIN
VERBASCUM SPP.	VERBA	MULLEIN
VERBASCUM THAPSUS	VETH	COMMON MULLEIN
VERONICA ARVENSIS	VEAR	WALL SPEEDWELL,COMMON SPEEDWELL
VERONICA CUSICKII	VECU	CUSICK'S SPEEDWELL
VERONICA PEREGRINA	VEPE	PURLANE SPEEDWELL
VERONICA WORMSKJOLDII	VEWO	AMERICAN ALPINE SPEEDWELL
VICIA AMERICANA	VIAM	AMERICAN VETCH
VICIA AMERICANA TRUNCATA	VIAMT	AMERICAN VETCH
VICIA SPP.	VICIA	VETCH
VIOLA ADUNCA	VIAD	EARLY BLUE VIOLET
VIOLA CANADENSIS RUGULOSA	VICAR	WESTERN CANADIAN VIOLET
VIOLA GLABELIA	VIGL	WOODLAND VIOLET
VIOLA MACLOSKEYI	VIMA	SWEET WHITE VIOLET
VIOLA NUTTALLII	VINU	NUTTALL'S VIOLET
VIOLA ORBICULATA	VIOR2	ROUND LEAVED VIOLET
VIOLA PURPUREA	VIPU	GOOSEFOOT VIOLET, PURPLISH VIOLET
VIOLA SPP.	VIOLA	VIOLET
WOODSIA OREGANA	WOOR	OREGON WOODSIA
WYETHIA AMPLEXICAULIS	WYAM	NORTHERN MULE'S EARS
XEROPHYLLUM TENAX	XETE	BEARGRASS; WESTERN TURKEY-BEARD
ZIGADENUS ELEGANS	ZIEL	GLAUCOUS ZYGADENUS
ZIGADENUS PANICULATUS	ZIPA	PANICLED DEATHCAMAS
ZIGADENUS VENENOSUS	ZIVE	DEADLY ZIGADENUS, MEADOW DEATHCAMUS
ZIGADENUS VENENOSUS GRAMINEUS	ZIVEG	DEADLY ZIGADENUS,MEADOW DEATHCAMAS

Appendix C

Mean Coverage and Constancy Tables (Steppe)

MEAN COVERAGE* AND CONSTANCY** TABLE (1a)
(Late to mid seral stage stands)

		FEVI-CAHO		FEVI-LULA2		FEID-KOCR ridgetops		FEID-KOCR mounds		FEID-KOCR high elev.		FEID-KOCR low elev.		FEID-AGSP ridgetops	
		(n = 7)		(n = 15)		(n = 28)		(n = 13)		(n = 43)		(n = 44)		(n = 5)	
		mean	cons.	mean	cons.	mean	cons.	mean	cons.	mean	cons.	mean	cons.	mean	cons.
		cov.		cov.		cov.		cov.		cov.		cov.		cov.	
Shrubs															
SYAL	common snowberry	--	--	--	--	--	--	--	--	--	--	--	--	--	--
ROSA	rose species	--	--	--	--	--	--	--	--	--	--	--	--	--	--
ERHE	Wyeth's buckwheat	1	25	--	--	3	54	6	77	4	74	--	--	--	--
RHGL	smooth sumac	--	--	--	--	--	--	--	--	--	--	--	--	--	--
EKDD	Douglas' buckwheat	--	--	--	--	--	--	--	--	--	--	--	--	--	--
ARTRV	mountain big sagebrush	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PHMA	mallow ninebark	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SYOR	mountain snowberry	--	--	--	--	--	--	--	--	--	--	--	--	--	--
CELE	curlleaf mt. mahogany	--	--	--	--	--	--	--	--	--	--	--	--	--	--
GLNE	green-bush	--	--	--	--	--	--	--	--	--	--	--	--	--	--
CERE2	netleaf hackberry	--	--	--	--	--	--	--	--	--	--	--	--	--	--
ERSTP	strict buckwheat	--	--	--	--	--	--	--	--	--	--	--	--	--	--
ERMI	slenderbush buckwheat	--	--	--	--	--	--	--	--	--	--	--	--	--	--
ARR1	stiff sagebrush	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Perennial grasses and sedges															
KOCR	prairie junegrass	--	--	1	13	3	93	6	77	3	86	2	70	1	60
FEID	Idaho fescue	--	--	--	--	27	100	38	100	25	100	41	100	15	100
POPR	Kentucky bluegrass	--	--	--	--	9	39	8	62	--	--	--	--	--	--
POSA3	Sandberg's bluegrass	--	--	--	--	7	57	9	46	4	51	4	36	5	100
AGSP	bluebunch wheatgrass	--	--	--	--	15	89	10	77	24	100	21	91	14	100
BRCA	mountain brome	--	--	--	--	--	--	7	38	--	--	--	--	--	--
SIHYH	bottlebrush squirrtail	1	25	1	13	--	--	--	--	--	--	--	--	--	--
CAHO	Hood's sedge	15	100	1	27	--	--	--	--	--	--	--	--	--	--
SPCR	sand dropseed	--	--	--	--	--	--	--	--	--	--	--	--	--	--
DAUN	onespike oatgrass	--	--	--	--	6	21	--	--	--	--	--	--	6	60
ARLO3	red three awn	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MEBU	oniongrass	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PGSC	pine bluegrass	--	--	--	--	--	--	--	--	--	--	--	--	--	--
DAIN	timber oatgrass	--	--	--	--	--	--	--	--	--	--	--	--	--	--
CAPE	Liddon's sedge	--	--	--	--	--	--	--	--	--	--	--	--	--	--
AGCA	bearded wheatgrass	--	--	7	20	--	--	--	--	--	--	--	--	--	--
STOC	needlegrass	9	75	5	67	--	--	--	--	--	--	--	--	--	--
FEVI	green fescue	21	100	53	100	--	--	--	--	--	--	--	--	--	--
Annual grasses															
BRMO	soft chess	--	--	--	--	2	25	12	23	5	21	10	7	--	--
BRJA	Japanese brome	--	--	--	--	--	--	--	--	--	--	2	16	--	--
BRTE	cheatgrass	--	--	--	--	3	29	7	31	2	16	1	11	--	--
BRBR	rattlesnake brome	--	--	--	--	2	14	3	15	4	53	5	41	1	40
FEME	foxtail fescue	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Annual forbs															
PODD	Douglas' knotweed	--	--	--	--	2	18	--	--	1	9	--	--	3	40
VEROM	speedwells	--	--	--	--	5	32	2	31	4	28	11	23	5	40
ARSE	thymeleaf sandwort	--	--	--	--	3	14	--	--	6	21	3	30	--	--
LASE	prickly lettuce	--	--	--	--	1	11	--	--	1	33	--	--	--	--
SIAN2	sleegy cat	--	--	--	--	--	--	--	--	--	--	--	--	--	--
FIAR	field filago	--	--	--	--	--	--	--	--	--	--	--	--	--	--
GAAP	cleavers	--	--	--	--	--	--	--	--	--	--	3	36	--	--
MAGL	cluster tarweed	--	--	--	--	3	21	7	38	--	--	--	--	--	--
CRIN2	common cryptantha	--	--	--	--	--	--	--	--	--	--	--	--	--	--
CLPU	deer horn	--	--	--	--	2	25	5	62	6	56	1	18	1	80
EPPA	tall annual willowweed	--	--	--	--	1	18	--	--	1	30	--	--	1	20
PHLI	thread-leaf phacelia	--	--	--	--	1	14	--	--	--	--	--	--	--	--
PLPA	Indian wheat	--	--	--	--	--	--	--	--	--	--	--	--	--	--
LERA	branded peppergrass	--	--	--	--	--	--	--	--	--	--	--	--	--	--
BLSC	blepharipappus	--	--	--	--	1	4	3	8	--	--	--	--	1	40
COL12	narrow-leaved colloia	--	--	--	--	1	36	3	46	2	19	--	--	--	--
MYMI	blue scorpion grass	--	--	--	--	1	18	--	--	1	12	1	25	--	--
ALAL	pale allyssum	--	--	--	--	1	32	--	--	1	26	--	--	--	--
Surface features															
ROCK	stones and rock	--	--	--	--	9	61	3	54	10	81	3	43	37	100
GRAVEL	gravel sized fragments	--	--	--	--	11	18	5	8	6	35	1	9	5	20
PAVMT	erosion pavement	--	--	--	--	13	21	--	--	5	14	--	--	13	40
BRGRD	bareground	--	--	--	--	11	96	9	100	11	100	5	77	10	80
MOSS+	mosses and lichens	--	--	--	--	20	82	9	77	12	72	41	98	21	100
LITT	litter	--	--	--	--	32	100	46	92	33	100	55	100	6	100

* Percent foliar cover

** Percent of plots species occurred on

MEAN COVERAGE* AND CONSTANCY** TABLE (1b)
(late to mid seral stage stands)

		FEVI-CAHO		FEVI-LULA2		FEID-KOCR ridgetops		FEID-KOCR mounds		FEID-KOCR high elev.		FEID-KOCR low elev.		FEID-AGSP ridgetops		
		(n = 4)		(n = 15)		(n = 29)		(n = 13)		(n = 43)		(n = 44)		(n = 5)		
		mean cov.	cons.	mean cov.	cons.	mean cov.	cons.	mean cov.	cons.	mean cov.	cons.	mean cov.	cons.	mean cov.	cons.	
Perennial forbs																
ACHIL	yarrow	3	25	3	67	5	100	8	100	5	93	4	86	3	80	
AGOSE	agoseris spp.	--	--	--	--	3	28	--	--	--	--	1	43	--	--	
AGUR	horsemint	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
ALTO	Tolmie's onion	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
ANDI	low pussytoes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
ANLU	woodrush pussytoes	--	--	2	13	1	18	1	31	--	--	--	--	5	40	
ANRO	rosy pussytoes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
ARHO	Kolboell's rockcress	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
ARSO	twin arnica	--	--	--	--	8	61	11	62	5	37	5	57	--	--	
ASCU4	Cusick's milkvetch	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
ASFO	leafy aster	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
ASIN	thick stemmed aster	--	--	3	40	--	--	--	--	--	--	--	--	--	--	
ASIN2	hairy milkvetch	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
BAIN	hoary balsamroot	--	--	--	--	--	--	--	--	--	--	--	--	19	60	
BASA	arrowleaf balsamroot	--	--	--	--	6	21	--	--	8	49	4	43	--	--	
BERU	red besseya	--	--	--	--	2	32	1	54	2	30	2	36	--	--	
BRDO	brodiaea	--	--	--	--	--	--	--	--	1	37	1	59	--	--	
CAOR3	pale Willowa paintbrush	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
CEAR	field chickweed	--	--	--	--	10	18	9	38	8	44	5	50	--	--	
CHDO	hoary chaenactis	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
CHV12	hairy golden aster	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
CRAC	tapertip hawksbeard	--	--	--	--	1	14	--	--	--	--	--	--	--	--	
CRIN3	bristly cryptantha	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
ERCH	dwarf yellow fleabane	--	--	--	--	--	--	--	--	--	--	--	--	1	60	
ERD14	Snake river daisy	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
ERFL	yellow buckwheat	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
ERLA	woolly sunflower	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
ERPU	shaggy daisy	--	--	--	--	2	21	2	31	--	--	--	--	--	--	
ERSP	showy fleabane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
FRAL2	white stemmed fraseria	--	--	--	--	--	--	--	--	2	23	2	43	--	--	
FRV1	blueleaf strawberry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
GETR	red avens	--	--	--	--	5	39	13	62	2	33	--	--	--	--	
GRNA	low gumweed	--	--	--	--	3	18	1	8	--	--	--	--	--	--	
HEUN	little sunflower	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
HIAL2	western hawkweed	--	--	2	33	2	36	1	8	3	65	2	55	--	--	
HYPE	goatweed	--	--	--	--	--	--	--	--	1	21	1	45	--	--	
LIRU	wayside groundwell	--	--	--	--	--	--	--	--	1	42	2	27	--	--	
LOCO2	Cous biscuitroot	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
LOGR	Gray's lomatium	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
LOLE	slender-fruit lomatium	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
LUCA	tailcup lupine	1	25	--	--	5	18	3	15	8	19	--	--	--	--	
LULA2	spurred lupine	48	50	13	60	--	--	--	--	--	--	--	--	--	--	
LUP1N	lupine species	--	--	--	--	6	7	2	38	6	26	--	--	--	--	
LUSE	silky lupine	--	--	--	--	10	61	--	--	9	47	11	27	1	40	
MINU	noddino microseris	1	25	3	33	--	--	--	--	--	--	--	--	--	--	
DECA2	desert evening primrose	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
OPPO	prickly pear	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
ORTE	thin-leaved owlflower	--	--	--	--	3	36	1	38	--	--	--	--	--	--	
PEDE	hot rock penstemon	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
PEEL	lovely penstemon	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
PEFRS	shrubby penstemon	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
PEGA2	Gardner's yampah	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
PEGL4	globe penstemon	10	75	--	--	--	--	--	--	--	--	--	--	--	--	
PEOR4	western prairie-clover	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
PETR	whorled penstemon	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
PEVE	Blue Mtn. penstemon	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
PHCO2	Snake river phlox	--	--	--	--	--	--	--	--	1	19	1	70	--	--	
PHHE	varied leaf phacelia	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
PHOR	Oregon twinpod	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
PHV13	sticky phlox	--	--	--	--	3	14	--	--	--	--	--	--	--	--	
POGL	sticky cinquefoil	--	--	--	--	1	11	1	8	--	--	--	--	--	--	
POGLN	sticky cinquefoil	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
POGR	slender cinquefoil	--	--	9	20	3	25	3	46	--	--	--	--	--	--	
POPH	alpine fleecflower	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
SCAN	narrow-leaved skullcap	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
SEIN	Western groundsel	--	--	--	--	--	--	--	--	--	--	2	25	--	--	
SELA2	lanceleaved stonecrop	--	--	--	--	2	14	--	--	--	--	--	--	1	40	
SEST	wormleaf stonecrop	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
SOM1	Missouri goldenrod	--	--	--	--	3	7	--	--	3	33	4	23	--	--	
TRDU	yellow salsify	--	--	--	--	1	54	1	54	1	53	1	16	--	--	
TRMA	bighead clover	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
ZIVEG	meadow death camas	--	--	--	--	2	43	--	--	1	35	--	--	--	--	

* Percent foliar cover estimated from microplots

** Percent of plots species occurred on

MEAN COVERAGE* AND CONSTANCY** TABLE (2a)
(late to mid seral stage stands)

		FEID-AGSP/ LUSE		FEID-AGSP/ BASA		FEID-AGSP/ PHCO2		FEID-DAIN- CAREX		FEID-CAHO	
		(n = 14)		(n = 23)		(n = 9)		(n = 3)		(n = 4)	
		mean cov.	cons. cov.	mean cov.	cons. cov.	mean cov.	cons. cov.	mean cov.	cons. cov.	mean cov.	cons. cov.
Shrubs											
SYAL	common snowberry	--	--	--	--	--	--	--	--	--	--
ROSA	rose species	--	--	--	--	--	--	--	--	--	--
ERHE	Wyeth's buckwheat	6	79	5	43	--	--	--	--	3	25
RHGL	smooth sumac	--	--	--	--	--	--	--	--	--	--
ERDO	Douglas' buckwheat	--	--	--	--	--	--	--	--	--	--
ARTRV	mountain big sagebrush	--	--	--	--	--	--	--	--	--	--
PHNA	gallow ninebark	--	--	--	--	--	--	--	--	--	--
SYOR	mountain snowberry	--	--	--	--	--	--	--	--	--	--
CELE	curlleaf mt.-sagegony	--	--	--	--	--	--	--	--	--	--
GLNE	green-bush	--	--	--	--	--	--	--	--	--	--
CERE2	netleaf hackberry	--	--	--	--	--	--	--	--	--	--
ERSTP	strict buckwheat	--	--	--	--	--	--	--	--	--	--
ERMI	slenderbush buckwheat	--	--	--	--	--	--	--	--	--	--
ARRI	stiff sagebrush	--	--	--	--	--	--	--	--	--	--
Perennial grasses and sedges											
KOCR	prairie junegrass	1	64	2	57	--	--	3	67	--	--
FEID	Idaho fescue	12	100	12	100	13	100	62	100	31	100
POPR	Kentucky bluegrass	--	--	--	--	--	--	--	--	--	--
POSA3	Sandberg's bluegrass	2	86	7	91	3	67	--	--	--	--
AGSP	bluebunch wheatgrass	30	100	35	100	26	100	--	--	--	--
BRCA	mountain brome	--	--	--	--	--	--	--	--	--	--
SIHYH	bottlebrush squirrtail	--	--	--	--	--	--	--	--	--	--
CAHO	Hood's sedge	--	--	--	--	--	--	--	--	6	100
SPCR	sand dropseed	--	--	--	--	--	--	--	--	--	--
DAUM	onespike oatgrass	--	--	--	--	--	--	--	--	--	--
ARLO3	red three awn	--	--	--	--	--	--	--	--	--	--
MEBU	oniongrass	--	--	--	--	--	--	--	--	--	--
POSC	pine bluegrass	--	--	--	--	--	--	--	--	--	--
DAIN	timber oatgrass	--	--	--	--	--	--	19	100	--	--
CAPE	Liddon's sedge	--	--	--	--	--	--	8	67	--	--
Annual grasses											
BRMO	soft chess	--	--	--	--	--	--	--	--	--	--
BRJA	Japanese brome	--	--	--	--	--	--	--	--	--	--
BRTE	cheatgrass	3	43	2	30	4	44	--	--	--	--
BRGR	rattlesnake brome	3	71	3	83	1	33	--	--	--	--
FEHE	foxtail fescue	--	--	--	--	--	--	--	--	--	--
Annual forbs											
PODO	Douglas' knotweed	1	36	1	22	--	--	--	--	--	--
VERON	speedwells	4	36	--	--	--	--	--	--	--	--
ARSE	thymeleaf sandwort	--	--	--	--	--	--	--	--	--	--
LASE	prickly lettuce	1	43	1	39	--	--	--	--	--	--
SIAN2	sleepy cat	--	--	--	--	--	--	--	--	--	--
FIAR	field filago	--	--	--	--	--	--	--	--	--	--
GAAP	cleavers	--	--	--	--	--	--	--	--	--	--
MAGL	cluster tarweed	--	--	--	--	--	--	--	--	--	--
CRIN2	common cryptantha	--	--	--	--	--	--	--	--	--	--
CLPU	deer horn	7	71	3	70	--	--	--	--	--	--
EPPA	tall annual willowweed	4	57	2	61	--	--	--	--	--	--
PHLI	thread-leaf phacelia	--	--	1	30	--	--	--	--	--	--
PLPA	Indian wheat	--	--	--	--	--	--	--	--	--	--
LERA	branded peppergrass	--	--	--	--	--	--	--	--	--	--
BLSC	blepharipappus	2	29	1	43	--	--	--	--	--	--
COLI2	narrow-leaved collomia	1	29	1	57	--	--	--	--	--	--
MYMI	blue scorpion grass	--	--	--	--	--	--	--	--	--	--
ALAL	pale allyssum	--	--	--	--	--	--	--	--	--	--
Surface features											
ROCK	stones and rock	15	100	23	100	25	100	--	--	1	50
GRAVEL	gravel sized fragments	8	64	16	30	9	44	1	33	8	100
PAVMT	erosion pavement	7	29	11	17	13	22	5	100	8	50
BRGRD	bareground	10	93	10	100	6	100	1	100	13	100
MOSS+	mosses and lichens	17	57	4	74	26	89	3	67	1	25
LITT	litter	41	100	29	100	25	100	1	100	13	100

* Percent of foliar cover

** Percent of plots species occurred on

MEAN AND COVERAGE* AND CONSTANCY** TABLE (2b)
(late to mid seral stage stands)

		FEID-AGSP/ LUSE		FEID-AGSP/ BASA		FEID-AGSP/ PHCO2		FEID-DAIN- CAREX		FEID-CAHO	
		(n = 14)		(n = 23)		(n = 9)		(n = 3)		(n = 4)	
		mean cov.	cons.	mean cov.	cons.	mean cov.	cons.	mean cov.	cons.	mean cov.	cons.
perennial forbs											
ACMIL	yarrow	3	100	4	100	3	100	11	100	8	100
AGOSE	agoseris spp.	1	29	--	--	--	--	--	--	--	--
AGUR	horsemint	--	--	--	--	--	--	--	--	--	--
ALTO	Tolmie's onion	--	--	--	--	--	--	--	--	--	--
AND1	low pussytoes	--	--	--	--	--	--	--	--	--	--
ANLU	woodrush pussytoes	--	--	--	--	--	--	10	67	--	--
ANRO	rosy pussytoes	--	--	--	--	--	--	--	--	--	--
ARHO	Holboell's rockcress	--	--	--	--	--	--	--	--	--	--
ARSO	twin arnica	1	14	--	--	--	--	--	--	--	--
ASCUA	Cusick's milkvetch	--	--	--	--	--	--	--	--	--	--
ASF0	leafy aster	--	--	--	--	--	--	--	--	--	--
ASIN	thick stemmed aster	--	--	--	--	--	--	--	--	13	50
ASIN2	hairy milkvetch	--	--	--	--	--	--	--	--	--	--
BAIN	hoary balsamroot	--	--	--	--	--	--	--	--	--	--
BASA	arrowleaf balsamroot	4	71	7	87	6	78	--	--	--	--
BERU	red besseya	--	--	--	--	--	--	--	--	--	--
BR00	brodiaea	--	--	--	--	1	33	--	--	--	--
CAOR3	pale Wallowa paintbrush	--	--	--	--	--	--	--	--	--	--
CEAR	field chickweed	4	29	--	--	--	--	--	--	--	--
CHDO	hoary chaenactis	--	--	--	--	--	--	--	--	--	--
CHV12	hairy golden aster	--	--	--	--	--	--	--	--	--	--
CRAC	tapertip hawksbeard	3	50	1	26	1	44	--	--	--	--
CRIN3	bristly cryptantha	--	--	--	--	--	--	--	--	--	--
ERCH	dwarf yellow fleabane	--	--	--	--	--	--	--	--	--	--
ERD14	Snake river daisy	--	--	--	--	--	--	--	--	--	--
ERFL	yellow buckwheat	--	--	--	--	--	--	--	--	5	50
ERLA	woolly sunflower	--	--	3	17	--	--	--	--	--	--
ERPU	shaggy daisy	--	--	--	--	1	44	--	--	--	--
ERSP	showy fleabane	--	--	--	--	--	--	--	--	--	--
FRAL2	white stemmed fraseria	1	21	--	--	--	--	--	--	--	--
FRV1	blueleaf strawberry	--	--	--	--	--	--	--	--	--	--
GETR	red avens	--	--	--	--	--	--	--	--	5	25
GRNA	low gumweed	--	--	--	--	--	--	--	--	--	--
HEUN	little sunflower	--	--	--	--	--	--	--	--	--	--
HIAL2	western hawkweed	--	--	--	--	--	--	--	--	--	--
HYPE	goatweed	--	--	--	--	--	--	--	--	--	--
LIRU	wayside groundwell	1	36	--	--	--	--	--	--	--	--
LOCO2	Cous biscuitroot	--	--	--	--	--	--	--	--	--	--
LOGR	Gray's lobatium	--	--	--	--	--	--	--	--	--	--
LOLE	slender-fruit lobatium	--	--	--	--	--	--	--	--	--	--
LUCA	tailcup lupine	--	--	--	--	--	--	1	67	13	75
LUP1N	lupine species	5	29	2	26	--	--	10	33	--	--
LUSE	silky lupine	7	50	1	30	2	33	--	--	10	25
DECA2	desert evening primrose	--	--	--	--	--	--	--	--	--	--
OPPO	prickly pear	--	--	--	--	--	--	--	--	--	--
ORTE	thin-leaved owlclow	--	--	--	--	--	--	--	--	--	--
PEDE	hot rock penstemon	--	--	1	35	--	--	--	--	--	--
PEFI	triple nonstem	--	--	--	--	--	--	--	--	--	--
PEFRS	shrubby penstemon	--	--	--	--	--	--	--	--	--	--
PEGA2	Gairdner's yampah	--	--	--	--	--	--	--	--	--	--
PEGL4	globe penstemon	--	--	--	--	--	--	--	--	3	50
PEOR4	western prairie-clover	--	--	--	--	--	--	--	--	--	--
PETR	whorled penstemon	--	--	--	--	--	--	--	--	--	--
PEVE	Blue Mtn. penstemon	--	--	--	--	--	--	--	--	--	--
PHCO2	Snake river phlox	--	--	--	--	1	67	--	--	--	--
PHHE	varied leaf phacelia	--	--	--	--	--	--	--	--	--	--
PHOR	Oregon twinpod	--	--	--	--	--	--	--	--	--	--
PHV13	sticky phlox	--	--	--	--	--	--	--	--	--	--
POGL	sticky cinquefoil	--	--	--	--	--	--	--	--	--	--
POGLN	sticky cinquefoil	--	--	--	--	--	--	--	--	--	--
POGR	slender cinquefoil	--	--	--	--	--	--	--	--	6	50
POPH	alpine fleecflower	--	--	--	--	--	--	--	--	--	--
SCAN	narrow-leaved skullcap	--	--	--	--	--	--	--	--	--	--
SEIN	Western groundsel	--	--	--	--	--	--	--	--	3	25
SELA2	lanceleaved stonecrop	--	--	--	--	--	--	--	--	--	--
SEST	wormleaf stonecrop	--	--	--	--	--	--	--	--	--	--
SOMI	Missouri goldenrod	--	--	--	--	--	--	--	--	--	--
TRDU	yellow salsify	2	50	1	52	1	33	--	--	--	--
TRMA	bighead clover	--	--	--	--	--	--	--	--	--	--
ZIVEG	meadow death camas	1	71	1	39	--	--	--	--	--	--

* Percent foliar cover

** Percent of plots species occurred on

MEAN COVERAGE* AND CONSTANCY** TABLE (3a)
(late to mid seral stage stands)

		AGSP-ERHE		AGSP-POSA3/ SCAN		AGSP-POSA3 basalt		AGSP-POSA3 ASCUM		AGSP-POSA3 ERPU		AGSP-POSA3/ granite		AGSP-POSA3/ PHCO2	
		(n = 12)		(n = 9)		(n = 17)		(n = 6)		(n = 8)		(n = 10)		(n = 14)	
		mean cov.	cons.	mean cov.	cons.	mean cov.	cons.	mean cov.	cons.	mean cov.	cons.	mean cov.	cons.	mean cov.	cons.
Shrubs															
SYAL	common snowberry	--	--	--	--	--	--	--	--	--	--	--	--	--	--
ROSA	rose species	--	--	--	--	--	--	--	--	--	--	--	--	--	--
ERHE	Wyeth's buckwheat	12	92	--	--	--	--	--	--	--	--	--	--	--	--
RHGL	smooth sumac	--	--	--	--	--	--	--	--	--	--	--	--	--	--
ERDO	Douglas' buckwheat	--	--	--	--	--	--	--	--	--	--	--	--	--	--
ARTRV	mountain big sagebrush	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PHMA	mallow ninebark	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SYOR	mountain snowberry	--	--	--	--	--	--	--	--	--	--	--	--	--	--
CELE	curlleaf mt.-mahogany	--	--	--	--	--	--	--	--	--	--	--	--	--	--
GLNE	green-bush	--	--	--	--	--	--	--	--	--	--	--	--	--	--
CERE2	netleaf hackberry	--	--	--	--	--	--	--	--	--	--	--	--	--	--
ERSTP	strict buckwheat	--	--	--	--	--	--	--	--	--	2	30	--	--	--
ERMI	slenderbush buckwheat	--	--	--	--	--	--	--	--	--	--	--	--	--	--
ARRI	stiff sagebrush	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Perennial grasses and sedges															
KOCR	prairie junegrass	--	--	--	--	--	--	--	--	--	--	--	--	--	--
FE10	Idaho fescue	--	--	--	--	--	--	--	--	--	--	--	--	--	--
POPR	Kentucky bluegrass	--	--	--	--	--	--	--	--	--	--	--	--	--	--
POSA3	Sandberg's bluegrass	--	--	3	89	7	100	3	83	2	38	2	90	4	86
AGSP	bluebunch wheatgrass	25	100	27	100	38	100	28	100	25	100	30	100	28	100
BRCA	mountain brome	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SIHYH	bottlebrush squirrtail	--	--	--	--	--	--	--	--	--	--	--	--	--	--
CAHO	Hood's sedge	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SPCR	sard dropseed	--	--	--	--	--	--	--	--	--	1	10	--	--	--
DAUN	onespike oatgrass	--	--	--	--	--	--	--	--	--	--	--	--	--	--
ARLO3	red three awn	--	--	--	--	--	--	--	--	--	4	40	--	--	--
NEBU	oniongrass	3	58	--	--	--	--	--	--	--	--	--	--	--	--
POSC	pine bluegrass	1	83	--	--	--	--	--	--	--	--	--	--	--	--
Annual grasses															
BRMO	soft chess	--	--	--	--	--	--	--	--	--	--	--	--	--	--
BRJA	Japanese brome	--	--	2	22	3	12	3	33	6	50	4	30	3	29
BRTE	cheatgrass	--	--	1	33	2	29	5	67	4	75	5	90	2	64
BRBR	rattlesnake brome	--	--	3	100	3	94	2	50	1	25	--	--	--	--
FEME	foxtail fescue	--	--	--	--	--	--	3	33	2	38	6	30	1	29
Annual forbs															
PODO	Douglas' knotweed	4	75	3	33	2	35	--	--	--	--	--	--	--	--
VEAR	common speedwell	--	--	--	--	1	6	1	17	--	--	2	40	2	36
ARSE	thymeleaf sandwort	--	--	--	--	1	12	3	33	1	38	5	40	1	36
LASE	prickly lettuce	--	--	1	67	1	59	1	33	1	25	--	--	--	--
SIAN2	sleepy cat	--	--	1	44	--	--	--	--	1	25	--	--	2	57
FIAR	field filago	--	--	--	--	--	--	--	--	2	38	--	--	--	--
GAAP	cleavers	1	8	--	--	--	--	1	50	1	25	1	30	--	--
MAGL	cluster tarweed	--	--	--	--	--	--	--	--	--	--	--	--	--	--
CRIN2	common cryptantha	--	--	--	--	--	--	2	50	7	25	--	--	2	36
CLPU	deer horn	--	--	5	67	3	47	--	--	--	--	--	--	--	--
EPPA	tall annual willowweed	1	42	1	22	1	41	--	--	--	--	--	--	--	--
PHLI	thread-leaf phacelia	--	--	1	33	5	24	1	33	--	--	--	--	3	64
PLPA	Indian wheat	--	--	--	--	--	--	--	--	2	50	4	40	2	57
LERA	branded peppergrass	--	--	--	--	1	6	--	--	--	--	--	--	1	50
BLSC	blepharipappus	--	--	3	78	3	53	1	33	--	--	--	--	2	43
COL12	narrow-leaved collomia	1	8	--	--	2	47	--	--	--	--	--	--	--	--
MYHI	blue scorpion grass	--	--	--	--	--	--	--	--	--	2	40	--	1	36
ALAL	pale allyssua	--	--	--	--	--	--	--	--	--	--	--	--	--	--
TOFL2	tonella	--	--	--	--	--	--	5	33	--	--	--	--	--	--
ERCI	filaree	--	--	--	--	--	--	--	--	--	2	60	--	--	--
Surface features															
ROCK	stones and rock	20	100	47	100	28	100	18	100	13	88	31	100	36	100
GRAVEL	gravel sized fragments	21	100	40	22	27	24	23	83	29	88	9	30	8	14
PAVMT	erosion pavement	4	33	9	56	8	29	5	17	13	60	--	--	16	43
BRGRD	bareground	15	100	11	100	19	100	4	100	2	75	6	100	10	100
MOSS+	mosses and lichens	11	17	6	89	6	71	5	67	22	75	29	100	11	57
LITT	litter	16	100	10	100	15	94	17	100	27	100	24	100	19	100

* Percent of foliar cover
** Percent of plots species occurred on

MEAN AND COVERAGE* AND CONSTANCY** TABLE (3b)
(late to mid seral stage stands)

		AGSP-ERHE		AGSP-POSA3/ SCAN		AGSP-POSA3 basalt		AGSP-POSA3 ASCU4		AGSP-POSA3 ERPU		AGSP-POSA3/ granite		AGSP-POSA3/ PHCO2	
		(n = 12)		(n = 9)		(n = 17)		(n = 6)		(n = 8)		(n = 10)		(n = 14)	
		mean cov.	cons.	mean cov.	cons.	mean cov.	cons.	mean cov.	cons.	mean cov.	cons.	mean cov.	cons.	mean cov.	cons.
perennial forbs															
ACMIL	yarrow	6	100	2	100	6	100	4	100	4	100	6	80	4	100
AGGL	pale agoseris	--	--	--	--	--	--	--	--	--	--	--	--	--	--
AGGR	large flwd. agoseris	--	--	--	--	--	--	--	--	--	--	--	--	--	--
AGUR	horsemint	--	--	--	--	--	--	--	--	--	--	--	--	--	--
ALTO	Tolmie's onion	--	--	--	--	--	--	--	--	--	--	--	--	--	--
ANDI	low pussytoes	--	--	--	--	--	--	--	--	--	--	--	--	--	--
ANLU	woodrush pussytoes	--	--	--	--	--	--	--	--	--	--	--	--	--	--
ANRO	rosy pussytoes	--	--	--	--	--	--	--	--	--	--	--	--	--	--
ARHO	Holboell's rockcress	--	--	--	--	--	--	--	--	--	--	--	--	--	--
ARSO	twin arnica	--	--	--	--	--	--	--	--	--	--	--	--	--	--
ASCU4	Cusick's milkvetch	--	--	--	--	--	--	4	83	2	25	1	10	--	--
ASFO	leafy aster	--	--	--	--	--	--	--	--	--	--	--	--	--	--
ASIN	thick stemmed aster	--	--	--	--	--	--	--	--	--	--	--	--	--	--
ASIN2	hairy milkvetch	--	--	--	--	--	--	--	--	1	25	2	60	4	71
BAIN	hoary balsamroot	--	--	--	--	--	--	--	--	--	--	--	--	--	--
BASA	arrowleaf balsamroot	12	75	2	56	4	82	10	83	--	--	5	60	5	36
BERU	red besseya	--	--	--	--	--	--	--	--	--	--	--	--	--	--
CAOR3	pale Mallova paintbrush	--	--	--	--	--	--	--	--	--	--	--	--	--	--
CEAR	field chickweed	--	--	--	--	--	--	--	--	--	--	--	--	--	--
CHDO	hoary chaenactis	--	--	--	--	--	--	--	--	--	--	--	--	--	--
CHV12	hairy golden aster	--	--	--	--	--	--	--	--	--	--	3	50	3	43
CIRG1	thistle spp.	--	--	1	22	1	18	2	50	2	75	--	--	--	--
CRIN3	bristly cryptantha	--	--	--	--	--	--	--	--	--	--	--	--	--	--
ERCH	dwarf yellow fleabane	--	--	--	--	--	--	--	--	--	--	--	--	--	--
ERD14	Snake river daisy	--	--	--	--	--	--	--	--	--	--	--	--	--	--
ERFL	yellow buckwheat	--	--	--	--	--	--	--	--	--	--	--	--	--	--
ERLA	woolly sunflower	3	50	5	56	--	--	--	--	--	--	--	--	--	--
ERPU	shaggy daisy	--	--	--	--	--	--	1	50	5	88	2	60	2	57
ERSP	showy fleabane	--	--	--	--	--	--	--	--	--	--	--	--	--	--
FRAL2	white stemmed frasera	9	25	--	--	--	--	--	--	--	--	--	--	--	--
FRV1	blueleaf strawberry	--	--	--	--	--	--	--	--	--	--	--	--	--	--
GETR	red avens	--	--	--	--	--	--	--	--	--	--	--	--	--	--
GRNA	low gumweed	--	--	--	--	--	--	--	--	--	--	--	--	--	--
HEUN	little sunflower	--	--	--	--	--	--	--	--	--	--	--	--	--	--
HIAL2	western hawkweed	--	--	--	--	--	--	--	--	--	--	--	--	--	--
HYPE	goatweed	--	--	--	--	--	--	--	--	2	50	2	40	--	--
LIRU	wayside grownell	--	--	--	--	--	--	--	--	--	--	--	--	--	--
LOC02	Cous biscuitroot	--	--	--	--	--	--	--	--	--	--	--	--	--	--
LOD1E	fern lvd. Lomatium	3	50	2	33	2	35	--	--	--	--	--	--	--	--
LOGR	Gray's Lomatium	--	--	--	--	--	--	--	--	--	--	--	--	--	--
LOLE	slender-fruit Lomatium	--	--	--	--	--	--	--	--	--	--	--	--	--	--
LOMA	big fruited Lomatium	--	--	--	--	--	--	--	--	--	--	1	50	--	--
LUCA	tailcup lupine	4	17	--	--	--	--	--	--	--	--	--	--	--	--
LUPIN	lupine species	3	50	--	--	2	24	--	--	--	--	1	10	--	--
LUSE	silky lupine	--	--	--	--	2	41	--	--	--	--	6	40	--	--
DECA2	desert evening primrose	--	--	--	--	--	--	--	--	--	--	--	--	--	--
OPPO	prickly pear	--	--	--	--	--	--	2	33	3	50	2	40	3	86
ORTE	thin-leaved owllover	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PEDE	hot rock penstemon	2	25	3	56	3	41	--	--	--	--	--	--	--	--
PEEL	lovely penstemon	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PEFRS	shrubby penstemon	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PEGA2	Gairdner's yarrow	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PEGL4	globe penstemon	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PEOR4	western prairie-clover	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PETR	whorled penstemon	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PEVE	Blue Mtn. penstemon	3	58	--	--	--	--	--	--	--	--	--	--	--	--
PHCO2	Snake river phlox	--	--	--	--	--	--	1	50	2	38	1	40	1	71
PHHE	varied leaf phacelia	1	17	--	--	--	--	--	--	1	75	2	30	2	57
PHOR	Oregon twinpod	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PHV13	sticky phlox	--	--	--	--	--	--	--	--	--	--	--	--	--	--
POGL	sticky cinquefoil	--	--	--	--	--	--	--	--	--	--	--	--	--	--
POGLN	sticky cinquefoil	--	--	--	--	--	--	--	--	--	--	--	--	--	--
POGR	slender cinquefoil	--	--	--	--	--	--	--	--	--	--	--	--	--	--
POPH	alpine fleecflower	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SCAN	narrow-leaved skullcap	1	8	6	100	1	18	4	50	2	38	9	20	3	57
SEIN	Western groundsel	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SELA2	lanceleaved stonecrop	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SEST	woraleaf stonecrop	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SOMI	Missouri goldenrod	--	--	--	--	--	--	--	--	--	--	--	--	--	--
TRDU	yellow salsify	--	--	--	--	1	41	--	--	1	25	--	--	--	--
TRMA	bighead clover	--	--	--	--	--	--	--	--	--	--	--	--	--	--
ZIVEG	meadow death camas	--	--	--	--	--	--	--	--	--	--	--	--	--	--

* Percent foliar cover estimated from microplots
** Percent of plots species occurred on

MEAN COVERAGE* AND CONSTANCY** TABLE (4a)
(late to mid seral stage stands)

		AGSP-POSA3 OPPO		AGSP-ARLO3 -SPCR		SPCR terraces	
		(n = 11)		(n = 24)		(n = 5)	
		mean cov.	cons.	mean cov.	cons.	mean cov.	cons.
Shrubs							
SYAL	common snowberry	--	--	--	--	--	--
ROSA	rose species	--	--	--	--	--	--
ERHE	Nyeth's buckwheat	--	--	--	--	--	--
RHGL	smooth sumac	--	--	--	--	--	--
ERDO	Douglas' buckwheat	--	--	--	--	--	--
ARTRV	mountain big sagebrush	--	--	--	--	--	--
PHMA	mallow ninebark	--	--	--	--	--	--
SYDR	mountain snowberry	--	--	--	--	--	--
CELE	curlleaf mt.-mahogany	--	--	--	--	--	--
GLNE	green-bush	--	--	--	--	--	--
CERE2	netleaf hackberry	--	--	--	--	--	--
ERST2	strict buckwheat	--	--	--	--	--	--
ERSTP	strict buckwheat	--	--	--	--	--	--
ERMI	slenderbush buckwheat	--	--	--	--	--	--
ARRI	stiff sagebrush	--	--	--	--	--	--
Perennial grasses and sedges							
KOCR	prairie junegrass	--	--	--	--	--	--
FEID	Idaho fescue	--	--	--	--	--	--
POPR	Kentucky bluegrass	--	--	--	--	--	--
POSA3	Sandberg's bluegrass	1	45	3	71	--	--
AGSP	bluebunch wheatgrass	19	100	16	92	1	40
BRCA	mountain brome	--	--	--	--	--	--
SIHYH	bottlebrush squirtail	--	--	--	--	--	--
CAHO	Hood's sedge	--	--	--	--	--	--
SPCR	sard dropseed	--	--	15	88	24	100
DAUN	onespike oatgrass	--	--	--	--	--	--
ARLO3	red three awn	2	36	14	71	14	60
MEBU	oniongrass	--	--	--	--	--	--
POSC	pine bluegrass	--	--	--	--	--	--
Annual grasses							
BRMO	soft chess	--	--	8	13	--	--
BRJA	Japanese brome	2	36	9	50	7	80
BRTE	chestgrass	2	73	14	96	30	80
BRBR	rattlesnake brome	3	36	3	25	1	40
FEME	foxtail fescue	--	--	12	58	5	60
Annual forbs							
PODO	Douglas' knotweed	--	--	--	--	--	--
VEAR	common speedwell	2	18	4	38	4	40
ARSE	thymeleaf sardwort	2	36	5	42	4	80
LASE	prickly lettuce	1	36	--	--	1	20
SIAM2	sleepy cat	--	--	--	--	--	--
FIAR	field filago	2	64	--	--	1	20
GARP	cleavers	--	--	--	--	1	60
MAGL	cluster tarweed	--	--	--	--	--	--
CRIN2	common cryptantha	3	55	--	--	--	--
CLPU	deer horn	--	--	--	--	--	--
EPPA	tall annual willowweed	--	--	--	--	--	--
PHLI	thread-leaf phacelia	1	27	--	--	--	--
PLPA	Indian wheat	1	45	7	67	1	20
LEPA	branched peppergrass	1	27	1	21	3	20
BLSC	blepharipappus	2	36	--	--	--	--
COLI2	narrow-leaved collomia	--	--	--	--	--	--
MYMI	blue scorpion grass	--	--	1	33	1	40
ALAL	pale allyssum	--	--	--	--	--	--
TOFL2	tonella	--	--	--	--	--	--
ERCI	filaree	--	--	6	79	1	100
Surface features							
ROCK	stones and rock	32	100	7	63	7	80
GRAVEL	gravel sized fragments	25	45	6	25	1	20
PAVMT	erosion pavement	8	45	--	--	--	--
BRGRD	bareground	13	91	11	88	1	100
MOSS+	mosses and lichens	19	82	25	83	28	100
LITT	litter	7	100	33	96	40	100

* Percent foliar cover estimated from microplots
** Percent of plots species occurred on

MEAN COVERAGE* AND CONSTANCY** TABLE (4c)
(late to mid seral stage stands)

		AGSP-POSA3 OPPO		AGSP-ARLO3 -SPCR		SPCR terraces	
		(n = 11)		(n = 24)		(n = 5)	
		mean cov.	cons.	mean cov.	cons.	mean cov.	cons.
Perennial forbs							
ACHIL	yarrow	3	100	3	71	--	--
AGGL	pale agoseris	--	--	--	--	--	--
AGGR	large flwd. agoseris	--	--	--	--	--	--
AGUR	horsemint	--	--	--	--	--	--
ALTO	Tolmie's onion	--	--	--	--	--	--
ANDI	low pussytoes	--	--	--	--	--	--
ANLU	woodrush pussytoes	--	--	--	--	--	--
ANRO	rosy pussytoes	--	--	--	--	--	--
ARHO	Holboell's rockcross	--	--	--	--	--	--
ARSO	twin arnica	--	--	--	--	--	--
ASCU4	Cusick's milkvetch	--	--	--	--	1	20
ASFO	leafy aster	--	--	--	--	--	--
ASIN	thick stemmed aster	--	--	--	--	--	--
ASIN2	hairy milkvetch	2	36	2	46	1	20
BAIN	hoary balsamroot	--	--	--	--	--	--
BASA	arrowleaf balsamroot	--	--	--	--	--	--
BERU	red besseya	--	--	--	--	--	--
CAOR3	pale Wallowa paintbrush	--	--	--	--	--	--
CEAR	field chickweed	--	--	--	--	--	--
CHDO	hoary chaenactis	--	--	--	--	--	--
CHV12	hairy golden aster	--	--	--	--	--	--
CIRS1	thistle spp.	1	36	1	25	1	20
CRIN3	bristly cryptantha	--	--	--	--	--	--
ERCH	dwarf yellow fleabane	--	--	--	--	--	--
ERD14	Snake river daisy	--	--	--	--	--	--
ERFL	yellow buckwheat	--	--	--	--	--	--
ERLA	woolly sunflower	--	--	--	--	--	--
ERPU	shaggy daisy	1	45	2	54	3	40
ERSP	showy fleabane	--	--	--	--	--	--
FRVI	blueleaf strawberry	--	--	--	--	--	--
GETR	red avens	--	--	--	--	--	--
GRNA	low gumweed	--	--	--	--	--	--
HEUN	little sunflower	--	--	--	--	--	--
HIAL2	western hawkweed	--	--	--	--	--	--
HYPE	goatweed	--	--	4	46	4	80
LIRU	wayside growwell	--	--	--	--	--	--
LOC02	Cous biscuitroot	--	--	--	--	--	--
LOGR	Gray's lomatium	--	--	--	--	--	--
LOLE	slender-fruit lomatium	--	--	--	--	--	--
LOHA	big-fruited lomatium	1	36	1	25	1	20
LUCA	tailcup lupine	--	--	--	--	--	--
LUPIN	lupine species	--	--	--	--	--	--
LUSE	silky lupine	--	--	--	--	--	--
DECA2	desert evening primrose	--	--	--	--	--	--
OPPO	prickly pear	5	100	3	46	2	40
ORTE	thin-leaved owllover	--	--	--	--	--	--
PEDE	hot rock penstemon	--	--	--	--	--	--
PEEL	lovely penstemon	--	--	--	--	--	--
PEFR5	shrubby penstemon	--	--	--	--	--	--
PEGA2	Gairdner's yamboah	--	--	--	--	--	--
PEGL4	globe penstemon	--	--	--	--	--	--
PEGR4	western prairie-clover	--	--	--	--	--	--
PETR	whorled penstemon	2	55	--	--	--	--
PEVE	Blue Mtn. penstemon	--	--	--	--	--	--
PHCO2	Snake river phlox	1	18	1	21	1	20
PHHE	varied leaf phacelia	2	36	--	--	--	--
PHOR	Oregon twinpod	--	--	--	--	--	--
PHV13	sticky phlox	--	--	--	--	--	--
POGL	sticky cinquefoil	--	--	--	--	--	--
POGLN	sticky cinquefoil	--	--	--	--	--	--
POGR	slender cinquefoil	--	--	--	--	--	--
POPH	alpine fleecflower	--	--	--	--	--	--
SCAN	narrow-leaved skullcap	5	45	2	21	--	--
SEIN	Western groundsel	--	--	--	--	--	--
SELA2	lanceleaved stonecrop	--	--	--	--	--	--
SEST	woraleaf stonecrop	--	--	--	--	--	--
SOM1	Missouri goldenrod	--	--	--	--	--	--
TRDU	yellow salsify	--	--	2	33	1	20
TRMA	bighead clover	--	--	--	--	--	--
ZIVEG	meadow death camas	--	--	--	--	--	--

* Percent foliar cover estimated from microplots
** percent of plots species occurred on

MEAN COVERAGE* AND CONSTANCY** TABLE (5a)
(late to mid seral stage stands)

		AGSP-POSA3 scablands (n = 7)		ARR1/POSA3 (n = 25)		POSA3-DAUN (n = 15)		ER00/POSA3 (n = 3)		ERST2/POSA3 (n = 7)		ARTRV/FEID gentle slopes (n = 5)		ARTRV/FEID steep slopes (n = 4)	
		mean cov.	cons. cov.	mean cov.	cons. cov.	mean cov.	cons. cov.	mean cov.	cons. cov.	mean cov.	cons. cov.	mean cov.	cons. cov.	mean cov.	cons. cov.
Shrubs															
SYAL	common snowberry	--	--	--	--	--	--	--	--	--	--	--	--	--	--
ROSA	rose species	--	--	--	--	--	--	--	--	--	--	--	--	--	--
ERHE	Wyeth's buckwheat	--	--	--	--	--	--	--	--	--	--	8	100	25	75
RHGL	smooth sumac	--	--	--	--	--	--	--	--	--	--	--	--	--	--
ER00	Douglas' buckwheat	--	--	--	--	--	--	25	100	--	--	--	--	--	--
ARTRV	mountain big sagebrush	--	--	--	--	--	--	--	--	--	--	40	100	35	100
PHMA	mallow ninebark	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SYOR	mountain snowberry	--	--	--	--	--	--	--	--	--	--	--	--	--	--
CELE	curlleaf mt.-mahogany	--	--	--	--	--	--	--	--	--	--	--	--	--	--
GLNE	green-bush	--	--	--	--	--	--	--	--	--	--	--	--	--	--
CERE2	netleaf hackberry	--	--	--	--	--	--	--	--	--	--	--	--	--	--
ERST2	strict buckwheat	--	--	--	--	--	--	--	--	14	100	--	--	--	--
ERSTP	strict buckwheat	--	--	--	--	--	--	--	--	--	--	--	--	--	--
ERMI	slenderbush buckwheat	--	--	--	--	--	--	--	--	--	--	--	--	--	--
ARR1	stiff sagebrush	--	--	23	100	--	--	1	50	--	--	--	--	--	--
Perennial grasses and sedges															
KOCR	prairie junegrass	--	--	--	--	--	--	--	--	--	--	2	60	--	--
FEID	Idaho fescue	--	--	--	--	--	--	--	--	--	--	2	40	15	100
POPR	Kentucky bluegrass	--	--	--	--	--	--	--	--	--	--	28	60	--	--
POSA3	Sandberg's bluegrass	8	100	12	100	16	100	15	100	9	100	3	20	--	--
AGSP	bluebunch wheatgrass	31	100	3	56	1	47	3	25	4	71	2	60	18	50
BRCA	mountain brome	--	--	--	--	--	--	--	--	--	--	3	100	8	50
SIHYH	bottlebrush squirttail	--	--	2	28	1	20	2	50	2	43	--	--	1	75
CAHO	Hood's sedge	--	--	--	--	--	--	--	--	--	--	--	--	2	50
SPCR	sand dropseed	--	--	--	--	--	--	--	--	--	--	--	--	--	--
DAUN	onespike oatgrass	3	43	6	52	13	100	1	25	--	--	--	--	--	--
ARLO3	red three awn	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MEBU	oniongrass	--	--	--	--	--	--	--	--	--	--	--	--	--	--
POSC	pine bluegrass	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Annual grasses															
BRMO	soft chess	1	29	1	28	--	--	--	--	--	--	--	--	--	--
BRJA	Japanese brome	--	--	--	--	--	--	--	--	--	--	--	--	--	--
BRTE	cheatgrass	--	--	1	12	--	--	--	--	1	71	--	--	--	--
BRBR	rattlesnake brome	2	86	1	40	--	--	--	--	1	71	--	--	--	--
FEME	foxtail fescue	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Annual forbs															
PODO	Douglas' knotweed	4	86	5	72	7	53	3	50	5	71	--	--	--	--
VEAR	common speedwell	2	43	--	--	7	33	--	--	1	43	15	20	--	--
ARSE	thymeleaf sandwort	--	--	--	--	--	--	--	--	--	--	--	--	--	--
LASE	prickly lettuce	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SIAM2	sleepy cat	--	--	--	--	--	--	--	--	--	--	--	--	--	--
FIAR	field filago	--	--	--	--	--	--	--	--	--	--	--	--	--	--
GAAP	cleavers	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MAGL	cluster tarweed	--	--	--	--	--	--	--	--	--	--	--	--	--	--
CRIN2	common cryptantha	--	--	--	--	--	--	--	--	--	--	--	--	--	--
CLPU	deer horn	1	29	--	--	--	--	--	--	--	--	--	--	--	--
EPPA	tall annual willowweed	1	86	2	28	--	--	--	--	1	29	--	--	--	--
PHLI	thread-leaf phacelia	--	--	--	--	--	--	--	--	1	43	--	--	--	--
PLPA	Indian wheat	--	--	--	--	--	--	--	--	--	--	--	--	--	--
LEPA	branded peppergrass	--	--	--	--	--	--	--	--	--	--	--	--	--	--
BLSC	blepharipappus	5	71	1	40	--	--	--	--	2	29	--	--	--	--
COL12	narrow-leaved collomia	1	57	--	--	--	--	--	--	--	--	2	60	--	--
MYRI	blue scorpion grass	--	--	--	--	--	--	--	--	--	--	--	--	--	--
ALAL	pale allyssum	--	--	--	--	--	--	--	--	3	43	--	--	--	--
TOFL2	tonella	--	--	--	--	--	--	--	--	--	--	--	--	--	--
ERCI	filaree	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Surface features															
ROCK	stones and rock	51	100	30	100	50	100	24	100	18	100	4	60	10	75
GRAVEL	gravel sized fragments	--	--	27	12	1	7	--	--	5	14	1	40	13	100
PAVMT	erosion pavement	6	71	16	84	6	27	18	50	48	86	25	20	--	--
BRGRD	bareground	5	100	8	96	3	47	1	75	2	43	8	100	7	100
MOSS+	mosses and lichens	12	86	22	100	28	100	31	100	13	86	3	40	2	50
LITT	litter	1	86	1	92	1	93	1	100	1	86	25	80	23	100

* Percent foliar cover

** Percent of plots species occurred on

MEAN COVERAGE* AND CONSTANCY** TABLE (5b)
(late to mid seral stage stands)

		AGSP-POSA3 scablands (n = 7)		ARR1-POSA3 (n = 25)		POSA3-DAUN (n = 15)		ERDO/POSA3 (n = 3)		ERST2/POSA3 (n = 7)		ARTRV/FEID gentle slopes (n = 5)		ARTRV/FEID steep slopes (n = 4)	
		mean cov.	cons.	mean cov.	cons.	mean cov.	cons.	mean cov.	cons.	mean cov.	cons.	mean cov.	cons.	mean cov.	cons.
Perennial forbs															
ACN1L	yarrow	2	100	1	40	3	53	1	25	1	74	3	80	10	75
AGGL	pale agoseris	--	--	--	--	--	--	--	--	--	--	--	--	--	--
AGGR	large flwd. agoseris	--	--	--	--	--	--	--	--	--	--	--	--	--	--
AGUR	horsemint	--	--	--	--	--	--	--	--	--	--	--	--	--	--
ALAC	Tapertip onion	--	--	2	48	1	20	1	25	2	57	--	--	--	--
AND1	low pussytoes	--	--	5	12	--	--	1	50	--	--	--	--	--	--
ANLU	woodrush pussytoes	6	29	1	36	--	--	1	25	--	--	--	--	--	--
ANRO	rosy pussytoes	--	--	--	--	--	--	--	--	--	--	3	60	1	50
ARHO	Holboell's rockcress	1	29	2	24	--	--	2	75	1	57	--	--	--	--
ARSO	twin arnica	--	--	--	--	--	--	--	--	--	--	3	60	--	--
ASCU4	Cusick's milkvetch	--	--	--	--	--	--	--	--	--	--	--	--	--	--
ASFO	leafy aster	--	--	--	--	--	--	--	--	--	--	--	--	--	--
ASIN	thick stemmed aster	--	--	--	--	--	--	--	--	--	--	--	--	--	--
ASIN2	hairy milkvetch	1	17	--	--	--	--	--	--	--	--	--	--	--	--
BAIN	hoary balsaroot	4	71	3	44	3	53	4	50	2	29	--	--	--	--
BASA	arrowleaf balsaroot	6	29	--	--	--	--	--	--	--	--	1	20	--	--
BERU	red besseya	--	--	--	--	--	--	--	--	--	--	7	60	--	--
CAOR3	pale Wallowa paintbrush	--	--	3	44	--	--	--	--	--	--	--	--	--	--
CEAR	field chickweed	--	--	--	--	--	--	--	--	--	--	--	--	--	--
CHOD	hoary chaenactis	--	--	--	--	--	--	--	--	--	--	--	--	--	--
CHV12	hairy golden aster	--	--	--	--	--	--	--	--	--	--	--	--	--	--
CRIN3	bristly cryptantha	--	--	--	--	--	--	--	--	--	--	--	--	--	--
ERCH	dwarf yellow fleabane	1	43	2	40	3	67	1	25	2	57	--	--	--	--
ERD14	Snake river daisy	--	--	--	--	--	--	13	50	--	--	--	--	--	--
ERFL	yellow buckwheat	--	--	--	--	--	--	--	--	--	--	--	--	15	25
ERLA	woolly sunflower	--	--	--	--	--	--	--	--	1	57	--	--	--	--
ERPU	shaggy daisy	--	--	--	--	--	--	--	--	--	--	--	--	--	--
ERSP	showy fleabane	--	--	--	--	--	--	--	--	--	--	--	--	--	--
FRV1	blueleaf strawberry	--	--	--	--	--	--	--	--	--	--	--	--	--	--
GETR	red avens	--	--	--	--	--	--	--	--	--	--	3	40	15	25
GRNA	low gumweed	2	43	3	24	--	--	--	--	--	--	2	50	--	--
HEUN	little sunflower	--	--	--	--	--	--	--	--	--	--	--	--	--	--
HTAL2	western hawkweed	--	--	--	--	--	--	--	--	--	--	3	25	3	50
HYPE	goatweed	--	--	--	--	--	--	--	--	--	--	--	--	--	--
LIRU	wayside gronwell	--	--	--	--	--	--	--	--	--	--	2	60	--	--
LOCO2	Cous biscuitroot	2	43	3	52	4	73	3	75	11	29	--	--	--	--
LOGR	Gray's lomatum	--	--	--	--	--	--	--	--	--	--	--	--	--	--
LOLE	slender-fruit lomatum	2	29	2	44	3	73	6	75	--	--	--	--	--	--
LUCA	tailcup lupine	--	--	--	--	--	--	--	--	--	--	6	60	8	50
LUPIN	lupine species	--	--	--	--	--	--	--	--	--	--	--	--	--	--
LUSE	silky lupine	--	--	--	--	--	--	--	--	--	--	15	40	--	--
OECA2	desert evening primrose	--	--	--	--	--	--	--	--	--	--	--	--	--	--
OPPO	prickly pear	--	--	--	--	--	--	--	--	--	--	--	--	--	--
ORTE	thin-leaved owllover	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PEDE	hot rock penstemon	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PEEL	lovely penstemon	--	--	--	--	--	--	1	75	2	29	--	--	--	--
PEFRS	shrubby penstemon	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PEGA2	Gairdner's yaapah	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PEGL4	globe penstemon	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PEOR4	western prairie-clover	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PETR	whorled penstemon	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PEVE	Blue Mtn. penstemon	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PHCO2	Snake river phlox	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PHHE	varied leaf phacelia	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PHOR	Oregon twinpod	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PHV13	sticky phlox	4	43	--	--	--	--	2	75	--	--	--	--	--	--
POGL	sticky cinquefoil	--	--	--	--	--	--	--	--	--	--	--	--	--	--
POGLN	sticky cinquefoil	--	--	--	--	--	--	--	--	--	--	--	--	--	--
POGR	slender cinquefoil	--	--	--	--	--	--	--	--	--	--	--	--	--	--
POPH	alpine fleecflower	--	--	--	--	--	--	--	--	--	--	--	--	5	25
SCAN	narrow-leaved skullcap	2	43	--	--	--	--	--	--	--	--	--	--	--	--
SEIN	Western groundsel	--	--	--	--	--	--	--	--	--	--	2	60	4	75
SELA2	lanceleaved stonecrop	10	14	8	44	2	20	8	50	1	14	1	20	--	--
SEST	woraleaf stonecrop	1	43	7	48	3	80	3	50	2	57	3	40	--	--
SOM1	Missouri goldernod	--	--	--	--	--	--	--	--	--	--	--	--	--	--
TRDU	yellow salsify	1	29	1	24	1	27	--	--	--	--	1	40	--	--
TRMA	bighead clover	1	29	5	60	8	40	3	25	1	29	--	--	--	--
ZIVEG	meadow death camas	--	--	--	--	--	--	--	--	--	--	--	--	--	--

* Percent foliar cover

** percent of plots species occurred on

MEAN COVERAGE* AND CONSTANCY** TABLE (6a)
(late to mid seral stage stands)

		SYOR mounds (n = 4)		SYOR slopes (n = 3)		PUTR/FEID -AGSP (n = 8)		PUTR/AGSP (n = 11)		PHMA shrubiands (n = 6)		JUOC/ FEID-AGSP (n = 6)		SYAL-ROSA (n = 10)	
		mean cov.	cons. cov.	mean cov.	cons. cov.	mean cov.	cons. cov.	mean cov.	cons. cov.	mean cov.	cons. cov.	mean cov.	cons. cov.	mean cov.	cons. cov.
Shrubs															
JUOC	western juniper	--	--	--	--	--	--	--	--	--	--	16	100	--	--
SYAL	common snowberry	--	--	--	--	--	--	--	--	26	100	4	67	73	100
ROSA	rose species	--	--	--	--	--	--	--	--	7	67	--	--	19	83
ERHE	Wyeth's buckwheat	22	75	10	100	3	78	--	--	--	--	--	--	--	--
RHGL	smooth sumac	--	--	--	--	--	--	--	--	--	--	--	--	--	--
EKDO	Douglas' buckwheat	--	--	--	--	--	--	--	--	--	--	--	--	--	--
ARTKV	mountain big sagebrush	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PHMA	mallow ninebark	--	--	--	--	--	--	--	--	82	100	--	--	--	--
SYOR	mountain snowberry	46	100	47	100	--	--	--	--	--	--	--	--	--	--
CELE	curlleaf mt. mahogany	--	--	--	--	--	--	--	--	--	--	--	--	--	--
GLNE	green-bush	--	--	--	--	--	--	--	--	--	--	--	--	--	--
CERE2	netleaf hackberry	--	--	--	--	--	--	--	--	--	--	--	--	--	--
ERSTP	strict buckwheat	--	--	--	--	--	--	--	--	--	--	--	--	--	--
ERMI	slenderbush buckwheat	--	--	--	--	--	--	--	--	--	--	--	--	--	--
ARRI	stiff sagebrush	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PUTR	bitterbrush	--	--	--	--	10	100	12	100	--	--	--	--	--	--
Perennial grasses and sedges															
KOCR	prairie junegrass	--	--	--	--	--	--	--	--	--	--	--	--	--	--
FEID	Idaho fescue	--	--	--	--	8	89	--	--	4	50	6	71	16	50
POPR	Kentucky bluegrass	28	75	--	--	--	--	--	--	--	--	--	--	--	--
POSA3	Sandberg's bluegrass	--	--	--	--	2	67	3	40	--	--	7	71	--	--
AGSP	bluebunch wheatgrass	--	--	--	--	19	100	14	100	8	83	19	100	4	67
BRCA	mountain brome	4	100	8	100	--	--	--	--	--	--	--	--	--	--
SIHYH	bottlebrush squirrtail	--	--	--	--	--	--	--	--	--	--	--	--	--	--
CAHO	Hood's sedge	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SPCR	sand dropseed	--	--	--	--	--	--	--	--	--	--	--	--	--	--
DAUN	onespike oatgrass	--	--	--	--	--	--	--	--	--	--	--	--	--	--
ARLO3	red three awn	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MEEU	oniongrass	2	50	--	--	--	--	1	40	--	--	--	--	--	--
POSC	pine bluegrass	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Annual grasses															
BRMO	soft chess	3	50	--	--	--	--	--	--	3	17	--	--	--	--
BRJA	Japanese brome	--	--	--	--	--	--	--	--	--	--	--	--	10	8
BRTE	cheatgrass	1	25	--	--	--	--	2	30	1	17	2	67	--	--
BRER	rattlesnake brome	1	25	--	--	--	--	1	50	14	67	3	83	13	25
FEHE	foxtail fescue	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Annual forbs															
PODO	Douglas' knotweed	6	50	--	--	--	--	5	50	--	--	--	--	--	--
VEAR	common speedwell	--	--	--	--	--	--	--	--	--	--	--	--	--	--
ARSE	thymeleaf sandwort	--	--	--	--	--	--	--	--	--	--	--	--	--	--
LASE	prickly lettuce	--	--	--	--	--	--	2	40	--	--	--	--	--	--
SIAM2	sleepy cat	--	--	--	--	--	--	--	--	--	--	--	--	--	--
FIAR	field filago	--	--	--	--	--	--	--	--	--	--	--	--	--	--
GAAP	cleavers	--	--	--	--	2	56	--	--	18	100	--	--	24	67
MAGL	cluster tarweed	9	75	3	33	--	--	--	--	--	--	--	--	--	--
CRIN2	common cryptantha	--	--	--	--	--	--	--	--	--	--	--	--	--	--
CLPU	deer horn	1	50	--	--	2	56	5	50	1	50	4	71	--	--
EPPA	tall annual willowweed	1	25	--	--	4	33	5	80	--	--	2	43	--	--
PHLI	thread-leaf phacelia	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PLPA	Indian wheat	--	--	--	--	--	--	--	--	--	--	--	--	--	--
LERA	branded peppergrass	--	--	--	--	--	--	--	--	--	--	--	--	--	--
BLSC	blepharipappus	--	--	--	--	--	--	--	--	--	--	--	--	--	--
COLI2	narrow-leaved collomia	--	--	--	--	--	--	1	30	1	33	--	--	--	--
MYMI	blue scorpion grass	--	--	--	--	--	--	--	--	--	--	--	--	3	50
ALAL	pale allyssum	--	--	--	--	--	--	--	--	--	--	--	--	--	--
TDFL2	tonella	--	--	--	--	--	--	--	--	--	--	--	--	26	25
ERIC1	filaree	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Surface features															
ROCK	stones and rock	1	25	1	33	12	100	6	100	--	--	58	100	7	25
GRAVEL	gravel sized fragments	--	--	1	67	13	100	16	100	--	--	--	--	1	8
PAVMT	erosion pavement	3	25	1	67	20	11	5	10	--	--	23	33	--	--
BRGRD	bareground	13	100	11	100	14	100	26	100	5	67	16	100	13	67
MOSS+	mosses and lichens	1	25	--	--	6	78	6	45	13	100	10	83	51	100
LITT	litter	52	75	63	100	22	100	24	80	73	100	13	100	67	92

* Percent foliar cover
** Percent of plots species occurred on

MEAN COVERAGE* AND CONSTANCY** TABLE (6b)
(mid to late seral stage stands)

	SYOR mounds		SYOR slpoe		PUTR/FEID -AGSP		PUTR/AGSP		PHMA shrublands		JUOC/ FEID-AGSP		SYAL-ROSA		
	(n = 4)		(n = 3)		(n = 8)		(n = 11)		(n = 6)		(n = 6)		(n = 10)		
	mean cov.	cons.	mean cov.	cons.	mean cov.	cons.	mean cov.	cons.	mean cov.	cons.	mean cov.	cons.	mean cov.	cons.	
Perennial forbs															
ACM1L	yarrow	10	100	5	100	2	100	2	30	1	50	2	100	4	50
AGGL	pale agoseris	--	--	--	--	--	--	1	40	--	--	--	--	--	--
AGGR	large flwd. agoseris	--	--	--	--	--	--	--	--	--	--	--	--	--	--
AGUR	horsemint	10	75	17	100	--	--	--	--	6	50	--	--	--	--
ALAC	Tapertip onion	--	--	--	--	--	--	2	50	--	--	--	--	--	--
AND1	low pussytoes	--	--	--	--	--	--	--	--	--	--	--	--	--	--
ANLU	woodrush pussytoes	13	50	--	--	--	--	--	--	--	--	--	--	--	--
ANRO	rosy pussytoes	--	--	--	--	--	--	--	--	--	--	--	--	--	--
ARHO	Molboell's rockcress	--	--	--	--	--	--	--	--	--	--	--	--	--	--
ARSO	twin arnica	--	--	--	--	--	--	--	--	--	--	--	--	--	--
ASCU4	Cusick's milkvetch	--	--	--	--	--	--	--	--	--	--	--	--	--	--
ASFO	leafy aster	--	--	8	67	--	--	--	--	--	--	--	--	--	--
ASIN	thick stemmed aster	--	--	11	67	--	--	--	--	--	--	--	--	--	--
ASIN2	hairy milkvetch	--	--	--	--	--	--	--	--	--	--	--	--	--	--
BAIN	hoary balsamroot	--	--	--	--	--	--	--	--	--	--	--	--	--	--
BASA	arrowleaf balsamroot	--	--	8	67	16	67	17	100	--	--	7	71	1	67
BERU	red besseya	2	50	--	--	--	--	--	--	--	--	--	--	3	50
CAH12	harsh paintbrush	2	75	--	--	--	--	--	--	--	--	--	--	--	--
CAOR3	pale Mallova paintbrush	--	--	--	--	--	--	--	--	--	--	--	--	--	--
CEAR	field chickweed	--	--	--	--	--	--	--	--	--	--	--	--	3	58
CHDO	hoary chaenactis	--	--	--	--	--	--	--	--	--	--	--	--	--	--
CHV12	hairy golden aster	--	--	--	--	--	--	--	--	--	--	--	--	--	--
CR1N3	bristly cryptantha	--	--	--	--	--	--	--	--	--	--	--	--	--	--
ERCH	dwarf yellow fleabane	--	--	--	--	--	--	--	--	--	--	--	--	--	--
ERD14	Snake river daisy	--	--	--	--	--	--	--	--	--	--	--	--	--	--
ERFL	yellow buckwheat	--	--	--	--	--	--	--	--	--	--	--	--	--	--
ERLA	woolly sunflower	--	--	--	--	--	--	1	30	--	--	--	--	--	--
ERPU	shaggy daisy	--	--	--	--	--	--	--	--	--	--	--	--	--	--
ERSP	showy fleabane	--	--	--	--	--	--	--	--	--	--	--	--	--	--
FRAL2	white stemmed frasera	--	--	--	--	--	--	--	--	--	--	--	--	2	50
FRV1	blueleaf strawberry	13	75	--	--	--	--	--	--	--	--	--	--	--	--
GETR	red avens	7	100	--	--	--	--	--	--	8	50	--	--	5	42
GRNA	low gumweed	--	--	--	--	--	--	--	--	--	--	--	--	--	--
HEUN	little sunflower	--	--	15	33	--	--	--	--	--	--	--	--	--	--
HIAL2	western hawkweed	--	--	--	--	--	--	--	--	1	33	--	--	2	50
HYPE	goatweed	--	--	--	--	--	--	--	--	--	--	--	--	6	58
LIRU	wayside growwell	--	--	--	--	--	--	--	--	--	--	--	--	1	42
LOCO2	Cous biscuitroot	--	--	--	--	--	--	--	--	--	--	--	--	--	--
LODIE	fern lvd. lomatum	--	--	--	--	3	67	4	50	--	--	--	--	--	--
LOGR	Gray's lomatum	--	--	--	--	--	--	--	--	--	--	2	71	--	--
LOLE	slender-fruit lomatum	--	--	--	--	--	--	--	--	--	--	--	--	--	--
LOMA	big-fruited lomatum	--	--	--	--	--	--	--	--	--	--	--	--	--	--
LUCA	tailcup lupine	--	--	--	--	--	--	--	--	--	--	--	--	18	17
LUPIN	lupine species	--	--	3	33	--	--	5	40	--	--	--	--	5	8
LUSE	silky lupine	--	--	--	--	--	--	--	--	--	--	--	--	8	42
OECA2	desert evening primrose	--	--	--	--	--	--	--	--	--	--	--	--	--	--
OPPO	prickly near	--	--	--	--	--	--	--	--	--	--	--	--	--	--
ORTE	thin-leaved owllover	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PEDE	hot rock penstemon	--	--	--	--	6	67	1	50	--	--	3	57	--	--
PEEL	lovely penstemon	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PEFRS	shrubby penstemon	--	--	--	--	--	--	--	--	--	--	8	71	--	--
PEGA2	Gairdner's yaapah	8	50	3	33	--	--	--	--	1	67	--	--	--	--
PEGL4	globe penstemon	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PEGR4	western prairie-clover	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PETR	whorled penstemon	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PEVE	Blue Mtn. penstemon	--	--	--	--	--	--	2	30	--	--	1	86	--	--
PHCO2	Snake river phlox	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PHHE	varied leaf phacelia	1	50	3	67	2	33	--	--	--	--	--	--	--	--
PHOR	Oregon twinpod	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PHV13	sticky phlox	--	--	--	--	--	--	--	--	--	--	--	--	--	--
POGL	sticky cinquefoil	6	100	13	67	--	--	--	--	--	--	--	--	--	--
POGLN	sticky cinquefoil	--	--	--	--	--	--	--	--	--	--	4	57	--	--
POGR	slender cinquefoil	--	--	--	--	--	--	--	--	1	33	--	--	3	42
POPH	alpine fleecflower	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SCAN	narrow-leaved skullcap	--	--	--	--	--	--	--	--	--	--	5	43	--	--
SEIN	Western groundsel	--	--	--	--	2	44	--	--	--	--	--	--	2	25
SELA2	lanceleaved stonecrop	--	--	--	--	--	--	--	--	--	--	2	86	--	--
SEST	wormleaf stonecrop	--	--	3	33	--	--	--	--	--	--	--	--	--	--
SOM1	Missouri goldenrod	--	--	--	--	--	--	--	--	--	--	--	--	3	33
TRDU	yellow salsify	1	50	--	--	--	--	1	50	--	--	--	--	--	--
TRMA	bighead clover	--	--	--	--	--	--	--	--	--	--	--	--	--	--
ZIVEG	meadow death camas	--	--	--	--	--	--	--	--	--	--	--	--	--	--

* Percent foliar cover

** Percent of plots species occurred on

MEAN COVERAGE* AND CONSTANCY** TABLE (7a)
(late to mid seral stage stands)

		CELE/AGSP high elev.		CELE/AGSP mid elev.		CELE/AGSP low elev.		GLNE/AGSP		CERE2/AGSP		RHGL/AGSP		ER10G-PHOR	
		(n = 2)		(n = 4)		(n = 2)		(n = 8)		(n = 4)		(n = 12)		(n = 6)	
		mean	cons.	mean	cons.	mean	cons.	mean	cons.	mean	cons.	mean	cons.	mean	cons.
		cov.		cov.		cov.		cov.		cov.		cov.		cov.	
Shrubs															
SYAL	common snowberry	--	--	--	--	--	--	--	--	--	--	--	--	--	--
ROSA	rose species	--	--	--	--	--	--	--	--	--	--	--	--	--	--
ERHE	Wyeth's buckwheat	30	100	1	25	--	--	--	--	--	--	--	--	--	--
RHGL	smooth sumac	--	--	--	--	--	--	--	--	--	--	45	92	--	--
ERDO	Douglas' buckwheat	--	--	--	--	--	--	--	--	--	--	--	--	--	--
ARTRV	mountain big sagebrush	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PHMA	mallow ninebark	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SYOR	mountain snowberry	38	100	--	--	--	--	--	--	--	--	--	--	--	--
CELE	curlleaf mt.-mahogany	35	100	29	100	65	100	--	--	--	--	--	--	--	--
GLNE	green-bush	--	--	18	50	--	--	22	100	--	--	--	--	--	--
CERE2	netleaf hackberry	--	--	--	--	23	100	--	--	37	100	--	--	--	--
ERSTP	strict buckwheat	--	--	--	--	--	--	--	--	--	--	--	--	7	67
ERMI	slenderbush buckwheat	--	--	--	--	--	--	--	--	--	--	--	--	5	50
AKRI	stiff sagebrush	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Perennial grasses and sedges															
KOCR	prairie junegrass	--	--	--	--	--	--	--	--	--	--	--	--	--	--
FEID	Idaho fescue	3	100	10	25	--	--	15	13	--	--	--	--	--	--
POPR	Kentucky bluegrass	--	--	--	--	--	--	--	--	--	--	--	--	--	--
POSA3	Sandberg's bluegrass	--	--	--	--	--	--	2	38	1	40	5	33	--	--
AGSP	bluebunch wheatgrass	8	100	18	100	10	100	14	100	13	80	15	92	6	83
BRCA	mountain broom	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SIHYH	bottlebrush squirrtail	--	--	--	--	--	--	--	--	--	--	--	--	--	--
CAHO	Hood's sedge	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SPCR	sand dropseed	--	--	--	--	--	--	--	--	13	40	--	--	--	--
DAUN	onespike oatgrass	--	--	--	--	--	--	--	--	--	--	--	--	--	--
ARLO3	red three awn	--	--	--	--	--	--	--	--	1	20	--	--	--	--
MEEU	oniongrass	--	--	--	--	--	--	--	--	--	--	--	--	--	--
POSC	pine bluegrass	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Annual grasses															
BRMO	soft chess	--	--	--	--	--	--	--	--	--	--	1	8	--	--
BRJA	Japanese broom	--	--	--	--	--	--	1	38	1	20	7	33	1	33
BRTE	cheatgrass	--	--	2	75	25	50	3	100	28	100	13	83	5	83
BRER	rattlesnake broom	--	--	--	--	--	--	2	50	1	40	8	33	1	50
FENE	foxtail fescue	--	--	--	--	--	--	1	50	--	--	--	--	--	--
Annual forbs															
PODD	Douglas' knotweed	--	--	--	--	--	--	--	--	--	--	--	--	--	--
VEAR	common speedwell	--	--	--	--	--	--	--	--	--	--	--	--	--	--
ARSE	thymeleaf sandwort	--	--	--	--	--	--	--	--	1	60	2	33	--	--
LASE	prickly lettuce	--	--	--	--	--	--	--	--	--	--	1	50	--	--
SIAN2	sleepy cat	--	--	--	--	--	--	--	--	--	--	--	--	--	--
FIAR	field filago	--	--	--	--	--	--	--	--	--	--	--	--	--	--
GAAP	cleavers	--	--	--	--	--	--	1	38	3	60	3	50	--	--
MAGL	cluster tarweed	--	--	--	--	--	--	--	--	--	--	--	--	--	--
CRIN2	common cryptantha	--	--	--	--	--	--	--	--	--	--	--	--	--	--
CLPU	deer horn	--	--	--	--	--	--	--	--	--	--	--	--	--	--
EPPA	tall annual willowweed	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PHLI	thread-leaf phacelia	--	--	--	--	--	--	--	--	1	60	--	--	--	--
PLPA	Indian wheat	--	--	--	--	--	--	--	--	--	--	--	--	--	--
LERA	branded peppergrass	--	--	--	--	--	--	1	38	--	--	--	--	--	--
BLSC	blepharipappus	--	--	--	--	--	--	--	--	--	--	--	--	--	--
COLI2	narrow-leaved collomia	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MYMI	blue scorpion grass	--	--	--	--	--	--	--	--	--	--	--	--	--	--
ALAL	pale allyssum	--	--	--	--	--	--	--	--	--	--	--	--	--	--
TOFL2	tonella	--	--	--	--	--	--	--	--	--	--	6	42	--	--
Surface features															
ROCK	stones and rock	4	100	6	100	30	50	12	100	28	100	49	83	6	83
GRAVEL	gravel sized fragments	8	100	18	75	--	--	20	63	1	20	28	33	40	33
PAVNT	erosion pavement	--	--	4	50	--	--	12	38	--	--	--	--	82	83
BRGRD	bareground	2	100	5	50	--	--	6	75	10	100	5	42	5	33
MOSS+	mosses and lichens	5	50	21	100	50	100	19	100	21	100	10	75	5	33
LITT	litter	50	100	12	100	40	100	15	100	32	100	36	100	1	100

* Percent foliar cover

** Percent of plots species occurred on

MEAN COVERAGE* AND CONSTANCY** TABLE (7b)
(mid to late seral stage stands)

		CELE/AGSP high elev.		CELE/AGSP mid elev.		CELE/AGSP low elev.		GLNE/AGSP		CERE2/AGSP		RHGL/AGSP		ERLOG-PHOR	
		(n = 2)		(n = 4)		(n = 2)		(n = 8)		(n = 4)		(n = 12)		(n = 6)	
		mean	cons.	mean	cons.	mean	cons.	mean	cons.	mean	cons.	mean	cons.	mean	cons.
		cov.		cov.		cov.		cov.		cov.		cov.		cov.	
Perennial forbs															
ACHIL	yarrow	8	100	2	100	2	100	2	100	2	80	2	75	1	67
AGGL	pale agoseris	--	--	--	--	--	--	--	--	--	--	--	--	--	--
AGGR	large flwd. agoseris	--	--	--	--	--	--	--	--	--	--	--	--	--	--
AGUR	horsemint	--	--	--	--	--	--	--	--	--	--	--	--	--	--
ALTO	Tolmie's onion	--	--	--	--	--	--	--	--	--	--	--	--	--	--
AND1	low pussytoes	--	--	--	--	--	--	--	--	--	--	--	--	--	--
ANLU	woodrush pussytoes	--	--	--	--	--	--	--	--	--	--	--	--	--	--
ANRO	rosy pussytoes	--	--	--	--	--	--	--	--	--	--	--	--	--	--
ARHO	Holboell's rockcress	--	--	--	--	--	--	--	--	--	--	--	--	--	--
ARSO	twin arnica	--	--	--	--	--	--	--	--	--	--	--	--	--	--
ASCU4	Cusick's milkvetch	--	--	--	--	--	--	--	--	--	--	--	--	--	--
ASFO	leafy aster	--	--	--	--	--	--	--	--	--	--	--	--	--	--
ASIN	thick stemmed aster	--	--	--	--	--	--	--	--	--	--	--	--	--	--
ASIN2	hairy milkvetch	--	--	1	25	--	--	--	--	--	--	--	--	--	--
BAIN	hoary balsaroot	--	--	--	--	--	--	--	--	--	--	--	--	--	--
BASA	arrowleaf balsaroot	3	100	--	--	--	--	--	--	--	--	--	--	--	--
BERU	red besseya	--	--	--	--	--	--	--	--	--	--	--	--	--	--
CAOR3	pale Wallowa paintbrush	--	--	--	--	--	--	--	--	--	--	--	--	--	--
CEAR	field chickweed	--	--	5	50	1	100	4	50	--	--	--	--	--	--
CHOO	hoary chaenactis	--	--	--	--	--	--	1	38	--	--	--	--	2	67
CHV12	hairy golden aster	--	--	--	--	--	--	--	--	3	40	--	--	1	50
CRIN3	bristly cryptantha	--	--	--	--	--	--	--	--	--	--	--	--	2	50
ERCH	dwarf yellow fleabane	--	--	--	--	--	--	--	--	--	--	--	--	--	--
ERD14	Snake river daisy	--	--	--	--	--	--	--	--	--	--	--	--	--	--
ERFL	yellow buckwheat	--	--	--	--	--	--	--	--	--	--	--	--	--	--
ERLA	woolly sunflower	--	--	--	--	--	--	--	--	--	--	--	--	--	--
ERPU	shaggy daisy	--	--	--	--	--	--	3	50	2	80	1	25	--	--
EKSP	showy fleabane	--	--	--	--	--	--	--	--	--	--	--	--	--	--
FRVI	blueleaf strawberry	--	--	--	--	--	--	--	--	--	--	--	--	--	--
GETR	red avens	--	--	--	--	--	--	--	--	--	--	--	--	--	--
GRNA	low gumweed	--	--	--	--	--	--	--	--	--	--	--	--	--	--
HEUN	little sunflower	--	--	--	--	--	--	--	--	--	--	--	--	--	--
HIAL2	western hawkweed	--	--	--	--	--	--	--	--	--	--	--	--	--	--
HYPE	goatweed	--	--	--	--	--	--	1	38	--	--	3	42	--	--
LIRU	wayside growwell	--	--	--	--	--	--	--	--	--	--	--	--	--	--
LOCO2	Cous biscuitroot	--	--	--	--	--	--	--	--	--	--	--	--	--	--
LOD1E	fern lvd. lomatum	--	--	--	--	--	--	--	--	--	--	--	--	--	--
LOGR	Gray's lomatum	3	100	--	--	--	--	--	--	--	--	--	--	--	--
LOLE	slender-fruit lomatum	--	--	--	--	--	--	--	--	--	--	--	--	--	--
LUCA	tailcup lupine	--	--	--	--	--	--	--	--	--	--	--	--	--	--
LUPIN	lupine species	--	--	--	--	--	--	--	--	--	--	--	--	--	--
LUSE	silky lupine	--	--	--	--	--	--	--	--	--	--	7	17	--	--
DECA2	desert evening primrose	--	--	--	--	--	--	--	--	--	--	--	--	1	100
OPPO	prickly pear	--	--	--	--	--	--	1	50	2	60	2	33	1	50
ORTE	thin-leaved owlflower	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PEDE	hot rock penstemon	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PEEL	lovely penstemon	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PEFR5	shrubby penstemon	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PEGA2	Gairdrier's yampah	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PEGL4	globe penstemon	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PEOR4	western prairie-clover	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PETR	whorled penstemon	--	--	--	--	--	--	2	63	--	--	--	--	1	50
PEVE	Blue Mtn. peristemon	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PHCO2	Snake river phlox	--	--	2	75	--	--	--	--	--	--	2	42	--	--
PHHE	varied leaf phacelia	10	50	--	--	--	--	2	50	--	--	--	--	1	67
PHOR	Oregon twinpod	--	--	--	--	--	--	--	--	--	--	--	--	4	67
PHV13	sticky phlox	--	--	--	--	--	--	--	--	--	--	--	--	--	--
POGL	sticky cinquefoil	--	--	--	--	--	--	--	--	--	--	--	--	--	--
POGLN	sticky cinquefoil	--	--	--	--	--	--	--	--	--	--	--	--	--	--
POGR	slender cinquefoil	--	--	--	--	--	--	--	--	--	--	--	--	--	--
POPH	alpine fleecflower	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SCAN	narrow-leaved skullcap	--	--	--	--	--	--	--	--	4	40	7	42	--	--
SEIN	Western groundsel	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SELA2	lanceleaved stonecrop	1	100	--	--	--	--	--	--	--	--	--	--	--	--
SEST	woraleaf stonecrop	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SOM1	Missouri goldenrod	--	--	--	--	--	--	--	--	--	--	--	--	--	--
TRDU	yellow salsify	--	--	--	--	--	--	--	--	--	--	--	--	--	--
TRMA	bighead clover	--	--	--	--	--	--	--	--	--	--	--	--	--	--
ZIVEG	meadow death camas	--	--	--	--	--	--	--	--	--	--	--	--	--	--

* Percent foliar cover

** Percent of plots species occurred on

Appendix D
Mean Coverage and Constancy Tables (Forest)

MEAN COVERAGE* AND CONSTANCY** TABLE (1a)
(Late to mid seral stage stands)

		TSME/VASC		TSME/VAME		ABLA2/MEFE		ABLA2/VASC/ POPU		PICO/VASC (ABLA2)		ABLA2/VAME		PICO/VAME (ABLA2)	
		(n=3)		(n=4)		(n = 6)		(n = 21)		(n = 19)		(n = 32)		(n = 12)	
		mean cov.	cons.	mean cov.	cons.	mean cov.	cons.	mean cov.	cons.	mean cov.	cons.	mean cov.	cons.	mean cov.	cons.
Tree overstory															
TSME	mountain hemlock	60	100	61	100	--	--	--	--	--	--	--	--	--	--
ABLA	subalpine fir	3	33	1	25	14	100	26	100	3	26	17	84	3	17
PIEN	Engelmann spruce	5	33	1	25	24	83	28	67	5	5	20	72	13	8
PICO	lodgepole pine	--	--	--	--	15	67	11	67	31	89	11	47	27	83
LAOC	western larch	--	--	--	--	--	--	--	--	12	21	7	22	3	33
ABGR	grand fir	--	--	--	--	--	--	--	--	--	--	15	6	--	--
PSME	Douglas fir	--	--	--	--	--	--	--	--	--	--	28	28	--	--
PIPO	ponderosa pine	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Tree understory															
TSME	mountain hemlock	22	100	8	100	--	--	--	--	--	--	--	--	--	--
ABLA	subalpine fir	5	67	4	75	13	100	28	100	14	100	15	100	14	83
PIEN	Engelmann spruce	--	--	4	25	8	50	4	57	5	53	5	59	5	58
PICO	lodgepole pine	--	--	--	--	--	--	--	--	10	74	--	--	21	50
LAOC	western larch	--	--	--	--	--	--	--	--	--	--	--	--	5	33
ABGR	grand fir	--	--	--	--	--	--	--	--	1	26	12	25	11	58
PSME	Douglas fir	--	--	--	--	--	--	--	--	5	16	3	19	--	--
PIPO	ponderosa pine	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Tall shrubs															
TABR	Pacific yew	--	--	--	--	--	--	--	--	--	--	--	--	--	--
ALSI	Sitka alder	--	--	--	--	1	50	--	--	--	--	--	--	--	--
AHAL	serviceberry	--	--	--	--	--	--	--	--	--	--	--	--	--	--
ACGL	Rocky Mountain maple	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Mid shrubs															
MEFE	fool's huckleberry	--	--	--	--	63	100	--	--	--	--	--	--	--	--
RUPA	thimbleberry	--	--	--	--	--	--	--	--	--	--	--	--	--	--
LOUT2	Utah honeysuckle	1	100	1	50	2	33	2	76	2	68	3	72	2	83
ROGY	baldhip rose	--	--	--	--	--	--	--	--	--	--	--	--	--	--
RILA	swamp gooseberry	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SYDR	mountain snowberry	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PHMA	ninebark	--	--	--	--	--	--	--	--	--	--	--	--	--	--
HODI	oceanspray	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Low shrubs															
VAME	big huckleberry	1	33	3	100	16	53	1	48	8	47	40	97	40	100
VASC	grouse huckleberry	6	67	2	75	10	100	16	86	60	100	11	50	25	83
LTB02	twin flower	--	--	--	--	--	--	--	--	--	--	--	--	--	--
CHUM	prince's pine	--	--	6	50	2	50	2	38	4	47	3	75	5	92
SPBE	shiny leaf spiraea	--	--	--	--	--	--	--	--	1	32	--	--	4	75
BERE	Oregon-grape	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SYAL	common snowberry	--	--	--	--	--	--	--	--	--	--	--	--	--	--
ARUV	Kinnickinnick	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Sedges and grasses															
BRVU	Columbia brome	--	--	--	--	--	--	--	--	--	--	--	--	--	--
CACO	northwestern sedge	--	--	--	--	--	--	--	--	2	21	--	--	--	--
CARO	Ross' sedge	1	33	1	50	--	--	2	52	2	42	--	--	1	17
CARU	pinegrass	--	--	--	--	--	--	--	--	7	53	--	--	5	17
CAGE	elk sedge	--	--	--	--	--	--	--	--	4	21	--	--	--	--
FEID	Idaho fescue	--	--	--	--	--	--	--	--	--	--	--	--	--	--
AGSP	bluebunch wheatgrass	--	--	--	--	--	--	--	--	--	--	--	--	--	--
POPR	Kentucky bluegrass	--	--	--	--	--	--	--	--	--	--	--	--	--	--
KOCR	prairie junegrass	--	--	--	--	--	--	--	--	--	--	--	--	--	--
POSA3	Sandberg's bluegrass	--	--	--	--	--	--	--	--	--	--	--	--	--	--

* Percent plot cover estimated ocularly in 375 sq. m. macroplot.
** Percent of plots species occurred in.

MEAN COVERAGE* AND CONSTANCY** TABLE (1b)
(late to mid seral stage stands)

		TSNE/VASC		TSNE/VAHE		ABLA2/MEFE		ABLA2/VASC		PICO/VASC (ABLA2)		ABLA2/VAHE		PICO/VAHE (ABLA2)	
		(n = 3)		(n = 4)		(n = 6)		(n = 21)		(n = 19)		(n = 32)		(n = 12)	
		mean	cons.	mean	cons.	mean	cons.	mean	cons.	mean	cons.	mean	cons.	mean	cons.
		cov.		cov.		cov.		cov.		cov.		cov.		cov.	
Forbs															
VASI	sitka alder	--	--	--	--	--	--	2	57	--	--	3	34	--	--
PERA	sickle leaf lousewort	--	--	--	--	8	33	2	43	--	--	3	34	--	--
POPU	skunk lfd. polemonium	--	--	--	--	--	--	2	67	--	--	3	50	--	--
TITRU	tiarella	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PYAS	pink wintergreen	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PYSE	sidebells pyrola	3	33	1	50	5	67	4	57	--	--	3	72	1	50
ANPI	Piper's anemone	--	--	--	--	--	--	--	--	--	--	3	50	--	--
CLUN	queen's cup	--	--	--	--	--	--	--	--	--	--	--	--	--	--
GATR	bedstraw	--	--	--	--	--	--	--	--	--	--	--	--	--	--
ADB1	trail plant	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SHST	St. false Solomon's S.	--	--	--	--	--	--	--	--	--	--	--	--	--	--
VIOR2	round-leaved violet	--	--	--	--	--	--	6	67	6	53	6	72	3	92
VIOLA	other violet species	--	--	--	--	--	--	--	--	--	--	--	--	--	--
DITR	fairy-bell	--	--	--	--	--	--	--	--	--	--	--	--	--	--
HIAL	Wh. flowered hawkweed	--	--	--	--	--	--	--	--	2	53	--	--	--	--
HIAL2	western hawkweed	--	--	--	--	--	--	--	--	--	--	--	--	--	--
GOOB	rattlesnake plantain	--	--	--	--	--	--	--	--	1	16	3	41	1	50
THOC	meadowrue	--	--	--	--	3	67	3	48	--	--	5	66	4	42
OSCH	sweet cicely	--	--	--	--	--	--	2	43	1	32	2	47	2	33
FRV1	blueleaf strawberry	--	--	--	--	--	--	--	--	3	37	--	--	5	42
FRVE	woods strawberry	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MIST2	mitella	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SHRA	W. false Solomon's S.	--	--	--	--	--	--	--	--	--	--	--	--	--	--
ASCO	showy aster	--	--	--	--	--	--	--	--	--	--	--	--	--	--
GETR	red avens	--	--	--	--	--	--	--	--	--	--	--	--	--	--
ARCO	heart-leaf arnica	2	100	--	--	1	67	6	81	8	42	6	81	5	58
ARMA3	bigleaf sandwort	--	--	--	--	--	--	--	--	--	--	4	28	--	--
TRLO	long stalked clover	--	--	--	--	--	--	--	--	--	--	--	--	--	--
LUPIN	other lupin species	--	--	--	--	--	--	4	43	--	--	--	--	--	--
ACHIL	yarrow	--	--	--	--	--	--	--	--	--	--	--	--	--	--
LATHY	peavines	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Surface features															
MOSS	moss species	7	100	7	100	54	83	28	95	10	74	22	91	9	100
LITT	litter	86	100	89	100	44	100	66	100	86	100	74	97	82	100
LICHN	lichen species	1	33	--	--	3	50	2	19	4	26	1	16	1	33
BRGRD	bareground	1	33	1	50	2	50	2	33	1	32	1	22	1	17
GRAVL	gravel-sized fragments	6	67	3	50	1	67	2	19	1	11	1	13	1	8
ROCK	rock and stone	3	33	4	50	--	--	5	24	1	37	11	31	1	25

MEAN COVERAGE* AND CONSTANCY** TABLE (2a)
(late to mid seral stage stands)

		ABLA2/CLUN (n = 11)		ABLA2/LIBO2 (n = 6)		ABGR/CLUN (n = 31)		ABGR/TABR/ CLUN (n = 6)		ABGR/VAME (n = 25)		ABGR/LIBO2 (n = 38)		PICO/LIBO2 (ABGR) (n = 11)	
		mean cov.	cons.	mean cov.	cons.	mean cov.	cons.	mean cov.	cons.	mean cov.	cons.	mean cov.	cons.	mean cov.	cons.
Tree overstory															
TSME	mountain hemlock	--	--	--	--	--	--	--	--	--	--	--	--	--	--
ABLA	subalpine fir	14	54	9	100	--	--	--	--	--	--	--	--	--	--
PIEN	Engelmann spruce	40	100	32	100	17	68	19	67	3	24	18	18	--	--
PICO	lodgepole pine	5	42	10	50	6	19	--	--	--	--	9	29	45	100
LAOC	western larch	5	36	12	50	7	32	11	33	4	24	15	50	14	55
ABGR	grand fir	10	8	--	--	33	100	31	100	24	88	38	89	30	9
PSME	Douglas fir	--	--	10	50	13	55	19	83	14	40	20	74	17	27
PIPO	ponderosa pine	--	--	--	--	--	--	--	--	--	--	16	16	--	--
Tree understory															
TSME	mountain hemlock	--	--	--	--	--	--	--	--	--	--	--	--	--	--
ABLA	subalpine fir	10	100	21	100	--	--	--	--	--	--	--	--	--	--
PIEN	Engelmann spruce	7	83	14	100	8	52	7	67	2	28	3	26	--	--
PICO	lodgepole pine	--	--	--	--	--	--	--	--	--	--	--	--	20	55
LAOC	western larch	--	--	--	--	--	--	--	--	--	--	--	--	5	27
ABGR	grand fir	12	75	18	67	27	100	24	100	21	100	38	100	19	73
PSME	Douglas fir	--	--	1	17	7	19	3	33	5	36	13	50	19	100
PIPO	ponderosa pine	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Tall shrubs															
TABR	Pacific yew	--	--	--	--	--	--	26	100	--	--	--	--	--	--
ALSI	Sitka alder	--	--	--	--	--	--	--	--	1	8	--	--	--	--
AMAL	serviceberry	--	--	--	--	--	--	--	--	1	28	--	--	--	--
ACGL	Rocky Mountain maple	--	--	--	--	--	--	6	50	1	28	--	--	--	--
Mid shrubs															
MEFE	fool's huckleberry	--	--	--	--	--	--	--	--	--	--	--	--	--	--
RUPA	thimbleberry	--	--	--	--	--	--	--	--	--	--	--	--	--	--
LOUT2	Utah honeysuckle	1	36	3	83	3	65	5	67	2	68	3	47	4	73
ROGY	baldhip rose	1	17	10	33	3	81	1	83	3	56	2	66	5	64
RILA	swamp gooseberry	2	50	1	83	1	55	2	83	2	64	3	37	--	--
SYDR	mountain snowberry	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PHMA	ninebark	--	--	--	--	--	--	--	--	--	--	--	--	--	--
HOD1	oceanspray	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Low shrubs															
VAME	big huckleberry	13	73	28	67	29	81	12	100	30	88	9	89	43	91
VASC	grouse huckleberry	1	33	--	--	--	--	--	--	--	--	--	--	--	--
LIBO2	twin flower	19	54	24	100	31	65	18	100	12	20	22	100	37	100
CHUM	prince's pine	5	36	3	67	4	77	3	67	3	76	2	71	10	91
SPEE	shiny leaf spiraea	--	--	--	--	3	35	--	--	6	48	3	39	5	55
BERE	Oregon-grape	--	--	--	--	3	35	--	--	1	16	2	47	5	45
SYAL	common snowberry	--	--	--	--	--	--	--	--	--	--	--	--	--	--
ARUV	Kinnickinnick	--	--	--	--	--	--	--	--	--	--	--	--	12	45
Sedges and grasses															
BRVU	Columbia brome	4	91	1	50	4	74	3	83	1	72	2	71	7	36
CACO	northwestern sedge	3	17	5	17	4	10	1	17	1	24	3	50	2	55
CARO	Ross' sedge	1	45	5	50	2	58	--	--	2	60	3	18	5	55
CARU	pinegrass	--	--	1	17	6	19	--	--	10	36	3	37	16	82
CAGE	elk sedge	1	25	2	50	1	13	--	--	1	24	2	32	--	--
FEID	Idaho fescue	--	--	--	--	--	--	--	--	--	--	--	--	--	--
AGSP	bluebunch wheatgrass	--	--	--	--	--	--	--	--	--	--	--	--	--	--
POPR	Kentucky bluegrass	--	--	--	--	--	--	--	--	--	--	--	--	--	--
KOCR	prairie junegrass	--	--	--	--	--	--	--	--	--	--	--	--	--	--
POSA3	Sandberg's bluegrass	--	--	--	--	--	--	--	--	--	--	--	--	--	--
FEOC	western fescue	--	--	--	--	1	29	1	17	--	--	2	34	--	--

* Percent plot cover estimated ocularly in .375 sq. m. macroplot.

** Percent of plots species occurred in.

MEAN AND COVERAGE* AND CONSTANCY** TABLE (2b)
(late to mid seral stage stands)

		ABLA2/CLUN		ABLA2/LIB02		ABGR/CLUN		ABGR/TABR/ CLUN		ABGR/VAME		ABGR/LIB02		PICO/LIB02 (ABGR)	
		(n = 11)		(n = 6)		(n = 31)		(n = 6)		(n = 25)		(n = 38)		(n = 11)	
		mean	cons.	mean	cons.	mean	cons.	mean	cons.	mean	cons.	mean	cons.	mean	cons.
		cov.		cov.		cov.		cov.		cov.		cov.		cov.	
Forbs															
VASI	sitka valerian	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PERA	sitkleaf lousewort	--	--	--	--	--	--	--	--	--	--	--	--	--	--
POPU	skunk lfd. polemonium	--	--	--	--	--	--	--	--	--	--	--	--	--	--
TITRU	tiarella	28	25	--	--	--	--	--	--	--	--	--	--	--	--
PYAS	pink wintergreen	--	--	9	50	--	--	--	--	--	--	--	--	--	--
PYSE	sidebells pyrola	3	82	9	67	3	71	2	83	3	80	2	61	2	64
ANPI	Piper's anemone	1	36	--	--	3	19	--	--	--	--	3	32	--	--
CLUN	queen's cup	14	82	--	--	12	84	7	100	--	--	--	--	--	--
GATR	bedstraw	6	45	1	67	2	61	1	67	1	52	1	32	--	--
ADBI	trail plant	--	--	--	--	7	52	4	83	9	36	2	21	--	--
SMST	St. false Solomon's S.	4	64	2	50	5	35	6	83	--	--	2	24	--	--
VIOR2	round-leaved violet	6	64	7	67	6	71	12	67	6	56	4	84	8	91
DITR	fairy-bell	--	--	1	33	2	52	8	33	1	36	1	39	--	--
HIAL	Wh. flowered hawkweed	4	54	1	33	2	52	--	--	1	64	1	50	3	55
HIAL2	western hawkweed	--	--	--	--	--	--	--	--	2	8	--	--	--	--
GGDB	rattlesnake plantain	3	54	4	67	2	87	1	100	3	56	2	79	4	55
THOC	meadowrue	6	91	15	83	7	90	6	67	4	72	6	63	--	--
OSCH	sweet cicely	2	82	3	67	3	84	2	100	3	60	3	74	2	91
FRVI	blueleaf strawberry	--	--	--	--	--	--	--	--	--	--	--	--	6	64
FRVE	woods strawberry	1	45	2	50	3	77	1	67	4	64	2	76	5	45
MIST2	mitella	--	--	5	17	1	16	--	--	3	36	2	29	--	--
SMRA	W. false Solomon's S.	--	--	--	--	--	--	--	--	1	32	--	--	--	--
ASCO	showy aster	--	--	--	--	--	--	--	--	--	--	--	--	--	--
GETR	red avens	--	--	--	--	--	--	--	--	--	--	--	--	--	--
ARCO	heart-leaf arnica	11	91	13	100	9	52	11	83	7	80	4	37	3	36
ARNA3	bigleaf sandwort	3	17	10	17	2	35	10	17	3	64	1	21	--	--
TRLO	long stalked clover	17	17	8	50	--	--	9	67	9	12	10	42	--	--
LUPIN	other lupin species	--	--	--	--	--	--	--	--	--	--	--	--	2	27
ACHIL	yarrow	--	--	--	--	--	--	--	--	--	--	--	--	--	--
LATHY	peavines	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Surface features															
MOSS	moss species	33	92	56	100	36	94	51	100	14	92	24	100	37	100
LITT	litter	70	100	51	100	73	97	46	100	84	96	75	100	60	100
LICHN	lichen species	5	33	--	--	3	39	5	50	1	60	1	21	--	--
BRGRD	bareground	1	8	5	17	1	13	1	17	2	56	1	16	15	18
GRAVL	gravel-sized fragments	1	8	--	--	--	--	--	--	1	24	--	--	--	--
ROCK	rock and stone	1	17	--	--	2	10	--	--	2	52	3	11	--	--

MEAN COVERAGE* AND CONSTANCY** TABLE (3a)
(late to mid seral stage stands)

		ABGR/ACGL		ABGR/SPBE		ABGR/CARU		PSME/CARU		PSME/ACGL/ PHMA		PSME/PHMA		PSME/SPBE	
		(n = 5)		(n = 7)		(n = 3)		(n = 14)		(n = 15)		(n = 52)		(n = 8)	
		mean	cons.	mean	cons.	mean	cons.	mean	cons.	mean	cons.	mean	cons.	mean	cons.
		cov.		cov.		cov.		cov.		cov.		cov.		cov.	
Tree overstory															
TSME	mountain hemlock	--	--	--	--	--	--	--	--	--	--	--	--	--	--
ABLA	subalpine fir	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PIEN	Engelmann spruce	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PICD	lodgepole pine	--	--	--	--	--	--	--	--	--	--	--	--	--	--
LAOC	western larch	--	--	--	--	--	--	--	--	--	--	--	--	--	--
ABGR	grand fir	54	100	17	43	20	67	--	--	--	--	--	--	--	--
PSME	Douglas fir	9	40	27	43	13	67	27	100	45	100	34	98	16	100
PIPO	ponderosa pine	16	40	24	100	28	67	37	86	18	27	21	65	22	88
Tree understory															
TSME	mountain hemlock	--	--	--	--	--	--	--	--	--	--	--	--	--	--
ABLA	subalpine fir	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PIEN	Engelmann spruce	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PICD	lodgepole pine	--	--	--	--	--	--	--	--	--	--	--	--	--	--
LAOC	western larch	--	--	--	--	--	--	--	--	--	--	--	--	--	--
ABGR	grand fir	9	100	8	100	9	100	--	--	--	--	--	--	--	--
PSME	Douglas fir	2	40	8	71	6	100	12	93	12	87	21	90	9	88
PIPO	ponderosa pine	--	--	3	57	3	33	5	43	10	7	5	25	4	100
Tall shrubs															
TABR	Pacific yew	--	--	--	--	--	--	--	--	--	--	--	--	--	--
ALSI	Sitka alder	--	--	--	--	--	--	--	--	--	--	--	--	--	--
ANAL	serviceberry	--	--	3	86	--	--	1	21	5	53	2	54	1	75
ACGL	Rocky Mountain maple	13	100	--	--	--	--	--	--	9	100	--	--	--	--
Mid shrubs															
MEFE	fool's huckleberry	--	--	--	--	--	--	--	--	--	--	--	--	--	--
LOUT2	Utah honeysuckle	2	40	--	--	--	--	--	--	5	40	5	13	--	--
ROGY	baldhip rose	2	40	--	--	--	--	--	--	3	40	4	44	3	25
ROSA	other rose species	--	--	--	--	--	--	--	--	--	--	--	--	--	--
RILA	swamp gooseberry	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SYOR	mountain snowberry	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PHMA	ninebark	--	--	--	--	--	--	--	--	35	87	43	94	--	--
HOD1	oceanspray	--	--	--	--	--	--	--	--	7	40	13	35	--	--
Low shrubs															
VAME	big huckleberry	--	--	--	--	6	67	--	--	--	--	--	--	--	--
VASC	grouse huckleberry	--	--	--	--	--	--	--	--	--	--	--	--	--	--
LIBO2	twin flower	--	--	1	43	--	--	--	--	--	--	--	--	--	--
CHUM	prince's pine	--	--	30	100	1	33	--	--	--	--	--	--	--	--
SPBE	shiny leaf spiraea	2	60	10	43	--	--	2	57	5	93	10	73	21	100
BERE	Oregon-grape	--	--	20	100	--	--	--	--	16	27	5	29	5	63
SYAL	common snowberry	--	--	--	--	--	--	5	50	21	73	17	85	6	50
ARUV	Kinnickinnick	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Sedges and grasses															
BRVU	Columbia brome	--	--	--	--	--	--	--	--	7	47	7	27	--	--
CACO	northwestern sedge	--	--	--	--	--	--	--	--	--	--	1	6	--	--
CARO	Ross' sedge	--	--	--	--	--	--	--	--	--	--	--	--	--	--
CARU	pinegrass	--	--	8	86	68	100	56	100	7	73	21	90	32	100
CAGE	elk sedge	--	--	2	43	15	67	15	57	5	60	9	67	13	63
BRCA	mountain brome	--	--	--	--	--	--	--	--	--	--	--	--	--	--
FEID	Idaho fescue	--	--	--	--	--	--	--	--	--	--	2	13	--	--
AGSP	bluebunch wheatgrass	--	--	--	--	--	--	--	--	--	--	--	--	--	--
POPR	Kentucky bluegrass	--	--	--	--	--	--	--	--	--	--	--	--	--	--
KOCR	prairie junegrass	--	--	--	--	--	--	--	--	--	--	--	--	--	--
POSA3	Sandberg's bluegrass	--	--	--	--	--	--	--	--	--	--	--	--	--	--
BRTE	cheatgrass	--	--	--	--	--	--	--	--	--	--	--	--	--	--
FEOC	western fescue	--	--	2	43	--	--	--	--	3	40	3	40	1	38

* Percent plot cover estimated ocularly in 375 sq. m. macroplot.

** Percent of plots species occurred in.

MEAN AND COVERAGE* AND CONSTANCY** TABLE (3b)
(late to mid seral stage stands)

		ABGR/ACGL		ABGR/SPBE		ABGR/CARU		PSNE/CARU		PSNE/ACGL/ PHMA		PSNE/PHMA		PSNE/SPBE	
		(n = 5)		(n = 7)		(n = 3)		(n = 14)		(n = 15)		(n = 52)		(n = 8)	
		mean	cons.	mean	cons.	mean	cons.	mean	cons.	mean	cons.	mean	cons.	mean	cons.
		cov.		cov.		cov.		cov.		cov.		cov.		cov.	
Forbs															
VASI	sifta valerian	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PERA	sickleleaf lousewort	--	--	--	--	--	--	--	--	--	--	--	--	--	--
POPU	skunk lfd. polemonium	--	--	--	--	--	--	--	--	--	--	--	--	--	--
TITRU	tiarella	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PYAS	pink wintergreen	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PYSE	sidebells pyrola	--	--	--	--	--	--	--	--	--	--	--	--	--	--
ANPI	Piper's anemone	--	--	--	--	--	--	--	--	--	--	--	--	--	--
CLUN	queen's cup	--	--	--	--	--	--	--	--	--	--	--	--	--	--
GATR	bedstraw	2	60	1	43	--	--	--	--	1	27	5	21	--	--
ADBI	trail plant	--	--	2	29	--	--	--	--	--	--	--	--	--	--
SMST	St. false Solomon's S.	2	40	--	--	--	--	--	--	--	--	--	--	--	--
VIOR2	round-leaved violet	--	--	--	--	--	--	--	--	--	--	--	--	--	--
DITR	fairy-bell	1	60	--	--	--	--	--	--	3	27	2	21	--	--
HIAL	Wh. flowered hawkweed	1	40	1	29	--	--	2	21	--	--	--	--	3	38
HIAL2	western hawkweed	--	--	--	--	--	--	1	21	--	--	--	--	3	50
GOOB	rattlesnake plantain	--	--	--	--	--	--	--	--	3	40	2	31	--	--
THOC	meadowrue	1	40	--	--	--	--	--	--	7	60	10	44	--	--
OSCH	sweet cicely	3	80	2	100	--	--	1	36	5	67	4	48	1	50
FRVI	blueleaf strawberry	--	--	3	71	1	33	2	14	--	--	8	15	21	25
FRVE	woods strawberry	--	--	--	--	13	67	9	50	5	60	12	83	4	75
MIST2	mitella	1	40	--	--	--	--	--	--	5	47	12	62	--	--
SMRA	W. false Solomon's S.	1	40	--	--	--	--	1	21	2	67	1	35	--	--
ASCO	showy aster	--	--	2	43	--	--	16	36	7	20	8	29	12	38
GETR	red avens	--	--	--	--	--	--	1	21	--	--	1	23	--	--
ARCO	heart-leaf arnica	--	--	10	71	20	67	15	64	20	73	20	63	32	100
ARMA3	bigleaf sandwort	5	60	2	57	--	--	4	50	4	60	10	79	13	25
TRLO	long stalked clover	--	--	--	--	--	--	14	57	10	40	20	60	--	--
LUPIN	other lupin species	--	--	--	--	--	--	14	36	--	--	8	17	4	38
ACHIL	yarrow	--	--	--	--	1	67	3	64	--	--	2	42	1	50
LATHY	peavines	--	--	3	57	3	33	--	--	1	20	--	--	5	50
Surface features															
MOSS	moss species	4	60	3	14	3	67	15	57	40	93	39	90	1	38
LITT	litter	82	100	93	100	73	100	65	100	60	75	57	100	83	100
LICHN	lichen species	1	60	1	14	1	33	1	21	2	33	3	13	1	63
BRGRD	bareground	11	80	2	29	6	67	8	50	2	60	6	67	5	63
GRAVL	gravel-sized fragments	2	60	--	--	1	33	--	--	--	--	--	--	3	25
ROCK	rock and stone	5	80	3	14	3	67	2	43	7	53	8	60	6	63

MEAN COVERAGE* AND CONSTANCY** TABLE (4a)
(late to mid seral stage stands)

		PSHE/SYAL		PSHE/SYOR		PIPO/SYAL		PIPO/FEID		PIPO/AGSP	
		(n = 12)		(n = 3)		(n = 6)		(n = 13)		(n = 4)	
		mean cov.	cons. cov.	mean cov.	cons. cov.	mean cov.	cons. cov.	mean cov.	cons. cov.	mean cov.	cons. cov.
Tree overstory											
TSME	mountain hemlock	--	--	--	--	--	--	--	--	--	--
ABLA	subalpine fir	--	--	--	--	--	--	--	--	--	--
PIEM	Engelmann spruce	--	--	--	--	--	--	--	--	--	--
PICO	lodgepole pine	--	--	--	--	--	--	--	--	--	--
LAOC	western larch	--	--	--	--	--	--	--	--	--	--
ABGR	grand fir	--	--	--	--	--	--	--	--	--	--
PSHE	Douglas fir	27	100	32	100	--	--	--	--	--	--
PIPO	ponderosa pine	30	100	40	67	33	100	34	100	26	100
Tree understory											
TSME	mountain hemlock	--	--	--	--	--	--	--	--	--	--
ABLA	subalpine fir	--	--	--	--	--	--	--	--	--	--
PIEM	Engelmann spruce	--	--	--	--	--	--	--	--	--	--
PICO	lodgepole pine	--	--	--	--	--	--	--	--	--	--
LAOC	western larch	--	--	--	--	--	--	--	--	--	--
ABGR	grand fir	--	--	--	--	--	--	--	--	--	--
PSHE	Douglas fir	16	92	5	67	--	--	--	--	--	--
PIPO	ponderosa pine	9	75	--	--	42	83	10	77	1	75
Tall shrubs											
TABR	Pacific yew	--	--	--	--	--	--	--	--	--	--
ALSI	Sitka alder	--	--	--	--	--	--	--	--	--	--
ANAL	serviceberry	1	67	1	33	2	67	--	--	--	--
ACGL	Rocky Mountain maple	--	--	--	--	--	--	--	--	--	--
Mid shrubs											
MEFE	fool's huckleberry	--	--	--	--	--	--	--	--	--	--
LOUT2	Utah honeysuckle	--	--	--	--	--	--	--	--	--	--
ROGY	baldhip rose	1	17	--	--	--	--	--	--	--	--
ROSA	other rose species	8	42	--	--	1	50	2	38	--	--
RILA	swamp gooseberry	--	--	--	--	--	--	--	--	--	--
SYOR	mountain snowberry	--	--	22	100	--	--	--	--	--	--
PHMA	ninebark	1	25	--	--	--	--	--	--	--	--
HOO1	oceanspray	--	--	--	--	--	--	--	--	--	--
Low shrubs											
VAME	big huckleberry	--	--	--	--	--	--	--	--	--	--
VASC	grouse huckleberry	--	--	--	--	--	--	--	--	--	--
LIG02	twin flower	--	--	--	--	--	--	--	--	--	--
CHUM	prince's pine	--	--	--	--	--	--	--	--	--	--
SPBE	shiny leaf spiraea	2	58	--	--	--	--	--	--	--	--
BERE	Oregon-grape	8	42	--	--	6	33	2	31	--	--
SYAL	common snowberry	27	100	--	--	34	100	--	--	--	--
ARUV	Kinnickinnick	--	--	--	--	--	--	--	--	--	--
Sedges and grasses											
BRVJ	Columbia brome	--	--	--	--	--	--	--	--	--	--
CACD	northwestern sedge	--	--	--	--	--	--	--	--	--	--
CARD	Ross' sedge	--	--	--	--	--	--	--	--	--	--
CARU	pinegrass	24	83	3	67	9	67	--	--	--	--
CAGE	elk sedge	19	58	8	67	1	17	2	15	--	--
BRCA	mountain brome	1	42	5	33	4	50	--	--	--	--
FEID	Idaho fescue	1	17	--	--	14	67	23	100	--	--
AGSP	blueburch wheatgrass	--	--	--	--	18	100	7	77	9	100
POPR	Kentucky bluegrass	--	--	--	--	11	67	--	--	--	--
KOCR	prairie junegrass	--	--	--	--	2	50	5	46	--	--
POSA3	Sandberg's bluegrass	--	--	--	--	--	--	1	50	--	--
BRTE	cheatgrass	--	--	--	--	--	--	3	62	2	75
FE0C	western fescue	9	25	--	--	--	--	--	--	--	--

* Percent plot cover estimated ocularly in 375 sq. m. macroplot.

** Percent of plots species occurred in.

MEAN COVERAGE* AND CONSTANCY** TABLE (4b)
 (late to mid seral stage stands)

		PSME/SYAL		PSME/SYOR		PIPO/SYAL		PIFO/FEID		PIPO/AGSP	
		(n = 12)		(n = 3)		(n = 6)		(n = 13)		(n = 4)	
		mean cov.	cons. cov.	mean cov.	cons. cov.	mean cov.	cons. cov.	mean cov.	cons. cov.	mean cov.	cons. cov.
Forbs											
VASI	sitka valerian	--	--	--	--	--	--	--	--	--	--
PERA	sickleleaf lousewort	--	--	--	--	--	--	--	--	--	--
POPU	skunk lfd. polemonium	--	--	--	--	--	--	--	--	--	--
TITRU	tiarella	--	--	--	--	--	--	--	--	--	--
PYAS	pink wintergreen	--	--	--	--	--	--	--	--	--	--
PYSE	sidebells pyrola	--	--	--	--	--	--	--	--	--	--
ANPI	Piper's anemone	--	--	--	--	--	--	--	--	--	--
CLUN	queen's cup	--	--	--	--	--	--	--	--	--	--
GATR	bedstraw	--	--	--	--	--	--	--	--	--	--
ADBI	trail plant	--	--	--	--	--	--	--	--	--	--
SNST	St. false Solomon's S.	--	--	--	--	--	--	--	--	--	--
VIOR2	round-leaved violet	--	--	--	--	--	--	--	--	--	--
DITR	fairy-bell	--	--	--	--	--	--	--	--	--	--
HIAL	Wh. flowered hawkweed	8	17	--	--	--	--	--	--	--	--
HIAL2	western hawkweed	--	--	--	--	--	--	--	--	--	--
GOOB	rattlesnake plantain	1	17	--	--	--	--	--	--	--	--
THOC	meadowrue	7	25	--	--	--	--	--	--	--	--
OSCH	sweet cicely	--	--	2	100	--	--	--	--	--	--
FRVI	blueleaf strawberry	6	33	--	--	7	67	--	--	--	--
FRVE	woods strawberry	8	42	23	100	12	50	--	--	--	--
MIST2	mitella	--	--	--	--	--	--	--	--	--	--
SHRA	W. false Solomon's S.	--	--	--	--	--	--	--	--	--	--
ASCO	showy aster	--	--	--	--	--	--	--	--	--	--
GETR	red avens	3	17	--	--	--	--	1	15	--	--
ARCO	heart-leaf arnica	20	75	14	100	4	50	8	15	--	--
ARMA3	bigleaf sandwort	8	25	--	--	--	--	--	--	--	--
TRLO	long stalked clover	14	25	--	--	5	67	--	--	--	--
LUPIN	other lupin species	1	17	--	--	10	50	6	69	7	75
ACHIL	yarrow	2	50	1	67	7	83	2	100	4	100
LATHY	peavines	17	17	--	--	--	--	--	--	--	--
Surface features											
MOSS	moss species	13	58	--	--	11	67	9	31	1	50
LITT	litter	85	100	63	100	67	100	81	100	71	100
LICHN	lichen species	--	--	--	--	--	--	--	--	1	25
BRGRD	bareground	8	42	6	100	8	100	5	69	8	75
GRAVL	gravel-sized fragments	--	--	5	33	--	--	5	31	2	100
ROCK	rock and stone	6	25	--	--	9	50	3	69	10	100

Appendix E

Mean Yield Capability and Stockability Indices

Spp.	n =	Mtn. Hemlock series						Subalpine fir series						Grand fir series						Douglas fir series						Ponderosa pine series			
		T S/H/ VASC+VAHE	ARLA2/ VASC	ARLA2/ VAHE	ABLA2/ CLUN	ARIA2/ LIBR2	ARIA2/ MEJE	ARLA2/ SIAM	ANCR/ CLUN	ANCR/ VAHE	ANCR/ LIBR2	ANCR/ AGL	ANCR/ SPBE	ANCR/ CARU	ANCR/ PIMA	PSHE/ CARU	PSHE/ AGL/PIMA	PSHE/ PIMA	PSHE/ SPBE	PSHE/ SYAL	PSHE/ SYOR	P IPO/ SYAL	P IPO/ SPBE	P IPO/ FEID	P IPO/ AGLP				
	7	21	22	10	6	6	2	30	32	24	5	6	4	4	17	8	26	9	7	3	3	3	7	5					
PIPO	SI	—	—	118	—	—	—	98	92	—	92	103	101	—	85	94	87	91	94	78	78	76	77	75					
**	GBA	—	—	175	—	—	—	230	160	—	190	225	195	—	160	135	105	165	160	150	100	90	85	75					
	SDI	—	—	380	—	—	—	400	300	—	390	360	330	—	270	240	215	280	280	260	200	160	125	140					
	GBA-cubes	—	—	90	—	—	—	95	62	—	75	110	85	—	60	50	40	60	65	50	34	30	28	25					
***	SDI-cubes	—	—	135	—	—	—	110	70	—	92	115	90	—	50	55	45	70	65	45	35	25	20	20					
PSHE	SI	—	68	70	—	—	—	94	95	87	106	93	94	86	72	92	73	70	66	—	—	—	—	—					
	GBA	—	235	275	—	—	—	260	210	245	308	300	270	300	195	160	140	160	170	—	—	—	—	—					
	SDI	—	430	340	—	—	—	345	320	420	430	380	260	470	250	220	250	260	230	—	—	—	—	—					
	GBA-cubes	—	71	88	—	—	—	108	86	90	137	117	104	100	57	63	44	44	48	—	—	—	—	—					
	SDI-cubes	—	49	48	—	—	—	81	72	72	128	86	63	90	40	45	31	35	30	—	—	—	—	—					
LACC	SI	—	80	100	118	109	—	113	99	95	—	—	—	85	—	—	—	—	—	—	—	—	—	—					
	GBA	—	160	170	180	140	—	190	170	180	—	—	—	140	—	—	—	—	—	—	—	—	—	—					
	SDI	—	340	410	320	380	—	350	340	440	—	—	—	400	—	—	—	—	—	—	—	—	—	—					
	GBA-cubes	—	60	65	90	65	—	92	70	70	—	—	—	50	—	—	—	—	—	—	—	—	—	—					
	SDI-cubes	—	40	60	75	75	—	90	60	65	—	—	—	60	—	—	—	—	—	—	—	—	—	—					
PICO	SI	65	74	80	—	95	75	72	81	72	70	—	—	—	—	—	—	—	—	—	—	—	—	—					
	GBA	95	150	150	—	150	135	130	170	120	135	—	—	—	—	—	—	—	—	—	—	—	—	—					
	SDI	260	370	355	—	335	320	360	450	340	350	—	—	—	—	—	—	—	—	—	—	—	—	—					
	GBA-cubes	28	45	50	—	64	45	42	60	38	41	—	—	—	—	—	—	—	—	—	—	—	—	—					
	SDI-cubes	19	30	30	—	35	25	30	45	30	30	—	—	—	—	—	—	—	—	—	—	—	—	—					
PIEN	SI	88	90	85	110	100	95	98	104	107	—	—	—	—	—	—	—	—	—	—	—	—	—	—					
	GBA	155	240	235	290	240	200	265	290	275	—	—	—	—	—	—	—	—	—	—	—	—	—	—					
	SDI	350	430	365	380	340	300	400	400	370	—	—	—	—	—	—	—	—	—	—	—	—	—	—					
	GBA-cubes	55	100	80	130	100	80	115	130	125	—	—	—	—	—	—	—	—	—	—	—	—	—	—					
	SDI-cubes	54	60	60	80	70	55	80	80	85	—	—	—	—	—	—	—	—	—	—	—	—	—	—					
ABGR	SI	—	—	—	95	—	—	—	108	96	96	115	—	—	77	—	—	—	—	—	—	—	—	—					
	GBA	—	—	—	255	—	—	—	325	270	325	375	—	—	210	—	—	—	—	—	—	—	—	—					
	SDI	—	—	—	280	—	—	—	390	340	420	430	—	—	220	—	—	—	—	—	—	—	—	—					
	GBA-cubes	—	—	—	105	—	—	—	150	110	120	170	—	—	65	—	—	—	—	—	—	—	—	—					
	SDI-cubes	—	—	—	80	—	—	—	110	105	96	130	—	—	60	—	—	—	—	—	—	—	—	—					
ARLA2	SI	73	78	70	90	76	65	84	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—					
	GBA	215	190	160	180	190	150	180	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—					
	SDI	350	430	360	380	340	300	405	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—					
	GBA-cubes	60	60	45	70	62	40	70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—					
	SDI-cubes	65	60	47	80	60	40	80	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—					
T S/H/	SI	70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—					
	GBA	260	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—					
	SDI	440	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—					
	GBA-cubes	75	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—					
	SDI-cubes	85	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—					

n refers to the number of intensive plots sampled in the type; this may or may not equal the number of plots the individual species was sampled on.
 * Site index base 100; ** Site index base 100 X GBA X .004; *** Alter Knapp (1981)



Appendix F

Productivity Classes of Forest Plant Community Types Based on Stockability and Yield Capability

Grand fir/queen's cup	ABGR/CLUN	VERY
Grand fir/Pacific yew/queen's cup	ABGR/TABR/CLUN	HIGH
Grand fir/Rocky Mountain maple	ABGR/ACGL	
Subalpine fir/queen's cup	ABLA2/CLUN	

Grand fir/twinflower	ABGR/LIBO2	HIGH
Grand fir/big huckleberry	ABGR/VAME	
Grand fir/spiraea	ABGR/SPBE	

Grand fir/goldthread	ABGR/COOC2	MOD.
Subalpine fir/twinflower	ABLA2/LIBO2	HIGH
Subalpine fir/grouse huckleberry	ABLA2/VASC	
Subalpine fir/big huckleberry	ABLA2/VAME	
Grand fir/pinegrass	ABGR/CARU	
Subalpine fir/twisted stalk	ABLA2/STAM	
Grand fir/Rocky Mountain maple-ninebark	ABGR/ACGL-PHMA	

Mountain hemlock/big huckleberry	TSME/VAME	MOD.
Mountain hemlock/grouse huckleberry	TSME/VASC	
Douglas-fir/Rocky Mountain maple-ninebark	PSME/ACGL-PHMA	
Douglas-fir/pinegrass	PSME/CARU	
Lodgepole pine/twinflower	PICO/LIBO2	
Lodgepole pine/grouse huckleberry	PICO/VASC	
Lodgepole pine/big huckleberry	PICO/VAME	
Douglas-fir/common snowberry	PSME/SYAL	
Douglas-fir/spiraea	PSME/SPBE	
Subalpine fir/fool's huckleberry	ABLA2/MEFE	
Douglas-fir/mountain snowberry	PSME/SYOR	
Douglas-fir/big huckleberry	PSME/VAME	
Douglas-fir/ninebark	PSME/PHMA	

Ponderosa pine/common snowberry	PIPO/SYAL	LOW
Ponderosa pine/spiraea	PIPO/SPBE	
Ponderosa pine/Idaho fescue	PIPO/FEID	
Ponderosa pine/bluebunch wheatgrass	PIPO/AGSP	
Ponderosa pine/bitterbrush/ bluebunch wheatgrass	PIPO/PUTR/AGSP	

1/ These classes were developed from Appendices E and F with the dominant species for the type given the most weight. Stockability = Growth Basal Area (Hall 1983), Yield capability = Growth Basal Area X Site index base 100 X .004.

APPENDIX G

Soil classes of Mallowa-Snake Steppe Community Types based on Degree of Loess Influence, Slope, Soil Depth, and Lithology

Lithology	(1) Residual soils poorly developed		(2) Resid. + colluvial* soils w/minor loess influence		(3) Colluvial soils with mod. loess influence		(4) Soils highly influenced by loess or volcanic ash	
	basalt	other	basalt	other	basalt	other	basalt	other
Gentle slopes : shallow : soils : 1-10% : (5%)	ARRI/POSA3 POSA3/DAUN ERLPS AGSP-POSA3 scabland		ERDO-POSA3					
: mod. : deep : (11-30")			FEID-AGSP ridgetops LELXW		ARRRV/FEID		MEADOWS FEID-KCCR tops FEID-KCCR mounds FEID-DALN-CAREX	MEADOWS
: deep : soils : (30"+)							ARRRV-SYOR/BRCA FEID-KCCR mounds SYOR Degenerated bench	
Mtd. slopes : shallow : soils : 11-30% : (18%)	AGSP-POSA3 scabland ERST2 ERIOG/PHDR ARRI/POSA3		AGSP-POSA3 granite					
: mod. : deep : (11-30")					ARRRV/FEID ARRRV/CAGE AGSP-SPCR-ARLO3 CERE2	ARRRV/FEID	FEID-KCCR tops	
: deep : soils : (30"+)					AGSP-SPCR-ARLO3 SPCR ELGL		FEID-CAHO FEVI/LULA2 FEVI-CAHD	
Mtd. to steep slopes : shallow : soils : (2-10") : 20-70% : (35%)	ERIOG/PHDR		PUTR/AGSP AGSP-POSA3 granite		FEID-AGSP/BASA			
: mod. : deep : (11-30")			*CACU- *Talus garlands		AGSP-POSA3/PHCO2 FEID/CAGE ARRRV/FEID		FEID-CAHO FEVI/LULA2 FEVI-CAHO	
: deep : soils : (30"+)			*RHGL				SYAL	
Steep to very steep slopes : shallow : soils : (2-10") : 35-90% : (50%+)	JUOC/FEID-AGSP AGSP-POSA3/SCAN AGSP/OPPO	GLJE/AGSP CELE	JUOC/FEID-AGSP AGSP-POSA3/ERIE PUTR/AGSP		FEID-AGSP/BASA PUTR/FEID-AGSP ARRRV/PUTR/FEID			
: mod. : deep : (11-30")	AGSP-POSA3/SCAN JUOC/FEID-AGSP		AGSP-POSA3 basalt AGSP-POSA3/ ERIE	*AGSP-POSA3/ ASCUZ *AGSP-POSA3/ ERPU	FEID-AGSP/LUSE FEID-AGSP/BASA FEID-AGSP/PHCO2 SYAL/FEID-AGSP/LUSE		FEID-KCCR high	
: deep : soils : (30"+)			*AGSP-POSA3/ ASCUZ *AGSP-POSA3/ ERPU				FEID-KCCR low FEID-KCCR high SYAL/FEID PINA	FEID-KCCR low

1/ Soils developed in parent rock with greater than 35% rock fragments by volume in surface and subsurface layers. Surface layers with loam, sandy loam, silt loam and sand texture. Subsurface layers with clay loam, clay and loam texture.

2/ Soils developed primarily from parent rock with occasional loess influence or developed in colluvium (indicated by *). Surface layers with loam and silt loam texture and often greater than 35% rock fragments by volume. Subsurface layers with loam, clay loam, and clay texture and usually greater than 35% rock fragments by volume.

3/ Soils developed primarily in colluvial materials with adequate mixing of loess in surface layers. Buried soils are occasionally present. Surface layers with silt loam, loam and silty clay loam texture and 15-35% rock fragments by volume. Subsurface layers with silty clay loam and clay loam texture and often greater than 35% rock fragments by volume.

4/ Soils developed primarily in colluvial materials with a thick, mostly rock-free surface layer of loess or volcanic ash overlaying an older buried soil. Surface layers with silt loam and silt texture and less than 10% rock fragments by volume. Subsurface layers with silt loam, silty clay loam, and loam texture and usually 15-35% rock fragments by volume.



APPENDIX H

Soil classes of Willowa-Snake Forest Community Types Based on Rockiness, Ash Influence, Slope, Soil Depth, and Lithology

Lithology	(1)		(2)		(3)		(4)	
	Residual soils - Surface layers with 35%+ rock	Very rocky colluvial soils Surf. layers w/35%+ rock	Rocky colluvial soils-Surf. layers with 15-35% rock	Ashy soils-Surface layers with LT 15% rock	basalt	other	basalt	other
Gentle : mod. slopes : deep 1-10% : soils (5%) : (11-30")	P IFO/SYAL		PSME/SYOR					
: deep : soils : (31-50")			PSME/SYAL		ABLA2/VASC #ABGR/CARU #ABGR/SPBE #PSME/CARU	ABLA2/VASC #ABGR/CARU	ABLA2/VASC	ABLA2/VASC
: very : deep : soils : (50"+)					ABLA2/CLUN	ABLA2/CLUN ABLA2/STAH	ABLA2/CLUN ABGR/CLUN ABGR/TABR/CLUN ABGR/LIBO2	ABLA2/CLUN ABGR/CLUN
Mod. : mod. slopes : deep 11-20% : soils (18%) : (11-30")	P IFO/FEID	P IFO/FEID	PSME/P IHA					
: deep : soils : (31-50")			PSME/SPBE PSME/ACCL/P IHA *ABGR/VAME	PSME/SPBE *ABGR/VAME	ABLA2/VAME ABLA2/CARU	ABLA2/VAME	ABLA2/LIBO2 TSME/VASC+VAME	ABLA2/LIBO2
: very : deep : soils : (50"+)			*ABLA2/MEFE		ABLA2/VAME #ABGR/ACCL #PSME/P IHA	ABLA2/VAME #ABGR/ACCL	ABGR/VAME ABGR/TABR/CLUN	ABGR/VAME
Mod. : mod. steep to : soils steep slopes 31-50% (35%) : (31-50")	P IFO/SYAL P IFO/SPBE P IFO/PUTR/AGSP		P IFO/SPBE					
: deep : soils : (31-50")			PSME/SPBE PSME/SYAL	PSME/SPBE			ABLA2/LIBO2	
: very : deep : soils : (50"+)							ABGR/CLUN ABGR/LIBO2	
Steep : mod. to very : deep steep slopes 40-90% (50%+) : (11-30")	P IFO/AGSP		PSME/P IHA PSME/VAME		#ABGR/ACCL/P IHA	#ABGR/ACCL /P IHA		
: deep : soils : (31-50")			PSME/ACCL/P IHA *ABGR/COCC2	*ABLA2/POPU	TSME/VASC+VAME #ABGR/SPBE #PSME/CARU			
: very : deep : soils : (50"+)			*ABGR/VAME	*ABGR/VAME	ABGR/VAME #ABGR/ACCL	ABGR/VAME #ABGR/ACCL		

1/ Soils developed in parent rock with greater than 35% rock fragments by volume in surface and subsurface layers. Moderately influenced by loess. Surface layers with loam, silt loam, and loamy sand texture. Subsurface layers with loam, clay loam, and sandy loam texture.

2/ Soils with very rocky surface and subsurface layers. Most are influenced predominately by loess but may contain some volcanic ash. Those influenced strongly by volcanic ash are indicated by (*). Surface layers with loam and silt loam texture. Subsurface layers with clay loam and silty clay loam texture.

3/ Soils with rocky surface layers and usually very rocky subsurface layers. Most are influenced predominately by volcanic ash but some may also be influenced by loess. Those influenced by loess are indicated by (#). Surface layers with silt loam or loam texture. Subsurface layers with silty clay loam, clay loam, and loam texture.

4/ Soils developed primarily in wind deposited materials with a thick, mostly rock-free surface layer of volcanic ash overlaying an older buried soil. Surface layers with silt loam texture. Subsurface layers with silt loam, silty clay loam, and loam texture.

Appendix I

Soil Interpretative Definitions

These soil potentials are based on disturbed soil conditions. Many of the plant communities occur across several soil classes. The user is cautioned that in order to make accurate interpretations the specific soil class, vegetative community and topographic position should be known.

Displacement - Soil displacement is the removal of soil from one place to another by mechanical forces such as a blade or animal hoof. Detrimental displacement is the removal of 50% of the topsoil or humus-enriched horizons from an area 100 sq. ft. or more. Displacement is primarily a concern with mechanical harvesting operations.

Displacement potential is a function of soil texture, moisture, root mass, size and amount of coarse fragments and type and extent of vegetative cover. Dry volcanic ash or loess soils are more susceptible to displacement than most of the other rangeland or forest soils.

Compaction - Soils susceptible to compaction have weak structural development, are finer textured and usually low in organic matter. Susceptibility to compaction increases with increased soil moisture and decreased coarse fragment content.

Erodibility - Soil erodibility is a function of detachability, infiltration rate, permeability of lower horizons, uniformity of slope and slope percent, water concentration potential, distribution of annual precipitation, rainfall intensities, soil temperatures, and the density of effective ground cover following disturbance.

At the higher elevations, where cover is lacking, bare soils become crusted and water repellent. This inhibits grass regeneration and increases erosion potential. Previous range studies in the Wallowa Mountain subalpine zone have indicated that revegetation in these areas was difficult due to summer drought, plant species competition, trampling and frost heave. Frost heave and wind are significant climatic variables which inhibit revegetation efforts in these zones.

Nonwettability - Wettability problems can occur naturally or can be fire induced. Coarse-textured soils are more likely to become water repellent than fine textured soils. On steep southerly slopes extreme drying may result in water repellency. Water repellency has been reported in volcanic ash soils, primarily the lodgepole pine-grouse huckleberry association.

It is highly probable that under light grazing pressures water repellency is one of the primary factors limiting seedling germination and plant establishment in subalpine areas.

Solifluction - Rapid lateral flow of water which results in reduced soil strength and increased risk of soil movement. This is most prevalent in subalpine or (tundra) grassland areas where exposed west and southerly slopes experience temperature extremes.

Sites exhibiting solifluction activities often result in bare patches associated with vegetated strips. These sites can be source areas for larger mass failures.

Slope Stability - This rating includes considerations for mass failures, primarily debris flow/debris avalanche phenomena and includes potential for cutslope failures on deep soils within grassland dominated communities. A low stability rating indicates slopes are stable.

Soil Interpretations for Wallowa-Snake Steppe Plant Community Types

<u>Interpretations:</u>	<u>Soil Potentials-Hazard Ratings</u>		
	<u>Low</u>	<u>Mod</u>	<u>High</u>
Displacement	1	2	3
Compaction	4	5	6
Erodibility	7	8	9
Nonwettability	10	11	12
Solifluction	13	14	15
Slope Stability	16	17	18

Plant Community	Interpretations
FEVI-CAHO	1, 4, 8-9*, 10, 14, 16
FEVI/LULA2	1, 4, 8-9, 10, 14, 16
FEVI/LULA2 STEEP SLOPES	1, 4, 9, 10, 10-14, 16
FEID-KOCR RIDGETOPS	1, 5, 7-8, 10, 13, 16
FEID-KCOR MOUNDS	1-2, 5, 7-8, 10, 13, 16
FEID-KOCR HIGH	2, 4, 8-9, 10, 14, 16-17
SYAL/FEID-KOCR	2, 4, 8-9, 10, 14, 16-17
FEID-KOCR LOW ELEVATION	2-3, 4, 8-9, 10, 13, 17-18
FEID-AGSP RIDGETOPS	1, 4-5, 8, 10, 13, 16
FEID-AGSP/BASA	1, 4, 8-9, 10, 13, 18-17
FEID-AGSP/PHCO2	1, 4, 8-9, 10, 13, 16
FEID-DAIN-CAREX	1, 4, 7-8, 10, 13, 16
FEID-CAHO	1, 4, 8-9, 10, 13, 16
FEID-CAGE	2, 1, 9, 10, 14-15, 16
AGSP-ERHE	1, 4, 8, 10, 13, 17
AGSP-POSA3/SCAN	1, 4, 8-9, 10, 13, 17-18
AGSP-POSA3/BASALT	1, 4, 8-9, 10, 13, 17-16
AGSP-POSA3/ASCU4	1, 4, 8-9, 10, 13, 17-16
AGSP-POSA3/ERPU	1, 4, 8-9, 10, 13, 17-16
AGSP-POSA3 GRANITE	1, 4, 8-9, 10, 13, 16
AGSP-POSA3/PHCO2	1, 4, 8-9, 10, 13, 17-18
AGSP-POSA3/OPPO	1, 4, 8-9, 10, 13, 16
AGSP-SPCR-ARLO3	1, 4-5, 7-8, 10, 13, 16
SPCR	1, 4, 7, 10, 13, 16
AGSP-POSA3-SCAB	1, 4, 7-8, 10, 13, 16
ARRI/POSA3	1, 4, 7, 10, 13, 16
POSA3-DAUN	1, 4, 7, 10, 13, 16
ERDO/POSA3	1, 4-5, 7-8, 10, 13, 16
ERST2/POSA3	1, 4-5, 7-8, 10, 13, 16
ARTRV	1, 4, 8, 10, 14, 16
ARTRV-SYOR/BRCA	1, 4, 8, 10, 14, 16
PUTR/FEID-AGSP	2, 4, 8-9, 10, 13, 16
PUTR/AGSP	2, 4-5, 8-9, 10, 13, 16
PHMA-SYAL	1, 4, 8-9, 10, 13, 17
JUOC/FEID-AGSP	1,4, 8-9, 10, 13, 16
SYAL-ROSA	2-3, 4-5, 8-9, 10, 13, 16
CELE	1, 4, 8-9, 10, 13, 16
GLNE/AGSP	1, 4, 8-9, 10, 13, 16
CERE2/AGSP	1, 4, 7-8, 10, 13, 16
RHGL/AGSP	1, 4, 7-8, 10, 13, 16
ERIOG/PHOR	1, 5, 8-9, 10, 13, 16
CACU	1, 4, 8, 10, 13, 16

* When two numbers are entered for a single interpretation this means that there will be a range for that interpretation and that it will vary depending on topographic position of the point of interest.

Soil Interpretations for Wallowa-Snake Forest Plant Community Types

<u>Interpretations:</u>	<u>Soil Ratings and Potentials</u>		
	<u>Low</u>	<u>Mod</u>	<u>High</u>
Displacement	1	2	3
Compaction	4	5	6
Erodibility	7	8	9
Nonwettability	10	11	12
Solifluction	13	14	15
Slope Stability	16	17	18

<u>Community</u>	<u>Interpretations</u>
ABLA2/MEFE	1, 4, 8-9*, 10, 13, 16
ABLA2/VASC, POPU	2, 5-6, 8-9, 11, 13, 16
(PICO(ABLA2)/VASC/POPU)	2, 5-,6, 8-9, 11, 13, 16
PICO(ABLA2)VAME	2, 5, 7-8, 11-12, 13, 16
ABLA2/LIBO2	2, 5, 7-8, 11-12, 13, 16
ABLA2/POPU	2, 4, 8-9, 10, 13, 17
ABLA2/CARU	2, 4, 8-9, 10, 13, 16
ABLA2/STAM	2, 5-6, 8-9, 10, 13, 16
ABGR/CLUN	2-3, 5-6, 8-9, 10, 13, 16
ABGR/TABR/CLUN	2, 5, 8, 10, 13, 16
ABGR/VAME	2, 5, 8-9, 10, 13, 17
ABGR/LIBO2	2, 5, 8, 10, 13, 16
PICO(ABGR)/LIBO2	1-2, 5, 8, 11-12, 13, 17
ABGR/COOC2	2, 5, 8, 20, 13, 17
ABGR/ACGL	2, 5, 8, 10, 13, 16, 17
ABGR/SPBE	1, 4, 7-8, 10, 13, 16
ABGR/CARU	1, 4, 7-8, 10, 13, 16
PSME/CARU	2, 4-5, 7-8, 10, 13, 16
PSME/ACGL/PHMA	1, 4, 8, 10, 13, 17
PSME/PHMA	1, 4, 8-9, 10, 13, 17
PSME/SPBE	1, 4-5, 8, 10, 13, 16
PSME/SYAL	2, 5-6, 8, 10, 13, 16
PSME/VAME	2, 4, 8-9, 10, 13, 16
PSME/SYOR	1, 4-5, 7-8, 10, 13, 16
PIPO/SYAL	1, 4-5, 7-8, 10, 13, 16
PIPO/FEID	1, 4-5, 7-8, 10, 13, 16
PIPO/AGSP	1, 4, 8-9, 10, 14, 16
PIPO/PUTR/AGSP	1, 4, 8, 10, 14, 16
TSME/VAME	2, 5, 7-8, 10, 13, 16
TSME/VASC	2, 5, 7-8, 10, 13, 16

* When two numbers are entered for a single interpretation this means that there will be a range for that interpretation and that it will vary depending on topographic position of the point of interest.

Appendix J

Selected Wildlife Species/Use of Wallowa-Snake Province Plant Associations

Preble's shrew - All life cycle activities occur in meadows (especially wetsedge meadows) and willow thickets.

Brewer's sparrow - All life cycle activities occur in mountain big sagebrush communities.

Ferruginous hawk - Nests (FEID-KOCR ridgetops and mounds, FEID-AGSP/BASA, AGSP-POSA3 (basalt); AGSP-POSA3/(SCAN, JUOC/FEID-AGSP); Feeds (FEID-KOCR, FEID-AGSP, AGSP-ERHE).

American peregrine - Nests (FEVI/LULA2, FEID-AGSP/BASA)

Swainson's hawk - Feeds (FEID-KOCR, FEID-AGSP, AGSP/ERHE) - Nests (CRDO communities)

Northern bald eagle - Nests (PIPO series types and black cottonwood communities)

Pileated woodpecker - Primary Feeding (ABGR and PIPO series types)
Secondary Feeding (TSME and ABLA2 series types)
Nesting (PSME series types)

Pine marten - Feeds (PSME series types); Nests (ABGR series types; all life cycle activities (TSME, ABLA2 series types)

Arctic three-toed woodpecker - All life cycle functions (TSME, ABLA2, ABGR series types)

Black-backed three-toed woodpecker - Feeds (ABGR, PIPO series types); all life cycle functions (PSME series types)

White-breasted nuthatch - Feeds (ABGR, PSME series types); all life cycle functions (PIPO series types)

Vaux's swift - Nests (ABGR series types)

Yellow warbler - All life cycle functions (black cottonwood, Sitka alder, willow communities)

White headed woodpecker - Feeds (PSME series types); all life cycle functions (PIPO series types)

Goshawk - Nesting (ABGR series types (80%); PSME series types (15%))

Cooper's hawk - Nesting (75% of all nests in PSME series types)

Sharp-shinned hawk - Principal nesting (ABGR and PSME series types) - some nesting in TSME and ABLA2 series types

Flammulated owl - All life cycle functions (PSME series types)

Barred owl - All life cycle functions (ABGR series types)

Great grey owl - Feeds (meadows); nests (PSME and PIPO series types)

Rocky Mountain elk - PSME types (principal winter thermal cover); ABGR, ABLA2, TSME types (principal summer thermal cover); shrublands (principal browse); grasslands (heavy seasonal foraging use).

Appendix K

Range management section

Criteria			(1)	(2)	(3)	Species to	Other
Plant Community	Native species response to mgmt.	Decreasers and Key Plants	Rate of Range Trend	Role of Fire	Revegetation Potential:Spp.	Promote/ Season of Use	Considerations
Green fescue-Hbods sedge FEVI-CAHD	overgrazed sites to per. + ann. forbs, CAHD increases w/ decreasing FEVI	green fescue (FEVI) Hbod's sedge (CAHD) Cusicks bluegrass (POCU)	Rapid where soil loss not too severe	late summer, early fall; -FEVI	Good; high elev. pasture grasses, may be limited on steep slopes	FEVI,CAHD/ mid summer + late fall	STOC may provide late season forage in poor range
Green fescue-Spurred lupine FEVI-LULA2	overgrazed sites to per. and/or ann. forbs and rapid soil loss	green fescue (FEVI) spurred lupine (LULA2)	Moderate-rapid	late season: -FEVI,+ASIN, +ACML,+POPH +PEGA4	Good: high elev. pasture grasses, may be limited on steep slopes	FEVI/ mid summer and late fall	LULA2 may be detrimental to livestock
Idaho fescue-prairie junegrass FEID-KOCR ridgetops	FEID stimulated by moderate grazing, severe overgrazing to DAUN,POPR domin.	Idaho fescue (FEID) bluebunch wheatgrass (AGSP)	Rapid	summer-late fall: -FEID, -AGSP,-KOCR, +POPR	Good: alfalfa tall wheatgrass big bluestem inter. wheatgrass	FEID,AGSP/ following seed maturity	POPR has high forage value in disclimax
Idaho fescue-prairie junegrass FEID-KOCR mounds	mod. overgrazing to POPR domination, severe overgrazing to noxious weeds	Idaho fescue (FEID) red avens (GETR) red besseya (BERU) BB wheatgrass (AGSP)	Rapid except on mound aprons or other areas with severe soil loss	spring + late fall: +AGSP,+POPR + - FEID	Good: alfalfa tall wheatgrass big bluestem inter. wheatgrass	FEID,AGSP, POPR/ following seed maturity	mosaic of shallow and deep soils limits mgmt.
Idaho fescue-prairie junegrass FEID-KOCR high elevation	overgrazing by elk and cows to forb domination, HYPE in deep soils	Idaho fescue (FEID) bluebunch wheatgrass (AGSP)	Mod.-rapid,limited by need to stabilize colluvial soil on steep slopes	spring + late fall: +AGSP,+FEID summer:+BASA	Good: fescue and wheatgrass but slopes too steep for machinery	FEID,AGSP/ seed maturity or forbs for max. diversity	may be more suitable for sheep and wildlife
Idaho fescue-prairie junegrass FEID-KOCR low elevation	AGSP outcompetes FEID on overgrazed sites, severe overgrazing to HYPE,CEAR	Idaho fescue (FEID) BB wheatgrass (AGSP) S.R. phlox (PHCO2) W.S. fraseria (FRAL2)	Rapid, limited by need to stabilize fine-textured soil on steep slopes	most all seasons: + forbs,-FEID + - AGSP	Good: fescue and wheatgrass but slopes too steep for machinery	FEID / following seed set	may be more suitable for sheep and wildlife
Idaho fescue-prairie junegrass FEID-KOCR ridgetops	mod. overgrazing to - FEID, +AGSP,POSA3 severe overgrazing may go to scabland	bluebunch wheatgrass (AGSP) Idaho fescue (FEID)	slow-moderate: dry exposed sites with shallow soils	spring,wint: +AGSP +FEID fire may not carry-patchy	poor-fair: wheatgrass but soil rocky and shallow	AGSP,FEID/ following seed set	represents severely eroded FEID-KOCR ridgetops
Idaho fescue-blue bunch wheatgrass/ silky lupine FEID-AGSP/LUSE	overgrazed sites to perennial and ann. forbs,ann. grasses FEID,AGSP decline	Idaho fescue (FEID) bluebunch wheatgrass (AGSP)	moderate: steep rocky slopes often very droughty	spring+fall: + AGSP + FEID + diversity	fair: wheatgrass but operability limited by steep rocky slopes	AGSP,FEID/ following seed set	major use by wild ungulates conflict with domestic stock
Idaho fescue-blue-bunch wheatgrass/ arrow lv. balsam-root FEID-AGSP/BASA	FEID, AGSP, POSA3 decline w/overgrazing ann. + per. forbs, ann. grass domin.	Idaho fescue (FEID) BB wheatgrass (AGSP) Sandberg's bluegrass (POSA3)	moderate-slow: rocky slopes often very droughty	drought months -FEID,-AGSP, +BASA,+ACML +LUPIN	fair-poor: wheat-grass,operability limited by steep very rocky slopes	FEID,AGSP/ following seed maturity	major use by wild ungulates conflict with domestic stock
Idaho fescue-blue-bunch wheatgrass/ Snake river phlox FEID-AGSP/PHCO2	FEID, AGSP, POSA3 decline w/overgrazing ann. grass or BASA may dominate	Idaho fescue (FEID) BB wheatgrass (AGSP) Sandberg's bluegrass (POSA3)	moderate-slow: rocky slopes, clayey soils	adequate soil moisture: +FEID,AGSP +BASA,ACML	fair-poor: wheat-grass,operability limited by clayey soil,steep slopes	FEID,AGSP/ following seed maturity,or for diversity-forbs	sheep use in spring will reduce BASA
Idaho fescue-timber oatgrass-sedge FEID-DAIN-CAREX	overgrazed sites to POPR invasion and increase in DAIN, CAREX	Idaho fescue (FEID)	rapid	summer-late fall: -FEID, -CAREX, +POPR	good: alfalfa orchard grass meadow foxtail inter. wheatgrass	FEID,DAIN	wet end of FEID-KOCR high elevation
Idaho fescue-Hbod's sedge FEID-CAHD	overgrazed sites to POPR invasion and CAHD increase, severe overgrazing to forbs	Idaho fescue (FEID)	moderate-rapid: cold air and soil temperatures		good: hard fescue tall oatgrass	FEID/ late season	alleopathic tarweed on many degraded sites

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Range management section

Criteria Plant Community	Native species response to mgmt.	Decreasers and Key Plants	(1) Rate of Range Trend	(2) Role of Fire	(3) Revegetation Potential:Spp.	Species to Promote/ Season of Use	Other Factors
Bluebunch wheatgrass/Wyeth's buckwheat AGSP/ERHE	overgrazed sites to +POSC,+ERHE,+BASA severe overgrazing to PEVE	BB wheatgrass (AGSP) onioggrass (MEBU) pine bluegrass (POSC)	slow-moderate: clayey,rocky soils	late summer- fall: +AGSP +ERHE	poor: wheatgrass, limited by steep slopes	AGSP,MEBU/ mid-late summer	Lacks annual grass high seepage flows in spring
BB wheatgrass-Sandberg's bluegrass/ narrow lvd skullcap AGSP-POSA3/SCAN	SCAN,ERLA more competitive with overgrazing, annuals very opportunistic	bluebunch wheatgrass (AGSP) Sandberg's bluegrass (POSA3)	slow: unstable slopes, gravelly droughty soils	light burns: +AGSP,+annuals patchy, fire may not carry	poor: wheatgrass skullcap limited by steep unstable slopes	AGSP/ late June mid July	adequate plant cover needed to assure soil stability
Bluebunch wheatgrass/Sandberg's bluegrass AGSP-POSA3 basalt	POSA3 declines rapidly, AGSP more resistant to over- grazing,increase BRTE	bluebunch wheatgrass (AGSP) Sandberg's bluegrass (POSA3)	slow: droughty, rocky soils	summer-fall, light burn: +AGSP +POSA3	poor: wheatgrass, limited by steep rocky slopes	AGSP/ after flowering, winter-before boot stage	more than 10 yrs. to recover severely degraded range
BB wheatgrass-Sandberg's bluegrass/ Cusick's milkvetch AGSP-POSA3/ASCU4	overgrazing to forbs, notably BASA, severe over- grazing to BRTE	bluebunch wheatgrass (AGSP) Cusick's milkvetch (ASCU4)	slow: droughty rocky soils, unstable slopes	light burns: +AGSP,+BASA hot burns: +annuals,+BASA	poor: wheatgrass, limited by steep rocky unstable slopes	AGSP/ see above or for diversity BASA for sheep	ASCU4 toxicity not known
BB wheatgrass-Sandberg's bluegrass/ shaggy fleabane AGSP-POSA3/ERFU	overgrazing to annuals, some per. forbs i.e. OPPO SCAN	bluebunch wheatgrass (AGSP) Sandberg's bluegrass (POSA3)	slow: low precip. zone droughty soils	early spring+ late fall: +AGSP, hot burn: annuals	poor: wheatgrass, limited by steep rocky unstable slopes	AGSP/following flowering or forbs for sheep	mid-seral stage may produce most forage + diversity
Bluebunch wheatgrass/Sandberg's bluegrass AGSP-POSA3 granite	overgrazing to +OPPO,annual forbs, or invasion by ARLO3 and SPCR	bluebunch wheatgrass (AGSP) Sandberg's bluegrass (POSA3)	slow: shallow rocky soils, competition with annuals	light burn: +AGSP,+ARLO3 +SPCR,-OPPO may not carry	poor: wheatgrass, rocky soils with poor fertility	AGSP/ early spring late summer	severely degrad- ed range may require GT 10 yrs. to recover
BB wheatgrass-Sandberg's bluegrass/ Snake river phlox AGSP-POSA3/PHCO2	AGSP,POSA3 decline w/increase in SCAN ASTIN,OPPO,ann. forbs with overgrazing	bluebunch wheatgrass (AGSP) Sandberg's bluegrass (POSA3)	slow-moderate: droughty, colluvial soils but variable	hot burns: -AGSP mod. burns: +AGSP,-OPPO	poor-fair: unstable slopes some too steep for machinery	AGSP/following seed-set or forbs for sheep-wildlife	most mesic of AGSP dominated communities
BB wheatgrass-Sandberg's bluegrass/ prickly pear AGSP-POSA3/OPPO	overgrazing to weedy annuals, relict AGSP only in protective OPPO clumps	bluebunch wheatgrass (AGSP) Sandberg's bluegrass (POSA3)	slow: very hot, dry, exposed sites	soil moisture high: +AGSP -OPPO	poor: rocky steep slopes	AGSP/ rest during early may mid july	one of the harshest rocky sites support- ing AGSP
Bluebunch wheatgrass-sand dropseed- red three awn AGSP-SPCR-ARLO3	overgrazing to dominance by HYPE, annuals, or ARLO3	bluebunch wheatgrass (AGSP) sand dropseed (SPCR) red three awn (ARLO3)	slow: competition from ARLO3 and annuals	summer: -ARLO3,-SPCR but may be short term	fair: competition pressure from ARLO3	AGSP,SPCR/ early summer and fall with rest	dominance by AGSP may take greater than 15 years
Sand dropseed SPCR	invasion by HYPE, ARLO3,OPPO,annuals with overgrazing	sand dropseed (SPCR)	slow: may have very droughty-sandy soils,low precip.	following grazing to reduce fuel: +SPCR	poor: competition from annuals	SPCR/ fall	accumulated volcanic ash at low elev. may support type
Bluebunch wheatgrass-Sandberg's bluegrass AGSP-POSA3 scabland	overgrazing may convert site to lower production POSA3 scabland	bluebunch wheatgrass (AGSP) Sandberg's bluegrass (POSA3)	slow: very shallow droughty soils	summer: +AGSP +POSA3. moss mat needed to carry fire	poor: depleted sites	AGSP,POSA3/ after flower- ing, after soil drying	represents degraded FEID-AGSP sites
Stiff sagebrush/ Sandberg's bluegrass ARRI/POSA3	continued overgraz- ing to loss of ARRI and POSA3, increased frost heaving	Stiff sagebrush (ARRI) Sandberg's bluegrass (POSA3)	slow: shallow droughty soils	summer: +HAUN +POSA3,-ARRI but patchy + may not carry	poor: frost heaving shallow, rocky soils	ARRI,POSA3/ spring and fall	some sites may represent degraded FEID-AGSP

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Range management section

Criteria Plant Community	Native species response to mgmt.	Decreasers and Key Plants	(1) Rate of Range Trend	(2) Role of Fire	(3) Revegetation Potential:Spp.	Species to Promote/ Season of Use	Other Factors
Sandberg's bluegrass-onespike oatgrass POSA3-DAUN	POSA3 will outcompete DAUN on drier sites overgrazing breaks moss-rock matrix	Sandberg's bluegrass (POSA3) onespike oatgrass (DAUN)	slow: may exceed 25 years	summer: +POSA3,+DAUN patchy, may not carry fire	poor: droughty very rocky soil with frost heave potential	POSA3/ following drying of soil	mosaic with FEID-KOCR mnds may complicate management
Douglas' buckwheat /Sandberg's bluegrass ERDO/POSA3	POSA3 declines while forbs increase with overgrazing	Sandberg's bluegrass (POSA3)	slow: may exceed 15 years	summer: +POSA3 patchy, may not carry fire	poor: rocky soils with frost heaving potential	POSA3,forbs/ following drying of soil	may represent extremely degraded FEID -AGSP sites
Strict buckwheat/ Sandberg's bluegrass ERST2/POSA3	overgrazing to domination by forbs	Sandberg's bluegrass (POSA3)	slow: may exceed 15 years	summer: +POSA3 patchy, may not carry fire	poor: rocky soils with frost heaving potential	POSA3,forbs/ following drying of soil	may represent degraded FEID-AGSP sites
Mountain big sagebrush/ Idaho fescue ARTRV/FEID	FEID may be eliminated with overgrazing, CAHD more resistant	Mt. big sagebrush (ARTRV) Idaho fescue (FEID)	moderate: droughty soils may have cold temperatures	summer: +ARTRV + - FEID	fair: fescue Kentucky bluegrass	FEID,ARTRV/ late summer	represents both steep and gentle slope sites
Mountain big sagebrush/ elk sedge ARTRV/CAGE	CAGE may invade adjacent sites	Mt. big sagebrush (ARTRV) elk sedge (CAGE)	moderate-slow: cold air and soil temperatures	summer: +ARTRV +CAGE	fair: fescue Timothy	ARTRV,FEID/ late summer	forage avail- able earlier than surround- ing sites
Mt. big sagebrush- bitterbrush/ Idaho fescue ARTRV-PUTR/FEID	ARTRV and SYOR may dominate to exclusion of grass with overgrazing	Idaho fescue (FEID) bitterbrush (PUTR)	moderate:	moist soil: +shrubs - non-shrubs	fair: wheatgrass fescue	PUTR,FEID/ winter	capable of diverse species mix
Mt. big sagebrush- mountain snowberry /mountain brome ARTRV-SYOR/BRCA	overgrazing to weedy perennial and annual forbs	mountain brome (BRCA) bulbous oniongrass (MEBU)	rapid	mod. burn: +ARTRV,+SYOR both sprout	good: pasture grasses	forbs,grass shrubs/ summer-fall	capable of very diverse species mix
Mountain snowberry SYOR	POPR now dominant over fescue, with continued overgraz- ing MAGL may domin.	Idaho fescue (?) (FEID) Mountain brome (BRCA)	rapid	summer: +SYOR,-grass, mosaic, may not carry fire	good: pasture grasses	shrubs, grass/ summer-fall	capable of very diverse species mix
Bitterbrush/ Idaho fescue- BB wheatgrass PUTR/FEID-AGSP	overgrazing to -FEID,-AGSP,-PUTR +POSA3,+BASA +PEDE	bitterbrush (PUTR) Idaho fescue (FEID) bluebunch wheatgrass (AGSP)	slow: rocky soils, droughty	soil dry: -PUTR +AGSP + - FEID	poor: wheatgrass, steep rocky slopes	PUTR,FEID AGSP/ early summer, late fall	forage avail- able earlier than surround- ing sites
Bitterbrush/ bluebunch wheatgrass PUTR/AGSP	overgrazing to -AGSP,-PUTR, +POSA3, +lonatium +BASA	bitterbrush (PUTR) bluebunch wheatgrass (AGSP)	slow: rocky soils, very droughty, may exceed 15 years	soil dry: -PUTR +AGSP	poor: steep rocky slopes	PUTR,AGSP/ early spring late fall with mid rest	forage avail- able earlier than surround- ing sites
Squaw apple- mountain snowberry PERA3-SYOR	overgrazing to forb domination	squaw apple (PERA3) bluebunch wheatgrass (AGSP)	moderate	?	fair: wheatgrass	PERA3,shrubs/ fall-winter	PERA3 can sustain heavy browee pressure
Ninebark- common snowberry PIMA-SIAL	overgrazing of PIMA to greater plant diversity but PIMA is very competitive	Idaho fescue (FEID) bluebunch wheatgrass (AGSP)	rapid	mod. fire: +PIMA, severe repeated fire: -PIMA	fair-poor: heavy competition from PIMA	grasses,forb shrub for diversity	without fire some sites may eventually support trees

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Range management section

Criteria Plant Community	Native species response to mgmt.	Decreasers and Key Plants	(1) Rate of Range Trend	(2) Role of Fire	(3) Revegetation Potential:Spp.	Species to Promote/ Season of Use	Other Factors
Talus garlands	most shrub members may invade adjacent area if site better	syringa (PHL1) oceanspray (HDDI) Douglas hawthorn (CRDO)	slow: dependent on subsurface water	mod. burn: most shrubs will resprout	poor: rooting medium all rock	CRDO,PHL1, PRVI/ spring- summer	indicates seepage areas
Western juniper/ Idaho fescue- BB wheatgrass JUCC/FEID-AGSP	overgrazing to -FEID, -AGSP +BASA, +POSA3 +SEDUM	Idaho fescue (FEID) bluebunch wheatgrass (AGSP) Westn. juniper (JUCC)	slow: shallow very rocky soils very droughty	summer mod. burn: -JUCC +AGSP -+FEID	poor: very steep rocky basalt rims	FEID,AGSP JUCC/ summer fall	w/o grazing JUCC may invade adjacent sites
Common snowberry -Rose spp. SYAL-ROSA	overgrazing may result in PCPR, HYPE, or CEAR invasion	common snowberry (SYAL) rose (ROSA)	rapid: deep, productive soils	most seasons: +SYAL,+ROSA both shrubs will sprout	good: fescue, Kentucky bluegrass but SYAL competes strongly	SYAL,ROSA/ spring,summer forage spp./ summer-fall	w/o SYAL will support very productive grass community
Curlleaf mountain mahogany CELE	overgrazing and rodent damage will eliminate CELE	mountain mahogany (CELE) bluebunch wheatgrass (AGSP)	slow: rocky, droughty soils	all seasons: - CELE easily killed	poor: wheatgrass mahogany rocky soils, some slopes steep	CELE,AGSP/ spring + fall	CELE highly preferred by deer and elk
Spiny greenbush/ bluebunch wheatgrass GLNE/AGSP	overgrazing to increased annuals and CPOO	spiny greenbush (GLNE) bluebunch wheatgrass (AGSP)	slow: shallow, droughty soils	patchy veg. fire will not carry well	poor: very steep rocky sites inaccessible	GLNE,AGSP/ winter	primary winter range for deer and big horn sheep in HNRA
Netleaf hackberry/ bluebunch wheatgrass CERE2/AGSP	overgrazing to dominance by annuals in understory, where wetter to RHRA	netleaf hackberry (CERE2) bluebunch wheatgrass (AGSP)	slow-moderate: annuals compete with perennial vegetation	late summer: +AGSP +CERE2 +RHRA ??	poor: most soils are droughty, in low precip. area	CERE2,AGSP/ winter	provides shel- ter & shade to animals and humans
Smooth sumac/ wheatgrass RHCL/AGSP	annual brooms, HYPE, CAAP, TOFL2 may dominate understory with overgrazing	smooth sumac (RHCL) bluebunch wheatgrass (AGSP)	slow: rocky, droughty soil	late summer: +AGSP -RHCL	poor: many sites are steep with unstable soil	AGSP/ summer-fall	RHCL may invade adjacent more mesic sites
Buckwheat/ Oregon bladderpod ERMI/PHDR	annuals may dominate with overgrazing	slenderbush buckwheat (ERMI) strict buckwheat (ERSTP)	slow: extremely droughty low fertility soil	sparse veg. fire will not carry	poor: very shallow soil with minimal water holding capacity	ERMI,PHDR, CECA2/ none	represents the most severely limiting sites to plant growth
Giant wildrye ELCI	overgrazing will (has) eliminate giant wildrye	giant wildrye (ELCI)	good-fair: mostly high moisture sites	persistent re-growth after fire	good: pasture grasses	ELCI/ fall, winter	ELCI is very productive, cut for hay in settlement days
Cusicks canus CACU	overgrazing to domination by ERUMS,PEVE,ACMIL PCDO, LODIE	Cusicks canus (CACU) Sandberg's bluegrass (POSA3)	moderate: seepage sites dry in mid summer	when wet fire will not carry	moderate: wheatgrass, rocky soils droughty by mid-July	CACU,AGSP/ following drying of soil	indicates areas of seepage
Wallowa lewisia LECOW	LECOW may invade into adjacent overgrazed sites	Wallowa lewisia (LECOW) Sandberg's bluegrass (POSA3)	slow: scabland sites rocky, droughty soil	summer: +POSA3 +DAUN	poor: droughty rocky soil	POSA3/ following drying of soil	LECOW also occurs on steep palisade walls
Sulfurflower ERUMS	overgrazing has resulted in ERUMS and erosion pave- ment	decreasers gone sulfurflower (ERUMS)	static: erosion pavement dominates site	sparse veg. scant soil pavement	poor: scant soil pavement	POSA3/ midsummer ?	erosion pave- ment protects remaining soil

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Range management section

Criteria	Native species response to mgmt.	Decreasers and Key Plants	(1) Rate of Range Trend	(2) Role of Fire	(3) Revegetation Potential:Spp.	Species to Promote/ Season of Use	Other Considerations
Plant Community							
Ridgetop meadows	overgrazed sites to dominance by forb mixture of WYAM,POGR,annuals	prairie junegrass (KOCR) California oatgrass (DACA)	rapid: moist, high fertility site	fire will carry only in late summer	good: Timothy Orchard grass Kentucky bluegrass	PIPR,DACL/ late summer fall	very diverse forb mixture cabable on these sites
Tufted hairgrass moist sedge meadows	overgrazing to elimination of DECA invasion by VECA HXFE,RUC, asters	tufted hairgrass DECA Canada reedgrass CACA timber oatgrass DAIN	rapid: moist high fertility site	fire will carry only in late summer	good: Timothy Orchard grass Kentucky bluegrass	DECA/ late summer fall	stability of stream banks for adequate moisture supply
Tufted hairgrass wet sedge meadows	overgrazed to dominance by rushes, and spikerushes	tufted hairgrass (DECA)	rapid: wet high fertility site	may be too wet to carry fire	moderate: high water table	DECA,CAR02 CAAQ/ late summer fall	wildlife value may exceed value to domestic stock
Wet sedge meadows	most are not grazed significantly too wet-avoided by cattle	beaked sedge (CAR02) water sedge (CAAQ) Holms Rocky mountain sedge (CASC5)	rapid: wet sites	too wet, will not carry fire	poor: standing water	CAR02 CAAQ late summer fall	wildlife value exceeds value to domestic stock
Quaking aspen POTR	overgrazing to forb domination in understory	mountain browe (BRCA)	rapid	POTR easily killed by fire but will resprout	good: Kentucky bluegrass mountain browe	POTR,POPR/ late summer fall	POTR regenerates vegetatively

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Appendix L

Timber Management section I

Criteria Plant community	(1) Tree Productivity (cu.Ft./A/yr-SPP)	(2) Tree stockability (Growth Basal Area)	(3) Natural Regeneration Chance within 5 yr.	(4) Artificial Regeneration Species - Treatment
Mountain Hemlock/grouse huckleberry (TSME/VASC)	Moderate (55-95 MH)	High (210-310 MH)	Fair-poor: MH,SAF (advanced regen.) UES or HSW	Fair: LP,ES LSP, design units-reduce snow accum. and frost:PSL
Mountain Hemlock/big huckleberry (TSME/VAME)	Moderate (55-95 MH)	High (210-310 MH)	Fair: MH,SAF (advanced regen.) UES or HSW	Fair: LP,ES LSP, design units-reduce snow accum. and frost:PSL
Subalpine Fir/fools huckleberry (ABIA2/MEFE)	Moderate,Low (72-88 ES) (37-56 LP)	High,Moderate (195-205 ES) (115-155 LP)	Good: LP,ES,SAF small CC	Good: LP,ES control shrubs
Subalpine Fir/grouse huckleberry (ABIA2/VASC/POPU)	High,Moderate (92-107 ES) (54-66 SAF)	High,Moderate (190-295 ES) (174-206 SAF)	Good:LP,Fair:ES,SAF small CC for LP UES for ES,SAF	Good:LP, Fair:ES LSP to reduce frost and excessive nat. regen.
Lodgepole pine/grouse huckleberry (PICO/VASC)	Low,Moderate (42-48 LP) (50-70 WL)	Moderate,Moderate (135-165 LP) (136-184 WL)	Excellent: LP small CC or seed tree regen. may be excess.	Good: LP LSP to reduce frost and excessive nat. regen.
Subalpine Fir/big huckleberry (ABIA2/VAME)	Moderate,Low (76-84 ES) (38-52 SAF)	High,Moderate (215-255 ES) (140-175 SAF)	Good:LP,Fair:ES,SAF small CC for LP UES for ES,SAF	Good: LP,WL control shrubs,partial cuts require more control
Lodgepole pine/big huckleberry (PICO/VAME)	Moderate,Moderate (42-57 LP) (57-73 WL)	Moderate,Moderate (135-165 LP) (145-195 WL)	Excellent-good:LP small CC regen.may be excess.	Good:LP,WL LSP to reduce nat. regen. shrub control in part.cut
Subalpine Fir/queen's cup (ABIA2/CLUN)	Very high,High (107-152 ES) (75-105 WL)	Very high,Moderate (265-315 ES) (162-198 WL)	Good:ES,WL,LP UES or patch CC for ES small CC or OSW for WL	Good:WL,ES LSP-wet soils SCM
Subalpine Fir/ twinflor (ABIA2/LIBO2)	High,Moderate (82-123 ES) (- 65 - WL)	High,Moderate (190-295 ES) (- 140 - WL)	Good:ES,WL,LP UES or patch CC for ES small CC or OSW for WL	Good: WL,ES control shrubs
Subalpine Fir/skunk-leaved polemonium (ABIA2/POPU)	Moderate,Moderate (52-74 DF) (54-61 SAF)	Moderate,Moderate (165-195 DF) (180-200 SAF)	Poor-Fair:ES,SAF,LP UES	Poor:LP,ES LSP-mechanical, due to unstable slopes
Subalpine Fir/twisted stalk (ABIA2/STAM)	High,Low (-115 - ES) (- 42 - LP)	High,Moderate (- 265 - ES) (- 123 - LP)	Fair: ES,SAF,LP UES	Fair-Poor:LP,ES wet soils, limited plant- ing sites, SCM

- (1) Tree Productivity: volume production given as four qualitative classes depending upon variation of mean cu. ft./A/yr. across all communities, see Appendix F: Low = 25-49 cu.ft./A/yr; Moderate = 50-84; High = 85-119; Very high = greater than 120. Range of productivity (95% confidence interval) and class given for the primary and comparative species in cu.ft./A/yr. Species are PP = ponderosa pine, DF = Douglas fir, WL = Western larch, LP = lodgepole pine, ES = Engelmann spruce, GF = grand fir, SAF = subalpine fir, MH = mountain hemlock.
- (2) Tree Stockability: sq.ft. basal area at which dominant trees grow one inch in diameter per decade at age 100, (GBA) , given as four qualitative classes depending upon variation of mean GBA across all communities, see Appendix E: Low = less than 110 sq.ft./acre; Moderate = 110-200; High = 201-280; Very high = greater than 280. Range of productivity (95% confidence interval) and class given for the primary and comparative species in sq.ft./acre. Species are as above.
- (3) Natural Regeneration: the probability of successful seedling establishment within 5 years after harvest and slash disposal is given as qualitative classes: excellent = satisfactory or overstocked at time of harvest; good = better than 80% chance; fair = 34 to 80% chance; poor = 5-33% chance; very poor = practically no chance due to combination of seed years, microclimate and predation. Suggested silvicultural system to achieve regeneration goal is mentioned: UES = Uneven-aged management system; RSW = Heavy shelterwood-greater than 50% tree cover retained; MSW = Moderate shelterwood-25-49% tree cover retained; OSW = Open shelterwood-less than 25% tree cover retained; CC = Clearcut.
- (4) Artificial Regeneration: relative success for establishing and growing the most adaptable species to the community. Species not listed are less adaptable and less successful if introduced as planting stock. LSP = limit site preparation to retain litter; PSL = Planting season limited by cold temp. or snow; SCM = Shrub competition minimal.

Timber Management section I (cont.)

Criteria Plant community	(1) Tree Productivity (cu.Ft./A/yr-SPP)	(2) Tree stockability (Growth Basal Area)	(3) Natural Regeneration Chance within 5 yr.	(4) Artificial Regeneration Species - Treatment
Grand fir/queen's cup (ABGR/CLUN)	High,Very high (87-128 DF) (130-170 GF)	High,Very high (235-285 DF) (297-352 GF)	Excellent:WL,ES,GF medium CC for WL patch CC for ES,GF	Good: N.Slopes - ES,WL Good: S.Slopes - PP broadcast burn
Grand fir/Pacific yew/ queen's cup (ABGR/TABR/CLUN)	High,Very high see ABGR/CLUN	High,Very high see ABGR/CLUN	Excellent:WL,ES,GF medium CC for WL patch CC for ES,GF	Good: N.Slopes - ES,WL Good: S.Slopes - PP maintain Yew:wildlife
Grand fir/big huckleberry (ABGR/VAME)	High,High (77-95 DF) (90-130 GF)	High,High (195-225 DF) (235-305 GF)	Good: DF,WL,PP small CC for WL,PP MSW for DF,GF	Good: N.Slopes - WL Good: S.Slopes - PP,DF control shrubs
Grand fir/twinflower (ABGR/LIBO2)	High,Very high (80-103 DF) (107-132 GF)	High,Very high (222-267 DF) (302-348 GF)	Good: DF,WL,LP,GF medium CC for WL,LP MSW-OSW for DF,GF	Good: DF,WL,PP,LP limit seeding of exotic grass, broadcast burn
Lodgepole pine/twinflower (PICO/LIBO2)	Low,Moderate (37-50 LP) (58-81 WL)	Moderate,Moderate (115-155 LP) (165-195 WL)	Good: LP,WL medium CC	Good: DF,WL,PP,LP limit seeding of exotic grass, control shrubs
Grand fir/gold thread (ABGR/COOC2)	Moderate,Moderate (70-84 DF) (70-73 GF)	Moderate,Moderate (164-205 DF) (170-205 GF)	Good: ES,WL small CC for WL patch CC for ES	Good: WL control shrubs
Grand fir/Rocky Mountain maple (ABGR/ACGL)	Very high,Very high (130-145 DF) (140-200 GF)	Very high,Very high (290-325 DF) (308-440 GF)	Fair: DF,GF UES or HSW	Fair: PP,DF control shrubs maintain high watershed value
Grand fir/spiraea (ABGR/SPBE)	High,High (105-130 DF) (95-126 PP)	Very high,High (250-350 DF) (212-238 PP)	Fair: PP,DF small CC, MSW or OSW	Good: PP,DF control shrubs and pinegrass
Grand fir/pinegrass (ABGR/CARU)	High,Moderate (-102 - DF) (61-115 PP)	High,Moderate (- 270 - DF) (155-235 PP)	Fair-Poor: PP,DF small CC, MSW or OSW	Good: PP,DF control pinegrass and elksedge
Grand fir/Rocky mountain maple/ninebark (ABGR/ACGL/PHMA)	High,Moderate (-100 - DF) (- 65 - GF)	Very High,High (- 300 - DF) (- 210 - GF)	Poor: DF MSW	Fair: DF,PP control maple and ninebark
Douglas-fir/pinegrass (PSME/CARU)	Moderate,Moderate (43-75 DF) (52-69 PP)	Moderate,Moderate (157-233 DF) (139-181 PP)	Poor: PP,DF MSW or OSW	Fair: S.Slopes - PP Good: N.Slopes - PP control pinegrass-sedge

- (1) Tree Productivity: volume production given as four qualitative classes depending upon variation of mean cu. ft./A/yr. across all communities, see Appendix F: Low = 25-49 cu.ft./A/yr; Moderate = 50-84; High = 85-119; Very high = greater than 120. Range of productivity (95% confidence interval) and class given for the primary and comparative species in cu.ft./A/yr. Species are PP = ponderosa pine, DF = Douglas fir, WL = Western larch, LP = lodgepole pine, ES = Engelmann spruce, GF = grand fir, SAF = subalpine fir, MH = mountain hemlock.
- (2) Tree Stockability: sq.ft. basal area at which dominant trees grow one inch in diameter per decade at age 100, (GBA) , given as four qualitative classes depending upon variation of mean GBA across all communities, see Appendix E: Low = less than 110 sq.ft./acre; Moderate = 110-200; High = 201-280; Very high = greater than 280. Range of productivity (95% confidence interval) and class given for the primary and comparative species in sq.ft./acre. Species are as above.
- (3) Natural Regeneration: the probability of successful seedling establishment within 5 years after harvest and slash disposal is given as qualitative classes: excellent = satisfactory or overstocked at time of harvest; good = better than 80% chance; fair = 34 to 80% chance; poor = 5-33% chance; very poor = practically no chance due to combination of seed years, microclimate and predation. Suggested silvicultural system to achieve regeneration goal is mentioned: UES = Uneven-aged management system; HSW = Heavy shelterwood-greater than 50% tree cover retained; MSW = Moderate shelterwood-25-49% tree cover retained; OSW = Open shelterwood-less than 25% tree cover retained; CC = Clearcut.
- (4) Artificial Regeneration: relative success for establishing and growing the most adaptable species to the community. Species not listed are less adaptable and less successful if introduced as planting stock. LSP = limit site preparation to retain litter; PSL = Planting season limited by cold temp. or snow; SCM = Shrub competition minimal.

Timber Management section I (cont.)

Criteria Plant community	(1) Tree Productivity (cu.Ft./A/yr-SPP)	(2) Tree stockability (Growth Basal Area)	(3) Natural Regeneration Chance within 5 yr.	(4) Artificial Regeneration Species - Treatment
Douglas-Fir/Rocky Mountain maple/ninebark (PSME/ACGL/PHMA)	Moderate,Moderate (68-78 DF) (22-80 PP)	Moderate,Moderate (143-177 DF) (95-175 PP)	Poor-Fair: DF,PP MSW to OSW with very hot burn in seed yr.	Poor at 4000 ft.+ :PP Fair at 4000 ft.- :DF,PP terrace, control shrubs
Douglas-Fir/ninebark (PSME/PHMA)	Low,Low (42-51 DF) (35-50 PP)	Moderate,Low (125-155 DF) (87-123 PP)	Poor-Fair: DF,PP MSW to OSW with very hot burn in seed yr.	Poor at 4000 ft.+ :DF,PP Fair at 4000 ft.- :DF,PP terrace, control shrubs
Douglas-Fir/spiraea (PSME/SPBE)	Low,Moderate (- 44 - DF) (47-73 PP)	Moderate,Moderate (- 160 - DF) (145-185 PP)	Poor: DF,PP UES-group or OSW	Fair: PP control shrubs
Douglas-Fir/common snowberry (PSME/SYAL)	Low,Moderate (- 48 - DF) (54-77 PP)	Moderate,Moderate (- 170 - DF) (136-184 PP)	Fair-Poor: DF,PP UES-group or OSW	Fair: PP control shrubs
Douglas-Fir/big huckleberry (PSME/VAME)	Low,Low (- 36 - DF) (- 35 - PP)	Low,Low (- 100 - DF) (- 95 - PP)	Poor: PP,DF UES or MSW	Poor-Fair: PP,DF contour terrace control shrubs
Douglas-Fir/mountain snowberry (PSME/SYOR)	Moderate (42-58 PP)	Moderate (131-169 PP)	Poor: PP UES-group	Fair: PP control shrubs
Ponderosa pine/common snowberry (PIPO/SYAL)	Low (27-40 PP)	Low (77-123 PP)	Poor: PP UES-group	Fair: PP control shrubs
Ponderosa pine/spiraea (PIPO/SPBE)	Low (- 30 - PP)	Low (63-117 PP)	Very poor: PP UES	Poor: PP control shrubs
Ponderosa pine/Idaho fescue (PIPO/FEID)	Low (19-41 PP)	Low (65-105 PP)	Very poor: PP UES-group	Fair: PP control grasses
Ponderosa pine/bluebunch wheatgrass (PIPO/AGSP)	Low (16-34 PP)	Low (53-97 PP)	Very poor: PP UES	Poor: PP

- (1) Tree Productivity: volume production given as four qualitative classes depending upon variation of mean cu. ft./A/yr. across all communities, see Appendix F: Low = 25-49 cu.ft./A/yr; Moderate = 50-84; High = 85-119; Very high = greater than 120. Range of productivity (95% confidence interval) and class given for the primary and comparative species in cu.ft./A/yr. Species are PP = ponderosa pine, DF = Douglas fir, WL = Western larch, LP = lodgepole pine, ES = Engelmann spruce, GF = grand fir, SAF = subalpine fir, MH = mountain hemlock.
- (2) Tree Stockability: sq.ft. basal area at which dominant trees grow one inch in diameter per decade at age 100, (GBA) , given as four qualitative classes depending upon variation of mean GBA across all communities, see Appendix E: Low = less than 110 sq.ft./acre; Moderate = 110-200; High = 201-280; Very high = greater than 280. Range of productivity (95% confidence interval) and class given for the primary and comparative species in sq.ft./acre. Species are as above.
- (3) Natural Regeneration: the probability of successful seedling establishment within 5 years after harvest and slash disposal is given as qualitative classes: excellent = satisfactory or overstocked at time of harvest; good = better than 80% chance; fair = 34 to 80% chance; poor = 5-33% chance; very poor = practically no chance due to combination of seed years, microclimate and predation. Suggested silvicultural system to achieve regeneration goal is mentioned: UES = Uneven-aged management system; HSW = Heavy shelterwood-greater than 50% tree cover retained; MSW = Moderate shelterwood-25-49% tree cover retained; OSW = Open shelterwood-less than 25% tree cover retained; CC = Clearcut.
- (4) Artificial Regeneration: relative success for establishing and growing the most adaptable species to the community. Species not listed are less adaptable and less successful if introduced as planting stock. LSP = limit site preparation to retain litter; PSL = Planting season limited by cold temp. or snow; SCM = Shrub competition minimal.

Timber Management section II

Plant community	Criteria	Disease and Insect Potential	Windthrow Risk	Operability Constraints	Special Problems
Mountain Hemlock/grouse huckleberry (TSME/VASC)			Moderate-low	Limited on steeper slopes	Cold air and soil temperature Deep, long-lasting snowpacks Moist to wet soils
Mountain Hemlock/big huckleberry (TSME/VAME)			Moderate-low	Limited on steeper slopes	Cold air and soil temperature Deep, long-lasting snowpacks Moist to wet soils
Subalpine Fir/fools huckleberry (ABLA2/MEFE)		Mod. for rots: ES, SAF	Moderate	Limited by steep slopes	Cold air and soil temperature Shrubs resprout readily
Subalpine Fir/grouse huckleberry (ABLA2/VASC/POPU)		Mod. for rots: ES, SAF	Mod-high on shallow soil ridges	Limited by methods to reduce soil displacement	Cold air ponding-frost potential, long snow cover periods
Lodgepole pine/grouse huckleberry (PICO/VASC)		Mod. to high bark beetle: LP	Mod on shallow soil ridges	Limited by methods to reduce soil displacement	Cold air ponding-frost potential, long snow cover periods, LP overstocking
Subalpine Fir/big huckleberry (ABLA2/VAME)		Mod. for rots: ES, SAF	Moderate	Limited on steeper slopes	Cold air and soil temperature Big huckleberry resprouts
Lodgepole pine/big huckleberry (PICO/VAME)		Mod. to high bark beetle: LP	Moderate-low	Limited on steeper slopes	Cold air and soil temperature Overstocking and stagnation common in LP
Subalpine Fir/queen's cup (ABLA2/CLUN)		High for rots: ES, SAF Low foliar insects	Moderate-high	Limited by moist to wet soils	High animal use, proximity to streams
Subalpine Fir/twinflower (ABLA2/LIBO2)		High for rots: ES, SAF Low foliar insects	Moderate-high	Limited by moist soils	High animal use, proximity to stream bottoms
Subalpine Fir/skunk-leaved polemonium (ABLA2/POPU)		Mod. for rots: ES, SAF	Moderate	Limited by steep, unstable slopes	Short growing season, cold soils. High watershed value
Subalpine Fir/twisted stalk (ABLA2/STAM)		High for rots: GF, DF, SAF Low foliar insects	High	Limited by wet soils	High water table, proximity to riparian areas
Grand fir/queen's cup (ABGR/CLUN)		Mod-High rots: GF, DF, ES Low foliar insects	Moderate	Limited by moist to wet soils in bottom-land or streamside areas	Overseeding sod-forming grasses in clearcut severely restricts tree regeneration
Grand fir/Pacific yew/queen's cup (ABGR/TABR/CLUN)		Mod-High rots: GF, DF, ES Low foliar insects	Moderate-low	Limited by moist to wet soils	High wildlife use (Yew) and watershed value
Grand fir/big huckleberry (ABGR/VAME)		Mod for rots, Mistletoe: GF, DF High foliar insects	Moderate	Limited by steep slopes, and methods to reduce soil displacement	Huckleberry sprouts readily, Seeps may be common where Sitka alder occurs
Grand fir/twinflower (ABGR/LIBO2)		Mod for mistletoe: GF, WL Low foliar insects	Low	Limited by methods to reduce soil (ash) displacement	Overseeding sod-forming grasses in clearcut severely restricts tree regeneration
Lodgepole pine/twinflower (PICO/LIBO2)		Mod-high bark beetle: LP	Low	Limited by methods to reduce soil (ash) displacement	LP management most successful but diversity will maintain long-term site production

Species Abbreviations: PP = ponderosa pine, DF = Douglas-fir, WL = western larch, LP = lodgepole pine, GF = grand fir, ES = Engelmann spruce, SAF = subalpine fir, MH = mountain hemlock

Timber Management section II

Plant community	Criteria	Disease and Insect Potential	Windthrow Risk	Operability Constraints	Special Problems
Grand fir/gold thread (ABGR/COCC2)		Mod. for rots: GF Mod. mistletoe: GF,DF	Moderate	Limited by steep slopes	Shallow soils, some seeps
Grand fir/Rocky Mountain maple (ABGR/ACGL)		Mod. for rots: GF Mod. mistletoe: GF	Moderate	Limited by steep slopes	Shrubs sprout readily High wildlife use, high watershed value
Grand fir/spiraea (ABGR/SPBE)		Mod.- high foliar insects and mistletoe: GF	Moderate	Limited by soil compactability (high clay)	Pinegrass and spiraea competition. Site complexes may require mixed SPP mgmt.
Grand fir/pinegrass (ABGR/CARU)		Mod. - high foliar insects and mistletoe: GF	Low	Erosion (ash) potential on steep slopes	Pinegrass competition high. Site complexes may require mixed species management.
Grand fir/Rocky mountain maple/ninebark (ABGR/ACGL/PIMA)		Mod. - high foliar insects and mistletoe: GF	Moderate	Limited by steep slopes	Ninebark, maple, spiraea, snowberry, serviceberry resprout readily
Douglas-fir/pinegrass (PSME/CARU)		Low mistletoe: DF High foliar insects: DF	Low	Limited in steep slope areas	Pinegrass competition severe when community in good ecologic condition
Douglas-Fir/Rocky Mountain maple/ninebark (PSME/ACGL/PIMA)		Mod.- high mistletoe, foliar insects: DF	Moderate	Limited by steep slopes	Ninebark, maple, spiraea snowberry, serviceberry resprout readily
Douglas-Fir/ninebark (PSME/PIMA)		High mistletoe, foliar insects: DF	Moderate	Limited by steep slopes above 4000 ft. Less below 4000 ft.	Ninebark, ceanothus and pinegrass resprout following fire
Douglas-Fir/spiraea (PSME/SPBE)		Mod. mistletoe, foliar insects: DF	Moderate-low	Limited by soil compactability (clay) and steep slope areas	High ladder fuels Spiraea and pinegrass competition
Douglas-Fir/common snowberry (PSME/SYAL)		Mod.- high mistletoe foliar insects and beetles: DF	Low	Limited by soil compactability (clay) and steep slope areas	High ladder fuels Snowberry and pinegrass competition
Douglas-Fir/big huckleberry (PSME/VAME)		Mod. mistletoe, foliar insects: DF	Moderate-low	Limited by steep slopes, rocky soils	Huckleberry sprouts readily following light disturbance
Douglas-Fir/mountain snowberry (PSME/SYOR)		High mistletoe: DF Low foliar insects	Low		Important forest edge areas Gooseberry may invade sites following disturbance
Ponderosa pine/common snowberry (PIPO/SYAL)		Mod. bark beetles in young stagnated stands	Low		Marginally productive sites Shrub and grass competition high
Ponderosa pine/spiraea (PIPO/SPBE)		Low for both insects and diseases	Low	Limited by steep slopes, isolated stands	Marginally productive sites Shallow soils, wildlife and watershed value high
Ponderosa pine/Idaho fescue (PIPO/FEID)		Low for both insects and diseases	Low	Limited on rocky sites	Marginally to non-productive site. Shallow soils. Grass competition high
Ponderosa pine/bluebunch wheatgrass (PIPO/ACSP)		Low for both insects and diseases	Low	Limited by steep and rocky slopes, isolated stands	Non-productive sites Shallow soils

Appendix M

FIGURE 1: MEAN YEARLY HERBAGE PRODUCTION (DRY WT.) IN FESCUE (FEID + FEVI) COMMUNITIES (MID + LATE SERAL STANDS)

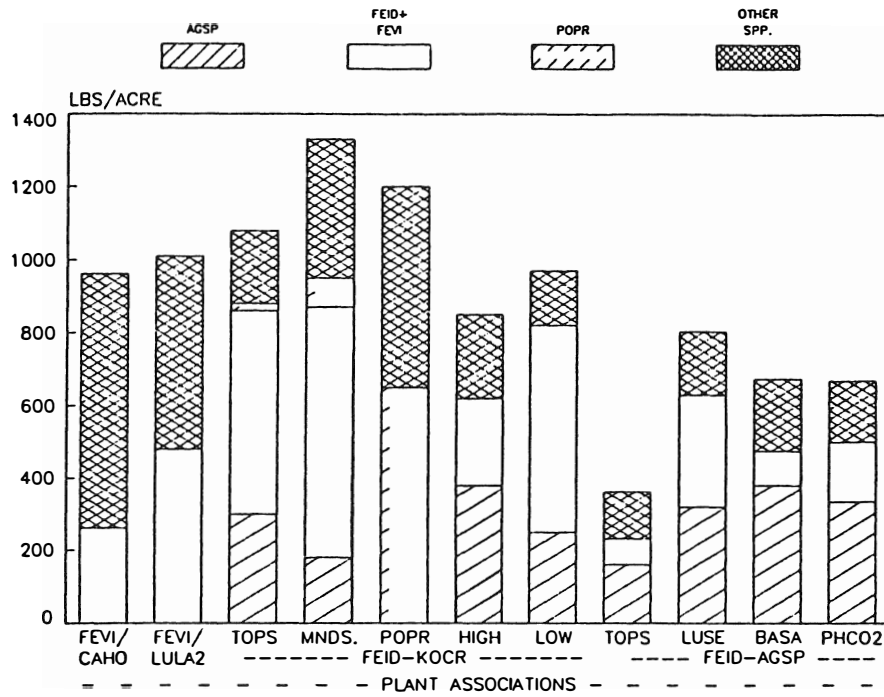


FIGURE 2: MEAN YEARLY HERBAGE PRODUCTION (DRY WT.) IN WHEATGRASS (AGSP) AND OTHER COMMUNITIES (MID+LATE SERAL STANDS)

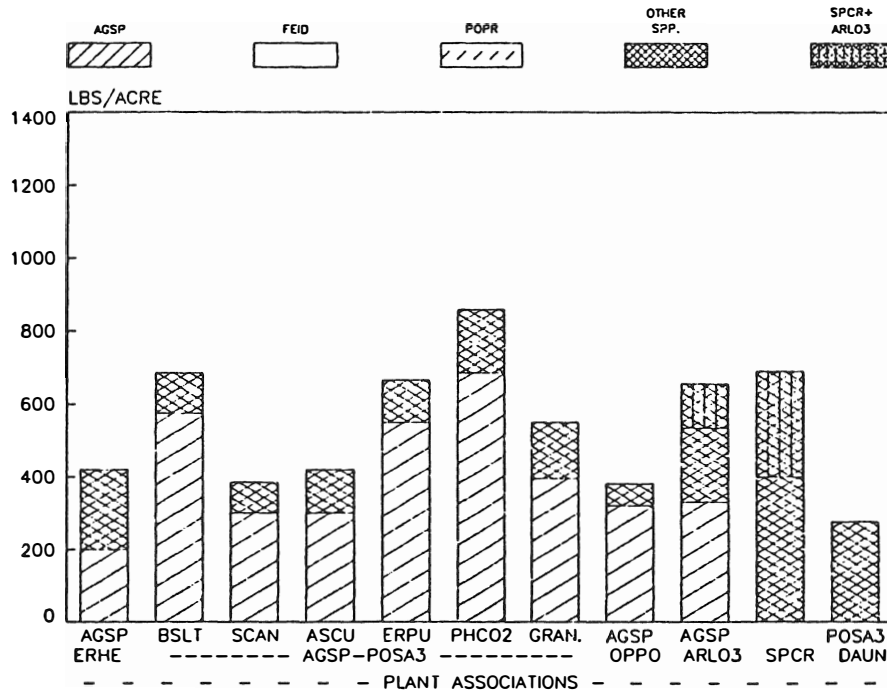


FIGURE 3: MEAN YEARLY HERBAGE PRODUCTION (DRY WT.) IN MESIC AND XERIC SHRUBLANDS (MID+LATE SERAL STANDS)

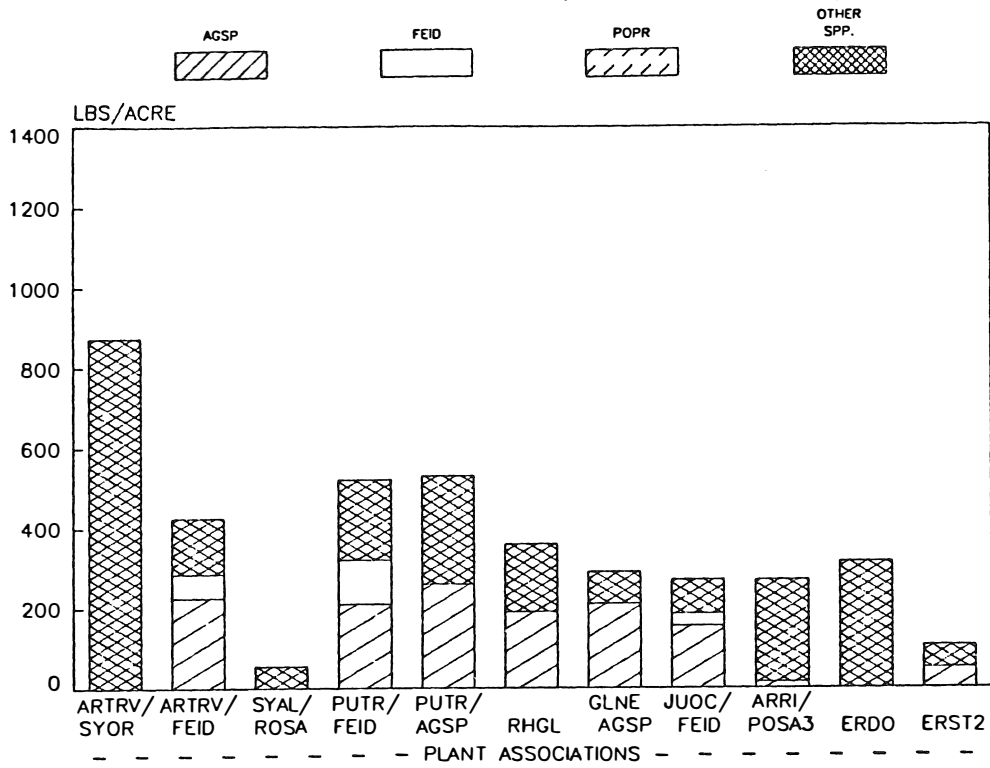


FIGURE 4: MEAN YEARLY HERBAGE PRODUCTION (DRY WT.) IN FORESTED COMMUNITIES (EARLY TO MID SERAL STANDS)

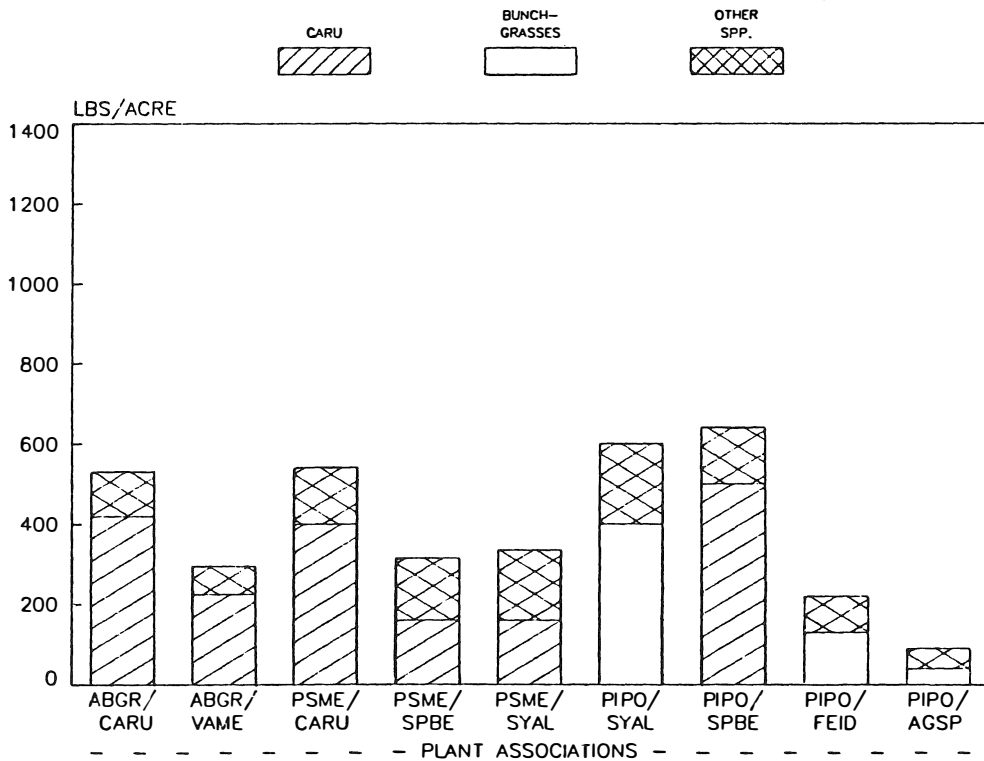


Figure 5

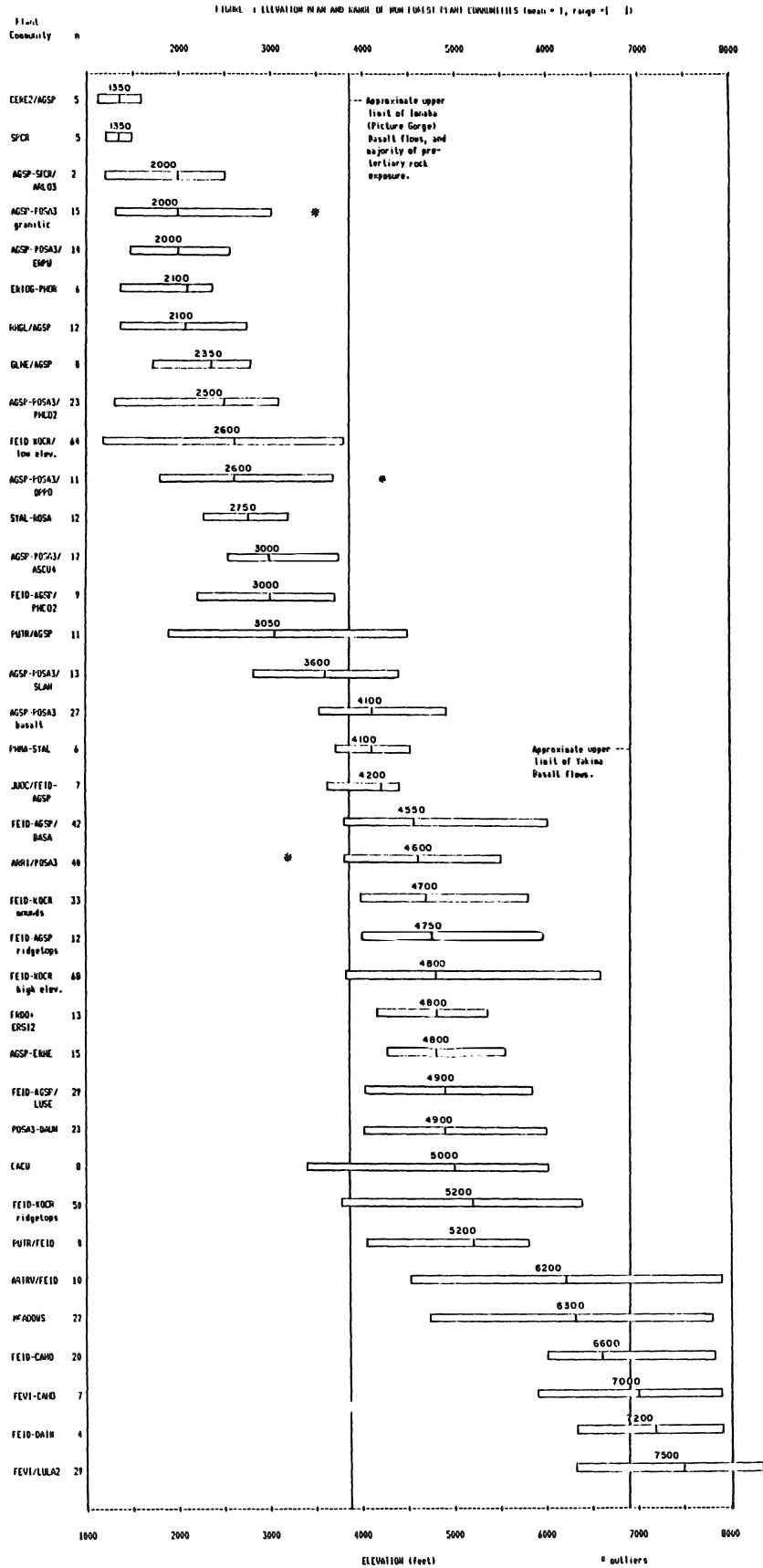


Figure 6

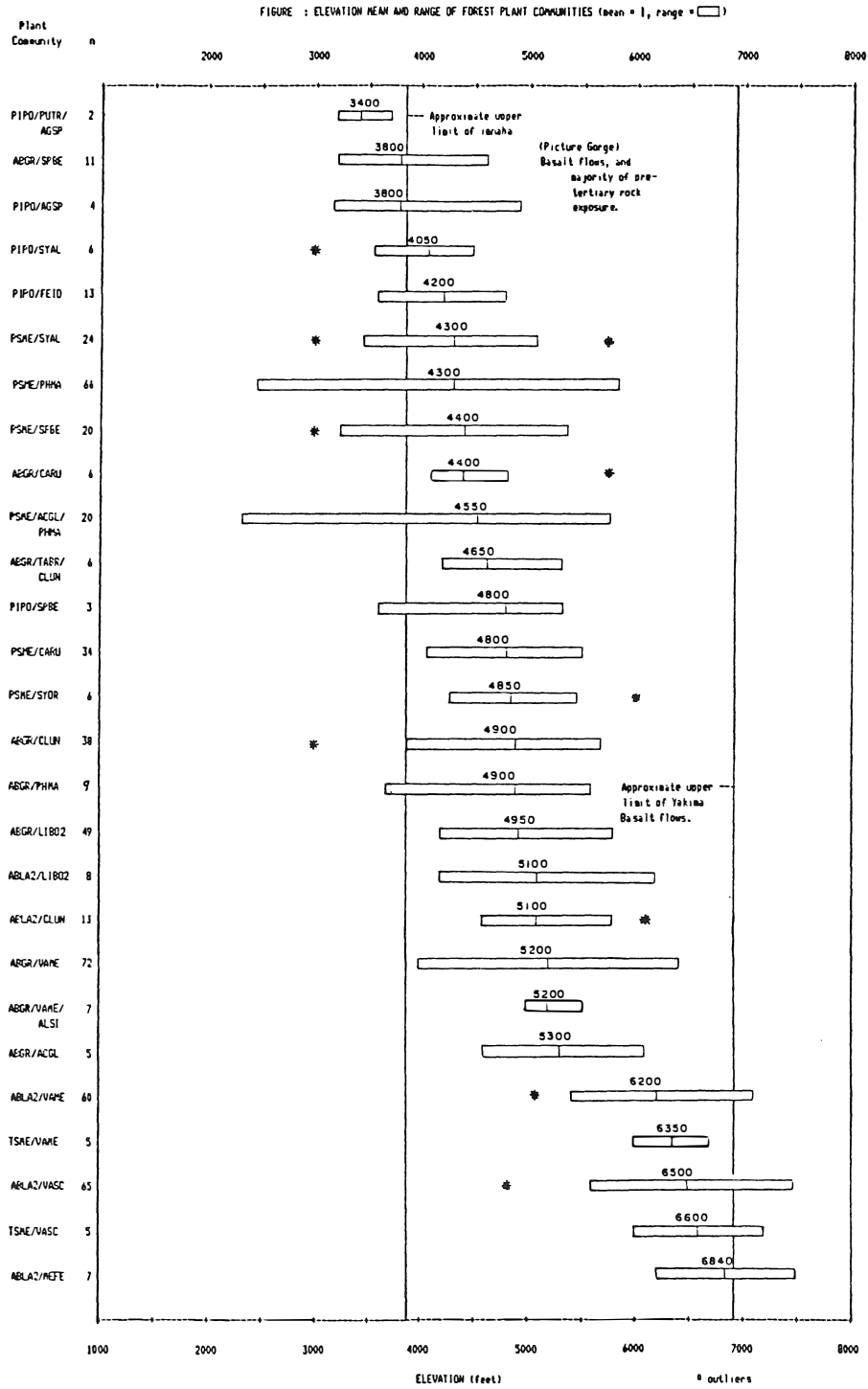
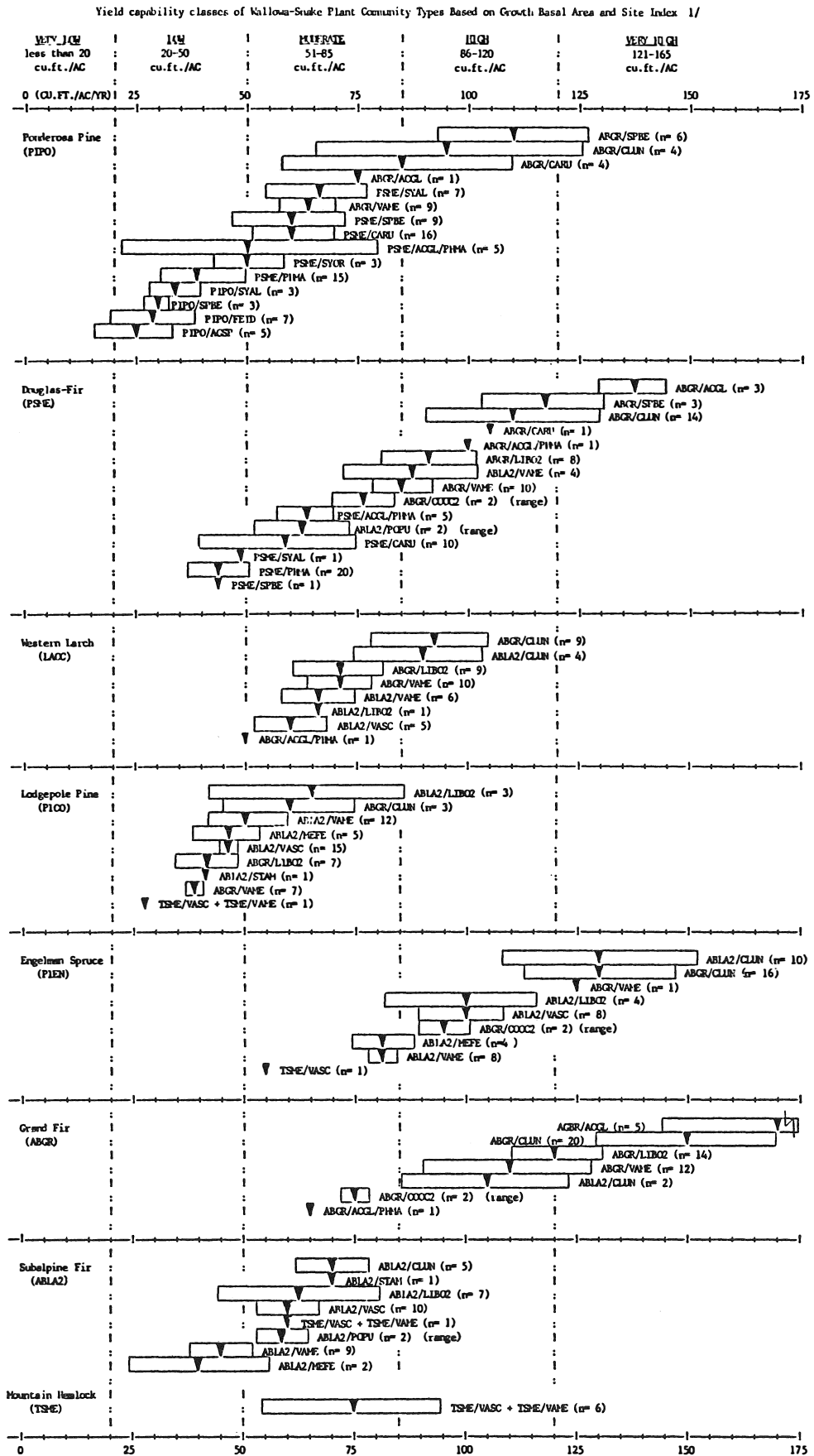
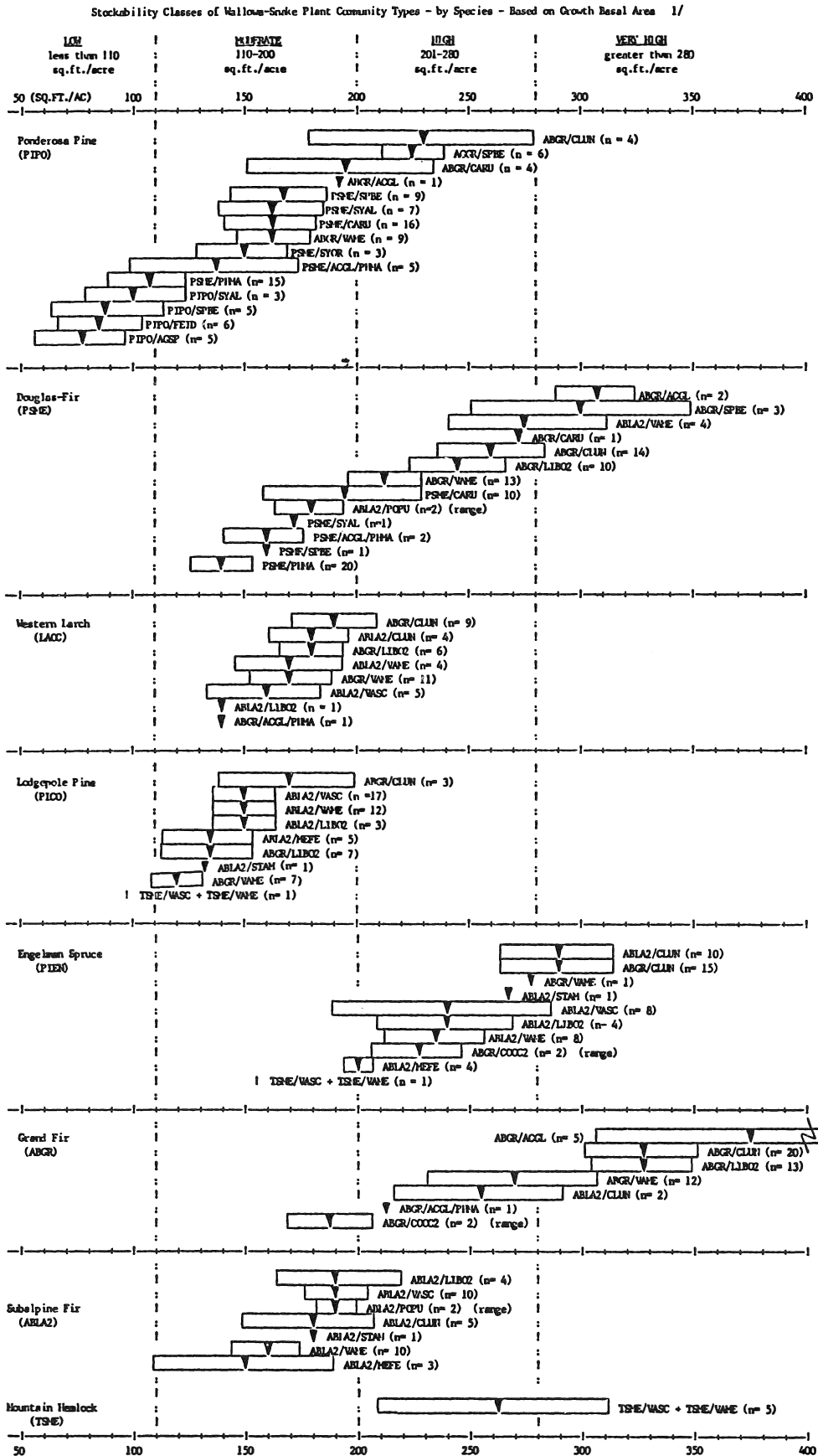


Figure 7



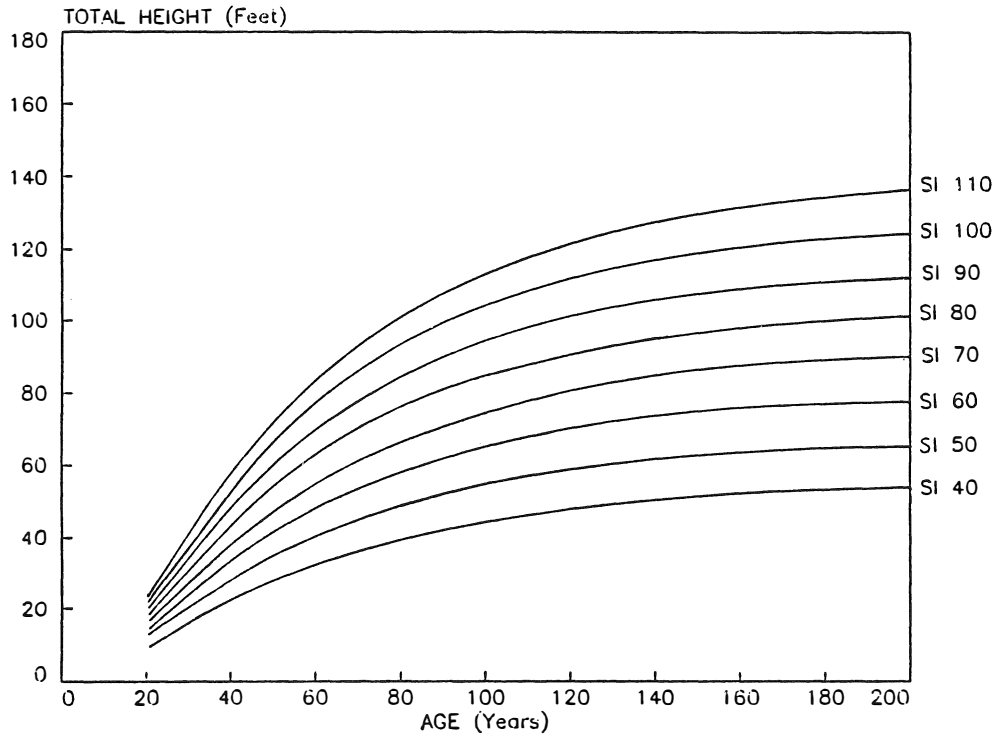
1/ Yield classes from Cross-Reference table in Silviculture Handbook (FSH 2409.26d).
 Volume yield = Growth Basal Area X Site Index X .004; Mean ∇ , and 95% confidence interval \square .
 n (no.) refers to the number of plots the species was sampled on (3-5 trees sampled/species/plot).

Figure 8

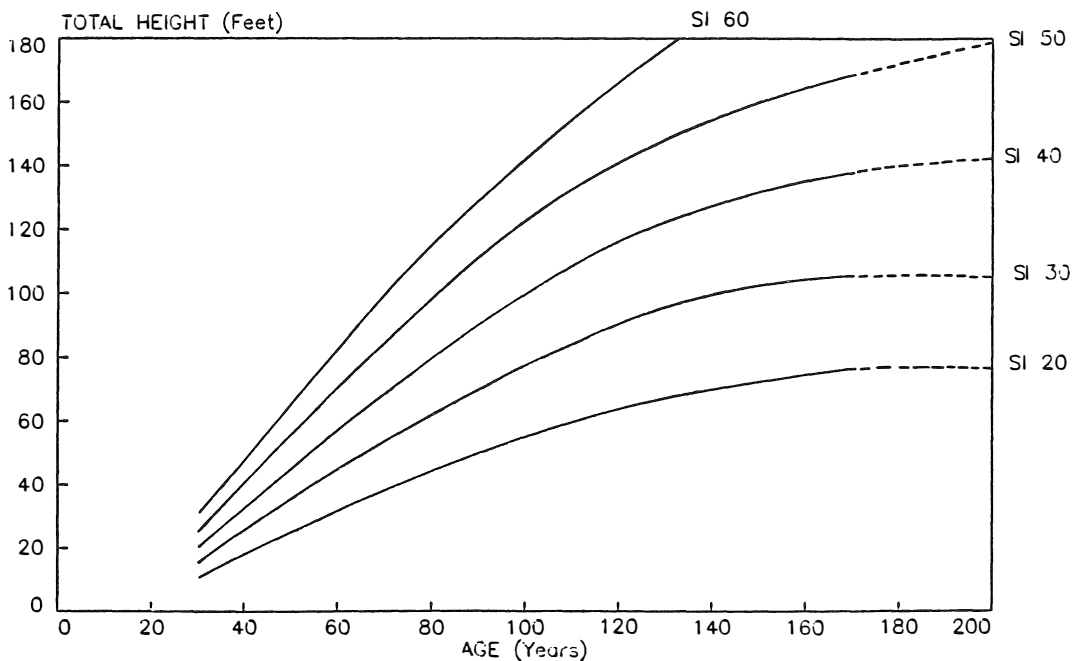


1/ Growth Basal Area after Hall (1983); Mean \bar{x} , and 95% confidence interval \square ,
 n (no.) refers to the number of plots the species was sampled on (3-5 trees sampled/species/plot)

Figure 9 & 10
 Site Index Curves for Mountain Hemlock Dominant and Codominant trees
 from Silviculture Handbook (FSH 2409.26d.61.3) Index age 100.



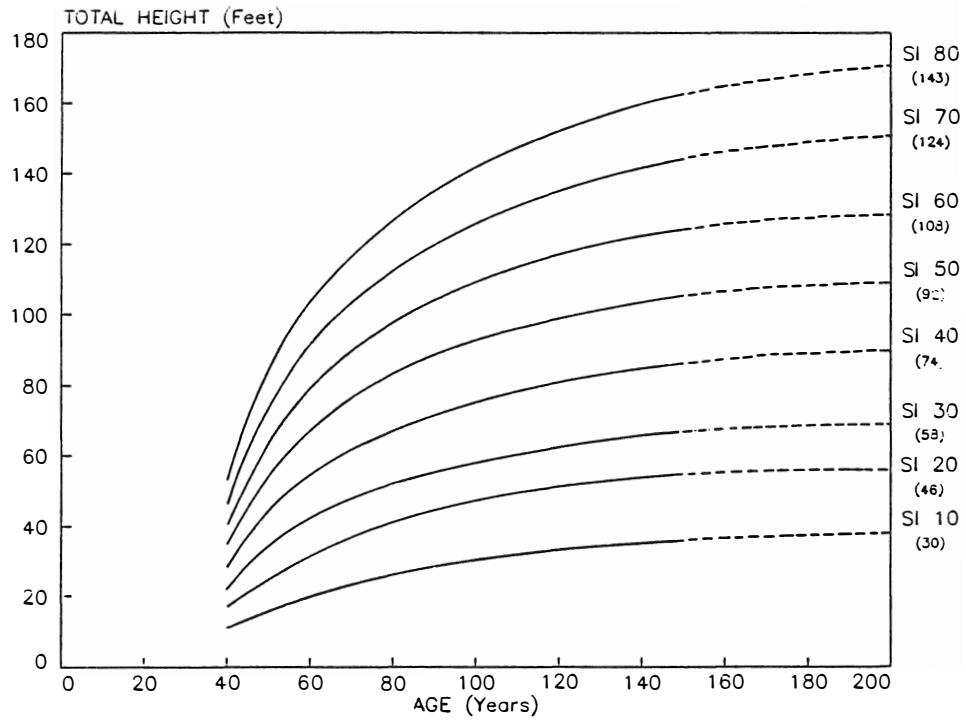
Site Index Curves for Subalpine Fir* Dominant trees
 from Silviculture Handbook (FSH 2409.26d.61.5) Index age 100.



* from Red Fir-Noble Fir-Pacific Silver Fir curves

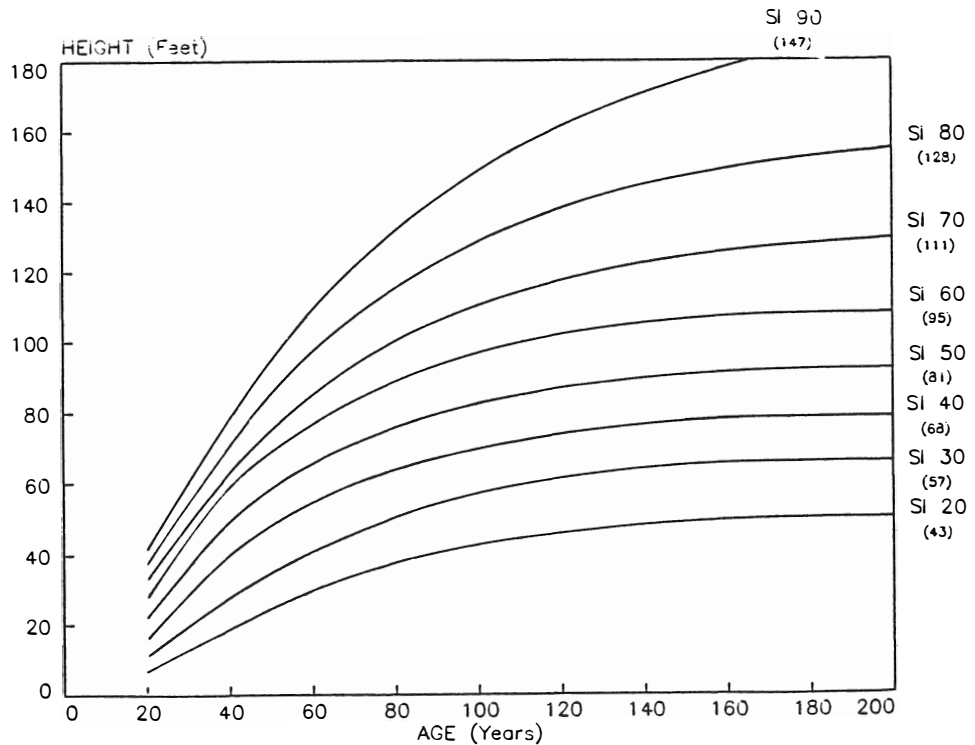
Figure 11 & 12

Site Index Curves for Grand Fir Dominant trees from
Silviculture Handbook (FSH 2409.26d.61.4) Index age 50.*



* Site Index at base age 100 in parenthesis

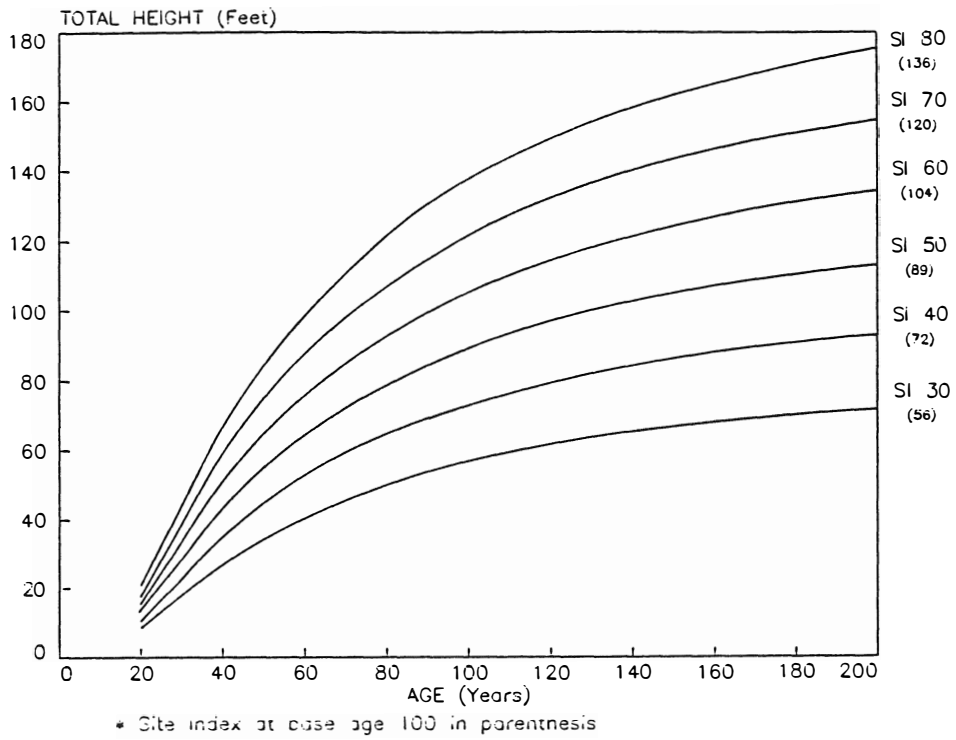
Site Index Curves for Engelmann Spruce Dominants and Codominants
from Silviculture Handbook (FSH 2409.26d.61.9) Index Age 50.*



* Site Index at base age 100 in parenthesis

Figure 13 & 14

Site Index Curves for Western Larch Dominant trees from
Silviculture Handbook (FSH 2409.26d.61.8) Index Age 50.*



Site Index Curves for Lodgepole Pine from
Silviculture Handbook (FSH 2409.26d.61.6) Index age 50.*

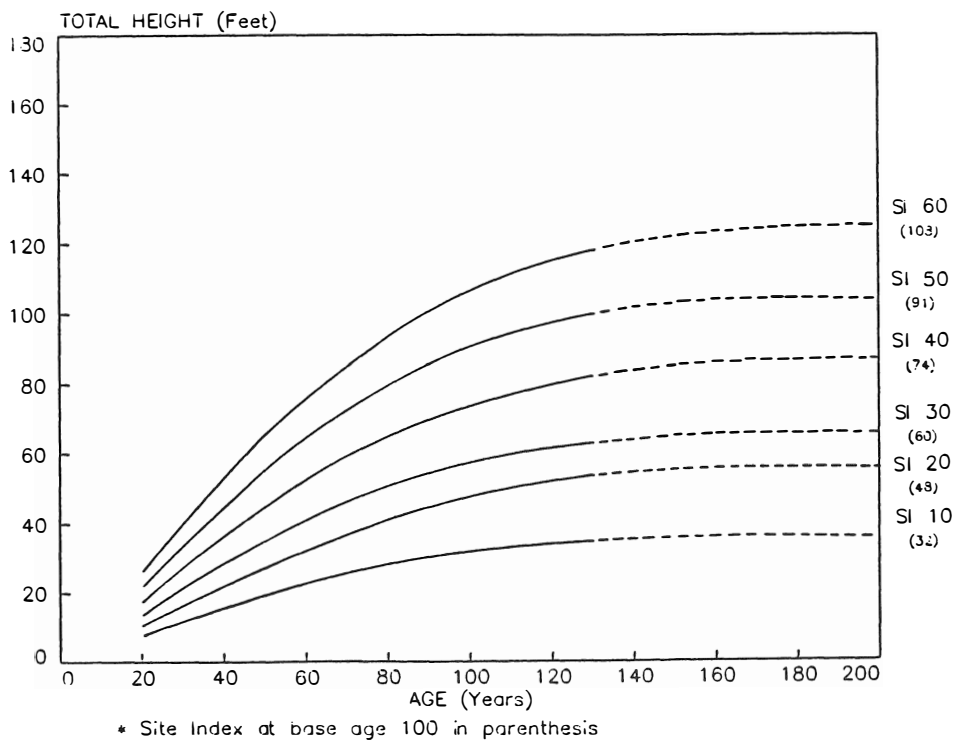
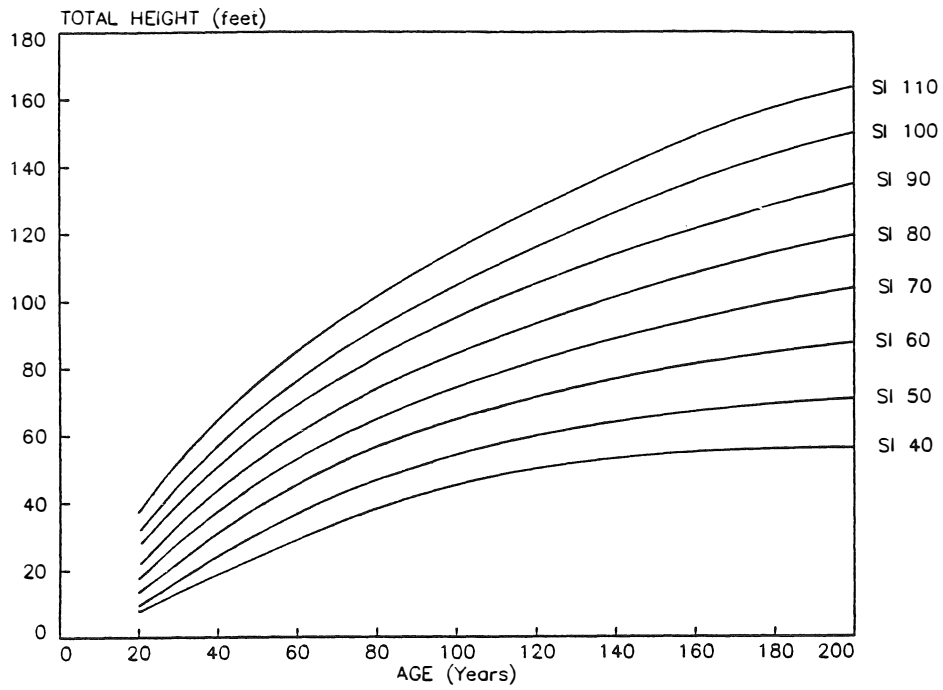


Figure 15 & 16

Site Index Curves for Ponderosa Pine Dominant and Codominant trees from Silviculture Handbook (FSH 2409.26d.61.2) Index age 100.



Site Index Curves for Douglas-fir Dominant trees from Silviculture Handbook (FSH 2409.26d.61.1) Index age 100.

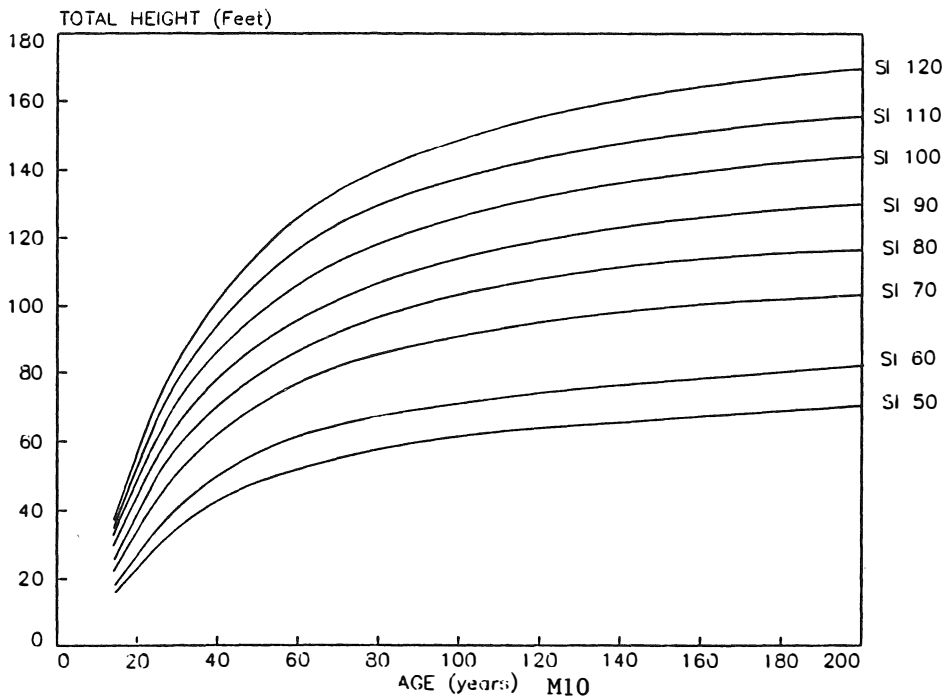
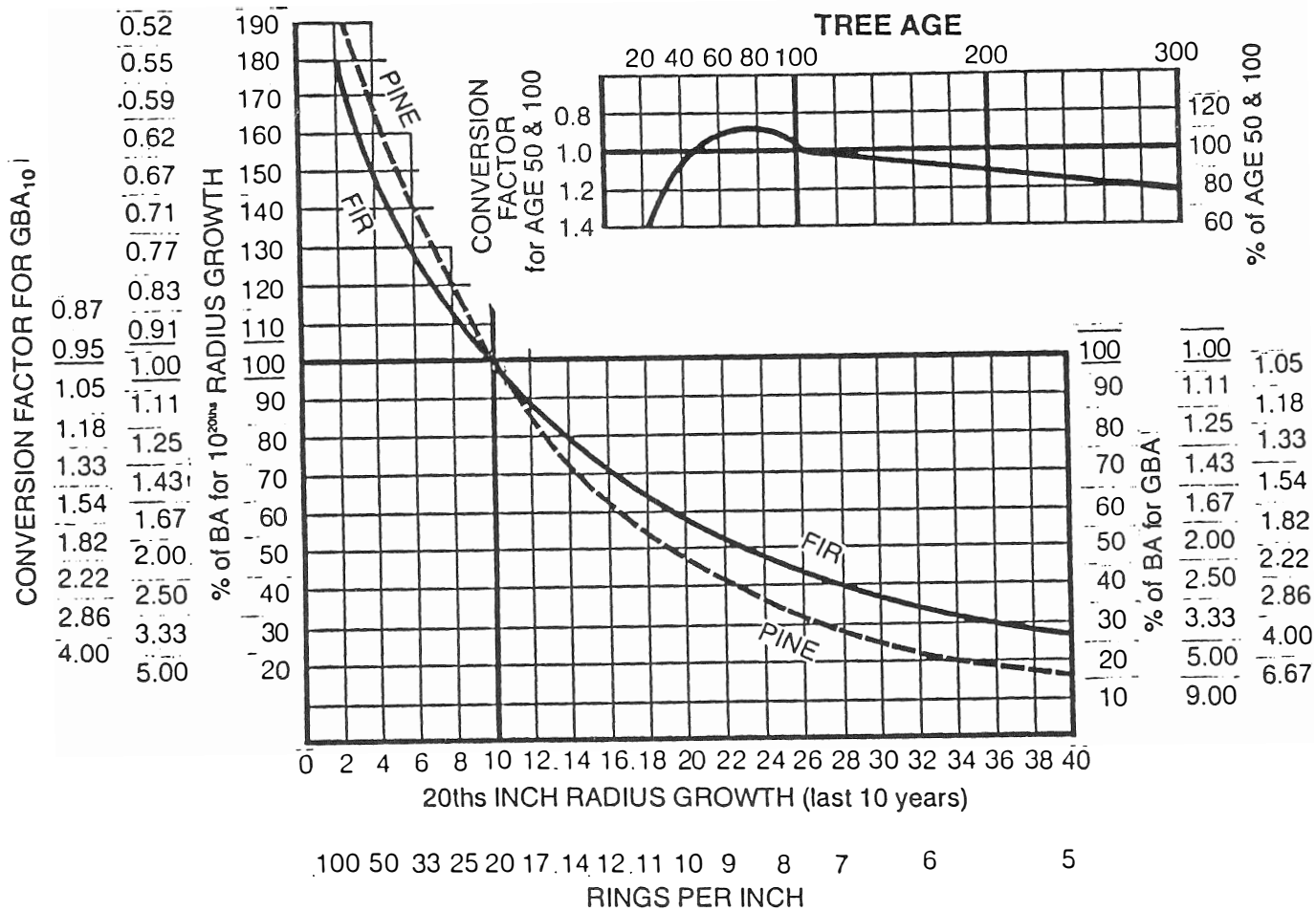


Figure 17
 Conversion Factor Curves for Growth Basal Area (Hall 1984). Fir curve used for
 calculation of growth basal area for all species in Wallowa-Snake plant community types.

5/11/84

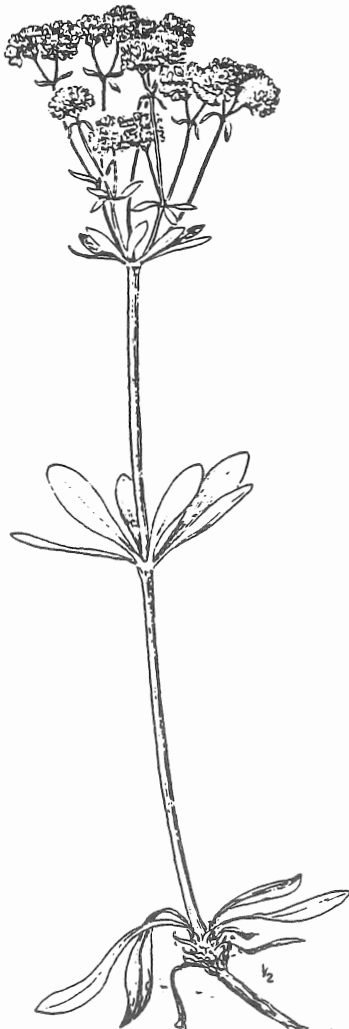


111

Steppe Plant Associations
Shrubs



mountain big sagebrush (ARTRV)
Artemisia tridentata vaseyana



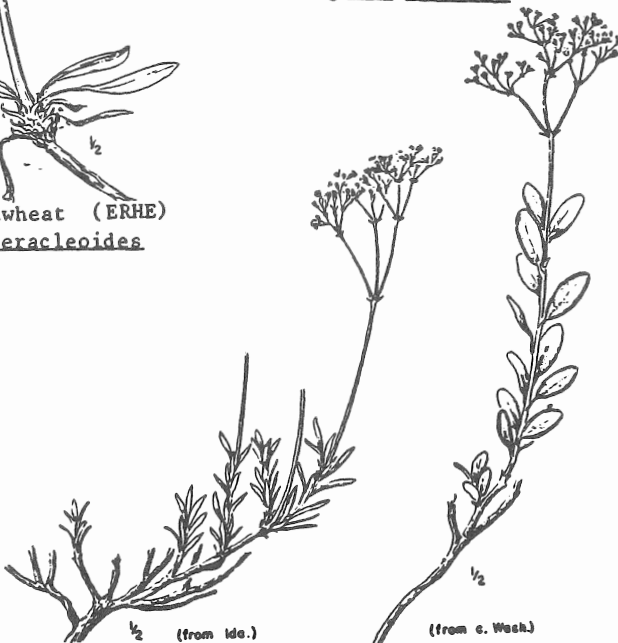
Wyeth's buckwheat (ERHE)
Eriogonum heracleoides



strict buckwheat (ERST2)(ERSTP)
Eriogonum strictum

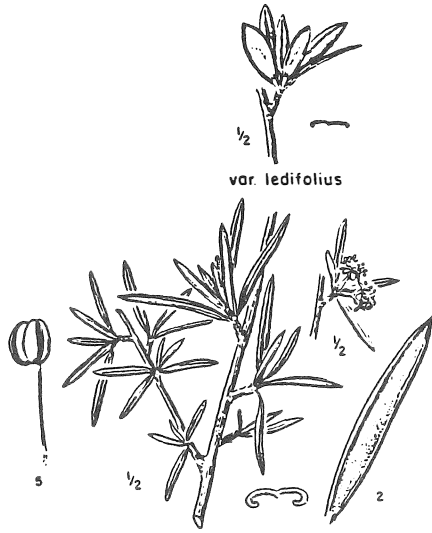


stiff sagebrush (ARRI)
Artemisia rigida



slenderbush buckwheat (ERMI)
Eriogonum microthecum

Steppe Plant Associations
Shrubs



var. ledifolius

mountain-mahogany (CELE)
Cercocarpus ledifolius



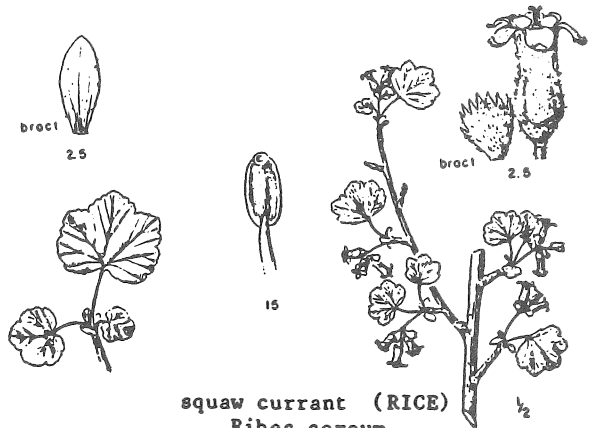
spiny green-bush (GLNE)
Glossopetalon nevadense



netleaf hackberry (CERE2)
Celtis reticulata

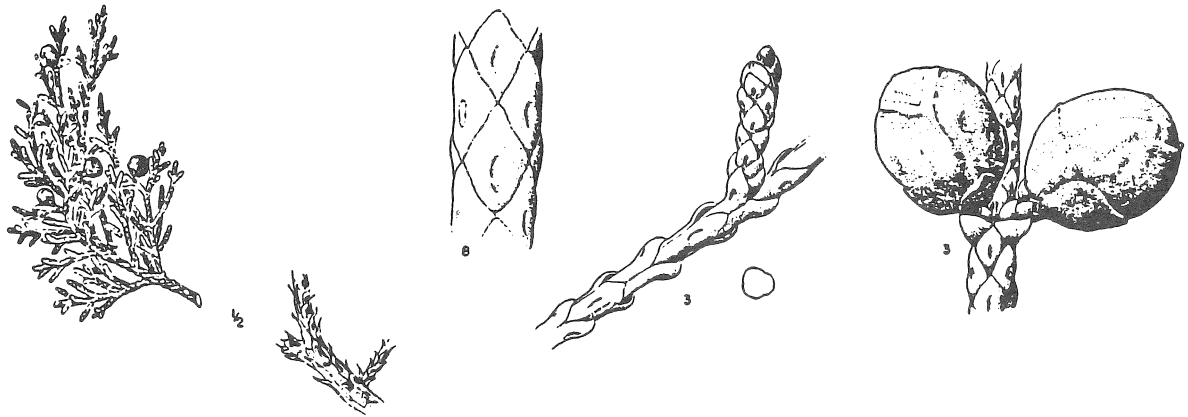


smooth sumac (RHGL)
Rhus glabra



squaw currant (RICE)
Ribes cereum

Steppe Plant Associations
Shrubs



western juniper (JUOC)
Juniperus occidentalis

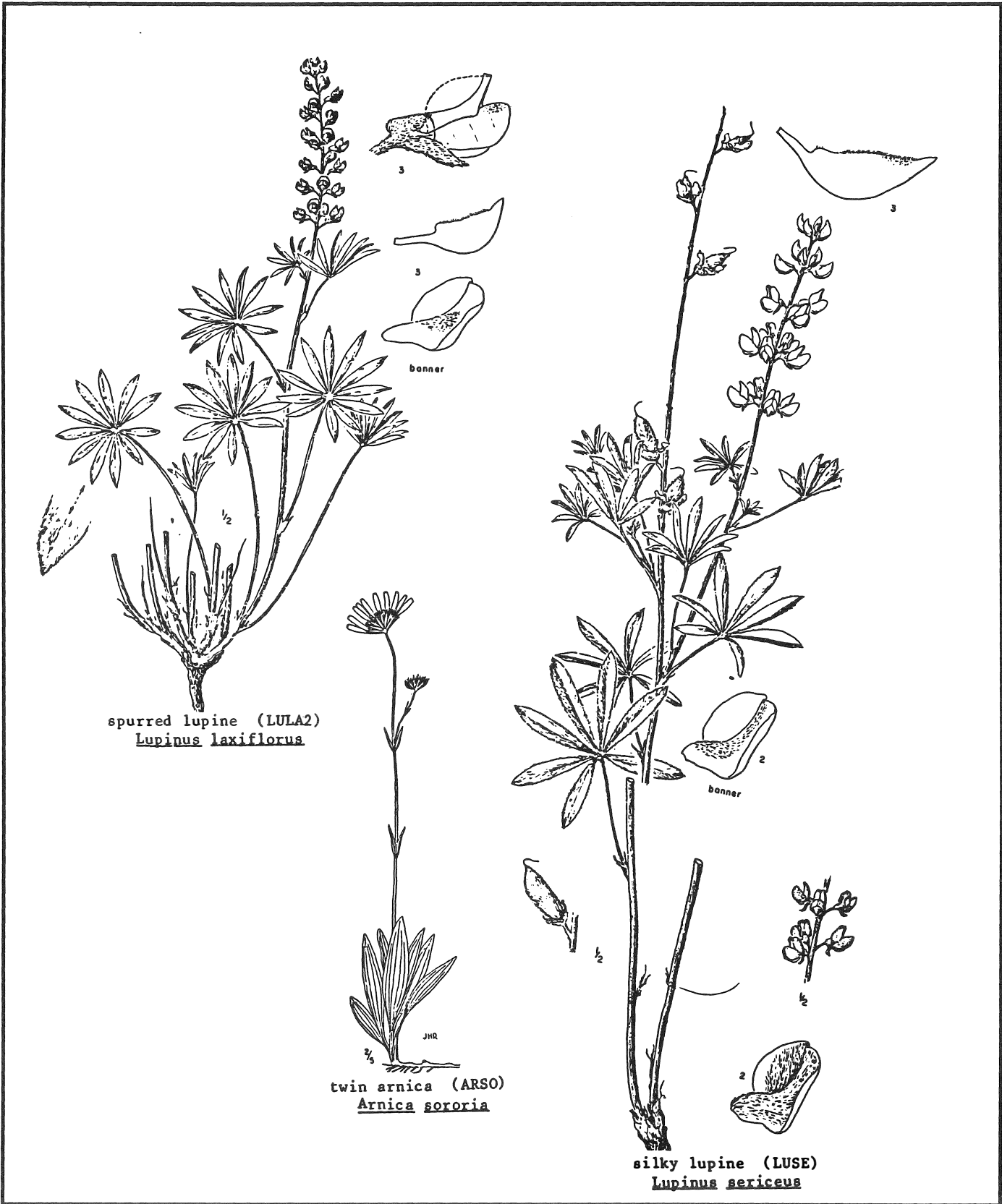


bitterbrush (PUTR)
Purshia tridentata

common snowberry (SYAL)
Symphoricarpos albus

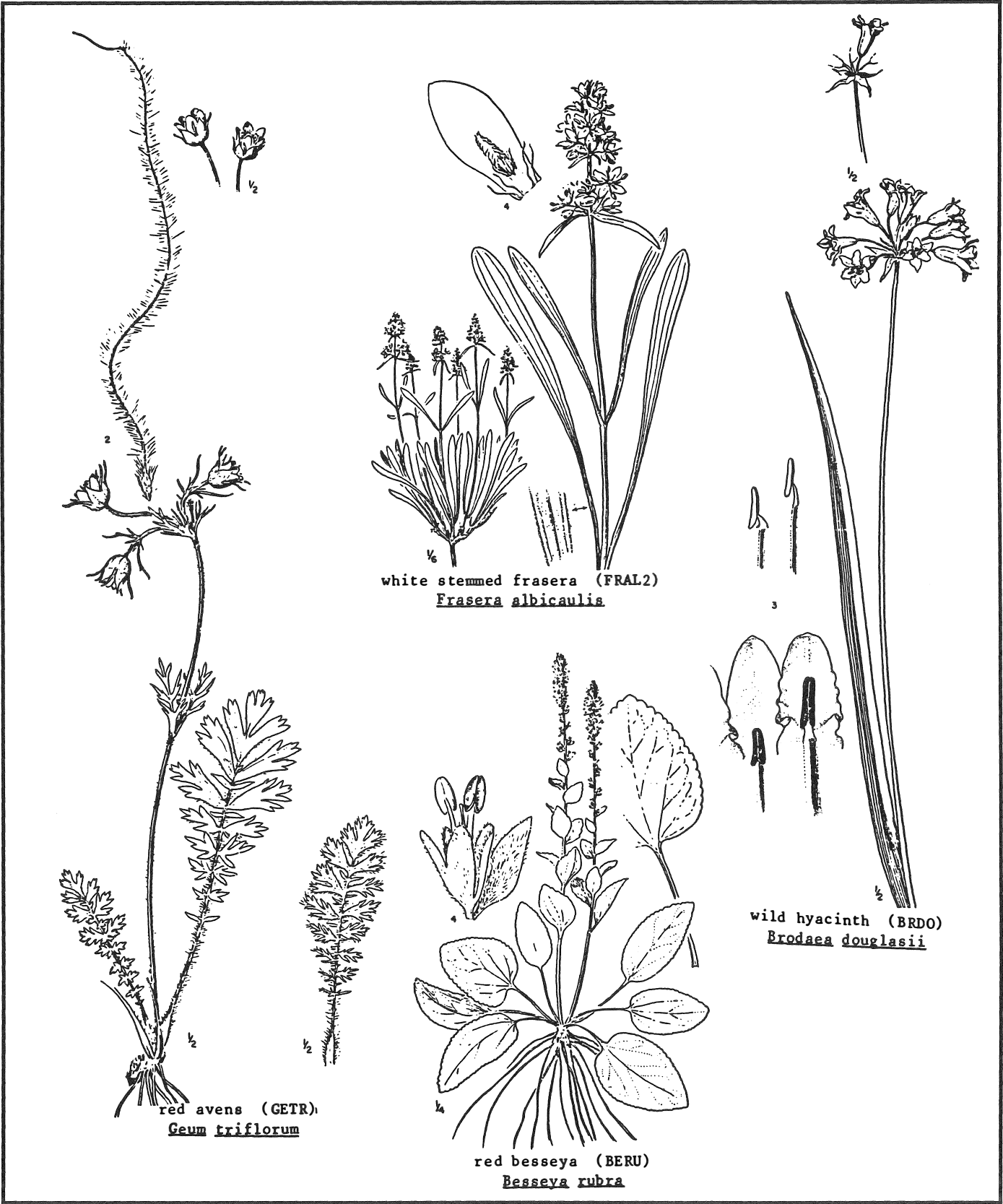
ninebark (PHMA)
Physocarpus malvaceus

Steppe Plant Associations
Forbs



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Steppe Plant Associations
Forbs

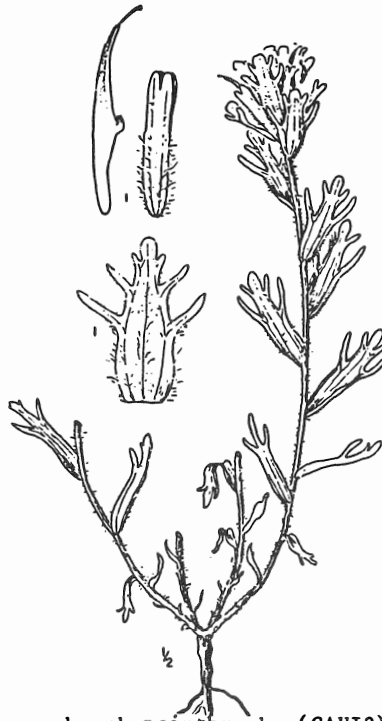


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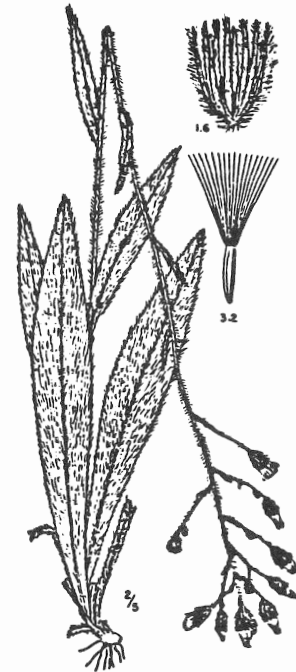
Steppe Plant Associations
Forbs



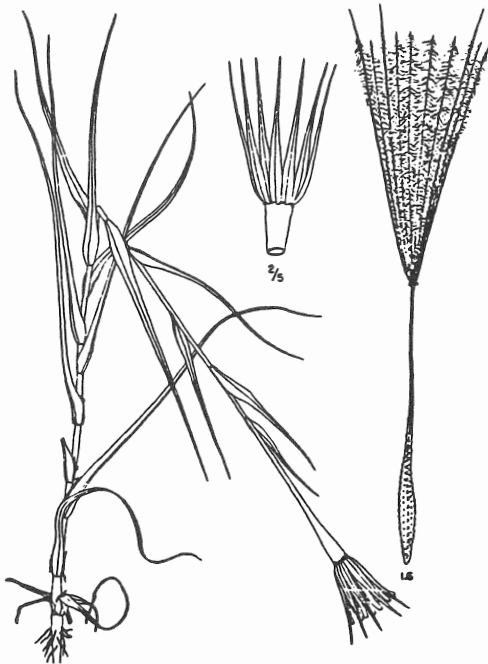
Snake River phlox (PHC02)
Phlox colubrina



harsh paintbrush (CAH12)
Castilleja hispida



western hawkweed (HIAL2)
Hieracium albertinum



yellow salsify (TRDU)
Tragopogon dubius



pale Wallowa paintbrush (CAOR3)
Castilleja oresbia

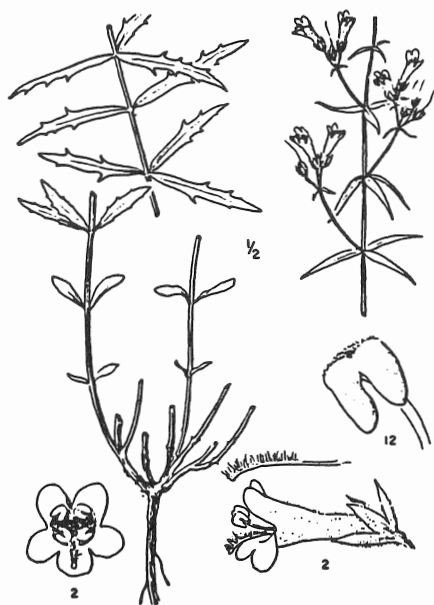
Steppe Plant Associations
Forbs



arrowleaf balsamroot (BASA)
Balsamorhiza sagittata



hoary balsamroot (BAIN)
Balsamorhiza incana



whorled penstemon (PETR)
Penstemon triphyllus



hot rock penstemon (PEDE)
Penstemon deustus

Steppe Plant Associations
Forbs

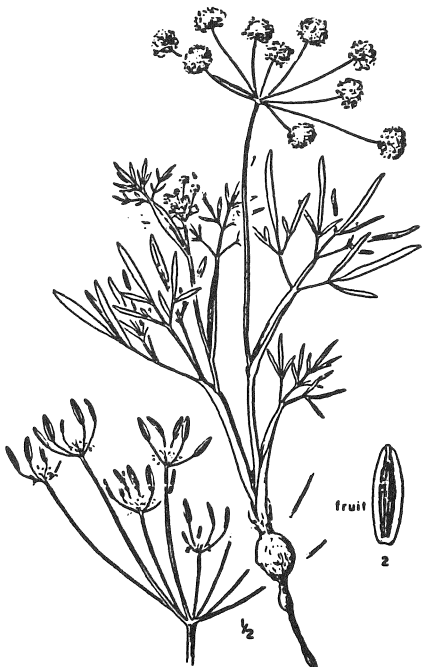


shrubby penstemon (PEFRS)
Penstemon fruticosus sericeus

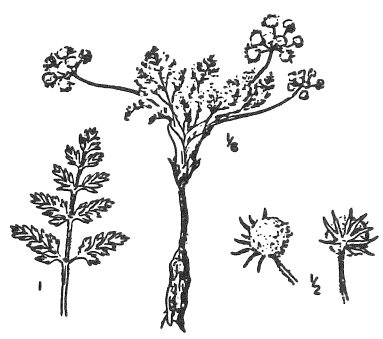
lovely penstemon (PEEL)
Penstemon elegantulus



Blue Mountain penstemon (PEVE)
Penstemon venustus

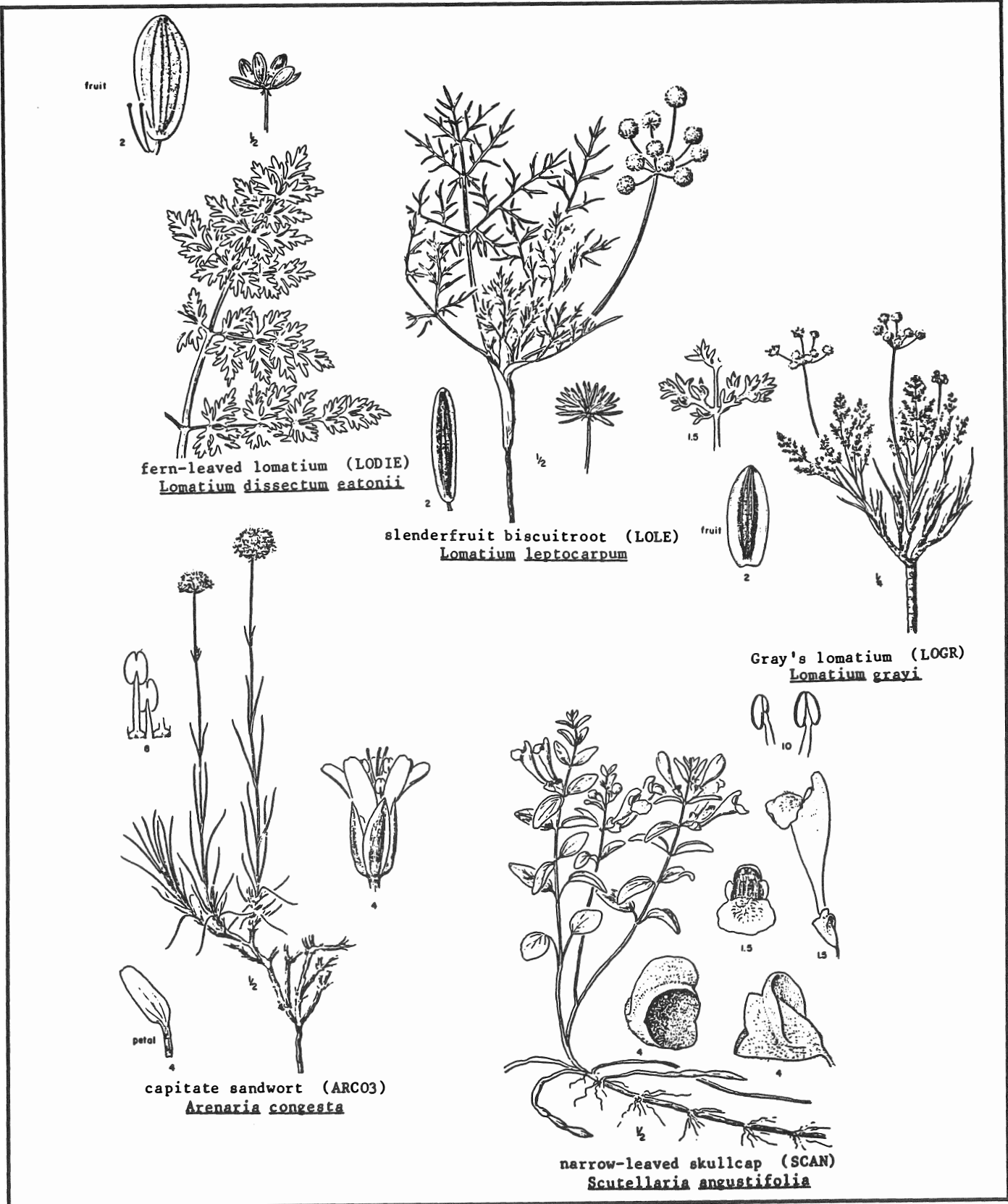


swale desert-parsley (LOAM)
Lomatium ambiguum



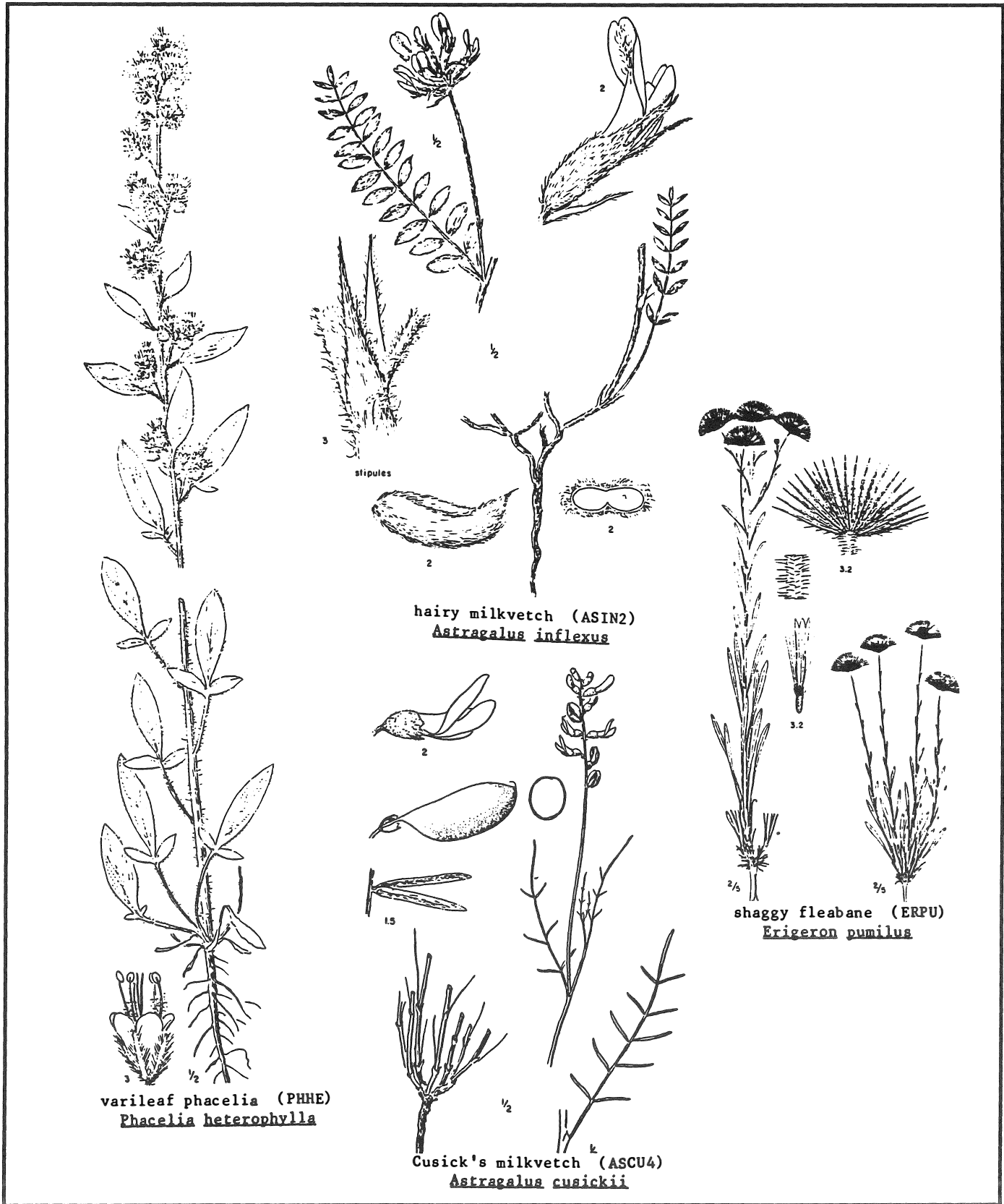
large-fruited biscuitroot (LOMA)
Lomatium macrocarpum

Steppe Plant Associations
Forbs



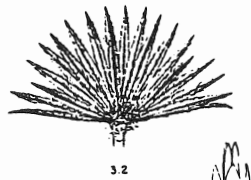
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Steppe Plant Associations
Forbs



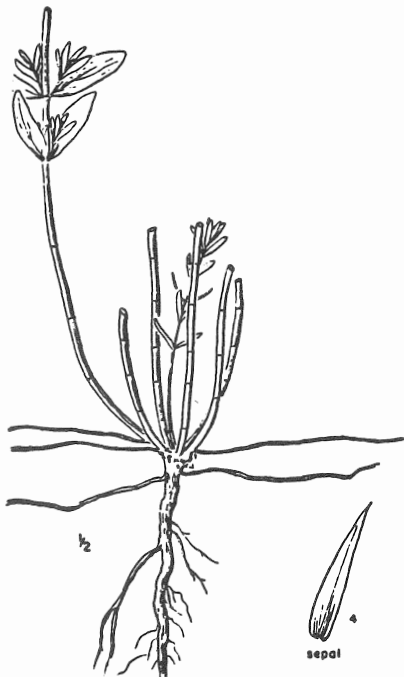
prickly pear (OPPO)
Opuntia polycantha



Snake River daisy (ERDI4)
Erigeron disparipilus



dwarf yellow fleabane (ERCH)
Erigeron chrysopsidis

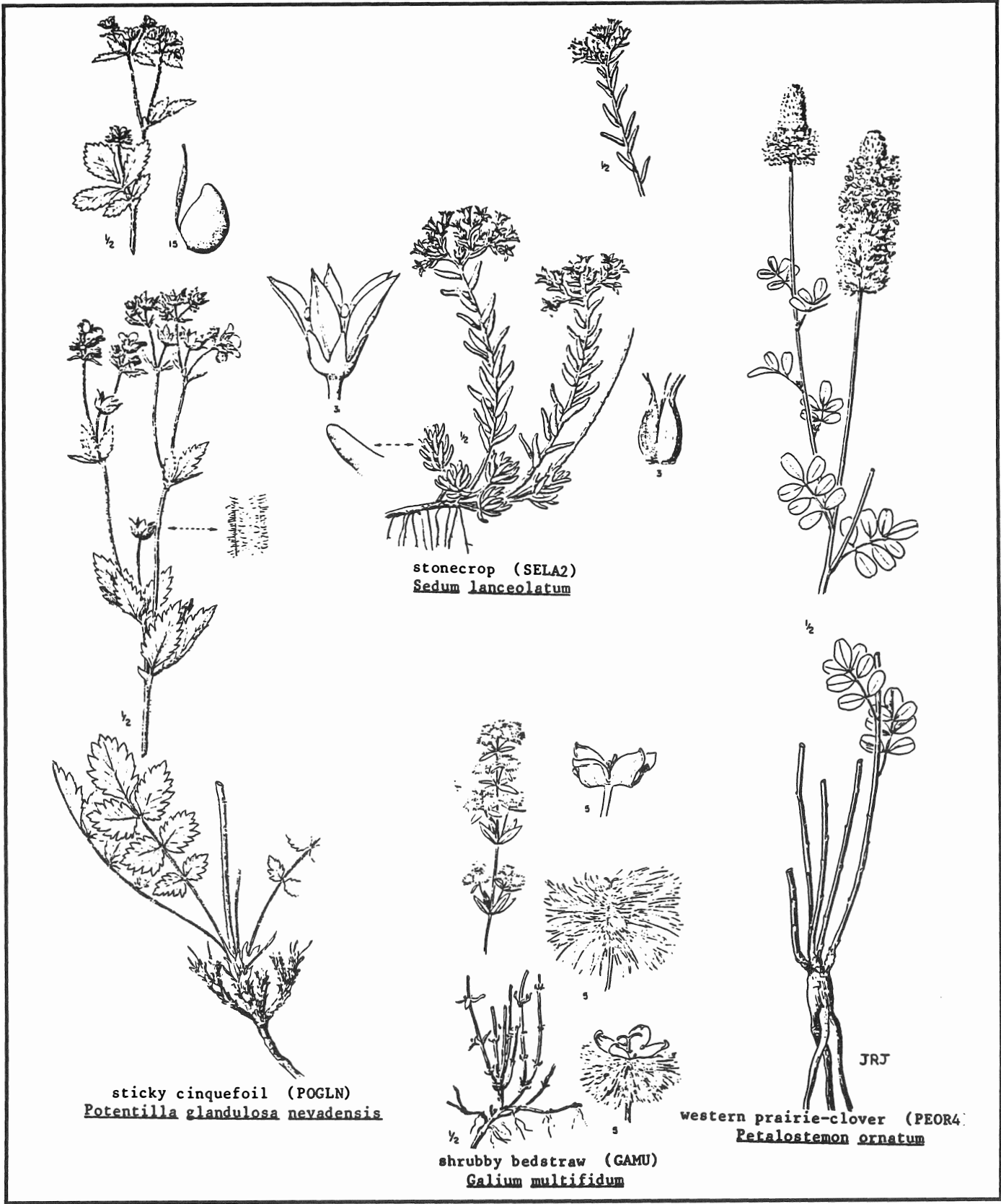


goatweed (HYPE)
Hypericum perforatum



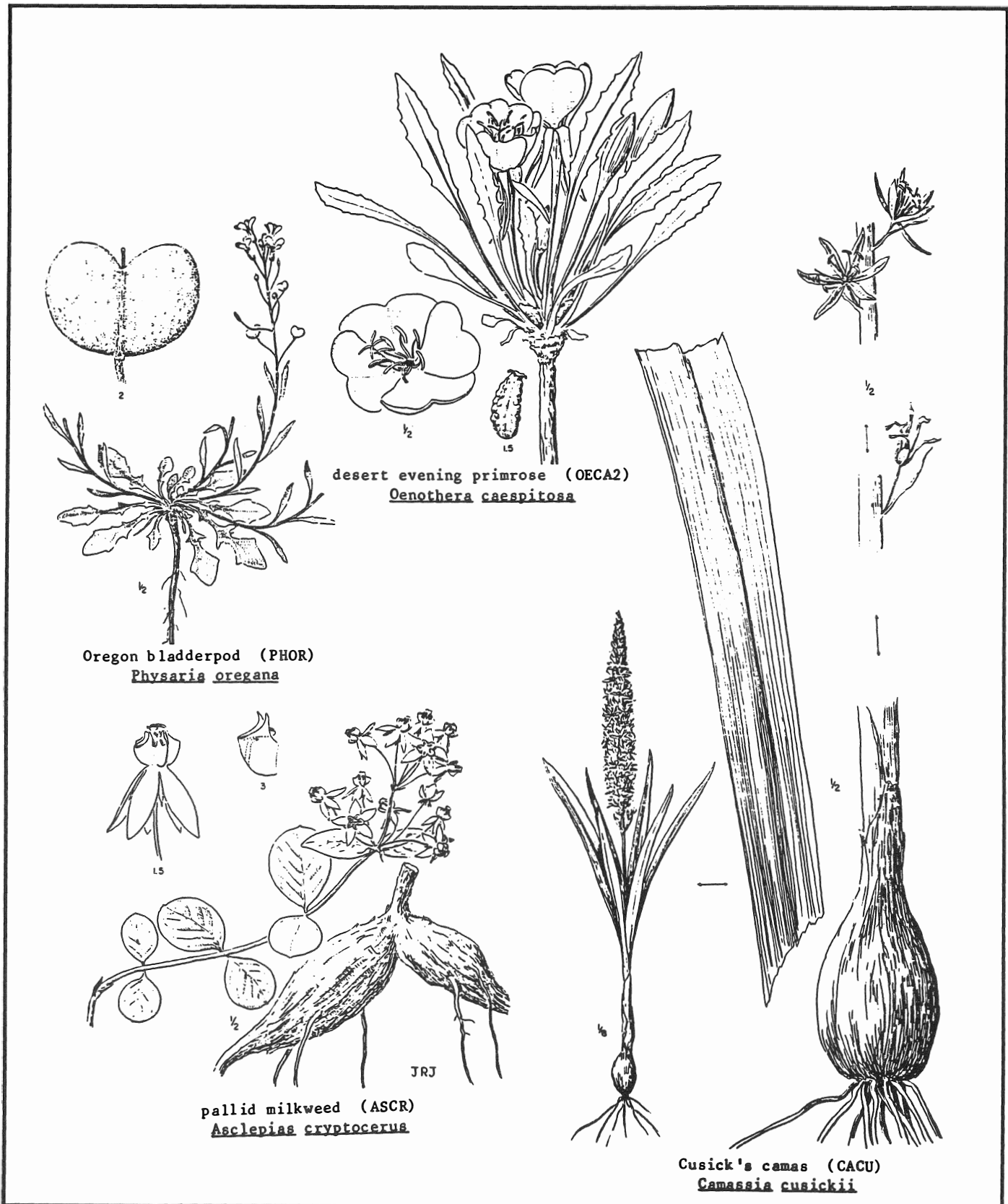
hairy golden aster (CHVI2)
Chrysopsis villosa

Steppe Plant Associations
Forbs



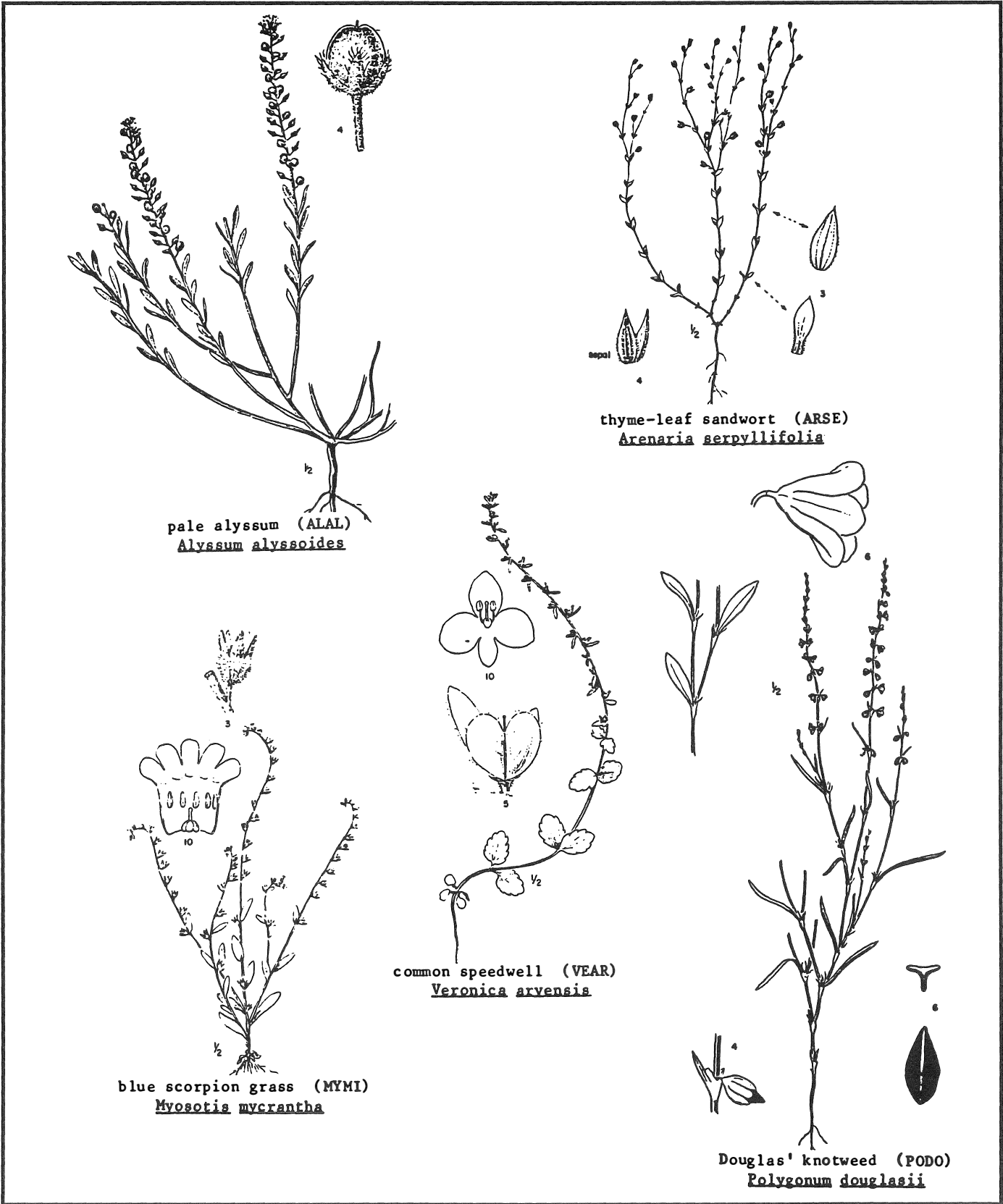
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Steppe Plant Associations
Forbs



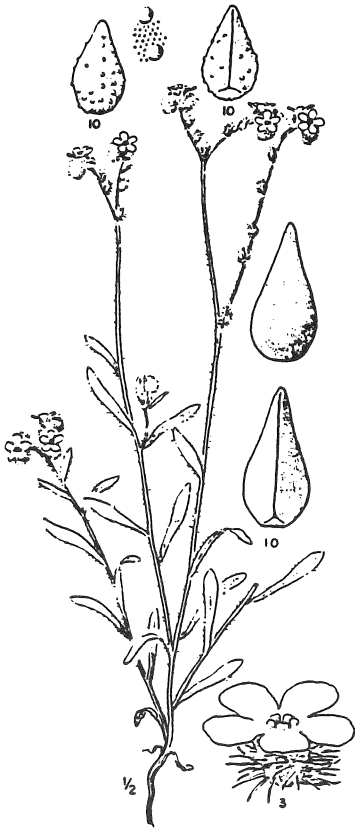
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Forbs



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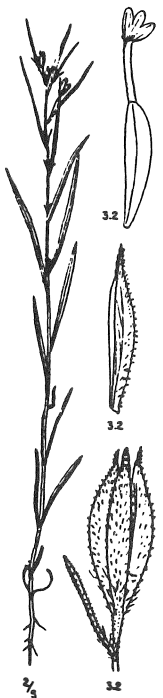
Steppe Plant Associations
Forbs



common cryptantha (CRIN2)
Cryptantha intermedia



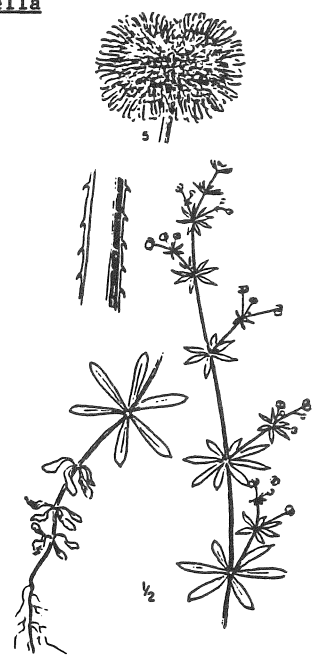
deerhorn (CLPU)
Clarkia pulchella



cluster tarweed (MAGL)
Madia glomerata

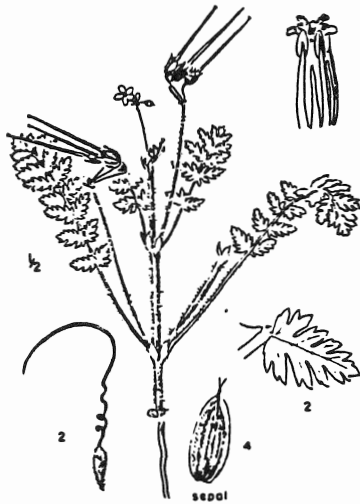


tall annual willowweed (EPPA)
Epilobium paniculatum



cleavers (GAAP)
Galium aparine

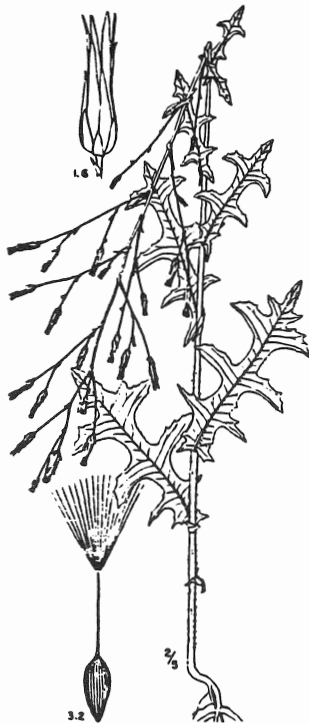
Steppe Plant Associations
Forbs



filaree (ERCI)
Erodium cicutarium



narrow-leaved collomia (COLI2)
Collomia linearis



prickly lettuce (LASE)
Lactuca serriola

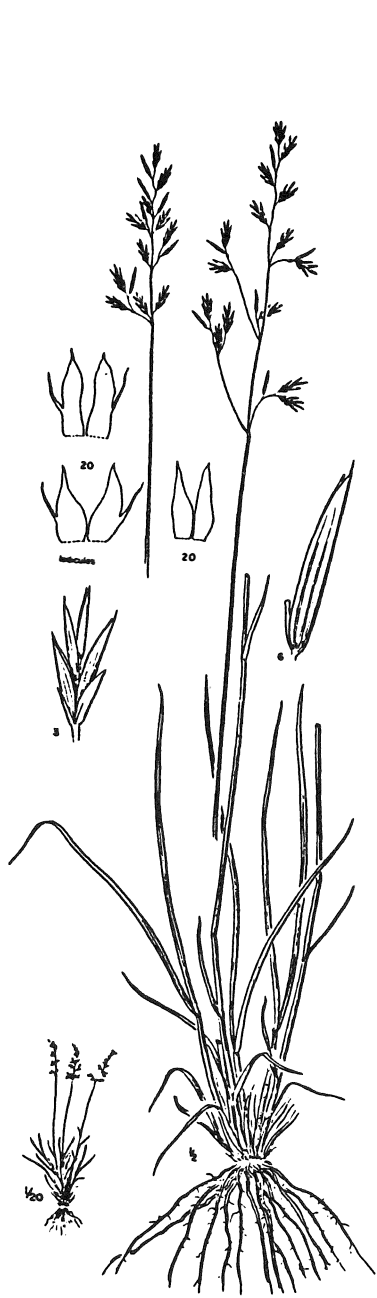


blepharipappus (BLSC)
Elepharipappus scaber



tonella (TOFL2)
Tonella floribunda

Steppe Plant Associations
Grasses and Sedges



green fescue (FEVI)
Festuca viridula

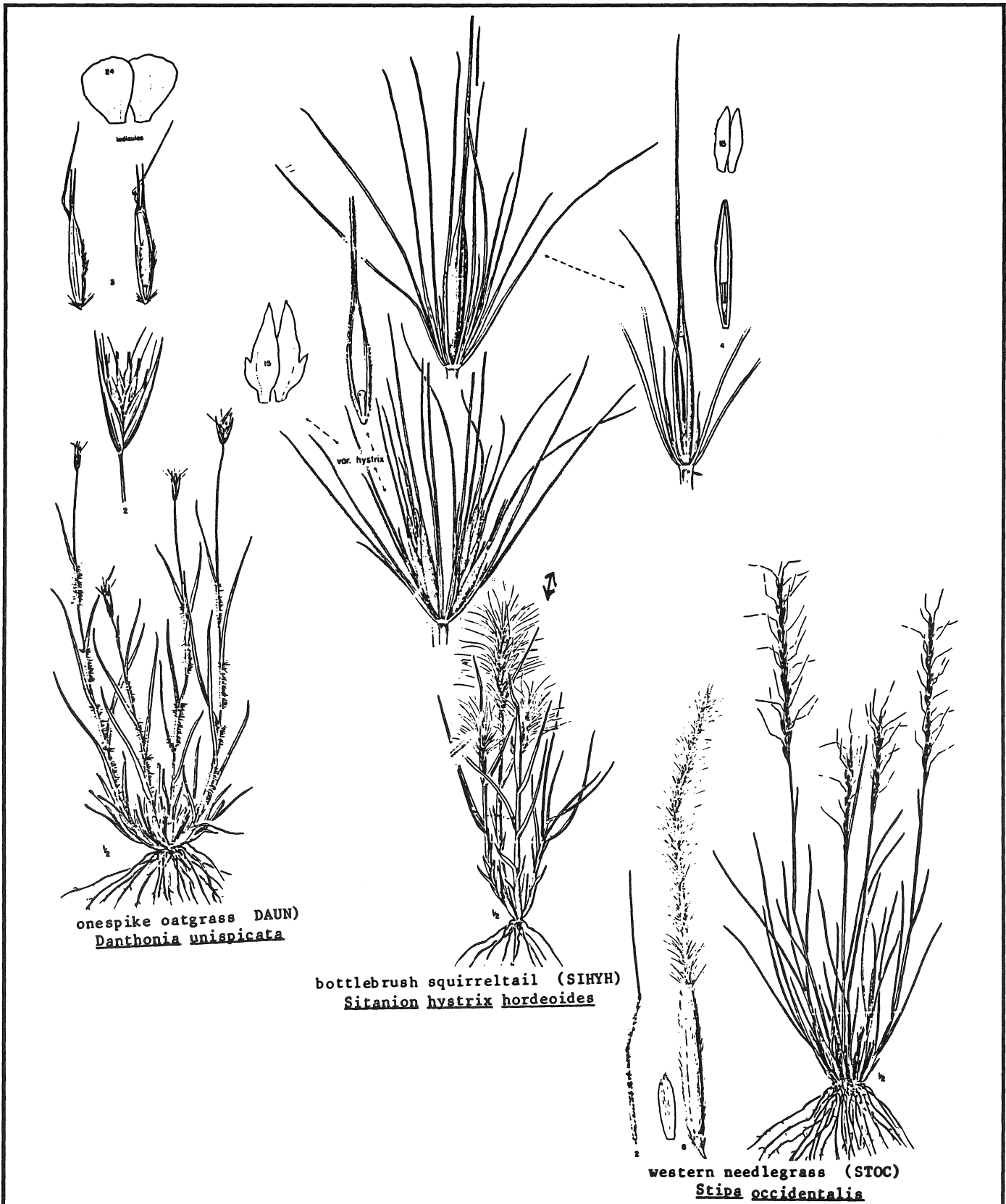


prairie junegrass (KOCR)
Koeleria cristata



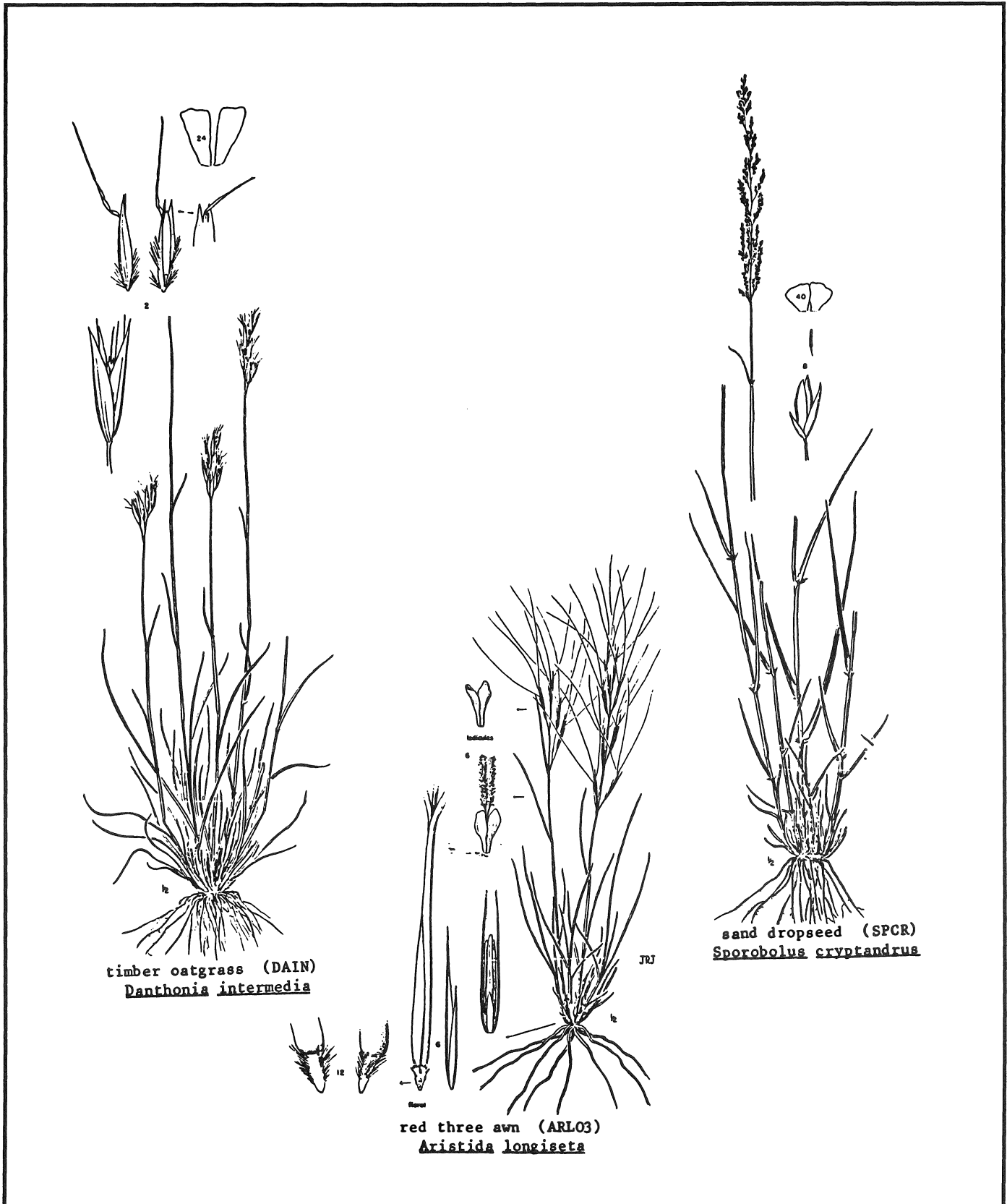
Idaho fescue (FEID)
Festuca idahoensis

Steppe Plant Associations
Grasses and Sedges



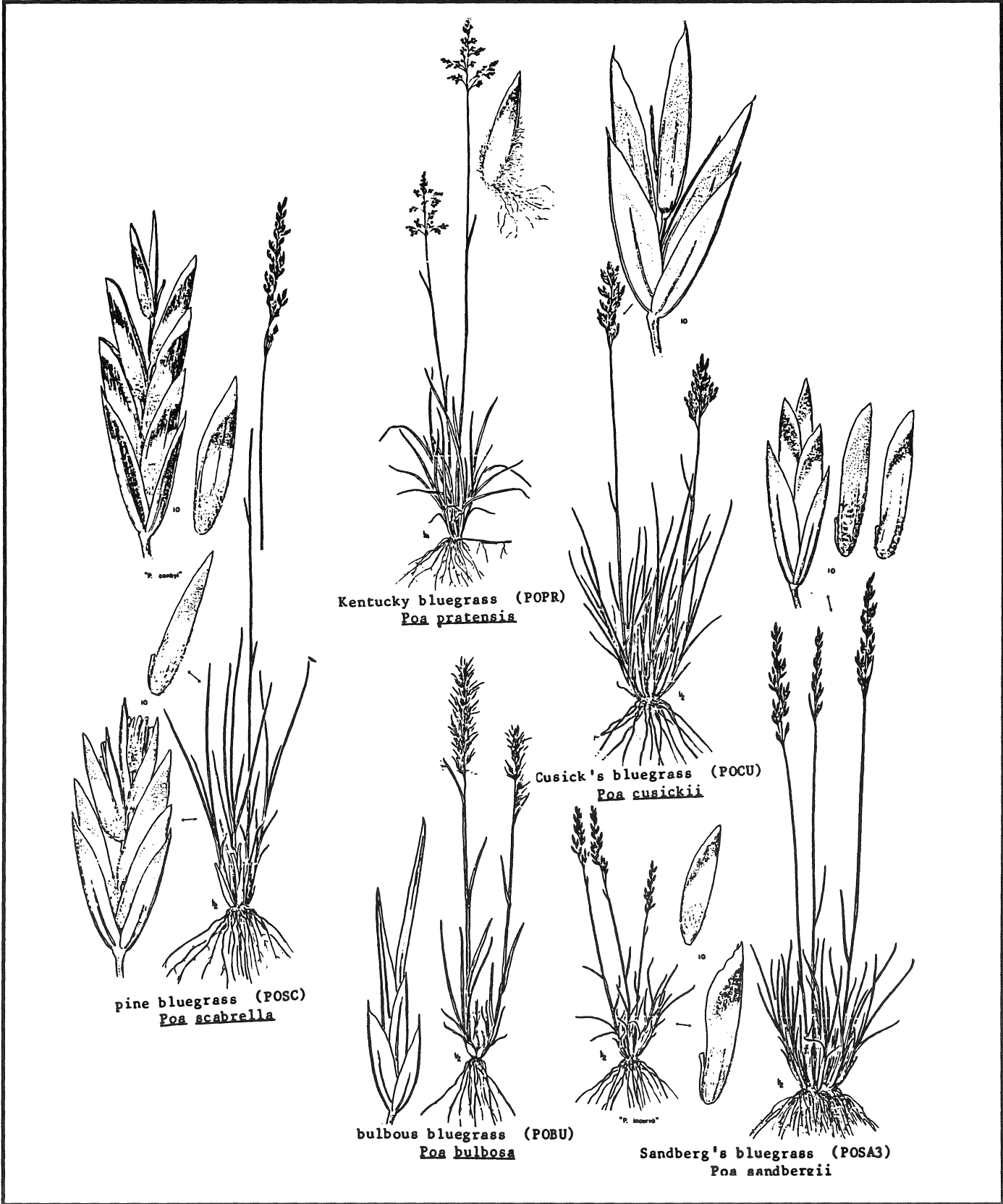
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Steppe Plant Associations
Grasses and Sedges



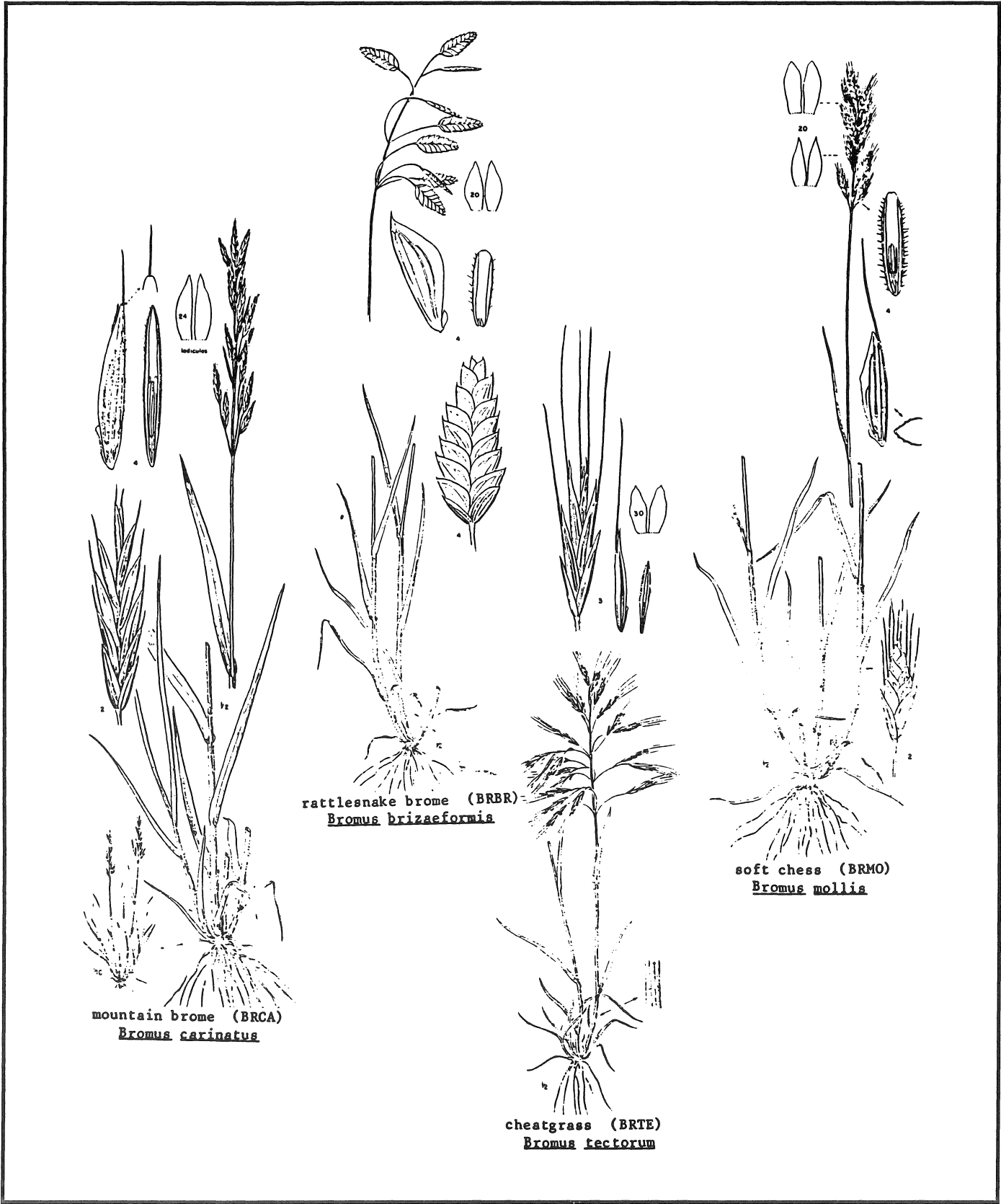
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Steppe Plant Associations
Grasses and Sedges



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Steppe Plant Associations
Grasses and Sedges

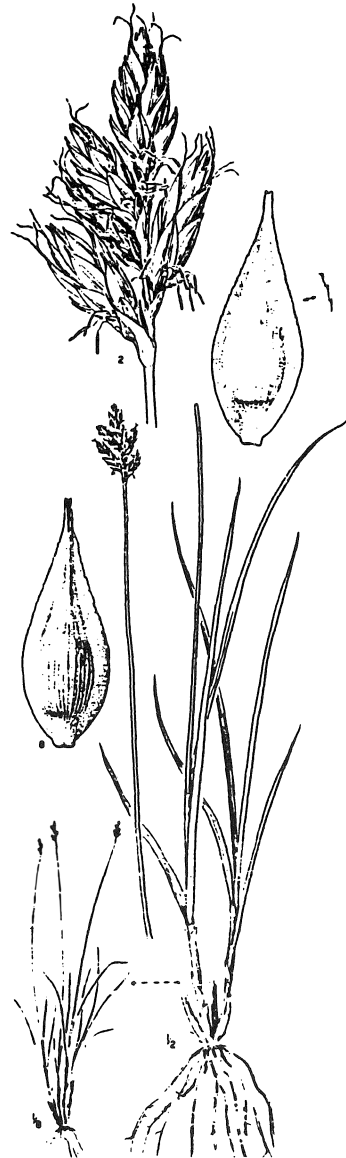


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Steppe Plant Associations
Grasses and Sedges

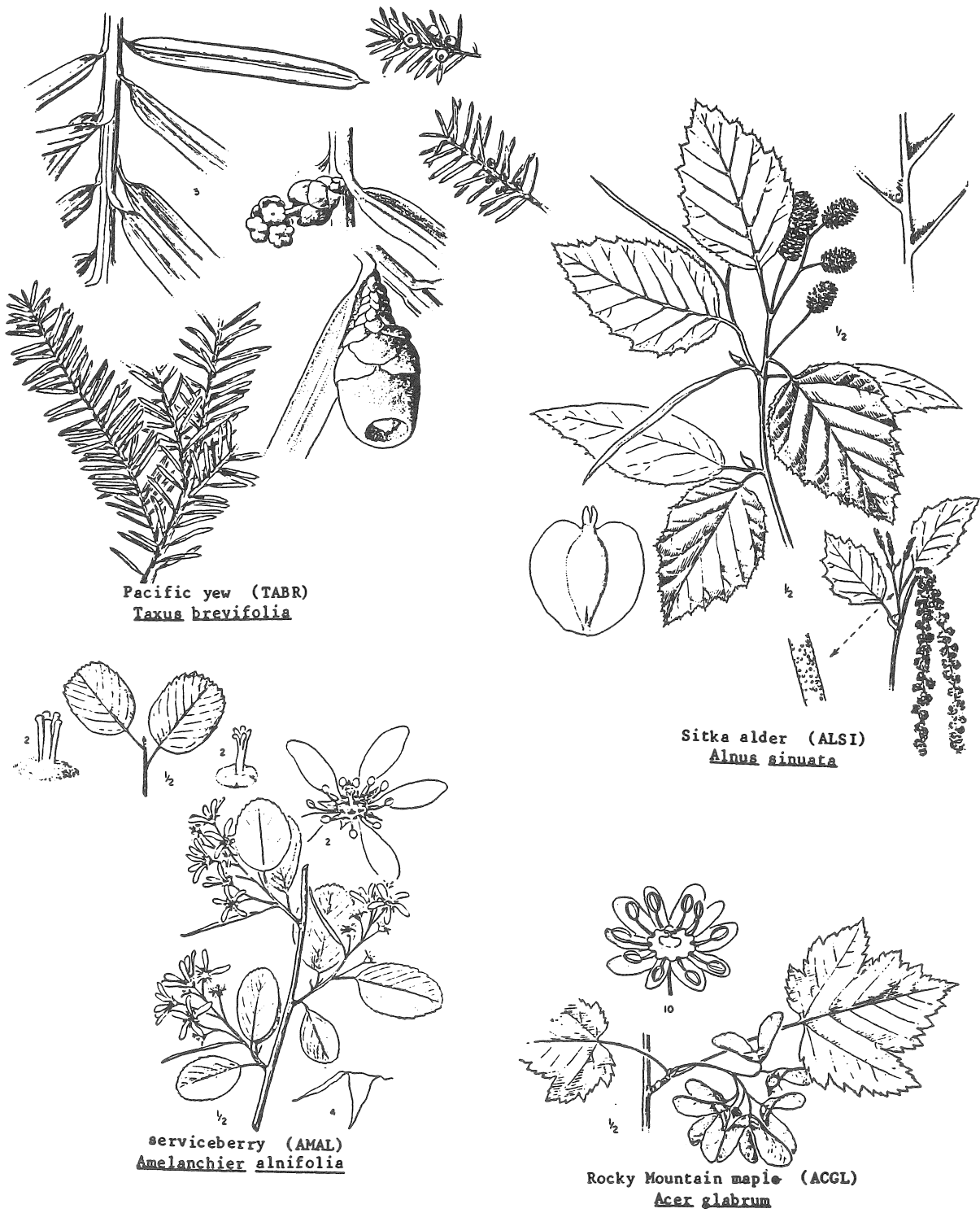


Hood's sedge (CAHO)
Carex hoodii

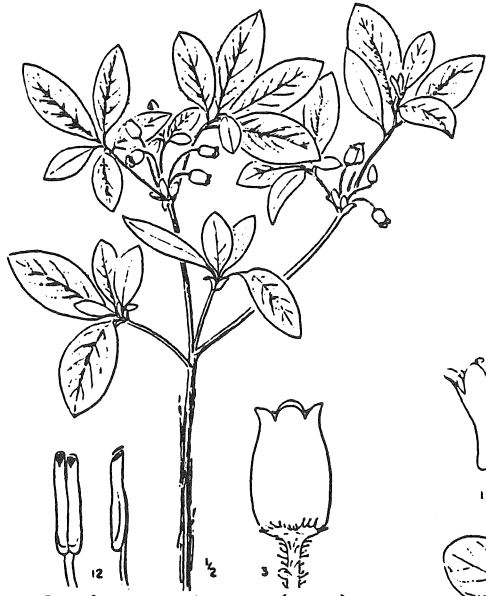


Liddon's sedge (CAPE)
Carex petasata

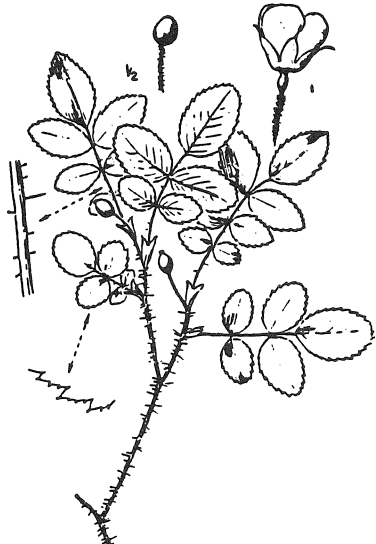
Forest Plant Associations
Shrubs



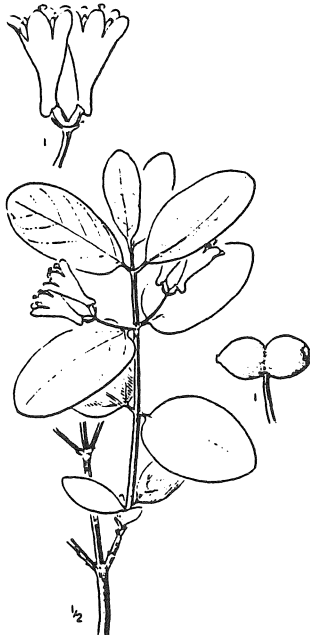
Forest Plant Associations
Shrubs



fool's huckleberry (MEFE)
Menziesia ferruginea



baldhip rose (ROGY)
Rosa gymnocarpa



Utah honeysuckle (LOUT2)
Lonicera utahensis



mountain snowberry (SYOR)
Symphoricarpos oreophilus



ninebark (PHMA)
Physocarpus malvaceus



big huckleberry (VAME)
Vaccinium membranaceum

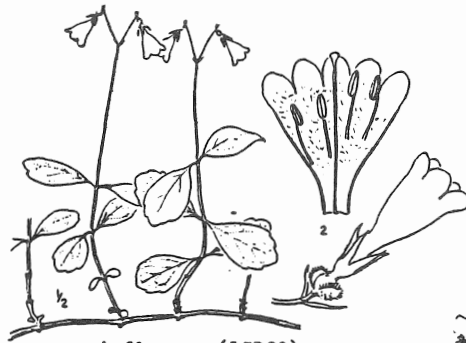
Forest Plant Associations
Shrubs



grouse huckleberry (VASC)
Vaccinium scoparium



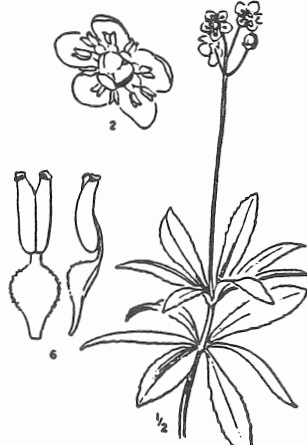
Oregon-grape (BERE)
Berberis repens



twinflower (LIBO2)
Linnaea borealis



spiraea (SPBE)
Spiraea betulifolia

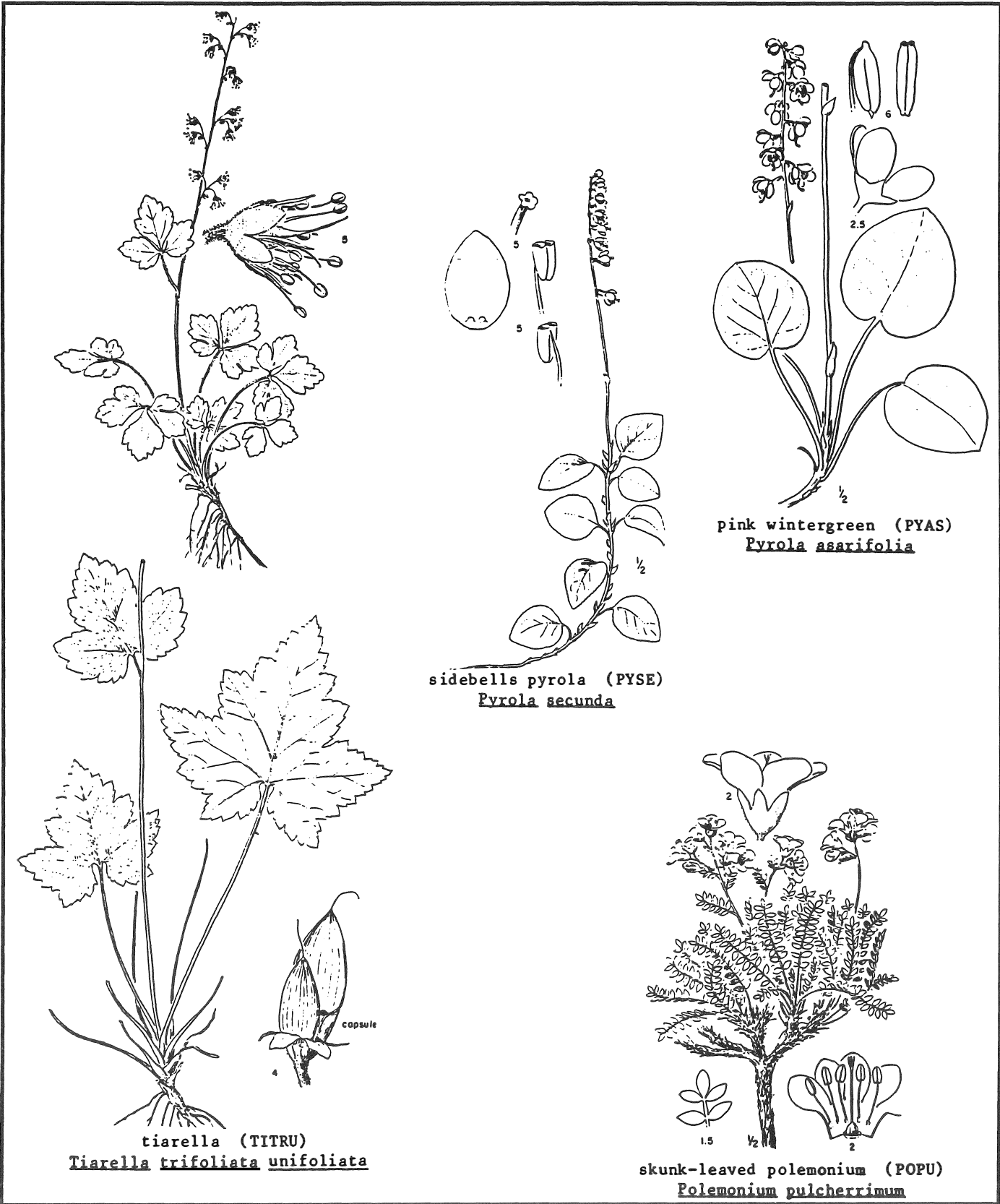


prince's pine (CHUM)
Chimaphila umbellata



common snowberry (SYAL)
Symphoricarpos albus

Forest Plant Associations
Forbs



tiarella (TITRU)
Tiarella trifoliata unifoliata

sidebells pyrola (PYSE)
Pyrola secunda

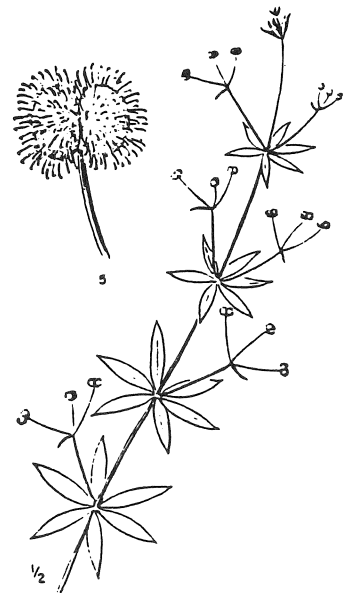
pink wintergreen (PYAS)
Pyrola asarifolia

skunk-leaved polemonium (POPU)
Polemonium pulcherrimum

Forest Plant Associations
Forbs



starry false Solomon's seal (SMST)
Smilacina stellata

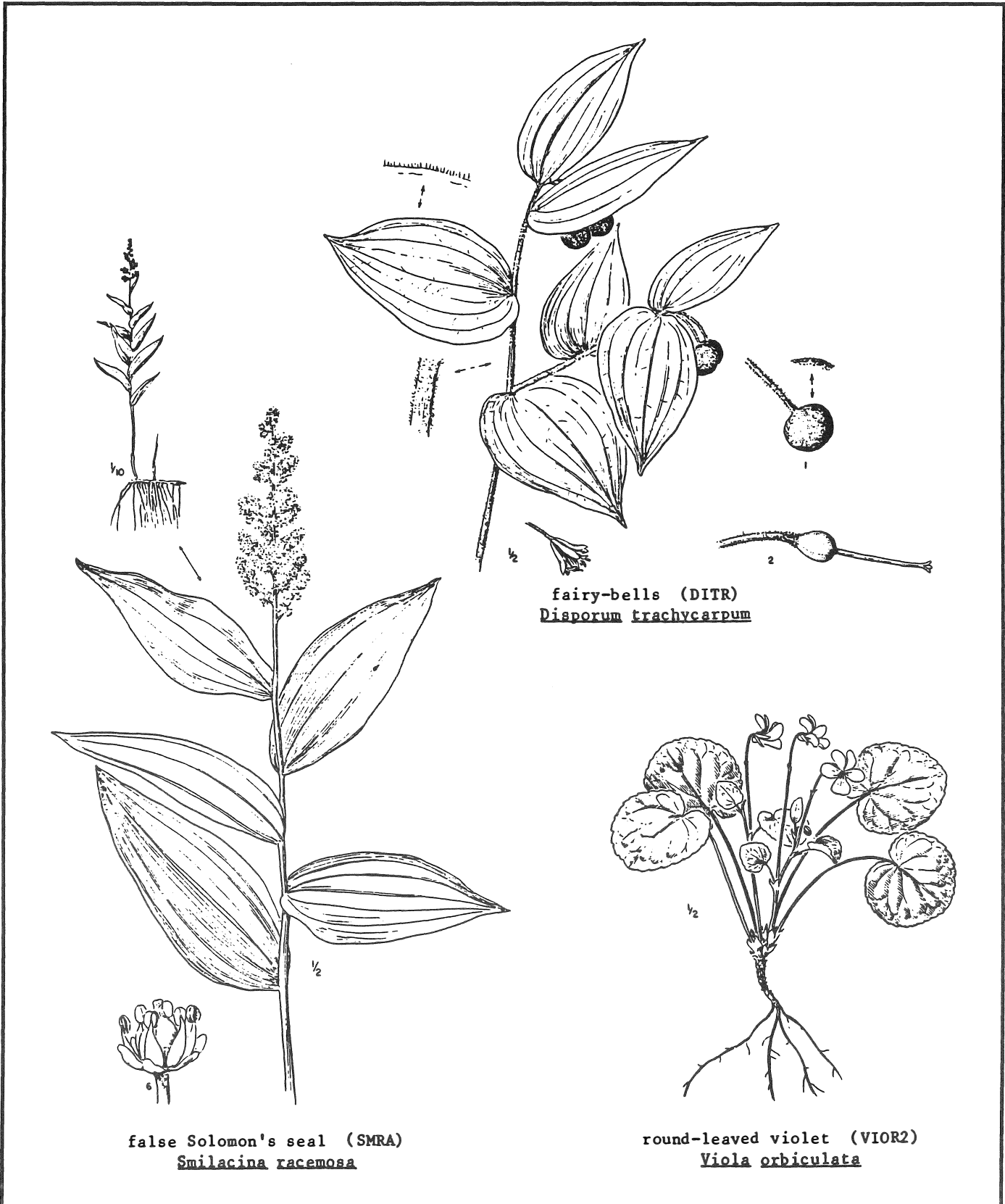


fragrant bedstraw (GATR)
Galium triflorum



queen's cup (CLUN)
Clintonia uniflora

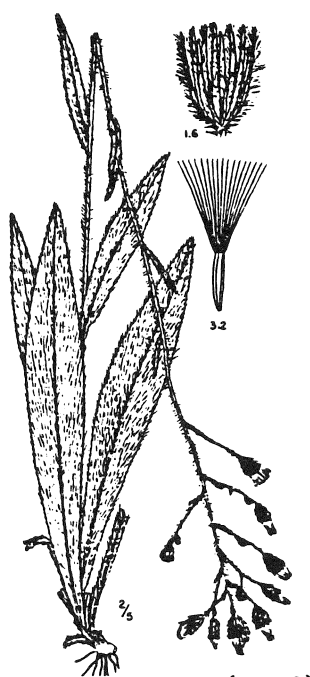
Forest Plant Associations
Forbs



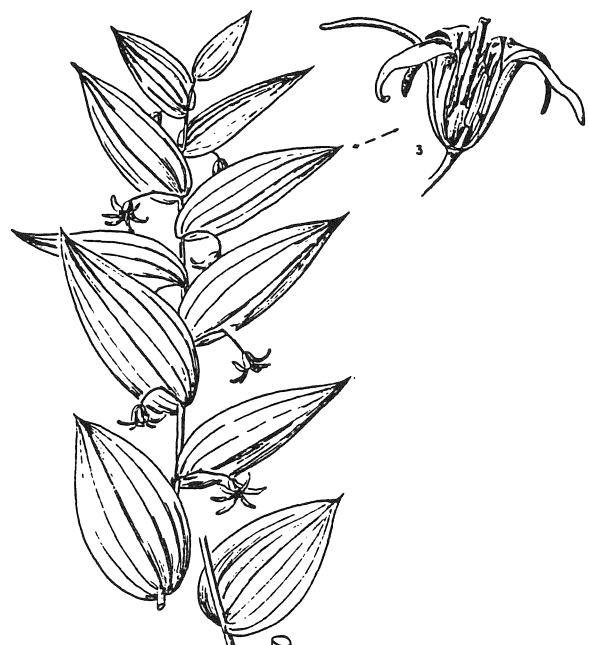
fairy-bells (DITR)
Disporum trachycarpum

false Solomon's seal (SMRA)
Smilacina racemosa

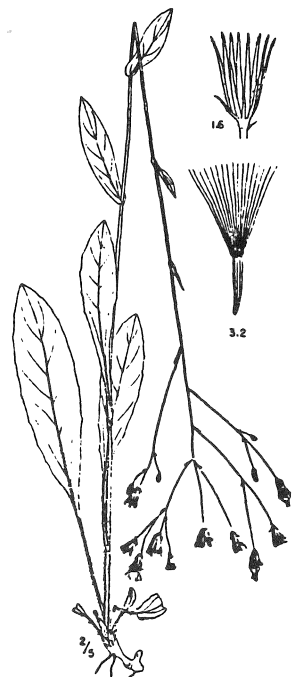
round-leaved violet (VIOR2)
Viola orbiculata



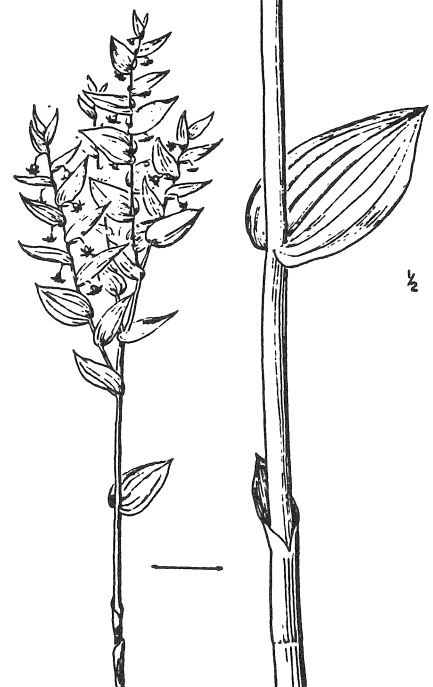
yellow hawkweed (HIAL2)
Hieracium albertinum



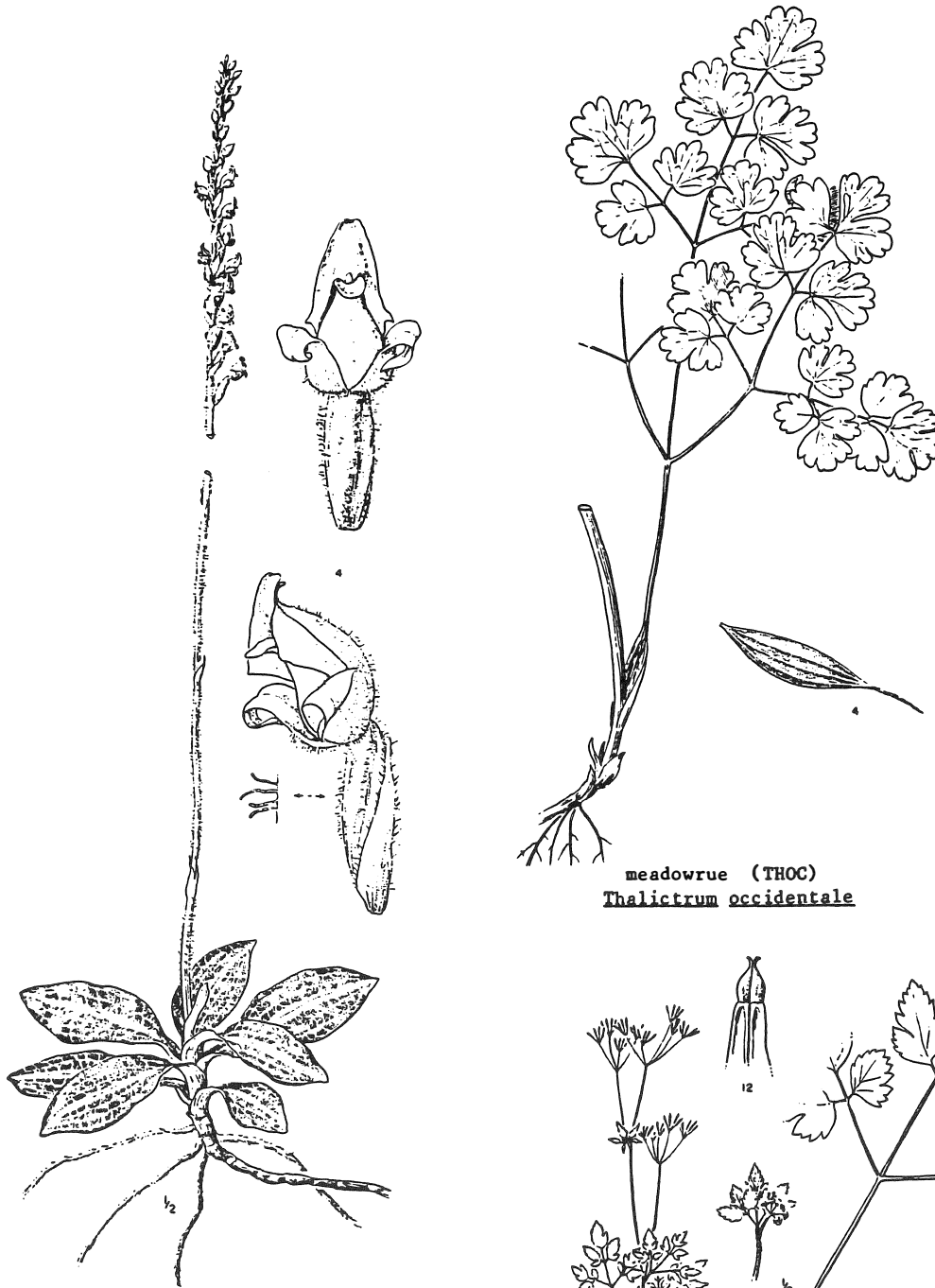
twisted stalk (STAM)
Streptopus amplexifolia



white hawkweed (HIAL)
Hieracium albiflorum

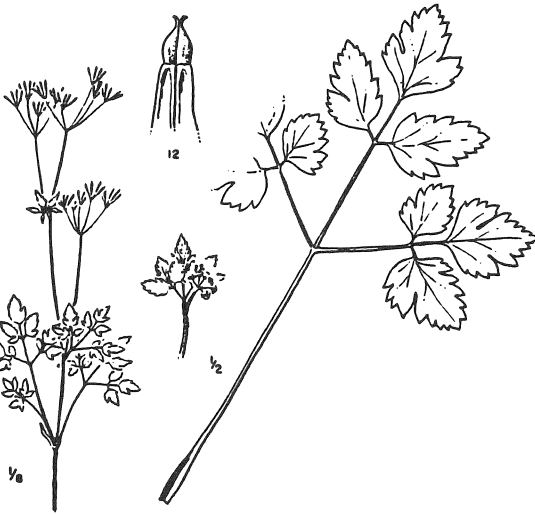


Forest Plant Associations
Forbs

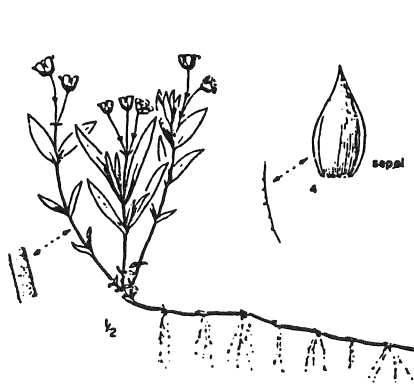


rattlesnake plantain (GOOB)
Goodyera oblongifolia

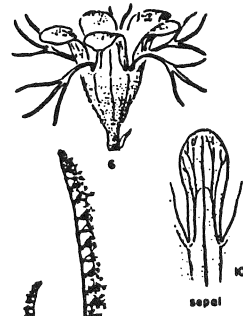
meadowrue (THOC)
Thalictrum occidentale



sweet cicely (OSCH)
Osmorhiza chilensis



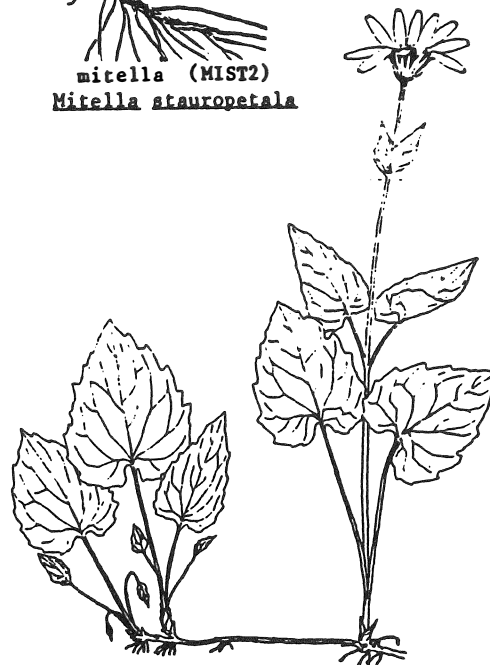
bigleaf sandwort (ARMA3)
Arenaria macrophylla



mitella (MIST2)
Mitella stauropetala

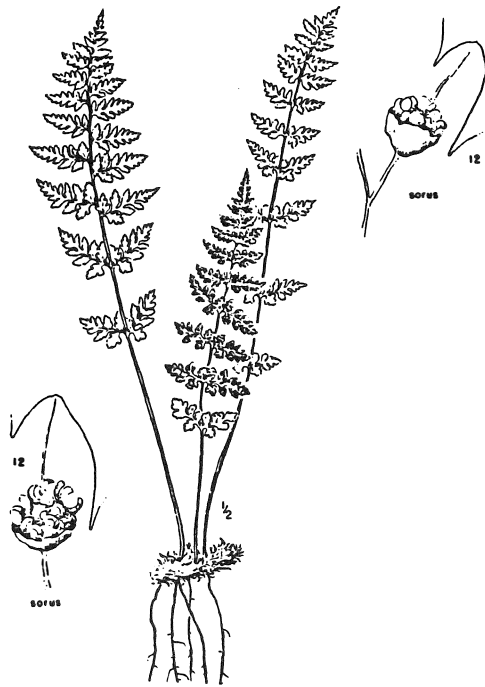


woods strawberry (FRVE)
Fragaria vesca

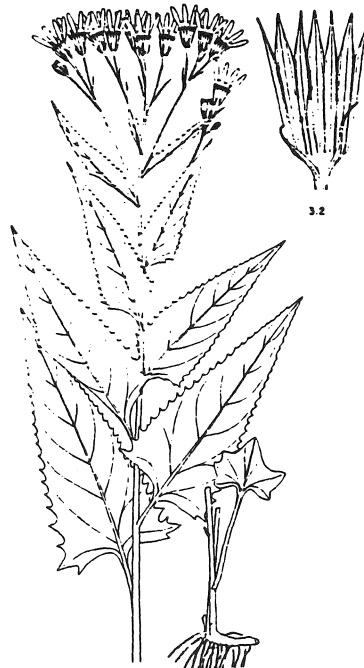


heart-leaved arnica (ARCO)
Arnica cordifolia

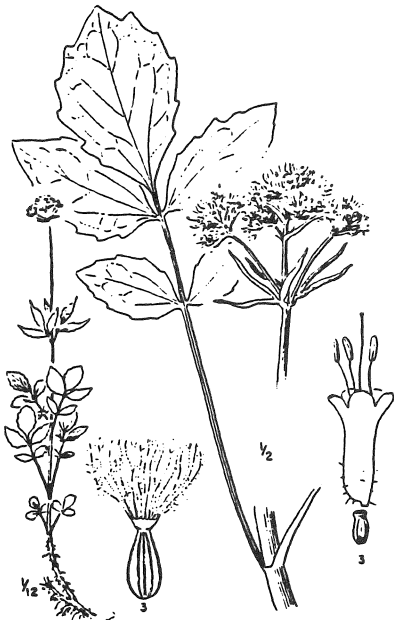
Forest Plant Associations
Forbs



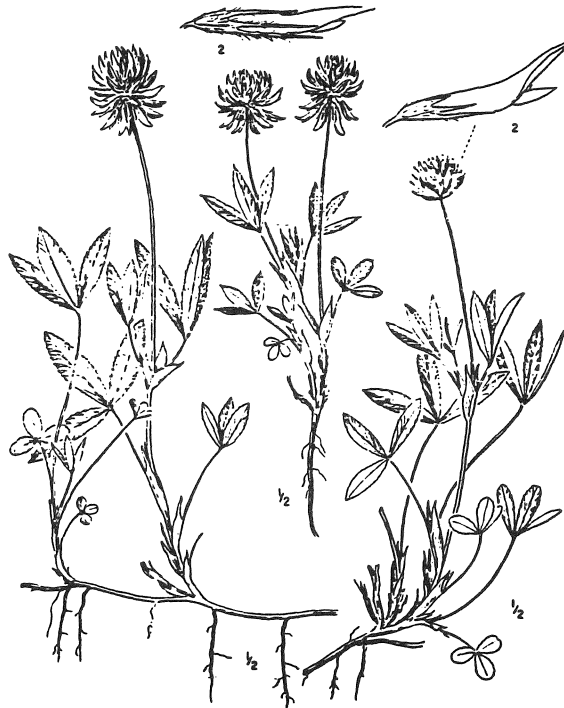
brittle bladderfern (CYFR)
Cystopteris fragilis



arrowleaf groundsel (SETR)
Senecio triangularis

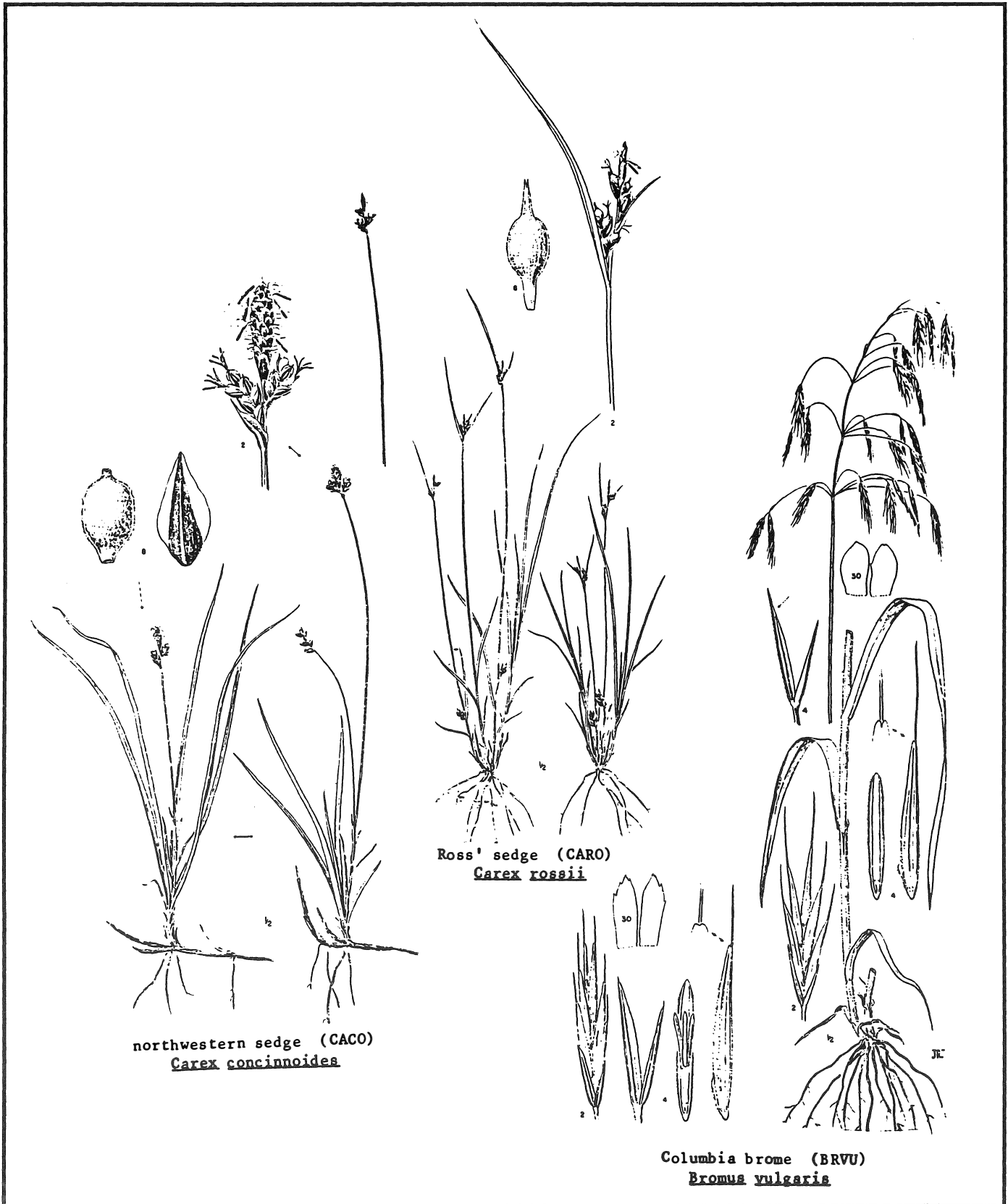


Sitka valerian (VASI)
Valeriana sitchensis



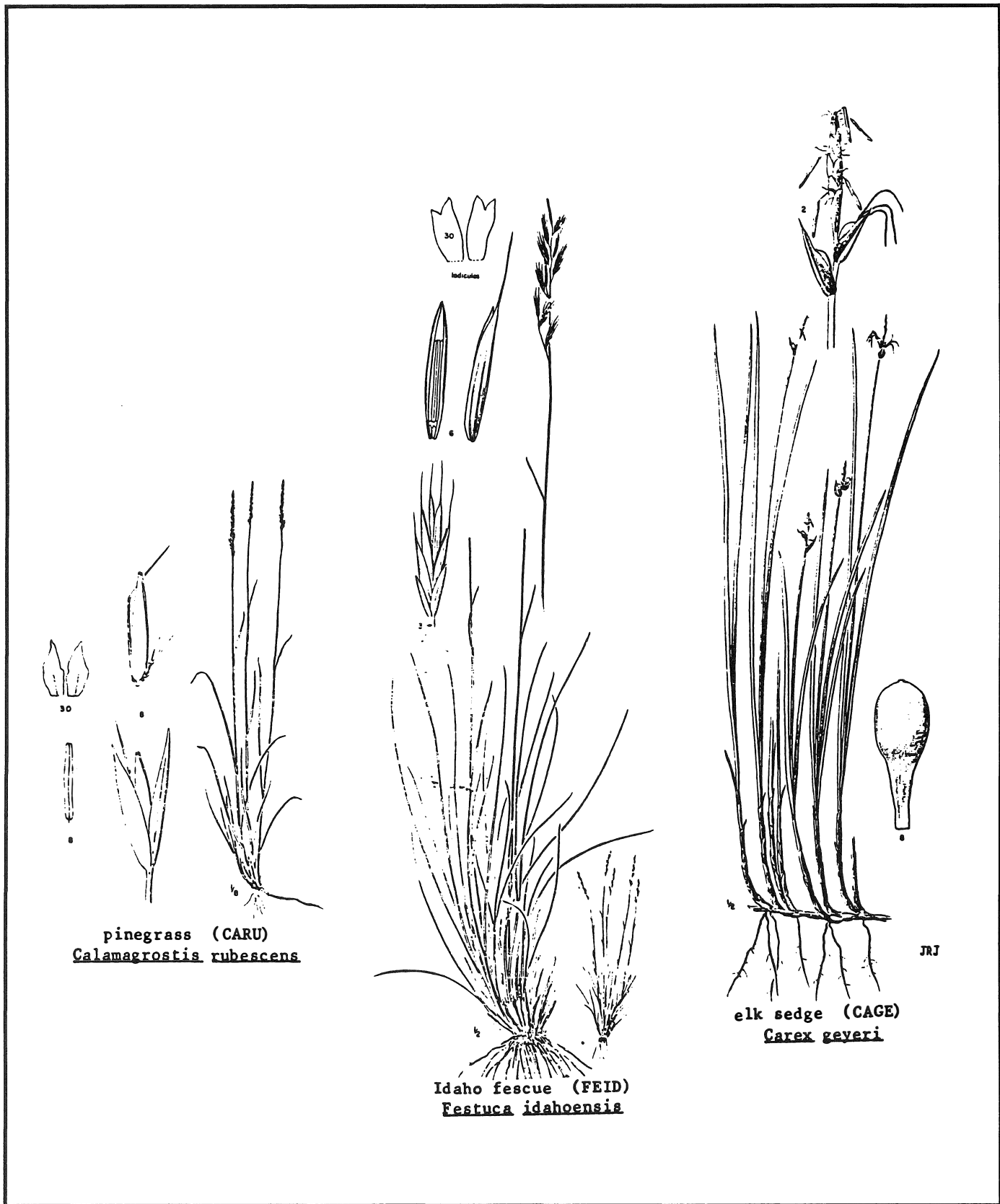
long-stalked clover (TRLO)
Trifolium longipes

Forest Plant Associations
Grasses and Sedges



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Forest Plant Associations
Grasses and Sedges

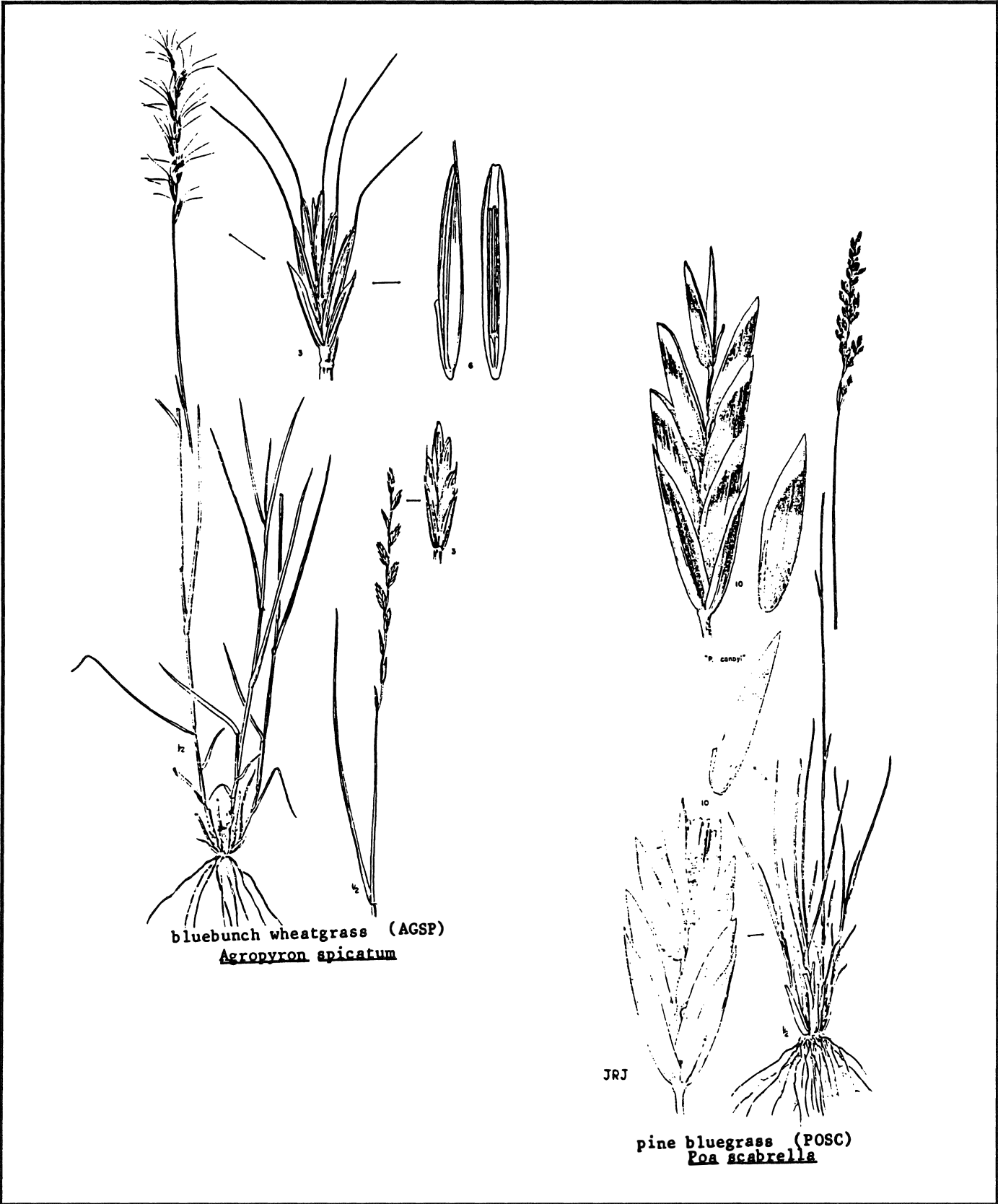


pinegrass (CARU)
Calamagrostis rubescens

Idaho fescue (FEID)
Festuca idahoensis

elk sedge (CAGE)
Carex geyeri

Forest Plant Associations
Grasses and Sedges



bluebunch wheatgrass (AGSP)
Agropyron spicatum

JRJ

pine bluegrass (POSC)
Poa scabrella

