
Significant Fauna and Flora of the DND Mary Hill Site

Prepared By:

Martin Gebauer
Gebauer & Associates Ltd.
12634 28th Avenue
Surrey, B.C. V4A 2P3

Prepared For:

Arthur Robinson
Natural Resources Canada
Canadian Forest Service
506 West Burnside Road
Victoria, B.C. V8Z 1M5

12 April 2002

APPENDICES

Appendix 1: Plant species identified at Mary Hill during the current study and on previous surveys.

Scientific Name	Common Name	Mar 2002	Other Sources ¹
TREES			
<i>Abies grandis</i>	Grand Fir	✓	Morgan, VNHS
<i>Acer glabrum</i>	Douglas Maple		VNHS
<i>Acer macrophyllum</i>	Bigleaf Maple	✓	Morgan, VNHS
<i>Alnus crispa</i>	Sitka Alder		VNHS
<i>Alnus rubra</i>	Red Alder	✓	VNHS
<i>Arbutus menziesii</i>	Arbutus	✓	Morgan, VNHS
<i>Crataegus douglasii</i>	Black Hawthorn		VNHS
<i>Crataegus monogyna</i>	Common Hawthorn	✓	
<i>Ilex aquifolium</i>	English Holly	✓	VNHS
<i>Malus fusca</i>	Pacific Crab Apple		VNHS
<i>Pinus contorta</i> var. <i>contorta</i>	Shore Pine	✓	VNHS
<i>Populus balsamifera</i>	Black Cottonwood	✓	
<i>Populus tremuloides</i>	Trembling Aspen		Morgan
<i>Prunus emarginata</i>	Bitter Cherry	✓	Morgan, VNHS
<i>Pseudotsuga menziesii</i>	Douglas-fir	✓	Morgan, VNHS
<i>Quercus garryana</i>	Garry Oak	✓	Morgan, VNHS
<i>Salix</i> sp.	Willow sp.	✓	
<i>Salix lucida</i>	Pacific Willow		VNHS
<i>Salix scouleriana</i>	Scouler's Willow	✓	Morgan, VNHS
<i>Taxus brevifolia</i>	Western (Pacific) Yew		Morgan, VNHS
<i>Thuja plicata</i>	Western Red Cedar	✓	Morgan, VNHS
SHRUBS			
<i>Amelanchier alnifolia</i>	Saskatoon		VNHS
<i>Arctostaphylos uva-ursi</i>	Kinnickinnick		VNHS
<i>Cornus stolonifera</i>	Red-osier Dogwood	✓	Morgan
<i>Cytisus scoparius</i>	Scotch Broom	✓	Morgan, VNHS
<i>Daphne laureola</i>	Spurge-Laurel	✓	VNHS
<i>Gaultheria shallon</i>	Salal	✓	Morgan, VNHS
<i>Hedera helix</i>	Ivy English	✓	VNHS
<i>Holodiscus discolor</i>	Oceanspray	✓	Morgan, VNHS
<i>Lonicera ciliosa</i>	Orange Honeysuckle	✓	VNHS
<i>Lonicera hispidula</i>	Hairy Honeysuckle	✓	Morgan
<i>Mahonia aquifolium</i>	Tall Oregon-Grape	✓	Morgan, VNHS
<i>Mahonia nervosa</i>	Dull Oregon-Grape	✓	Morgan, VNHS
<i>Oemleria cerasiformis</i>	Indian-Plum	✓	VNHS

Appendix 1: Continued.

Scientific Name	Common Name	Mar 2002	Other Sources ¹
SHRUBS Continued			
<i>Physocarpus capitatus</i>	Pacific Ninebark	✓	VNHS
<i>Rhus diversiloba</i>	Poison Oak	✓	VNHS
<i>Ribes lacustre</i>	Black Gooseberry	✓	VNHS
<i>Ribes sanguineum</i>	Red-flowering Currant		VNHS
<i>Rosa gymnocarpa</i>	Baldhip Rose	✓	Morgan, VNHS
<i>Rosa nutkana</i>	Nootka Rose	✓	Morgan, VNHS
<i>Rubus discolor</i>	Himalayan Blackberry	✓	VNHS
<i>Rubus laciniatus</i>	Evergreen Blackberry	✓	VNHS
<i>Rubus parviflorus</i>	Thimbleberry		Morgan
<i>Rubus spectabilis</i>	Salmonberry	✓	VNHS
<i>Rubus ursinus</i>	Trailing Blackberry	✓	Morgan, VNHS
<i>Sambucus racemosa</i>	Red Elderberry	✓	Morgan, VNHS
<i>Shepherdia canadensis</i>	Soopalallie		VNHS
<i>Symphoricarpos albus</i>	Common Snowberry	✓	Morgan, VNHS
<i>Symphoricarpos mollis</i>	Trailing Snowberry	✓	
<i>Vaccinium parvifolium</i>	Red Huckleberry	✓	Morgan, VNHS
HERBS AND GRASSES			
<i>Achillea millefolium</i>	Yarrow		VNHS
<i>Achlys triphylla</i>	Vanilla-Leaf		VNHS
<i>Adenocaulon bicolor</i>	Pathfinder		Morgan, VNHS
<i>Agrostis</i> spp.	Bentgrass spp.		Morgan
<i>Aira praecox</i>	Early Hairgrass	✓	Morgan
<i>Allium</i> sp.	Onion sp.	✓	
<i>Allium acuminatum</i>	Hooker's Onion		VNHS
<i>Anaphalis margaritacea</i>	Pearly Everlasting	✓	VNHS
<i>Anemone lyallii</i>	Lyall's Anemone		Morgan, VNHS
<i>Anthoxanthum odoratum</i>	Sweet Vernalgrass		Morgan
<i>Athyrium felix-femina</i>	Lady Fern	✓	Morgan, VNHS
<i>Blechnum spicant</i>	Deer Fern		Morgan
<i>Brodiaea coronaria</i>	Harvest Brodiaea		VNHS
<i>Brodiaea hyacinthina</i>	Fool's Onion		VNHS
<i>Bromus vulgaris</i>	Columbia Brome		Morgan
<i>Calypso bulbosa</i>	Fairy slipper		Morgan, VNHS
<i>Camassia quamash</i>	Common Camas		Morgan, VNHS
<i>Campanula scouleri</i>	Scouler's Harebell		Morgan, VNHS
<i>Cardamine occidentalis</i>	Western Bitter-Cress		VNHS
<i>Cardamine oligosperma</i>	Few-seeded Bitter-Cress		Morgan
<i>Carex</i> spp.	Sedge spp.	✓	Morgan, VNHS

Appendix 1: Continued.

Scientific Name	Common Name	Mar 2002	Other Sources ¹
HERBS Continued			
<i>Carex inops</i>	Long-stoloned Sedge		Morgan
<i>Carex obtupta</i>	Slough Sedge	✓	Morgan, VNHS
<i>Cerastium arvense</i>	Field Chickweed		Morgan
<i>Cicuta douglasii</i>	Douglas' Water-Hemlock		Morgan
<i>Cirsium</i> sp.	Thistle sp.	✓	
<i>Cirsium arvense</i>	Canada Thistle		VNHS
<i>Cirsium vulgare</i>	Bull Thistle		Morgan
<i>Claytonia perfoliata</i>	Miner's-Lettuce		Morgan, VNHS
<i>Claytonia sibirica</i>	Siberian Miner's-Lettuce	✓	VNHS
<i>Collinsia parviflora</i>	Small-flow. Blue-eyed Mary		Morgan, VNHS
<i>Corallorhiza maculata</i>	Western Coralroot		Morgan, VNHS
<i>Corallorhiza striata</i>	Striped Coralroot		VNHS
<i>Cynosurus echinatus</i>	Hedgehog Dogtail	✓	
<i>Cymbalaria muralis</i>	Ivy-leaved Toadflax		Morgan
<i>Cypripedium montanum</i>	Mountain Ladyslipper		VNHS
<i>Dactylis glomerata</i>	Orchard Grass		Morgan
<i>Daucus carota</i>	Queen Anne's Lace		VNHS
<i>Digitalis purpurea</i>	Common Foxglove		VNHS
<i>Dodecatheon hendersonii</i>	Broad-leaved Shooting-Star		Morgan, VNHS
<i>Dryopteris expansa</i>	Spiny Wood Fern	✓	
<i>Elymus glaucus</i>	Blue Wildrye		Morgan
<i>Equisetum</i> spp.	Horsetail spp.	✓	
<i>Equisetum arvense</i>	Common Horsetail		Morgan, VNHS
<i>Equisetum fluviatile</i>	Swamp Horsetail		VNHS
<i>Equisetum hyemale</i>	Scouring-Rush		Morgan
<i>Erodium cicutarium</i>	Common Stork's-Bill	✓	VNHS
<i>Erythronium oregonum</i>	White Fawn Lily		Morgan, VNHS
<i>Festuca occidentalis</i>	Western Fescue		Morgan
<i>Fragaria virginiana</i>	Wild Strawberry	✓	VNHS
<i>Fritillaria lanceolata</i>	Chocolate Lily		VNHS
<i>Gallium aparine</i>	Cleavers	✓	VNHS
<i>Galium trifidum</i>	Small Bedstraw		Morgan, VNHS
<i>Galium triflorum</i>	Sweet-scented Bedstraw		VNHS
<i>Geranium molle</i>	Dovefoot Geranium	✓	Morgan, VNHS
<i>Geranium robertianum</i>	Herb-Robert	✓	VNHS
<i>Geum macrophyllum</i>	Large-leaved Avens	✓	Morgan
<i>Glecoma hederacea</i>	Ground-Ivy		VNHS
<i>Goodyera oblongifolia</i>	Rattlesnake-Plantain	✓	Morgan, VNHS

Appendix 1: Continued.

Scientific Name	Common Name	Mar 2002	Other Sources ¹
HERBS Continued			
<i>Heuchera micrantha</i>	Small-flowered Alumroot	✓	Morgan, VNHS
<i>Hieracium albiflorum</i>	White-flowered Hawkweed		Morgan, VNHS
<i>Hypochaeris glabra</i>	Smooth Cat's-Ear		VNHS
<i>Hypochaeris radicata</i>	Hairy Cat's-Ear	✓	Morgan, VNHS
<i>Isoetes nuttallii</i>	Nuttall's Quillwort		Morgan
<i>Juncus effusus</i>	Common Rush	✓	Morgan, VNHS
<i>Lactuca muralis</i>	Wall Lettuce	✓	Morgan, VNHS
<i>Lathyrus nevadensis</i>	Purple Peavine		Morgan
<i>Leucanthemum vulgare</i>	Oxeye Daisy		VNHS
<i>Limnanthes macounii</i>	Macoun's Meadow-Foam		Morgan
<i>Linanthus bicolor</i>	Bicolored Flaxflower		VNHS
<i>Listera cordata</i>	Heart-leaved Twayblade		Morgan, VNHS
<i>Lomatium utriculatum</i>	Spring-Gold	✓	Morgan, VNHS
<i>Lotus micranthus</i>	Small-flowered Lotus		Morgan
<i>Luzula parviflora</i>	Small-flowered Wood-Rush	✓	Morgan
<i>Lysichiton americanum</i>	Skunk Cabbage	✓	VNHS
<i>Madia madioides</i>	Woodland Tarweed		Morgan
<i>Madia sativa</i>	Chilean Tarweed		VNHS
<i>Maianthemum dilatatum</i>	False Lily-of-the-Valley		Morgan, VNHS
<i>Medicago lupulina</i>	Black Medic		VNHS
<i>Melica subulata</i>	Alaska Oniongrass		Morgan
<i>Mimulus alsinoides</i>	Chickweed Monkey-Flower		VNHS
<i>Mimulus guttatus</i>	Yellow Monkey-Flower		VNHS
<i>Mimulus moschatus</i>	Musk-Flower		Morgan, VNHS
<i>Mitella pentandra</i>	Five-stamened Mitrewort		VNHS
<i>Moehringia macrophylla</i>	Big-leaved Sandwort		Morgan, VNHS
<i>Monotropa uniflora</i>	Indian-Pipe		Morgan
<i>Montia howellii</i>	Howell's Montia		Morgan
<i>Montia parvifolia</i>	Small-leaved Montia		Morgan, VNHS
<i>Myosotis discolor</i>	Common Forget-Me-Not		Morgan, VNHS
<i>Navarretia intertexta</i>	Needle-leaved Navarretia		CFS database
<i>Oenanthe sarmentosa</i>	Pacific Water-Parsley	✓	VNHS
<i>Osmorhiza chilensis</i>	Mountain Sweet-Cicely		Morgan, VNHS
<i>Pityrogramma triangularis</i>	Goldenback Fern	✓	Morgan, VNHS
<i>Plantago lanceolata</i>	English Plantain (Ribwort)		VNHS
<i>Plantago major</i>	Common Plantain		VNHS
<i>Platanthera</i> sp.	Rein-Orchid sp.		Morgan
<i>Platanthera unalascensis</i>	Alaska Rein-Orchid		VNHS
<i>Plectritis congesta</i>	Sea Blush		Morgan, VNHS

Appendix 1: Continued.

Scientific Name	Common Name	Mar 2002	Other Sources ¹
HERBS Continued			
<i>Plectritis macrocera</i>	Long-spurred Plectritis		VNHS
<i>Poa pratensis</i>	Kentucky Bluegrass		Morgan
<i>Polypodium glycyrrhiza</i>	Licorice Fern	✓	Morgan, VNHS
<i>Polystichum munitum</i>	Swordfern	✓	Morgan, VNHS
<i>Prunella vulgaris</i>	Self-Heal		Morgan, VNHS
<i>Psilocarphus tenellus</i>	Slender Woolly-Heads		Morgan
<i>Pteridium aquilinum</i>	Bracken Fern	✓	Morgan, VNHS
<i>Ranunculus occidentalis</i>	Western Buttercup		Morgan, VNHS
<i>Ranunculus repens</i>	Creeping Buttercup	✓	VNHS
<i>Ranunculus uncinatus</i>	Little Buttercup		Morgan
<i>Rumex acetosella</i>	Sheep Sorrel	✓	Morgan, VNHS
<i>Rumex occidentalis</i>	Western Dock		VNHS
<i>Sanicula crassicaulis</i>	Pacific Sanicle	✓	Morgan, VNHS
<i>Satureja douglasii</i>	Yerba Buena		Morgan, VNHS
<i>Saxifraga cespitosa</i>	Tufted Saxifrage	✓	
<i>Scrophularia californica</i>	California Figwort		VNHS
<i>Sedum spathulifolium</i>	Broad-leaved Stonecrop	✓	Morgan, VNHS
<i>Senecio jacobaea</i>	Tansy Ragwort		VNHS
<i>Sherardia arvensis</i>	Field Madder		VNHS
<i>Silene gallica</i>	Small-flowered Catchfly		VNHS
<i>Sisyrinchium douglasii</i>	Satin-Flower		VNHS
<i>Sisyrinchium idahoense</i>	Blue-eyed Grass		VNHS
<i>Stachys</i> sp.	Hedge-Nettle sp.		Morgan
<i>Stachys cooleyae</i>	Cooley's Hedge-Nettle		VNHS
<i>Stellaria calycantha</i>	Northern Starwort		VNHS
<i>Stellaria media</i>	Chickweed		Morgan, VNHS
<i>Taraxacum officinale</i>	Common Dandelion	✓	Morgan, VNHS
<i>Tellima grandiflora</i>	Fringecup		VNHS
<i>Thlaspi arvense</i>	Field Pennycress		VNHS
<i>Tiarella trifoliata</i>	Foamflower	✓	VNHS
<i>Trientalis latifolia</i>	Broad-leaved Starflower		Morgan, VNHS
<i>Trifolium</i> sp.	Clover sp.	✓	Morgan
<i>Trifolium depauperatum</i>	Poverty Clover		Morgan
<i>Trifolium wormskjoldii</i>	Springbank Clover		VNHS
<i>Urtica dioica</i>	Stinging Nettle		VNHS
<i>Veronica</i> sp.	Speedwell sp.		Morgan
<i>Veronica beccabunga</i>	American Brooklime		VNHS
<i>Veronica serpyllifolia</i>	Thyme-leaved Speedwell		VNHS

Appendix 1: Continued.

Scientific Name	Common Name	Mar 2002	Other Sources ¹
HERBS Continued			
<i>Vicia americana</i>	American Vetch		Morgan, VNHS
<i>Vicia gigantea</i>	Giant Vetch		VNHS
<i>Vicia hirsuta</i>	Hairy Vetch		Morgan
<i>Vicia sativa</i>	Common Vetch		VNHS
<i>Viola</i> sp.	Violet sp.		Morgan
<i>Zygadenus venenosus</i>	Meadow Death-Camas		VNHS
MOSSES			
<i>Antitrichia curtipendula</i>	Hanging Moss		Morgan
<i>Dicranum fuscescens</i>	Dusky Fork Moss		Morgan
<i>Dicranum scoparium</i>	Broom Moss	✓	Morgan
<i>Hylocomium splendens</i>	Step Moss		Morgan, VNHS
<i>Hypnum circinale</i>	Coiled-Leaf Moss		Morgan
<i>Isoetecium myosuroides</i>	Cat-tail Moss		Morgan
<i>Leucolepis acanthoneuron</i>	Menzies' Tree Moss		Morgan
<i>Kindbergia oregana</i>	Oregon Beaked Moss	✓	Morgan
<i>Kindbergia praelonga</i>	Slender Beaked Moss		Morgan
<i>Lycopodium</i> spp.	Clubmoss spp.		VNHS
<i>Plagiomnium insigne</i>	Badge (Coastal Leafy) Moss		Morgan
<i>Plagiomnium venustum</i>	Magnificent Moss		Morgan
<i>Polytrichum</i> spp.	Haircap Moss spp.	✓	
<i>Polytrichum commune</i>	Common Haircap Moss		Morgan
<i>Polytrichum juniperinum</i>	Juniper Haircap Moss		Morgan
<i>Polytrichum piliferum</i>	Awned Haircap Moss		Morgan
<i>Porella cordeana</i>	Liverwort sp.		Morgan
<i>Pseudotaxiphyllum elegans</i>	Small Flat Moss		Morgan, VNHS
<i>Racomitrium</i> spp.	Rock Moss spp.	✓	
<i>Racomitrium canescens</i>	Roadside Rock Moss	✓	Morgan
<i>Racomitrium heterostichum</i>	Rock Moss sp.		Morgan
<i>Racomitrium lanuginosum</i>	Hoary Rock Moss	✓	VNHS
<i>Rhizomnium glabrescens</i>	Fan (Large Leafy) Moss		Morgan
<i>Rhytidiadelphus loreus</i>	Lanky Moss		Morgan
<i>Rhytidiadelphus triquetrus</i>	Electrified Cat's-Tail Moss	✓	Morgan, VNHS
<i>Selaginella wallacei</i>	Wallace's Selaginella	✓	Morgan, VNHS

Appendix 1: Continued.

Scientific Name	Common Name	Mar 2002	Other Sources ¹
LICHENS			
<i>Cladonia bellidiflora</i>	Cladonia sp.		Morgan
<i>Cladonia furcata</i>	Cladonia sp.		Morgan
<i>Cladonia gracilis</i>	Cladonia sp.		Morgan
<i>Peltigera britannica</i>	Freckle Pelt		Morgan
<i>Peltigera membranacea</i>	Peltigera sp.		Morgan
<i>Peltigera neopolydactyla</i>	Frog Pelt		VNHS

¹ References are VNHS (2001) and Morgan (1996). See 'Literature Cited' for full references.

Appendix II: Bird species recorded on Canadian Wildlife Service breeding and winter bird surveys in old-growth Douglas-fir forests of Mary Hill. Data is unpublished and available from K. Morgan, CWS, Sidney.

Common Name	Scientific Name	Breeding	Winter
American Goldfinch	<i>Carduelis tristis</i>	✓	
American Robin	<i>Turdus migratorius</i>	✓	✓
Band-tailed Pigeon	<i>Columba fasciata</i>	✓	✓
Bewick's Wren	<i>Thryomanes bewickii</i>	✓	
Black-throated Gray Warbler	<i>Dendroica nigrescens</i>	✓	
Blue Grouse	<i>Dendragapus obscurus</i>	✓	✓
Brown Creeper	<i>Certhia americana</i>	✓	✓
Brown-headed Cowbird	<i>Molothrus ater</i>	✓	
California Quail	<i>Callipepla californica</i>	✓	✓
Cassin's Vireo	<i>Vireo cassinii</i>	✓	
Chestnut-backed Chickadee	<i>Poecile rufescens</i>	✓	✓
Chipping Sparrow	<i>Spizella passerina</i>	✓	
Common Raven	<i>Corvus corax</i>	✓	✓
Cooper's Hawk	<i>Accipiter cooperii</i>		✓
Dark-eyed Junco	<i>Junco hyemalis</i>	✓	✓
Downy Woodpecker	<i>Picoides pubescens</i>	✓	✓
Evening Grosbeak	<i>Coccothraustes vespertinus</i>	✓	✓
Fox Sparrow	<i>Passerella iliaca</i>	✓	✓
Golden-crowned Kinglet	<i>Regulus satrapa</i>	✓	✓
Golden-crowned Sparrow	<i>Zonotrichia atricapilla</i>		✓
Great Horned Owl	<i>Bubo virginianus</i>	✓	✓
Hairy Woodpecker	<i>Picoides villosus</i>	✓	✓
Hooded Merganser	<i>Lophodytes cucullatus</i>		✓
House Finch	<i>Carpodacus mexicanus</i>		✓
House Wren	<i>Troglodytes aedon</i>	✓	
Hutton's Vireo	<i>Vireo huttoni</i>		✓
McGillivray's Warbler	<i>Oporornis tolmiei</i>	✓	
Northern Flicker	<i>Colaptes auratus</i>	✓	✓
Northern Pygmy-Owl	<i>Glaucidium gnoma</i>		✓
Northwestern Crow	<i>Corvus caurinus</i>	✓	✓
Olive-sided Flycatcher	<i>Contopus cooperi</i>	✓	
Orange-crowned Warbler	<i>Vermivora celata</i>	✓	✓
Pacific-slope Flycatcher	<i>Empidonax difficilis</i>	✓	
Pileated Woodpecker	<i>Dryocopus pileatus</i>	✓	✓
Pine Siskin	<i>Carduelis pinus</i>	✓	✓
Purple Finch	<i>Carpodacus purpureus</i>	✓	✓

Appendix II: Continued.

Common Name	Scientific Name	Breeding	Winter
Red Crossbill	<i>Loxia curvirostra</i>	✓	✓
Red-breasted Nuthatch	<i>Sitta canadensis</i>	✓	✓
Red-breasted Sapsucker	<i>Sphyrapicus ruber</i>	✓	
Red-tailed Hawk	<i>Buteo jamaicensis</i>	✓	✓
Ruby-crowned Kinglet	<i>Regulus calendula</i>		✓
Rufous Hummingbird	<i>Selasphorus rufus</i>	✓	
Sharp-shinned Hawk	<i>Accipiter striatus</i>	✓	✓
Song Sparrow	<i>Melospiza melodia</i>	✓	✓
Spotted Towhee	<i>Pipilo maculatus</i>	✓	✓
Steller's Jay	<i>Cyanocitta stelleri</i>	✓	✓
Swainson's Thrush	<i>Catharus ustulatus</i>	✓	
Townsend's Warbler	<i>Dendroica townsendii</i>	✓	
Varied Thrush	<i>Ixoreus naevius</i>	✓	✓
Violet-green Swallow	<i>Tachycinetta thalassina</i>	✓	
Western Screech-Owl	<i>Otus kennicottii</i>		✓
Western Tanager	<i>Piranga ludoviciana</i>	✓	
White-crowned Sparrow	<i>Zonotrichia leucophrys</i>	✓	
Wilson's Warbler	<i>Wilsonia pusilla</i>	✓	
Winter Wren	<i>Troglodytes troglodytes</i>	✓	✓
Yellow-rumped Warbler	<i>Dendroica coronata</i>		✓
Total Number of Species		47	37