Appendix 2: Inventory of Property

Appendix 2.1: Breeding birds

Gavia stellata Red-throated diver Podiceps auritus VU Slavonian grebe Northern fulmar Fulmarus glacialis Cygnus cygnus Whooper swan Anser brachyrhynchus Pink-footed goose Anser anser VU Graylag goose Branta leucopsis EN Barnacle goose Mallard Anas platyrhynchos

Anas penelope European widgeon European teal Anas crecca Anas acuta Northern pintail Aythya fuligula Tufted duck Aythya marila Greater scaup Somateria mollissima Common eider Clangula hyemalis Long-tailed duck Histrionicus histrionicus LC Harlequin duck Bucephala islandica EN * Barrow's Goldeneye Red-breasted merganser Mergus serrator Mergus merganser VU Common merganser Haliaeetus albicilla EN ** White-tailed eagle

Falco columbarius Merlin
Falco rusticolus VU Gyrfalcon
Lagopus muta Rock ptarmigan
Haematopus ostralegus Eurasian oystercatcher

Charadrius hiaticulaRinged ploverPluvialis apricariaGolden ploverCalidris maritimaPurple sandpiper

Calidris alpinaDunlinGallinago gallinagoCommon snipeScolopax rusticolaEurasian woodcockLimosa limosa islandicaBlack-tailed godwit

Numenius phaeopus Whimbrel
Tringa totanus Redshank

Phalaropus lobatus Red-necked phalarope
Phalaropus fulicarius EN ** Gray phalarope
Stercorarius parasiticus Parasitic jaeger
Stercorarius skua Great skua
Larus ridibundus Black-headed gull
Larus marinus VU Great black-backed gull

Larus argentatus Herring gull Nyctea scandiaca CR * Snowy owl Asio flammeus VU Short-eared owl Sterna paradisaea Arctic tern Anthus pratensis Meadow pipit Motacilla alba White wagtail Regulus regulus Goldcrest Troglodytes troglodytes Eurasian wren

Oenanthe oenantheNorthern wheatearTurdus merula *Common blackbirdTurdus iliacusEuropean redwing

Corvus corax VU Raven
Fringilla montifringilla Brambling
Carduelis flammea Redpoll
Plectrophenax nivalis Snow bunting

Appendix 2.2: Vascular Plants

Seedless plants (club mosses, horsetails and ferns)

Lycopodiacea		Salicaceae	
Diphasiastrum alpinum	Alpine clubmoss	Salix herbacea	Dwarf willow
Huperzia appressa	Appalachian firmoss	Salix lanata	Woolly willow
Lycopodium annotinum ssp.	Interrupted clubmoss	Salix phylicifolia	Tea-leaved willow
Alpestre		Salix viminalis *	Basket willow
Selqaginellaceae		Betulaceae	
Selaginella selaginoides	Lesser clubmoss	Betula nana	Dwarf birch
Equisetaceae		Betula pubescens	Downy birch
Equisetum arvense	Field horsetail	Polygonaceae	
Equisetum arvense ssp. Alpestre		Bistorta vivipara	Alpine bistort
Equisetum hyemale	Rough horsetail	Koenigia islandica	Iceland-purslane
Equisetum palustre	Marsh horsetail	Oxyria digyna	Mountain sorrel
Equisetum pratense	Shady horsetail	Polygonum aviculare	Knotgrass
Equisetum variegatum	Variegated horsetail	Rheum rhabarbarum **	Rhubarb
Ophioglossaceae		Rumex acetosa	Common sorrel
Botrychium lunaria	Common moonwort	Rumex acetosella	Sheep's sorrel
Botrychium minganense	Mingan moonwort	Rumex longifolius	Northern dock
Botrychium simplex	Glossy moonwort	Montiaceae	
Ophioglossum azoricum LC	Small adder's tongue	Montia fontana	Blinks
Botrychium simplex var.	Little grapefern	Plumbaginaceae	
Tenebrosum DD		Armeria maritima	Thrift
Botrychium lanceolatum	Lance-leaved moonwort	Caryophyllaceae	
Asplenaceae		Arenaria norvegica	Arctic sandwort
Asplenium trichomanes EN	Maidenhair spleenwort	Cerastium alpinum	Alpine mouse-ear
Asplenium viride LC	Green spleenwort	Cerastium cerastoides	Starwort mouse-ear
Woodsiaceae		Cerastium fontanum	Common mouse-ear
Woodsia alpina	Alpine woodsia	Cerastium glomeratum	Sticky mouse-ear
Woodsia ilvensis	Oblong woodsia	Cerastium nigrescens	Arctic mouse-ear
Cystopteridaceae		Honckenya peploides	Sea sandwort
Cystopteris fragilis	Brittle bladder-fern	Lychnis flos-cuculi	Alpine catchfly
Gymnocarpium dryopteris	Oak fern	Minuartia biflora	Northern sandwort
Dryopteridaceae		Minuartia rubella	Mountain sandwort
Dryopteris filix-mas	Male-fern	Minuartia stricta	Teesdale sandwort
Athyraceae		Sagina caespitosa LC	Tufted pearlwort
Athyrium distentifolium	Alpine lady-fern	Sagina nivalis	Snow pearlwort
Polystichum lonchitis	Holly fern	Sagina nodosa ssp. Borealis	Knotted pearlwort
Polypodiaceae		Sagina procumbens	Procumbent pearlwort
Polypodium vulgare	Common polypody	Sagina saginoides	Alpine pearlwort
		Silene acaulis	Moss campion
Seed Plants		Silene uniflora	Sea campion
Coniferopsida/Conifers		Spergula arvensis	Corn spurrey
Cupressaceae		Stellaria crassifolia	Fleshy stitchwort
Juniperus communis ssp.	Common juniper	Stellaria graminea *	Lesser stitchwort
Communis		Stellaria humifusa	Saltmarsh stitchwort
Juniperus communis ssp. Nana	Dwarf juniper	Stellaria media	Common chickweed
Magnoliopsida/Dicots		Viscaria alpina	Alpine catchfly
Dicots		Ranunculaceae	

^{*} Naturalised ** Casual *** Invasive

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Anemone nemorosa *	Wood anemone	Rosaceae	
Caltha palustris	Marsh-marigold	Alchemilla alpina	Alpine lady's mantle
Ranunculus confervoides	Thread-leaved water-crowfoot	Alchemilla faeroensis	Faeroeic lady's mantle
Ranunculus glacialis	Glacier buttercup	Alchemilla filicaulis	Hairy lady's mantle
Ranunculus hyperboreus	Arctic buttercup	Alchemilla glomerulans	Clustered lady's mantle
Ranunculus pygmaeus	Pigmy buttercup	Alchemilla wichurae	Rock lady's mantle
Ranunculus reptans	Creeping spearwort	Argentina anserina	Silverweed
Ranunculus subborealis	Arctic buttercup	Comarum palustre	Marsh cinquefoil
Ranunculus subborealis ssp.	Arctic buttercup	Dryas octopetala	Mountain avens
Pumilus		Filipendula ulmaria	Meadowsweet
Ranunculus subborealis ssp.	Meadow buttercup	Fragaria vesca	Wild strawberry
Villosus		Geum rivale	Water avens
Thalictrum alpinum	Alpine meadow-rue	Potentilla crantzii	Alpine cinquefoil
Papaveraceae		Rubus saxatilis	Stone bramble
Papaver radicatum	Arctic poppy	Sibbaldia procumbens	Creeping sibbaldia
Brassicaceae		Fabaceae	
Arabidopsis lyrata ssp. Petrea	Northern rock-cress	Lathyrus japonicus ssp.	Beach pea
Arabis alpina	Alpine rock-cress	Maritimus	Meadow vetchling
Capsella bursa-pastoris	Shepherd's purse	Lathyrus pratensis	
Cardamine bellidifolia	Alpine bittercress	Lupinus nootkatensis ***	Nootka lupin
Cardamine hirsuta	Hairy bittercress	Trifolium hybridum *	Alsike clover
Cardamine pratensis ssp.	Cuckoo flower	Trifolium pratense *	Red clover
Angustifolia		Trifolium repens	White clover
Cochlearia groenlandica	Greenland scurvygrass	Vicia cracca	Tufted vetch
Cochlearia officinalis ssp.	Common scurvygrass	Geraniaceae	
Islandica		Geranium sylvaticum	Wood crane's-bill
Draba incana	Hoary whitlowgrass	Linaceae	
Draba nivalis	Snow whitlowgrass	Linum catharticum	Fairy flax
Draba norvegica	Rock whitlowgrass	Violaceae	
Draba oxycarpa	Alpine whitlowgrass	Viola canina	Heath dog-violet
Draba verna	Common whitlowgrass	Viola epipsila	Northern marsh violet
Rorippa islandica	Northern yellowcress	Viola palustris	Marsh violet
Subularia aquatica	Awlwort	Viola tricolor	Wild pansy
Crassulaceae	_	Onagraceae	
Rhodiola rosea	Roseroot	Chamerion angustifolium	Rosebay willowherb
Sedum acre	Biting stonecrop	Chamerion latifolium	Arctic riverbeauty
Sedum annuum	Annual stonecrop	Epilobium alsinifolium	Chickweed willowherb
Sedum villosum	Hairy stonecrop	Epilobium anagallidifolium	Alpine willowherb Cliff willowherb
Parnassiaceae	Constant Demonstration	Epilobium collinum	
Parnassia palustris	Grass-of-Parnassus	Epilobium hornemannii	Hornemann's willowherb
Saxifragaceae	Vallana and fue as	Epilobium lactiflorum	Milky willowherb Marsh willowherb
Saxifraga aizoides	Yellow saxifrage	Epilobium palustre	Marsh Willownerd
Saxifraga cernua	Drooping saxifrage	Haloragaceae	Alternate water-milfoil
Saxifraga cespitosa Saxifraga cotyledon	Tufted saxifrage Pyramidal saxifrage	Myriophyllum alterniflorum	Alternate water-minon
Saxifraga hirculus	Marsh saxifrage	Apiaceae Angelica archangelica	Garden angelica
Saxifraga hypnoides	Mossy saxifrage	Angelica sylvestris	Wild angelica
Saxifraga nivalis	Alpine snow saxifrage	Carum carvi	Caraway
Saxifraga oppositifolia	Purple saxifrage	Pyrolaceae	Garaway
Saxifraga paniculata	Silver saxifrage	Pyrola grandiflora	Arctic wintergreen
Saxifraga rivularis	Alpine brook saxifrage	Orthilia secunda	One-sided wintergreen
Saxifraga rosacea	Irish saxifrage	Ericaceae	one sided wintergreen
Saxifraga stellaris	Starry saxifrage	Arctostaphylos uva-ursi	Bearberry
Saxifraga tenuis	Slender snow saxifrage	Calluna vulgaris	Heather
Janey raga torrain	Stellact blow bakiliage	Canana raigan to	110411101

Harrimanella hypnoides	Moss bell heather	Campanulaceae	
Loiseleuria procumbens	Trailing azalea	Campanula rotundifolia Harebel	
Orthilia secunda	Serrated wintergreen	Asteraceae	Hareben
Vaccinium myrtillus	Bilberry	Achillea millefolium	Yarrow
Vaccinium uliginosum	Bog bilberry	Achillea ptarmica	Sneezewort
Empetraceae	bog bliberry	Antennaria alpina	Alpine everlasting
Empetrum nigrum	Crowberry	Erigeron borealis	Alpine fleabane
Primulaceae	Glowberry	Erigeron humilis	Arctic alpine fleabane
Trientalis europaea	Chickweed wintergreen	Erigeron uniflorus	Oneflower fleabane
Gentianaceae	Gilickweed willtergreen	Gnaphalium uliginosum	Marsh cudweed
Comastoma tenellum	Slender gentian	Hieracium acidotoides	Marsii cuuweeu
Gentiana nivalis	-	Hieracium alpinum	Alpine hawkweed
	Alpine gentian	1	
Gentianella amarella ssp.	Autumn gentian	Hieracium anglicum	English hawkweed Hearth hawkweed
Septentrionalis Gentianella aurea	Caldan devantamentam	Hieracium aquiliforme Hieracium arctocerinthe	неагтп памкмеец
	Golden dwarfgentian	Hieracium arciocerinine Hieracium cretatum	
Gentianella campestris ssp.	Field gentian		
Islandica	26 1 6 1	Hieracium demissum	D 11 1 1
Lomatogonium rotatum	Marsh felwort	Hieracium holopleurum	Bush hawkweed
Rubiaceae	AV .1 . 1 . 1 .	Hieracium lygistodon	
Galium boreale	Northern bedstraw	Hieracium macrocomum	
Galium normanii	Slender bedstraw	Hieracium microdon	
Galium uliginosum	Fen bedstraw	Hieracium phrixoclonum	
Galium verum	Lady's bedstraw	Hieracium pullicalicitum	
Callitricaceae		Hieracium stictophyllum	Stain-leaved hawkweed
Callitriche hermaphroditica	Autumnal water-starwort	Hieracium stroemfeltii	
Boraginaceae		Hieracium thaectolepium	Hillside hawkweed
Myosotis arvensis	Field forget-me-not	Leontodon autumnalis	Autumn hawkbit
Lamiaceae		Omalotheca norvegica	Highland cudweed
Lamium album *	White dead-nettle	Omalotheca supina	Dwarf cudweed
Prunella vulgaris	Selfheal	Omalotheca sylvatica	Heath cudweed
Thymus praecox ssp. Arcticus	Wild thyme	Pilosella islandica	Icelandic hawkweed
Scrophulariaceae		Taraxacum	Dandelion
Limosella aquatica	Mudwort	Tripleurospermum maritimum	Sea mayweed
Lentibulariaceae		ssp.Phaeocephalum	
Pinguicula vulgaris	Common butterwort		
Orobanchaceae		Liliopsida / Monocots	
Bartsia alpina	Alpine bartsia	Potamogetonaceae	
Euphrasia frigida	Cold eyebright	Potamogeton alpinus	Red pondweed
Euphrasia stricta var. Tenuis	Drug eyebright	Potamogeton berchtoldii	Small pondweed
Pedicularis flammea	Red-tipped lousewort	Potamogeton gramineus	Various-leaved pondweed
Rhinanthus minor	Yellow-rattle	Potamogeton praelongus	Long-stalked pondweed
Rhinanthus minor ssp.	Little yellow-rattle	Stuckenia filiformis	Slender-leaved pondweed
Groenlandicus		Zannichellia palustris	Horned pondweed
Plantaginaceae		Typhaceae	
Veronica alpina	Alpine speedwell	Sparganium hyperboreum	Northern bur-reed
Veronica fruticans	Rock speedwell	Sparganium natans	Least bur-reed
Veronica officinalis	Common speedwell	Tofeldiaceae	
Veronica scutellata	Marsh speedwell	Tofieldia pusilla	Scottish asphodel
Veronica serpyllifolia	Thyme-leaved speedwell	Melanthiaceae	
Callitriche palustris	Vernal water-starwort	Paris quadrifolia LC	Herb-Paris
Hippuris vulgaris	Mare's tail	Orchidaceae	
Plantago maritima	Sea plantain	Coeloglossum viride	Frog orchid
Caprifoliaceae		Corallorhiza trifida	Coralroot orchid
Valeriana officinalis *	Common valerian	Dactylorhiza maculata	Heath spotted orchid

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Listera cordata Lesser Twayblade Eleocharis acicularis Needle spike-rush Common twayblade Listera ovata LC Eleocharis palustris ssp. Palustris Common spike-rush Platanthera hyperborea Northern green orchid Eleocharis quinqueflora Few-flowered spike-rush Pseudorchis straminea Small white orchid Eleocharis uniglumis Slender spike-rush Juncaceae Eriophorum angustifolium Common cottongrass Juncus alpinoarticulatus Alpine rush Eriophorum scheuchzeri Scheuchzer's cottongrass Arctic rush Bellard's kobresia Juncus arcticus Kobresia myosuroides Trichophorum caespitosum Deergrass Juncus arcticus ssp. Intermedius Juncus articulatus Jointed rush Poaceae Juncus biglumis Two-flowered rush Agrostis capillaris Common bent Juncus bufonius Toad rush Agrostis stolonifera Creeping bent Juncus bulbosus Bulbous rush Agrostis vinealis Brown bent Chestnut rush Juncus castaneus Alopecurus aequalis Orange Foxtail Juncus ranarius Frog rush Alopecurus geniculatus Marsh foxtail Juncus trifidus Three-leaved rush Alopecurus pratensis * Meadow foxtail Juncus triglumis Three-flowered rush Anthoxanthum odoratum Sweet vernal grass Luzula arcuata Curved wood-rush Avenella flexuosa Wavy hair-grass Luzula confusa Northern woodrush Narrow small-reed Calamagrostis neglecta Luzula multiflora Heath wood-rush Catabrosa aquatica Whorlgrass Spiked wood-rush Luzula spicata Dactylis glomerata Cock's-foot Sudetan wood-rush Luzula sudetica Deschampsia alpina Alpine hair-grass Juncaginaceae Deschampsia cespitosa Tufted hair-grass Triglochin palustris Marsh Arrowgrass Elytrigia repens Common couch Cyperaceae Festuca rubra ssp. Richardsonii Arctic fescue Carex atrata Black alpine-sedge Festuca rubra ssp. Rubra * Red fescue Carex bicolor Bicoloured sedge Festuca vivipara Viviparous sheep's-fescue Carex bigelowii ssp. Rigida Stiff sedge Hierochloe odorata Holygrass Carex brunnescens Brownish sedge Leymus arenarius Lyme-grass Carex canescens Silvery sedge Milium effusum Wood millet Carex capillaris ssp. Capillaris Hair sedge Nardus stricta Mat-grass Carex capillaris ssp. Fuscidula Hair sedge Phippsia algida Icegrass Carex capitata Capitate sedge Phleum alpinum Alpine cat's-tail Carex chordorrhiza String sedge Phleum pratense Timothy Carex diandra Lesser tussock-sedge Poa alpina Alpine meadow-grass Carex dioica Dioecious sedge Poa annua Annual meadow-grass Carex glacialis Glacier sedge Poa flexuosa Wavy meadow-grass Lesser saltmarsh sedge Glaucous meadow-grass Carex glareosa Poa glauca Carex krausei Krause's sedge Poa nemoralis Wood meadow-grass Carex lachenalii Hare's-foot sedge Poa pratensis ssp. Alpigena Smooth meadow-grass Carex limosa Common bog-sedge Poa trivialis Rough meadow-grass Carex lyngbyei Lyngbye's sedge Poa x jemtlandica Jemtland meadow-grass Puccinellia maritima Northern saltmarsh-grass Carex maritima Curved sedge Carex microglochin Bristle sedge Secale cereale ** Rye Carex nardina Nard sedge Trisetum spicatum ssp. Spicatum Narrow false oat Carex nigra Common sedge Trisetum triflorum Three-flowered false oat Close-headed alpine-sedge Carex norvegica Carex panicea Carnation sedge Carex rariflora Mountain bog-sedge Carex rostrata Bottle sedge Carex rufina Reddish sedge Carex rupestris Rock sedge Carex saxatilis Russet sedge Carex vaginata Sheathed sedge

Small-fruited yellow-sedge

Carex viridula

Appendix 2.3: Bryophytes

Anterwephyllum reintatam Anterwephyllum reintatam Anterwephyllum reintatam Anterwephyllum Anterw	Marchantyophyta/Liverworts		Nardia geoscyphus	Book flapwort
Anthelia julacea Barbilophosia dialentica Barbilophosia dialentica Barbilophosia dialentica Barbilophosia dialentica Barbilophosia dialentica Barbilophosia (propodiolides Barbilophosia (propodiolides) Barbilophosia (p	Anastrophyllum minutum	Comb notchwort	Odontoschisma macounii	Earth-cup flapwort
Astrella gracilis Gracilis Gracilis Graceful astrella Peluvoladula übseans Lesser featherwort Astrella gracilis Gracilis Graceful astrella Peluvoladula übseans Lesser featherwort Barbilophosia datatheri Hatcher's pawwort Prilidium ciliare liverwort Barbilophosia hatcheri Greater pawwort Pilidium ciliare liverwort Barbilophosia hypopodiolides Greater pawwort Radula complanata Ciliared fringewort Barbilophosia quadriloba Four-fingered pawwort Radula complanata Ciliared fringewort Basia pusille Common kertlewort Sauteria alpina Purple crystalwort Caphogosia sphagnicola Bog pouchwort Scapania cadicola Short-stemmed earwort Caphodosia bicuspidata Two horned pincewort Scapania cadicola Short-stemmed earwort Caphodosial devaricata Common threadwort Scapania catra Calcicolous earwort Caphodosial diversiona Punte earwort Scapania catra Calcicolous earwort Caphodosialla drampeana Hampes threadwort Scapania catra Unitidy earwort Caphodosialla drampeana Hampes threadwort Scapania catra Diplingsium pilotosum Nut-moss Scapania disperborea Unitidy earwort Diplophylum abicans Common fold-leaf liverwort Scapania mucronata Tongue earwort Diplophylum abicans Common fold-leaf liverwort Scapania mucronata Tongue earwort Diplophylum existing distanta Pitted frillwort Scapania plundosa Parch earwort Frallania dilatata Dilated scalewort Scapania scandica Floopy earwort Prallania dilatata Dilated scalewort Scapania undulata Northern earwort Gymnomitrion encimantum Pointed firestwort Scapania undulata Northern earwort Gymnomitrion encimantum Great mountain plapwort Pritomaria gainquedentata Honover Harpanthus flotovianus Great mountain plapwort Pritomaria scitula Lyon's notchwort Mountain notchwort Andreaceae Pungermannia civertifolia Devar Andreaceae Pungermannia plania Great mountain plapwort Abeticila abictina Fir-tamarisk moss Jungermannia obnavals Devar Alapwort Andreaceae Pungeris Balack rock-moss Jungermannia obnavals Great mountain plapwort Andreaceae Tamphila abictina Fir-tamarisk moss Jungermannia obnavals Great mountain plapw	Aneura pinguis	Small greasewort	nall greasewort Pellia neesiana Macoun's fl	
Asterolla gracilis Graceful asterella Pleurocladula albescens Lesser featherwort Barbibphosia atlantica Allantic pawwort Preissia quadrata Snow threadwort Barbibphosia harberi Hatcher's pawwort Pillidium ciliare liverwort Barbibphosia bezopodioides Greater pawwort Radiula complonata Ciliared fringewort Barbibphosia bezopodioides Greater pawwort Radiula complonata Ciliared fringewort Barbibphosia padaribeba Pour-fingered pawwort Radiula complonata Ciliared fringewort Basia puilla Common hettlewort Sataria alpina Purple crystalwort Caphagia sphagnicala Common hettlewort Scapania bevicaniis Snow lungwort Caphadosia plenicaps Blune pincewort Scapania aurra Calcicolous earwort Caphadosia plenicaps Blune pincewort Scapania cuspidulgera Least earwort Caphadosiale dravicata Common threadwort Scapania cuspidulgera Least earwort Caphadosidelis varians Pann ekkert Scapania lingulata Heath earwort Diphysyctim foliasum Nut-moss Scapania inrigua Diphysylum tacifolium Alpine earwort Scapania obeordata Pessombronia foreoleula Pitted frillwort Scapania obeordata Pitted frillwort Scapania obeordata Pitted frillwort Scapania pobeordata Pitted f	Anthelia julacea	Alpine silverwort	ilverwort Peltolepis quadrata Ring pellia	
Barbilophosia latantica Barbilophosia hatcheri Barbilophosia kutwaena Bog pouchwart Caphalosia kutwaena Caphalosia kutwaena Caphalosia kutwaena Lest earwort Caphalosia kutwaena Lest earwort Caphalosia kutwaena Lest earwort Lest earwort Caphalosia kutwaena Lest earwort Lephalosia kutwaena Leat earwort Lephalosia kutwaena Lephalos	Anthelia juratzkana	Juratzka's silverwort	Plagiochila porelloides	
Barbilophosia kurseema Kunze's pawwort Pilidium ciliare liverwort Barbilophozia kurseema Kunze's pawwort Radula complanata Ciliaed fringewort Barbilophozia quadriloba Four-lingered pawwort Radula complanata Ciliaed fringewort Barbilophozia quadriloba Four-lingered pawwort Riccia beyrichiana Even scalewort Purple crystalwort Caphogoida ghagusclaa Rog pouchwort Scapania calcicola Short-stemmed earwort Capholozia phegusclaa Rog pouchwort Scapania calcicola Short-stemmed earwort Capholozia bituspidata Two-horned pincewort Scapania carcia Calcicolaus earwort Capholozia pleniceps Blumt pincewort Scapania carcia Calcicolaus earwort Capholoziale hampeana Hampe's threadwort Scapania cursa Calcicolous earwort Capholoziella varians Pana ekkert Scapania lingulata Heath earwort Diphysylumt arbicans Common fold-leaf liverwort Scapania docordata Fossombronia fowedata Pitted frillwort Scapania docordata Fossombronia fowedata Pitted frillwort Scapania obcordata Fossombronia fowedata Pitted frillwort Scapania subalpina Norwegian earwort Cymnomitrion apiculatum Pointed frostwort Scapania subalpina Norwegian earwort Gymnomitrion concinnatum Braided frostwort Scapania puladoa Patch earwort Fullania dilatata Dilated scalewort Scapania puladoa Patch earwort Gymnomitrion concinnatum Braided frostwort Tritomaria quinquedentata Plush notchwort Harpanthus floraviams Great mountain plapwort Tritomaria quinquedentata Plush notchwort Jungermannia borealis Northern flapwort Andreaca repetits alphoria Mountain notchwort Jungermannia essertifolia Crodate flapwort Andreaca repetits Black rock moss Jungermannia essertifolia Great mountain plapwort Abetienella abétina Fir-tamarisk moss Jungermannia essertifolia Great mountain plapwort Abetienella abétina Fir-tamarisk moss Jungermannia papmani Capania Rapwort Abetienella abétina Fir-tamarisk moss Jungermannia sphaerocarpa Round-fruited flapwort Andreaca repetits Short-tooth hump-moss Creeping feather-moss Lejocula cavida pamila University Purple-lobed notchwort Anabysegium serpens Creeping feather	Asterella gracilis	Graceful asterella	Pleurocladula albescens	Lesser featherwort
Barbilophosia kunzeana Kunze's pawwort Radula complanta Cilisted fringewort Rarbilophosia (peopodioides Greater pawwort Radula complanta Cilisted fringewort Barbilophosia (peopodioides Four-fingered pawwort Racia laprina Purple crystalwort Calprogesia sphagnicala Bos pouchwort Scapania brevicailis Snow lungwort Calphosia bistapidata Two-horned pincewort Scapania aclacicala Short-stemmed earwort Cephalosia lastapidata Two-horned pincewort Scapania calcicala Short-stemmed earwort Cephalosicila divericata Common threadwort Scapania caspidaligera Least earwort Unitidy earwort Cephalosicila divericata Common threadwort Scapania spidaligera Least earwort Unitidy earwort Phalosicila varians Fann ekkert Scapania brejidaligera Least earwort Unitidy earwort Diphyscium foliosum Nut-moss Scapania lingulata Heath earwort Diphyscium dibicans Common fold-leal liverwort Scapania branzenia Tongue earwort Prullonia dilatana Diphyscium foliosum Alpine earwort Scapania acumania Tongue earwort Prullonia dilatata Diata earwort Scapania paludosa Patch earwort Prullonia dilatata Diata education Scapania scandica Floppy earwort Frullania tamarisci Tamarisk scalewort Scapania scandica Floppy earwort Prullonia dilatata Diata education Pointed frostwort Scapania scandica Northern earwort Gymnomitrion cordinatum Pointed frostwort Scapania scandica Northern earwort Gymnomitrion cordinatum Straided frostwort Tritomaria quinquedentata Flush notchwort Harpanthus flotwianus Great mountain plapwort Tritomaria quinquedentata Flush notchwort Harpanthus flotwianus Great mountain plapwort Andreacea Mountain notchwort Harpanthus flotwianus Great mountain plapwort Andreacea Thingwort Mountain notchwort Harpanthus flotwianus Great flapwort Andreacea Flush population Pricanarisk moss Jungermannia sphaerocarpa Round-fruited flapwort Andreacea Flush population Pricanarisk moss Jungermannia sphaerocarpa Round-fruited flapwort Andreacea Flush population Pricanarisk moss Jungermannia sphaerocarpa Round-fruited flapwort Andreacea Scapania acception acception	Barbilophozia atlantica	Atlantic pawwort	Preissia quadrata	Snow threadwort
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Barbilophosia quadriloba Four-fingered pawwort Riccia beyrichiana Even scalewort Blasis quisilla Common kettlewort Sautria alpina Purple crystalwort Calphogosia sphagnicola Bog pouchwort Scapania caricicula Snow lungwort Caphalosia bicaspidata Two-horned pincewort Scapania calcicola Short-stemmed earwort Caphalosia bicaspidata Two-horned pincewort Scapania cuspiduligera Least earwort Caphalosiella draicata Common threadwort Scapania cuspiduligera Least earwort Caphalosiella bampena Hampé's threadwort Scapania disperborea Untidy earwort Caphalosiella warians Pann ekkert Scapania lingulata Untidy earwort Caphalosiella warians Pann ekkert Scapania lingulata Heath earwort Diplophylium toxifolium Alpine earwort Scapania marcinata Tongue earwort Diplophylium toxifolium Alpine earwort Scapania paludosa Patch earwort Prillaria dilatata Dilated scalewort Scapania scandica Ploppy earwort Prillaria dilatata Dilated scalewort Scapania usbalpina Norwegian earwort Gymnomitrion apiculatum Polinted frostwort Scapania undulata Northern earwort Gymnomitrion conclinatum Polinted frostwort Tritomaria polita Water earwort Hugrobiella despolia Lan notchwort Tritomaria quinquedentata Lyon's notchwort Hugrobiella despolia Lan notchwort Andreaceae Jungermannia brealis Cordate flapwort Andreaceae Jungermannia dowata Egg flapwort Andreaceae Jungermannia pumila Transparent flapwort Abeitnella abietina Fir-tamarisk moss Jungermannia pumila Transparent flapwort Abeitnella abietina Fir-tamarisk moss Leicocelea bartriensis Bantry notchwort Amblyodon dealbutus Short-tooth hump-moss Leicocelea bartriensis Purple-lobed notchwort Amblyodon dealbutus Short-tooth hump-moss Leicocelea bartriensis Purple-lobed notchwort Arbidium laternifolium Clay earth-moss Lophosia debiliformis Weak notchwort Arctoa andersonii Andersonii Andersonii Andersonii Andersonii	Barbilophozia kunzeana	Kunze's pawwort	Ptilidium ciliare	liverwort
Blasia pusilla Calypageia sphagnicola Bog pouclwort Scapania hrevicaulis Snow lungwort Caphalozia bicapidata Common kreadwort Caphalozia pleniceps Blunt pincewort Scapania acurta Caphalozial diwaricata Common threadwort Scapania curta Caphaloziella diwaricata Common threadwort Scapania curta Caphaloziella diwaricata Common threadwort Scapania curta Caphaloziella diwaricata Common threadwort Scapania irrigua Caphaloziella varians Fann ekkert Scapania irrigua Diplopsyclum ausifolium Nut-moss Scapania irrigua Diplopsyclum ausifolium Alpine earwort Diploplyllum ausifolium Alpine earwort Scapania auduata Fossombronia foveolata Pitted frillwort Scapania paludosa Patch earwort Fruilmoit diamarise Fruilmoit diamarise Gymnomitrion apiculatum Pointed frostwort Gymnomitrion conclinatum Gymnomitrion conclinatum Gymnomitrion conclinatum Gymnomitrion conditiodes Great mountain plapwort Hyprobiella laxifolia Jungermannia pracillima Transparent fapwort Jungermannia pracillima Transparent fapwort Jungermannia pracillima Transparent fapwort Andreacea Bulgermannia phania Transparent fapwort Andreacea Rounder-rungersiis Black rock-moss Jungermannia phania Transparent fapwort Andreacea Rounder-rungersiis Black rock-moss Leicoclea heterocolpos Raged notchwort Ampontaium palpium Gillman's notchwort Ampermannia phania Dwarf flapwort Abietinella abietina Fir-tamarisk moss Diagermannia phania Gillman's notchwort Ampermannia phania Dwarf flapwort Abietinella abietina Fir-tamarisk moss Diagermannia phania Dwarf flapwort Abietinella abietina Fir-tamarisk moss Diagermannia phania Dwarf flapwort Abietinella abietina Fir-tamarisk moss Diagermannia phania Gillman's notchwort Amphidium lapponicum Lapland yoke-moss Leicoclea heterocolpos Raged notchwort Amphidium lapponicum Lapland yoke-moss Leicoclea heterocolpos Raged notchwort Anomobryum julaceum Slender silver-moss Lophozia debiliformis Weak notchwort Anomobryum julaceum Slender silver-moss Lophozia debiliformis Common liverwort Bartramia ithyphylla Mountain groove-moss Lophozia ventricos Lo	Barbilophozia lycopodioides	Greater pawwort	Radula complanata	Ciliated fringewort
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Cephalosia pleniceps Cephalosiella divariata Common threadwort Scapania curta Cephalosiella divariata Common threadwort Scapania cuspiduligera Least earwort Cephalosiella hampeana Cephalosiella hampeana Cephalosiella varians Fann ekkert Scapania irrigua Diphyscium foliosum Nut-moss Scapania lingulata Diphyscium foliosum Nut-moss Scapania lingulata Diphyscium foliosum Nut-moss Scapania interronata Tongue earwort Diplophyllum taxifolium Alpine earwort Scapania obordata Fossombronia foveolata Pitted frillwort Scapania obordata Frullania dilatata Dilated scalewort Scapania scandica Floppy earwort Frullania dilatata Dilated scalewort Scapania scandica Floppy earwort Frullania tamarisci Tamarisk scalewort Scapania scandica Floppy earwort Frullania tamarisci Gymnomitrion apiculatum Pointed frostwort Scapania mulutata Northern earwort Gymnomitrion coralinides Great mountain plapwort Tritomaria polita Water earwort Gymnomitrion coralinides Harpenthus flotovianus Great mountain plapwort Tritomaria scitula Lyon's notchwort Mungermannia borealis Northern flapwort Jungermannia borealis Northern flapwort Andracaceae Jungermannia fyalina Transparent flapwort Andracaceae Jungermannia phalina Transparent flapwort Abeticuled abetina Fis-tamarisk moss Jungermannia phaneroarpa Round-fruited flapwort Abeticuled abetina Fis-tamarisk moss Dungermannia phaneroarpa Round-fruited flapwort Abeticuled abetina Fis-tamarisk moss Leicocolea deltriensis Bantry notchwort Amblystegium serpens Creeping feather-moss Leicocolea gillmani Gillman's notchwort Amphidium flaporicum Lapland yoke-moss Leicocolea gillmani Gillman's notchwort Amphidium flaporicum Lapland yoke-moss Leicocolea deterocolops Ragged notchwort Anomobryum julaceum Slender silver-moss Lophosia debtilor Compact sustwort Anomobryum julaceum Slender silver-moss Lophosia devica Compact sustwort Bertramai tirtyplylla Arctic fork-moss Lophosia vantericos Tumid notchwort Arctoa funderma tirtyplylla Marsupella brotesisima Schorched rustwort Bertramai tirtyplylla Hairy treadwort Mistils fe	Calypogeia sphagnicola	Bog pouchwort	Scapania brevicaulis	Snow lungwort
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Cephaloziella hampeana Hampe's threadwort Scapania hyperborea Untidy earwort Cephaloziella varians Pann ekkert Scapania irrigua Diphyscium foliosum Nut-moss Scapania irrigua Diphyscium foliosum Nut-moss Scapania irrigua Diphyslum taxifolium Alpine earwort Scapania obcordata Fossombronia foweolata Pitted frillwort Scapania obcordata Fossombronia foweolata Pitted frillwort Scapania paludosa Patch earwort Frullania dilatata Dilated scalewort Scapania subalpina Norwegian earwort Frullania dilatata Dilated scalewort Scapania undulata Northern earwort Gymnomitrion apiculatum Pointed frostwort Scapania undulata Northern earwort Gymnomitrion concinnatum Pointed frostwort Tritomaria quinquedentata Flush notchwort Horpanthus flotovianus Great mountain plapwort Tritomaria quinquedentata Flush notchwort Hygrobiella laxifolia Lax notchwort Bryophyta/True mosses Jungermannia borealis Northern flapwort Bryophyta/True mosses Jungermannia gracillima Crenulated flapwort Andreaceae Jungermannia gracillima Grenulated flapwort Andreaceae Jungermannia phalina Transparent flapwort Abietinella abietina Fir-tamarisk moss Jungermannia phalina Dwarf flapwort Abietinella abietina Fir-tamarisk moss Jungermannia phalina Dwarf flapwort Abietinella abietina Fir-tamarisk moss Jungermannia sphaerocarpa Round-fruited flapwort Amblyodon dealbatus Short-tooth hump-moss Leicocolea bantriensis Bantry notchwort Amblyodon dealbatus Short-tooth hump-moss Leicocolea dierocolpos Ragged notchwort Amphidium lapponicum Lapland yoke-moss Lejeunia cavifolia Micheli's least pouncewort Anoschagium aestivum Summer-moss Lophozia exisa Capitate notchwort Anoschagium alternifolium Clay earth-moss Lophozia varietis Puple-lobed notchwort Archadum alternifolium Anderssonis arctoa moss Lophozia wentricosa Common liverwort Barchythecium albicans Whitshe feather-moss Lophoz	Cephalozia pleniceps	Blunt pincewort	Scapania curta	Calcicolous earwort
Fann ekkert Scapania irrigua Heath earwort	Cephaloziella divaricata	Common threadwort	Scapania cuspiduligera	Least earwort
Diphyscium foliosum Nut-moss Scapania lingulata Heath earwort Diplophyllum abbicans Common fold-leaf liverwort Scapania mucronata Tongue earwort Diplophyllum taxifolium Alpine earwort Scapania obcordata Patch earwort Fossombronia foveolata Pitted frillwort Scapania paludosa Patch earwort Fruilania damarisci Tamarisk scalewort Scapania subalpina Norwegian earwort Gymnomitrion apiculatum Pointed frostwort Scapania undulata Northern earwort Gymnomitrion concinnatum Braided frostwort Tritomaria quinquedentata Flush notchwort Harpanthus flotovianus Great mountain plapwort Tritomaria quinquedentata Flush notchwort Hygrobiella laxifolia Lax notchwort Bryophyta/True mosses Jungermannia borealis Northern flapwort Bryophyta/True mosses Jungermannia gracillima Crenulated flapwort Andraeaceae Jungermannia punila Transparent flapwort Andraeaceae Jungermannia punila Dwarf flapwort Abietinella abietina Fir-tamarisk moss Jungermannia punila Dwar	Cephaloziella hampeana	Hampe's threadwort	Scapania hyperborea	Untidy earwort
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Frullania dilatata Dilated scalewort Scapania scandica Floppy earwort Frullania tamarisci Tamarisk scalewort Scapania subalpina Norwegian earwort Gymnomitrion apiculatum Pointed frostwort Scapania undulata Northern earwort Gymnomitrion concinnatum Braided frostwort Tritomaria quinquedentata Flush notchwort Harpanthus flotovianus Great mountain plapwort Tritomaria scitula Lyon's notchwort Hygrobiella laxifolia Lax notchwort Mountain notchwort Jungermannia borealis Northern flapwort Bryophyta/True mosses Jungermannia exsertifolia Cordate flapwort Andreaceae Jungermannia flima Transparent flapwort Bryaceae Jungermannia pumila Dwarf flapwort Bryaceae Jungermannia sphaerocarpa Round-fruited flapwort Abietinella abietina Fir-tamarisk moss Jungermannia sphaerocarpa Round-fruited flapwort Amblystegium serpens Creeping feather-moss Leiocolea bantriensis Bantry notchwort Amblystegium serpens Creeping feather-moss Leiocolea pillmanii Gillman's notchwort <td>Diplophyllum taxifolium</td> <td>Alpine earwort</td> <td>Scapania obcordata</td> <td></td>	Diplophyllum taxifolium	Alpine earwort	Scapania obcordata	
Frullania tamarisci Tamarisk scalewort Scapania subalpina Norwegian earwort Gymnomitrion apiculatum Pointed frostwort Scapania undulata Northern earwort Gymnomitrion concinnatum Braided frostwort Tritomaria polita Water earwort Gymnomitrion corallioides Coral frostwort Tritomaria quinquedentata Flush notchwort Harpanthus flotovianus Great mountain plapwort Tritomaria scitula Lyon's notchwort Hygrobiella laxifolia Lax notchwort Jungermannia borealis Northern flapwort Bryophyta/True mosses Jungermannia exsertifolia Cordate flapwort Andreaceae Jungermannia fracillima Crenulated flapwort Bryaceae Jungermannia obovata Egg flapwort Abietinella abietina Fir-tamarisk moss Jungermannia pumila Dwarf flapwort Abietinella abietina Fir-tamarisk moss Jungermannia sphaerocarpa Round-fruited flapwort Amblyodon dealbatus Short-tooth hump-moss Leicoclea bantriensis Bantry notchwort Amblyodon dealbatus Short-tooth hump-moss Leicoclea flaterocolpos Ragged notchwort Amphidium lapponicum Lapland yoke-moss Leicola heterocolpos Ragged notchwort Anoectangium aestivum Summer-moss Leipenia cavifolia Micheli's least pouncewort Anoentryum julaceum Slender silver-moss Lophozia debiliformis Weak notchwort Anosyrum julaceum Slender silver-moss Lophozia devisa Capitate notchwort Arctoa fulvella Arctio fork-moss Lophozia vecisa Capitate notchwort Arctoa anderssonii Andersson's arctoa moss Lophozia ventricosa Tumid notchwort Arctoa anderssonii Andersson's arctoa moss Lophozia ventricosa Tumid notchwort Aulacomnium palustre Bog groove-moss Lophozia wenzelii Wenzel's notchwort Bertamia ithyphylla Straight-leaved apple-moss Marsupella dausta Schorched rustwort Berachythecium glaciale Snow feather-moss	Fossombronia foveolata	Pitted frillwort	Scapania paludosa	Patch earwort
Gymnomitrion apiculatum Gymnomitrion concinnatum Braided frostwort Gymnomitrion concilioides Coral frostwort Tritomaria polita Water earwort Gymnomitrion corollioides Coral frostwort Tritomaria quinquedentata Flush notchwort Hygrobiella laxifolia Lyon's notchwort Hygrobiella laxifolia Lyungermannia borealis Northern flapwort Andraeaceae Jungermannia gracillima Crenulated flapwort Andraeaceae Jungermannia obovata Jungermannia obovata Legg flapwort Abietinella abietina Fir-tamarisk moss Jungermannia pumila Dwarf flapwort Abietinella abietina Fir-tamarisk moss Jungermannia sphaerocarpa Round-fruited flapwort Amblyodon dealbatus Short-tooth hump-moss Leiocolea bantriensis Bantry notchwort Amblystegium serpens Creeping feather-moss Leiocolea bantriensis Bantry notchwort Amphidium lapponicum Lapland yoke-moss Leiocolea heterocolpos Ragged notchwort Amphidium mougeotii Mougeot's yoke-moss Lejunia cavifolia Micheli's least pouncewort Anoectangium aestivum Summer-moss Lophozia debiliformis Weak notchwort Anomobryum julaceum Lophozia excisa Capitate notchwort Anomobryum julaceum Slender silver-moss Lophozia grandiretis Purple-lobed notchwort Arctia anderssonii Andersson's arctoa moss Lophozia otusa Obtuse notchwort Arctoa anderssonii Andersson's arctoa moss Lophozia wentricosa Tumid notchwort Aulacomnium turgidum Mountain groove-moss Marchantia polymorpha Common liverwort Bartamai tityphylla Straight-leaved apple-moss Marsupella dausta Schorched rustwort Blepharostoma trichophyllum Hyrteadwort Marsupella condensata	Frullania dilatata	Dilated scalewort	Scapania scandica	Floppy earwort
Gymnomitrion concinnatum Gymnomitrion corallioides Coral frostwort Tritomaria quinquedentata Flush notchwort Harpanthus flotovianus Great mountain plapwort Hygrobiella laxifolia Lax notchwort Hygrobiella laxifolia Lax notchwort Hygrophiella laxifolia Lax notchwort Jungermannia borealis Northern flapwort Jungermannia exsertifolia Cordate flapwort Andreaceae Jungermannia gracillima Crenulated flapwort Andreaceae Jungermannia hyalina Transparent flapwort Bryaceae Jungermannia obovata Egg flapwort Jungermannia pumila Dwarf flapwort Abietinella abietina Fir-tamarisk moss Jungermannia sphaerocarpa Round-fruited flapwort Amblyodon dealbatus Short-tooth hump-moss Leicoclea bantriensis Bantry notchwort Amphidium lapponicum Lapland yoke-moss Leicoclea heterocolpos Ragged notchwort Anphidium mougeotii Mougeot's yoke-moss Lophozia debiliformis Weak notchwort Anostropyum julaceum Slender silver-moss Lophozia excisa Capitate notchwort Arctio anderssonii Andersson's arctoa moss Lophozia wentricosa Luphozia wentricosa Tumid notchwort Aulacomnium palustre Australia polymur Hairty teadwort Marsupella adusta Schorched rustwort Brachythecium albicans Whitish feather-moss Marsupella condensata Compact rustwort Brachythecium allicans Whitish feather-moss Whitish feather-moss Snow feather-moss Snow feather-moss	Frullania tamarisci	Tamarisk scalewort	Scapania subalpina	Norwegian earwort
Gymnomitrion corallioides Coral frostwort Tritomaria quinquedentata Flush notchwort Harpanthus flotovianus Great mountain plapwort Tritomaria scitula Lyon's notchwort Hygrobiella laxifolia Lax notchwort Mountain notchwort Jungermannia borealis Northern flapwort Andraeaceae Jungermannia gracillina Crenulated flapwort Andraeaceae Jungermannia hyalina Transparent flapwort Bryaceae Jungermannia bowata Egg flapwort Abietinella abietina Fir-tamarisk moss Jungermannia pumila Dwarf flapwort Abietinella abietina Fir-tamarisk moss Jungermannia sphaerocarpa Round-fruited flapwort Amblyodon dealbatus Short-tooth hump-moss Leicoclea dantriensis Bantry notchwort Amblystegium serpens Creeping feather-moss Leicoclea heterocolpos Ragged notchwort Amphidium lapponicum Lapland yoke-moss Lejeunia cavifolia Micheli's least pouncewort Anoectangium aestivum Summer-moss Lophozia excisa Capitate notchwort Anoectangium aestivum Slender silver-moss Lophozia excisa	Gymnomitrion apiculatum	Pointed frostwort	Scapania undulata	Northern earwort
Harpanthus flotovianusGreat mountain plapwortTritomaria scitulaLyon's notchwortHygrobiella laxifoliaLax notchwortMountain notchwortJungermannia borealisNorthern flapwortBryophyta/True mossesJungermannia exsertifoliaCordate flapwortAndraeaceaeJungermannia gracillimaCrenulated flapwortAndreace rupestrisBlack rock-mossJungermannia hyalinaTransparent flapwortBryaceaeJungermannia obovataEgg flapwortAbietinella abietinaFir-tamarisk mossJungermannia pumilaDwarf flapwortAbietinella abietinaFir-tamarisk mossJungermannia sphaerocarpaRound-fruited flapwortAmblyodon dealbatusShort-tooth hump-mossLeicoclea bantriensisBantry notchwortAmblystegium serpensCreeping feather-mossLeicoclea dantriensisBantry notchwortAmphidium lapponicumLapland yoke-mossLeiocolea heterocolposRagged notchwortAmphidium mougeotiiMougeot's yoke-mossLejeunia cavifoliaMicheli's least pouncewortAnoectangium aestivumSummer-mossLophosia debliformisWeak notchwortAnomobryum julaceumSlender silver-mossLophosia excisaCapitate notchwortAongstroemia longipesSprig-mossLophosia excisaCapitate notchwortArctiadium alternifoliumClay earth-mossLophosia sudeticaHill notchwortArctoa anderssoniiAndersson's arctoa mossLophosia ventricosaTumid notchwortAulacomnium turgidumMountain groove-mossLophosi	Gymnomitrion concinnatum	Braided frostwort	Tritomaria polita	Water earwort
Hygrobiella laxifolia Lax notchwort Bryophyta/True mosses Jungermannia borealis Northern flapwort Andraeaceae Jungermannia gracillima Crenulated flapwort Andraeaceae Jungermannia hyalina Transparent flapwort Bryaceae Jungermannia obovata Egg flapwort Abietinella abietina Fir-tamarisk moss Jungermannia pumila Dwarf flapwort Abietinella abietina Fir-tamarisk moss Jungermannia pumila Dwarf flapwort Abietinella abietina Fir-tamarisk moss Jungermannia sphaerocarpa Round-fruited flapwort Amblyodon dealbatus Short-tooth hump-moss Leiocolea dantriensis Bantry notchwort Amblystegium serpens Creeping feather-moss Leiocolea flimanii Gillman's notchwort Amphidium lapponicum Lapland yoke-moss Leieunia cavifolia Micheli's least pouncewort Anoectangium aestivum Sumer-moss Lophozia debiliformis Weak notchwort Anomobryum julaceum Slender silver-moss Lophozia excisa Capitate notchwort Archidium alternifolium Clay earth-moss Lophozia prandiretis Purple-lobed notchwort Arctoa anderssonii Andersson's arctoa moss Lophozia obtusa Obtuse notchwort Arctoa anderssonii Andersson's arctoa moss Lophozia ventricosa Tumid notchwort Aulacomnium turgidum Mountain groove-moss Lophozia wenzelii Wenzel's notchwort Bartramia ithyphylla Straight-leaved apple-moss Marchantia polymorpha Common liverwort Berachythecium alternicosa Whitish feather-moss Marsupella dausta Schorched rustwort Blepharostoma trichophyllum Hairy treadwort Marsupella condensata Compact rustwort Brachythecium glaciale Snow feather-moss	Gymnomitrion corallioides	Coral frostwort	Tritomaria quinquedentata	Flush notchwort
Jungermannia borealis Northern flapwort Andraeaceae Jungermannia exsertifolia Cordate flapwort Andraeaceae Jungermannia gracillima Crenulated flapwort Andraeaceae Jungermannia hyalina Transparent flapwort Bryaceae Jungermannia obovata Egg flapwort Abietinella abietina Fir-tamarisk moss Jungermannia pumila Dwarf flapwort Abietinella abietina Fir-tamarisk moss Jungermannia sphaerocarpa Round-fruited flapwort Amblyodon dealbatus Short-tooth hump-moss Leiocolea bantriensis Bantry notchwort Amblystegium serpens Creeping feather-moss Leiocolea gillmanii Gillman's notchwort Amphidium happonicum Lapland yoke-moss Leieunia cavifolia Micheli's least pouncewort Anoectangium aestivum Summer-moss Lophozia debiliformis Weak notchwort Anomobryum julaceum Slender silver-moss Lophozia grandiretis Purple-lobed notchwort Archidium alternifolium Clay earth-moss Lophozia obtusa Obtuse notchwort Arctoa anderssonii Andersson's arctoa moss Lophozia obtusa Tumid notchwort Aulacomnium palustre Bog groove-moss Lophozia wentricosa Tumid notchwort Aulacomnium palustre Bog groove-moss Marchantia polymorpha Common liverwort Bartamia ithyphylla Straight-leaved apple-moss Marsupella adusta Schorched rustwort Brachythecium albicans Whitish feather-moss Marsupella condensata Compact rustwort Brachythecium albicans Marsupella condensata Compact rustwort	Harpanthus flotovianus	Great mountain plapwort	Tritomaria scitula	Lyon's notchwort
Jungermannia exsertifoliaCordate flapwortAndraeaceaeJungermannia gracillimaCrenulated flapwortAndreaea rupestrisBlack rock-mossJungermannia hyalinaTransparent flapwortBryaceaeJungermannia obovataEgg flapwortAbietinella abietinaFir-tamarisk mossJungermannia pumilaDwarf flapwortAbietinella abietinaFir-tamarisk mossJungermannia sphaerocarpaRound-fruited flapwortAmblyodon dealbatusShort-tooth hump-mossLeiocolea bantriensisBantry notchwortAmblystegium serpensCreeping feather-mossLeiocolea gillmaniiGillman's notchwortAmphidium lapponicumLapland yoke-mossLeiocolea heterocolposRagged notchwortAnoectangium aestivumSummer-mossLejeunia cavifoliaMicheli's least pouncewortAnoectangium aestivumSummer-mossLophozia debiliformisWeak notchwortAnomobryum julaceumSlender silver-mossLophozia excisaCapitate notchwortAnomobryum julaceumSlender silver-mossLophozia grandiretisPurple-lobed notchwortArchidium alternifoliumClay earth-mossLophozia obtusaObtuse notchwortArctoa anderssoniiAndersson's arctoa mossLophozia sudeticaHill notchwortArctoa fulvellaArctic fork-mossLophozia ventricosaTumid notchwortAulacomnium turgidumMountain groove-mossLophozia wenzeliiWenzel's notchwortBartramia ithyphyllaStraight-leaved apple-mossMarsupella adustaSchorched rustwortBlepharostoma tri	Hygrobiella laxifolia	Lax notchwort		Mountain notchwort
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Leiocolea bantriensisBantry notchwortAmblystegium serpensCreeping feather-mossLeiocolea gillmaniiGillman's notchwortAmphidium lapponicumLapland yoke-mossLeiocolea heterocolposRagged notchwortAmphidium mougeotiiMougeot's yoke-mossLejeunia cavifoliaMicheli's least pouncewortAnoectangium aestivumSummer-mossLophozia debiliformisWeak notchwortAnomobryum julaceumSlender silver-mossLophozia excisaCapitate notchwortAongstroemia longipesSprig-mossLophozia grandiretisPurple-lobed notchwortArchidium alternifoliumClay earth-mossLophozia obtusaObtuse notchwortArctoa anderssoniiAndersson's arctoa mossLophozia sudeticaHill notchwortArctoa fulvellaArctic fork-mossLophozia ventricosaTumid notchwortAulacomnium palustreBog groove-mossLophozia wenzeliiWenzel's notchwortAulacomnium turgidumMountain groove-mossMarchantia polymorphaCommon liverwortBartramia ithyphyllaStraight-leaved apple-mossMarsupella adustaSchorched rustwortBlepharostoma trichophyllumHairy treadwortMarsupella brevissimaSnow rustwortBrachythecium albicansWhitish feather-mossMarsupella condensataCompact rustwortBrachythecium glacialeSnow feather-moss	Jungermannia pumila	Dwarf flapwort	Abietinella abietina	Fir-tamarisk moss
Leiocolea gillmaniiGillman's notchwortAmphidium lapponicumLapland yoke-mossLeiocolea heterocolposRagged notchwortAmphidium mougeotiiMougeot's yoke-mossLejeunia cavifoliaMicheli's least pouncewortAnoectangium aestivumSummer-mossLophozia debiliformisWeak notchwortAnomobryum julaceumSlender silver-mossLophozia excisaCapitate notchwortAongstroemia longipesSprig-mossLophozia grandiretisPurple-lobed notchwortArchidium alternifoliumClay earth-mossLophozia obtusaObtuse notchwortArctoa anderssoniiAndersson's arctoa mossLophozia sudeticaHill notchwortArctoa fulvellaArctic fork-mossLophozia ventricosaTumid notchwortAulacomnium palustreBog groove-mossLophozia wenzeliiWenzel's notchwortAulacomnium turgidumMountain groove-mossMarchantia polymorphaCommon liverwortBartramia ithyphyllaStraight-leaved apple-mossMarsupella adustaSchorched rustwortBlepharostoma trichophyllumHairy treadwortMarsupella brevissimaSnow rustwortBrachythecium albicansWhitish feather-mossMarsupella condensataCompact rustwortBrachythecium glacialeSnow feather-moss	Jungermannia sphaerocarpa	Round-fruited flapwort	Amblyodon dealbatus	Short-tooth hump-moss
Leiocolea heterocolposRagged notchwortAmphidium mougeotiiMougeot's yoke-mossLejeunia cavifoliaMicheli's least pouncewortAnoectangium aestivumSummer-mossLophozia debiliformisWeak notchwortAnomobryum julaceumSlender silver-mossLophozia excisaCapitate notchwortAongstroemia longipesSprig-mossLophozia grandiretisPurple-lobed notchwortArchidium alternifoliumClay earth-mossLophozia obtusaObtuse notchwortArctoa anderssoniiAndersson's arctoa mossLophozia sudeticaHill notchwortArctoa fulvellaArctic fork-mossLophozia ventricosaTumid notchwortAulacomnium palustreBog groove-mossLophozia wenzeliiWenzel's notchwortAulacomnium turgidumMountain groove-mossMarchantia polymorphaCommon liverwortBartramia ithyphyllaStraight-leaved apple-mossMarsupella adustaSchorched rustwortBlepharostoma trichophyllumHairy treadwortMarsupella brevissimaSnow rustwortBrachythecium albicansWhitish feather-mossMarsupella condensataCompact rustwortBrachythecium glacialeSnow feather-moss	Leiocolea bantriensis	Bantry notchwort	Amblystegium serpens	Creeping feather-moss
Lejeunia cavifoliaMicheli's least pouncewortAnoectangium aestivumSummer-mossLophozia debiliformisWeak notchwortAnomobryum julaceumSlender silver-mossLophozia excisaCapitate notchwortAongstroemia longipesSprig-mossLophozia grandiretisPurple-lobed notchwortArchidium alternifoliumClay earth-mossLophozia obtusaObtuse notchwortArctoa anderssoniiAndersson's arctoa mossLophozia sudeticaHill notchwortArctoa fulvellaArctic fork-mossLophozia ventricosaTumid notchwortAulacomnium palustreBog groove-mossLophozia wenzeliiWenzel's notchwortAulacomnium turgidumMountain groove-mossMarchantia polymorphaCommon liverwortBartramia ithyphyllaStraight-leaved apple-mossMarsupella adustaSchorched rustwortBlepharostoma trichophyllumHairy treadwortMarsupella brevissimaSnow rustwortBrachythecium albicansWhitish feather-mossMarsupella condensataCompact rustwortBrachythecium glacialeSnow feather-moss	Leiocolea gillmanii	Gillman's notchwort	Amphidium lapponicum	Lapland yoke-moss
Lophozia debiliformisWeak notchwortAnomobryum julaceumSlender silver-mossLophozia excisaCapitate notchwortAongstroemia longipesSprig-mossLophozia grandiretisPurple-lobed notchwortArchidium alternifoliumClay earth-mossLophozia obtusaObtuse notchwortArctoa anderssoniiAndersson's arctoa mossLophozia sudeticaHill notchwortArctoa fulvellaArctic fork-mossLophozia ventricosaTumid notchwortAulacomnium palustreBog groove-mossLophozia wenzeliiWenzel's notchwortAulacomnium turgidumMountain groove-mossMarchantia polymorphaCommon liverwortBartramia ithyphyllaStraight-leaved apple-mossMarsupella adustaSchorched rustwortBlepharostoma trichophyllumHairy treadwortMarsupella brevissimaSnow rustwortBrachythecium albicansWhitish feather-mossMarsupella condensataCompact rustwortBrachythecium glacialeSnow feather-moss	Leiocolea heterocolpos	Ragged notchwort	Amphidium mougeotii	Mougeot's yoke-moss
Lophozia excisaCapitate notchwortAongstroemia longipesSprig-mossLophozia grandiretisPurple-lobed notchwortArchidium alternifoliumClay earth-mossLophozia obtusaObtuse notchwortArctoa anderssoniiAndersson's arctoa mossLophozia sudeticaHill notchwortArctoa fulvellaArctic fork-mossLophozia ventricosaTumid notchwortAulacomnium palustreBog groove-mossLophozia wenzeliiWenzel's notchwortAulacomnium turgidumMountain groove-mossMarchantia polymorphaCommon liverwortBartramia ithyphyllaStraight-leaved apple-mossMarsupella adustaSchorched rustwortBlepharostoma trichophyllumHairy treadwortMarsupella brevissimaSnow rustwortBrachythecium albicansWhitish feather-mossMarsupella condensataCompact rustwortBrachythecium glacialeSnow feather-moss	Lejeunia cavifolia	Micheli's least pouncewort	Anoectangium aestivum	Summer-moss
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Lophozia obtusaObtuse notchwortArctoa anderssoniiAndersson's arctoa mossLophozia sudeticaHill notchwortArctoa fulvellaArctic fork-mossLophozia ventricosaTumid notchwortAulacomnium palustreBog groove-mossLophozia wenzeliiWenzel's notchwortAulacomnium turgidumMountain groove-mossMarchantia polymorphaCommon liverwortBartramia ithyphyllaStraight-leaved apple-mossMarsupella adustaSchorched rustwortBlepharostoma trichophyllumHairy treadwortMarsupella brevissimaSnow rustwortBrachythecium albicansWhitish feather-mossMarsupella condensataCompact rustwortBrachythecium glacialeSnow feather-moss	Lophozia excisa	Capitate notchwort	Aongstroemia longipes	Sprig-moss
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Lophozia ventricosa Tumid notchwort Aulacomnium palustre Bog groove-moss Lophozia wenzelii Wenzel's notchwort Aulacomnium turgidum Mountain groove-moss Marchantia polymorpha Common liverwort Bartramia ithyphylla Straight-leaved apple-moss Marsupella adusta Schorched rustwort Blepharostoma trichophyllum Hairy treadwort Marsupella brevissima Snow rustwort Brachythecium albicans Whitish feather-moss Marsupella condensata Compact rustwort Brachythecium glaciale Snow feather-moss	Lophozia obtusa	Obtuse notchwort	Arctoa anderssonii	Andersson's arctoa moss
Lophozia wenzeliiWenzel's notchwortAulacomnium turgidumMountain groove-mossMarchantia polymorphaCommon liverwortBartramia ithyphyllaStraight-leaved apple-mossMarsupella adustaSchorched rustwortBlepharostoma trichophyllumHairy treadwortMarsupella brevissimaSnow rustwortBrachythecium albicansWhitish feather-mossMarsupella condensataCompact rustwortBrachythecium glacialeSnow feather-moss	Lophozia sudetica		Arctoa fulvella	
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Marsupella adustaSchorched rustwortBlepharostoma trichophyllumHairy treadwortMarsupella brevissimaSnow rustwortBrachythecium albicansWhitish feather-mossMarsupella condensataCompact rustwortBrachythecium glacialeSnow feather-moss	_			
Marsupella brevissimaSnow rustwortBrachythecium albicansWhitish feather-mossMarsupella condensataCompact rustwortBrachythecium glacialeSnow feather-moss			· - ·	
Marsupella condensata Compact rustwort Brachythecium glaciale Snow feather-moss	_	Schorched rustwort		•
	_			
Nardia breidleri Brachythecium latifolium	=	Compact rustwort		Snow feather-moss
	Nardia breidleri		Brachythecium latifolium	

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Brachythecium plumosum Rusty feather-moss Didymodon icmadophilus Slender beard-moss Brachythecium reflexum Reflexed feather-moss Cylindric beard-moss Didymodon insulanus Brachythecium rivulare River feather-moss Distichium capillaceum Fine distichium Brachythecium salebrosum Smooth-stalk feather-moss Distichium inclinatum Inclined distichium Brachythecium turgidum Turgid brachythecium moss Ditrichum flexicaule Bendy ditrichum Brachythecium velutinum Velvet feather-moss Ditrichum gracile Slender ditrichum Bryoerythrophyllum Rufous beard-moss Ditrichum heteromallum Curve-leaved ditrichum Ditrichum lineare Dark ditrichum ferruginascens Brown ditrichum Bryoerythrophyllum Red beard-moss Ditrichum pusillum recurvirostrum Drepanocladus aduncus Kneiff's hook-moss Bryoxiphium norvegicum Sword moss Drepanocladus polygamus Fertile feather-moss Bryum algovicum Drooping thread-moss Encalypta alpina Alpine extinguisher-moss Bryum archangelicum Archangelic thread-moss Encalypta ciliata Fringed extinguisher-moss Bryum arcticum Arctic thread-moss Encalypta procera Extinguisher-moss Bryum argenteum Silver-moss Encalypta rhaptocarpa Ribbed extinguisher-moss Bryum axel-blyttii Blytt's bryum moss Encalypta streptocarpa Spiral extinguisher-moss Bryum calophyllum Blunt bryum Entodon concinnus Montagne's cilynder-moss Bryum creberrimum Tight-tufted thread-moss Eurhynchium pulchellum Elegant feather-moss Bryum curvatum Bryum moss Fissidens bryoides Lesser pocket-moss Round-leaved bryum Fissidens osmundoides Purple-stalked pocket-moss Bryum cyclophyllum Bryum dichotomum Bicoloured bryum Fontinalis antipyretica Greater water-moss Bryum imbricatum Small-mouthed thread-moss Grimmia donniana Donn's grimmia Bryum knowltonii Knowlton's thread-moss Grimmia funalis String grimmia Bryum pallens Pale thread-moss Grimmia longirostris North Grimmia Bryum pallescens Tall-clustered thread-moss Grimmia montana Sun grimmia Marsh bryum Bryum pseudotriquetrum Grimmia ovalis Flat-rock grimmia Bryum purpurascens Bryum moss Grimmia reflexidens Bryum rutilans Twisted grimmia Grimmia torquata Bryum vermigerum EN Oblong bryum moss Gymnostomum aeruginosum Verdigris tufa-moss Bryum weigelii Spreng. Duval's thread-moss Helodium blandowii Blandow's tamarisk-moss Calliergon giganteum Giant spear-moss Hennediella heimii Heim's pottia Calliergon richardsonii Richardson's spear-moss Homalothecium sericeum Silky wall feather-moss Calliergonella cuspidata Pointed spear-moss Hygrohypnum alpestre Hygrohypnum moss Campyliadelphus chrysophyllus Golden feather-moss Hygrohypnum luridum Drab brook-moss Campylium protensum Dull starry feather-moss Hygrohypnum ochraceum Claw brook-moss Campylium stellatum Yellow starry feather-moss Hylocomium splendens Glittering wood-moss Campylopus schimperi Schimper's swan-neck moss Hook-beak tufa-moss Hymenostylium recurvirostrum Catoscopium nigritum Down-looking moss Hypnum bambergeri Golden plait-moss Ceratodon purpureus Redshank Hypnum cupressiforme Cypress-leaved plait-moss Cinclidium stygium Lurid cupola-moss Hypnum hamulosum Hook-leaved plait-moss Climacium dendroides Tree-moss Hypnum lacunosum Great plait-moss Conardia compacta Compact feather-moss Hypnum lindbergii Lindberg's plait-moss Conostomum tetragonum Helmet-moss Hypnum revolutum Revolute plait-moss Cratoneuron filicinum Fern-leaved hook-moss Hypnum vaucheri Vaucher's plait-moss Ctenidium molluscum Chalk comb-moss Isopterygiopsis pulchella Neat silk-moss Dichodontium pellucidum Transparent fork-moss Kiaeria blyttii Blytt's fork-moss Dicranella rufescens Rufous forklet-moss Kiaeria falcata Sickle-leaved fork-moss Dicranella schreberiana Schreber's forklet-moss Kiaeria glacialis Snow fork-moss Dicranella subulata Awl-leaved forklet-moss Kiaeria starkei Starke's fork-moss Dicranoweisia crispula Mountain pincushion Leptobryum pyriforme Golden thread-moss Dicranum bonjeanii Crisped fork-moss Lescuraea incurvata Brown mountain leskea Dicranum flexicaule Bendy fork-moss Lescuraea patens Patent leskea Dicranum scoparium Broom fork-moss Lescuraea radicosa Pseudoleskea moss Dicranum spadiceum Dicranum moss Leucodon sciuroides Squirrel-tail moss Didymodon asperifolius Rough-leaved beard-moss Meesia triquetra Three-ranked hump-moss

Meesia uliginosa Broad-nerved hump-moss Rhizomnium magnifolium Large-leaf thyme-moss Mnium blyttii Blytt's thyme-moss Rhizomnium pseudopunctatum Felted thyme-moss Mnium marginatum Bordered thyme-moss Rhizomnium punctatum Dotted thyme-moss Mnium spinosum Spinose thyme-moss Rhodobryum roseum Rose-moss Mnium stellare Starry thyme-moss Rhytidiadelphus squarrosus Springy turf-moss Mnium thomsonii Short-beaked thyme-moss Rhytidiadelphus triquetrus Big shaggy-moss Myurella julacea Small mouse-tail moss Wrinkle-leaved feather-moss Rhytidium rugosum Dwarf mouse-tail moss Blue dew-moss Myurella tenerrima Saelania glaucescens Neckera complanata Flat neckera Sanionia georgico-uncinata Oncophorus virens Green spur-moss Sanionia orthothecioides St. Kilda hook-moss Oncophorus wahlenbergii Wahlenberg's spur-moss Sanionia uncinata Sickle-leaved hook-moss Orthothecium chryseon Golden erect-capsule moss Schistidium agassizii Water grimmia Orthothecium intricatum Fine-leaved leskea Schistidium flexipile Orthotrichum laevigatum Orthotrichum moss Schistidium frigidum Frigid grimmia Orthotrichum rupestre Rock bristle-moss Schistidium papillosum Rough grimmia Orthotrichum speciosum Showy bristle-moss Schistidium platyphyllum Broadleaf grimmia Orthotrichum stramineum Straw bristle-moss Schistidium rivulare River grimmia Shaw's bristle-moss Orthotrichum striatum VU Schistidium strictum Upright brown grimmia Paludella squarrosa Tufted fen-moss Schistidium venetum VU Bluish bloom moss Palustriella commutata Curled hook-moss Scorpidium cossonii Intermediate hook-moss Palustriella decipiens Lesser curled hook-moss Rusty hook-moss Scorpidium revolvens Palustriella falcata Claw-leaved hook-moss Scorpidium scorpioides Hooked scorpion-moss Philonotis fontana Fountain apple-moss Splachnum vasculosum Rugged collar-moss Philonotis tomentella Woolly apple-moss Straminergon stramineum Straw spear-moss Plagiobryum zieri Zierian hump-moss Syntrichia norvegica Norway screw-moss Plagiomnium cuspidatum Woodsy thyme-moss Syntrichia ruralis Great hairy screw-moss Plagiomnium ellipticum Marsh thyme-moss Tayloria lingulata Tongue-leaved gland-moss Dented silk-moss Thuidium assimile Philibert's tamarisk-moss Plagiothecium denticulatum Plagiothecium succulentum Juicy silk-moss Timmia austriaca Sheathed timmia Platydictya jungermannioides Spruce's leskea Timmia norvegica Norway timmia Platyhypnidium riparioides Long-beaked water feather-moss Tomentypnum nitens Wooly feather-moss Pohlia andalusica Gravel thread-moss Tortella fragilis Brittle crisp-moss Pohlia annotina Pale-fruited thread-moss Tortella tortuosa Frizzled crisp-moss Pohlia cruda Opal thread-moss Tortula euryphylla Hoppe's screw-moss Pohlia drummondii Drummond's thread-moss Tortula subulata Awl-leaved screw-moss Pohlia elongata Long-fruited thread-moss Warnstorfia exannulata Ringless hook-moss Pohlia eruda Warnstorfia sarmentosa Twiggy spear-moss Pohlia filum Fat-bud thread-moss Warnstorfia tundrae Tundra warnstorfia moss Pohlia obtusifolia Blunt-leaved thread-moss Weissia controversa Green-tufted stubble-moss Pohlia proligera Bent-bud thread-moss Polytrichaceae Pohlia wahlenbergii Pale glaucous thread-moss Atrichum angustatum VU Lesser smoothcap Pseudobryum cinclidioides River thyme-moss Atrichum tenellum CR Slender smoothcap Pseudocalliergon angustifolium Atrichum undulatum Common smoothcap Pseudocalliergon trifarium Three-ranked spear-moss Oligotrichum hercynicum Hercynian haircap Pseudocalliergon turgescens Turgid scorpion-moss Pogonatum urnigerum Urn haircap Pterigynandrum filiforme Capillary wing-moss Polytrichum alpinum Alpine haircap Racomitrium aciculare Yellow fringe-moss Polytrichum commune Common haircap Racomitrium canescens Hoary fringe-moss Polytrichum juniperinum Juniper haircap Racomitrium elongatum Long fringe-moss Polytrichum piliferum Bristly haircap Racomitrium ericoides Dense fringe-moss Polytrichum sexangulare Northern haircap Racomitrium fasciculare Green mountain fringe-moss Polytrichum sphaerothecium Racomitrium heterostichum Bristly fringe-moss Sphagnaceae Racomitrium lanuginosum Woolly fringe-moss Sphagnum girgensohnii Girgensohn's bog-moss Racomitrium microcarpon Rigid bog-moss Sphagnum teres Racomitrium sudeticum Slender fringe-moss Sphagnum warnstorfii Warnstorf's bog-moss

Appendix 2.4: Lichens

Macro lichens (fruticose and foliose)

Alectoria ochroleuca	Vallana ana an anitable bain	Non-house a some alli desse	Almin a laidh an li ah an
	Yellow-green witch's hair	Nephroma expallidum	Alpine kidney lichen Mustard kidney lichen
Allectoria sarmentosa	Witch's hair	Nephroma laevigatum	Powdery kidney lichen
Allantoparmelia alpicola	Rock grubs Horsehair lichen	Nephroma parile Nephroma resupinatum VU	
Bryoria chalybeiformis	Earthscale lichen	Nephroma resupinatum VU Neuropogon sphacelatus	Pimpled kidney lichen Beard lichen
Catapyrenium cinereum Cetraria aculeata		Parmelia saxatilis	
	Spiny heath lichen Iceland moss	Parmelia saxallis Parmelia sulcata	Grey crottle Powdered crottle
Cetraria islandica Cetraria muricata			
	Spiny heath lichen	Peltigera aphthosa	Common freckle pelt
Cetraria sepincola Cetrariella delisei	Chestnut wrinkle-lichen Snow-bed Iceland lichen	Peltigera britannica	Flaky freckle pelt
Cladonia arbuscula	Reindeer lichen	Peltigera canina	Dog lichen
Cladonia arbuscula Cladonia borealis		Peltigera collina	Floury dog lichen
	Boreal pixie-cup	Peltigera didactyla	Imperfectly-veined lichen
Cladonia cariosa	Split-peg lichen	Peltigera extenuata	Dwarf dog lichen
Cladonia cervicornis	Buck's-horn cup lichen	Peltigera hymenina	Dealers in Augh
Cladonia cervicornis	Ladder lichen	Peltigera kristinssonii	Dark-veined pelt
Cladonia chlorophaea	Mealy pixie-cup	Peltigera lepidophora	Scaly pelt
Cladonia coccifera	Scarlet cup lichen	Peltigera leucophlebia	Ruffled freckle pelt
Cladonia furcata	Many-forked cladonia Smooth cladonia	Peltigera malacea	Veinless pelt
Cladonia gracilis	Smooth ciadonia	Peltigera membranacea	Membranous dog lichen
Cladonia islandica		Peltigera neckeri	Black saddle lichen
Cladonia luteoalba		Peltigera polydactylon	Many-fruited pelt
Cladonia macroceras	Laura laurad aladamia	Peltigera ponojensis	Pale-bellied dog lichen
Cladonia macrophyllodes	Large-leaved cladonia	Peltigera praetextata	Scaly dog lichen
Cladonia mitis	Green reindeer lichen	Peltigera rufescens	Field dog lichen Fan lichen
Cladonia pocillum	Rosette pixie-cup	Peltigera venosa	Wreath lichen
Cladonia pyxidata Cladonia stricta	Pebbled pixie-cup	Phaeophyscia endococcina	
Cladonia stricta Cladonia subcervicornis		Phaeophyscia sciastra DD	Dark shadow lichen
	And one donored only one	Physcia caesia	Blue-gray rosette lichen
Cladonia subulata	Antlered powderhorn	Physcia dubia	Powder-tipped rosette lichen Ground frost lichen
Cladonia symphycarpa	Cup lichen	Physconia muscigena Placidium lachneum	
Cladonia trassii	Spotted black-foot		Stipplescale lichens
Cladonia turgida Collema flaccidum	Crazy-scale lichen	Platismatia glauca VU	Varied rag lichen
•	Squamiform jelly lichen	Polychidium muscicola	Moss-thorns lichen
Collema glebulentum	Jelly lichen	Pseudephebe minuscula	Coarse rockwool Fine rockwool
Dermatocarpon miniatum Enchylium tenax	Common stippleback	Pseudephebe pubescens	FINE TOCKWOOI
Flavocetraria nivalis	Crinkled snow lichen	Rusavsia elegans Scytinium gelatinosum	
Gowardia nigricans	Griffiched show lichen		
Hypogymnia physodes LC	Monk's-hood lichen	Scytinium lichenoides Solorina bispora	Chocolate chip lichen
Hypogymnia tubulosa LC	Powder-headed tube lichen	Solorina crocea	Orange chocolate chip lichen
Lathagrium undulatum	rowder-neaded tube lichen	Solorina saccata	Common chocolate chip lichen
	Bearded jelly skin		
Leptogium saturninum Massalongia carnosa	Rockmoss rosette lichen	Solorina spongiosa Stereocaulon alpinum	Fringed chocolate chip lichen Alpine soil foam
Melanelia agnata	MOCKINOSS TOSCHE HUHEH	Stereocaulon arcticum	Arctic snow lichen
Melanelia hepatizon	Rimmed camouflage lichen	Stereocaulon botryosum	Snow lichen
Melanohalea exasperata	Warty brown-shield	Stereocaulon capitellatum	SHOW HUICH
Melanohalea infumata	Salted brown-shield	Stereocaulon glareosum	Glare snow lichen
тысыноншей туитши	Saited Diowii-Silleid	Stereocauton glareosum	Giate Show Hellell

Stereocaulon rivulorum	Snow foam lichen	Candelariella vitellina	Eggrall: lighan
Stereocaulon rivulorum Stereocaulon spathuliferum	Show loant lichen	Carbonea supersparsa VU	Eggyolk lichen Carbonea lichens
Stereocaulon tomentosum	Wooly foam lichen	Carbonea vitellinaria	Carbonea nenens
Stereocaulon vesuvianum	Vesuvius snow lichen	Carbonea vorticosa	
Stereocaulon! uliginosum VU	Snow lichen	Catillaria contristans	Catillaria lichens
Thamnolia vermicularis	Whiteworm lichen	Cercidospora epipolytropa	Cercidospora lichen
Tuckermannopsis chlorophylla	Powdered wrinkle lichen	Cercidospora thamnoliicola	Cercidospora lichens
LR	Ashen rock tripe lichen	Chaenotheca cinerea EN	Old man's whiskers
Umbilicaria aprina	Arctic navel lichen	Cliostomum corrugatum VU	Cliostomum lichens
Umbilicaria arctica	Fringed rock tripe lichen	Corticifraga peltigerae	Corticifraga lichens
Umbilicaria cylindrica	Netted rock tripe	Cystocoleus ebeneus	Gortienraga nenens
Umbilicaria decussata	Blistered rock tripe lichen	Dibaeis baeomyces	Pink earth lichen
Umbilicaria hyperborea	Fringed button lichen	Diploschistes gypsaceus	Cowpie lichen
Umbilicaria proboscidea	Punctured rock tripe lichen	Endococcus perpusillus VU	Endococcus lichen
Umbilicaria torrefacta	Blushing rock tripe lichen	Endococcus propinquus	Endococcus lichen
Umbilicaria virginis EN	Beard lichen	Epilichen scabrosus	Rugged-shielded sulphur lichen
Usnea subfloridana VU	Shrubby starburst lichen	Euopsis pulvinata	Pulvinate euopsis lichen
Xanthoria candelaria	om abby starbardt nenen	Fuscopannaria praetermissa	Moss shingle lichen
Tartertor ta bartablar ta		Gyalecta foveolaris	Dimple lichen
Micro lichens(crustose)		Gyalolechia flavorubescens	5 mpre nenen
Acarospora badiofusca EN	Cracked lichen	Henrica theleodes VU	
Acarospora hospitans		Hymenelia arctica	Hymenelia lichens
Amandinea punctata	Tiny button lichen	Illosporium carneum	
Amygdalaria consentiens	Amygdalaria lichen	Ionaspis odora	Ionaspis lichen
Amygdalaria panaeola	Powdery almond lichen	Ionaspis ventosa	1
Amygdalaria pelobotryon	Norman amygdalaria lichen	Lasiosphaeriopsis stereocaulicola	
Arthonia fuscopurpurea VU	Dot lichens	Lecanora epibryon	Rim lichen
Arthonia peltigerina		Lecanora frustulosa	
Arthonia pelveti		Lecanora hagenii	Hagen's rim lichen
Arthonia punctiformis		Lecanora intricata	Intricate rim lichen
Arthonia stereocaulina		Lecanora polytropa	Granite-speck rim lichen
Arthrorhaphis alpina	Alpine arthrorhaphis lichen	Lecidea atrobrunnea	Brown tile lichen
Aspicilia cinerea	Cinder lichen	Lecidea auriculata	Lecidea lichen
Athallia holocarpa		Lecidea confluens	Confluent shielded lichen
Bacidia bagliettoana	Baglietto's dotted lichen	Lecidea lapicida	Lecidea lichen
Baeomyces rufus	Brown beret lichen	Lecidea lapicida	Gray-orange disc lichen
Bellemerea alpina	Alpine bellemerea lichen	Lecidea lapicida	
Bellemerea subsorediza	Bellemerea lichen	Lecidea olivascens	Lecidea lichen
Biatora subduplex	Biatora lichens	Lecidea praenubila	
Bilimbia lobulata		Lecidea tesselata	Tile lichen
Blastenia ammiospila		Lecidella carpathica	Lecidella lichen
Brigantiaea fuscolutea	Brigantiaea lichen	Lecidella elaeochroma	
Bryonora castanea	Bryonora lichen	Lecidella euphorea	
Bryoplaca tetraspora		Lecidella stigmatea	Disk lichen
Buellia insignis	Button lichens	Lecidella wulfenii	Wulfen's lecidella lichen
Caloplaca alboatrum	Firedot lichens	Leciophysma finmarkicum LC	
Caloplaca cf. festivella VU		Lempholemma isidioides DD	Lempholemma lichen
Caloplaca approximata	Approximate orange lichen	Lempholemma polyanthes	Thousand-fruited jelly lichen
Caloplaca caesiorufella	Orange lichen	Lepraria incanarino	Dust lichens
Caloplaca cerina	Firedot lichens	Leptosphaerulina peltigerae	
Calvitimela armeniaca		Megaspora verrucosa	False sunken-disc lichen
Calvitimela melaleuca		Micarea assimilata	Dot lichen
Candelariella borealis	Goldspeck lichens	Micarea incrassata	
Candelariella kuusamoënsis	Goldspeck lichens	Micarea leprosula	

Vatnajökull National Park

Micarea lignaria Rhizocarpon expallescens Map lichens Miriquidica garovaglioi Miriquidica lichens Yellow map lichen Rhizocarpon geographicum Miriquidica nigroleprosa Rhizocarpon intermediellum Map lichens Dwarf muellerella lichen Muellerella pygmaea Rhizocarpon lavatum Muellerella ventosicola VU Muellerella lichens Rhizocarpon norvegicum Norwegian map lichen Mycobilimbia berengeriana Berenger's mycobilimbia lichen Rhizocarpon parvum Mycobilimbia tetramera Dot lichens Rhizocarpon reductum Ochrolechia frigida Cold crab's-eye lichen Rhizocarpon sublavatum Ochrolechia grimmiae Grimmia crab's-eye lichen Rhizocarpon superficiale Superficial map lichen Ochrolechia xanthostoma Rimularia fuscosora Rimularia lichens Odontotrema santessonii Rinodina archaea Pepper-spore lichens Opegrapha stereocaulicola Scribble lichens Rinodina gennarii Gennar's rinodina lichen Hookerian lichen Pannaria hookeri Rinodina mniaraea Pepper-spore lichens Parvoplaca tiroliensis Rinodina olivaceobrunnea Pertusaria corallina White coral-crusted lichen Rinodina turfacea Tundra pepper-spore lichen Pertusaria coriacea Leathery pore lichen Rostania ceranisca Pertusaria oculata Pore lichen Scoliciosporum umbrinum Scoliosporum lichen Phaeorrhiza nimbosa EN Brown fuzz lichen Sporastatia polyspora Sporastatia lichen Pilophorus dovrensis Matchstick lichens Sporastatia testudinea Copper patch lichen Placopsis gelida Bull's-eye lichen Sporodictyon schaererianum Placopsis lambii Pink bull's-eye lichen Sporodictyon terrestris Placynthium asperellum Lilliput ink lichen Staurothele arctica Arctic wart lichen Placynthium rosulans Ink lichens Staurothele areolata Wart lichens Polyblastia borealis Polyblastia lichens Staurothele fissa Lakezone lichen Polyblastia schisticola Stereocaulon tornense Polycoccum islandicum Polycoccum lichens Stigmidium lichens Stigmidium conspurcans Polycoccum vermicularium Stigmidium gyrophorarum Stigmidium lichens Polysporina lapponica Lapland polysporina lichen Toninia sedifolia Earth wrinkles Porpidia cf. soredizodes Porpidia lichens Toninia squalida Squalid bruised lichen Porpidia cinereoatra Tremolecia atrata Rusty-rock lichen Porpidia crustulata Concentric boulder lichen Verrucaria aethiobola Wart lichen Wart lichen Porpidia flavicunda Orange boulder lichen Verrucaria nigrescens Porpidia macrocarpa Porpidia lichens Porpidia melinodes Superb porpidia lichen Porpidia superba Porpidia tuberculosa Porpidia lichens Pronectria robergei Pronectria solorinae Protoblastenia siebenhaariana Orange dot lichens Protomicarea limosa Protopannaria pezizoides Brown-gray moss shingle Protoparmelia badia Chocolate rim lichens Protothelenella santessonii Protothelenella lichens Psilolechia leprosa Psora decipiens Blushing scale lichen Psora rubiformis Rusty alpine psora Psoroma hypnorum var. Green moss shingle lichen hypnorum Psoroma tenue var. boreale Bowl lichen Pyrenocollema lichens Pyrenocollema bryospilum Raciborskiomyces peltigericola Rhagadostoma lichenicola Rhizocarpon chioneum Snowy map lichen Rhizocarpon copelandii Copeland's map lichen

Appendix 2.5: Photographs and audiovisual image inventory and authorization form

Name (region)	Date (d.mo.yr)	Photographer and copyright holder	Contact detail*	Session of rights
A. Inventory of photogr	aphs – all provided in o	electronic (jpg) format.		
1. Ásbyrgi (N)	29.06.16	Snorri Baldursson	VNP	Yes
2. Hljóðaklettar (N)	29.06.16	Snorri Baldursson	VNP	Yes
3. Dettifoss (N)	13.08.17	Snorri Baldursson	VNP	Yes
4. Mt. Herðubreið (N)	13.08.17	Snorri Baldursson	VNP	Yes
5. Askja caldera lake	13.08.17	Snorri Baldursson	VNP	Yes
6. Trölladyngja lava shield (N)	19.09.14	Snorri Baldursson	VNP	Yes
7. Mt. Snæfell (E)	25.10.03	Skarphéðinn Þórisson	EINRC	Yes
8. Vesturöræfi (E)	10.08.15	Skarphéðinn Þórisson	EINRC	Yes
9. Kverkfjallarani (E)	13.08.17	Snorri Baldursson	VNP	Yes
10. Kverkfjöll (E)	13.08.17	Snorri Baldursson	VNP	Yes
11.Krepputunga (E)	17.0816	Snorri Baldursson	VNP	Yes
12. Skaftafell (S)	30.07.16	Snorri Baldursson	VNP	Yes
13. Fjallsárlón (S)	31.07.16	Snorri Baldursson	VNP	Yes
14. Falljökull (S)	06.10.12	Þorvarður Árnason	UIRCH	Yes
15. Öræfajökull (S)	21.02.15	Þorvarður Árnason	UIRCH	Yes
16. Hoffelsjökull	13.07.16	Þorvarður Árnason	UIRCH	Yes
17. Fláajökull	05.05.16	Þorvarður Árnason	UIRCH	Yes
18. Lakagígar (W)	14.09.15	Snorri Baldursson	VNP	Yes
19. Eldgjá (W)	22.09.10	Snorri Baldursson	VNP	Yes
20. Langisjór	01.07.11	Snorri Baldursson	VNP	Yes
21. Tungnaáröræfi	25.07.11	Snorri Baldursson	VNP	Yes
22. Kambar (W)	22.09.10	Snorri Baldursson	VNP	Yes
23. Laki lava flow & Mt. Uxatindar (W)	17.07.12	Snorri Baldursson	VNP	Yes
24. Vonarskarð (W)	20.07.10	Snorri Baldursson	VNP	Yes
B. Video				
1.Vatnajökull National Park – running time 50 min.	2013	Valdimar Leifsson	Lífsmynd	Partly**

^{*}VNP= Vantanjökull National Park, Klapparstíg 25-27, 100, snorri@vjp.is; EINRC = East Iceland Nature Research Centre, Mýrargötu 10, 740 Neskaupstaður, skarphedinn@na.is; UIRCH = University of Iceland's Research Centre in Hornafjörður, Litlubrú 2, 880 Höfn, thorrvarn@h.is: Lífsmynd c/o Valdimar Leifsson, Tryggvagötu 10, 101 Reykjavík, lifsmynd@lifsmynd.is.

^{**}Not to be edited or distributed to third parties without consent by the copyright holder.

Appendix 3: Legislation

Act on Vatnajökull National Park

No 60/2007 of 28 March

Parliamentary procedure. Bill.

Entered into force on 1 May 2007 *Amended by* <u>Act No 126/2011</u> (entered into force on 30 Sept. 2011) and <u>Act No 101/2016</u> (entered into force on 24 Sept. 2016).

If mention is made in this Act of a minister or ministry without specific mention or reference to an area of responsibility, this shall be understood to mean the **Minister for the Environment and Natural Resources** or the **Ministry for the Environment and Natural Resources**, under whose auspices this Act is administered. Information on the division of responsibilities between Ministries pursuant to a presidential decree is included here.

Chapter I. The Establishment of Vatnajökull National Park and its Objectives

- Article 1. The Establishment of Vatnajökull National Park and the scope of application

 [The Minister] 1) declares, by a regulation, the protected status of Vatnajökull glacier and the glacier's sphere of influence. The protected status of Vatnajökull National Park enters into force through the establishment of a Regulation on Vatnajökull National Park.
- □A particular area of land within Vatnajökull National Park can be owned either by the Icelandic State or by other parties, provided that the owner of the area in question has agreed that it will become part of Vatnajökull National Park. The approval of the local authorities concerned shall be sought before giving protected status to an area of land within a particular community.
- □This Act applies to the protected status, the board of directors, [field of competence]²⁾ and operation of Vatnajökull National Park and the conservation of nature within the National Park.

¹⁾Act No 126/2011, Article 457 ²⁾Act No 101/2016, Article 1

- **Article 2.** *Objective of the protected status*
- ☐ [The objective of establishing Vatnajökull National Park is to:
- 1. Conserve nature within the area, such as topographies, biota, geological formations and cultural property.
 - 2. Give the public an opportunity to get to know and enjoy the nature and history of the area.
- 3. Advance research of the area, promote education about it and boost increased public understanding of the area's natural resources and its uniqueness.
- 4. Seek to support inhabited areas and economic activities in the area around the National Park, inter alia by encouraging sustainable use of the area's resources. 1)
 - ¹⁾Act No 101/2016, Article 2
- **Article 3.** *Privately owned land within the National Park*
- □An area of land may be given protected status as part of Vatnajökull National Park, subject to an agreement with the landowner. An agreement concerning such protection shall be made between [the Minister] ¹⁾ and the landowner, stipulating, inter alia, what kind of land use is allowed in the area. The board of directors of the National Park monitors whether agreements with the owners of land within

the National Park are kept.

Pursuant to Article 7, the regional committees shall, at least once a year, meet with the owners of land areas within the administrative region in question, and a yearly joint meeting between landowners, regional committees and the board of directors shall be held to discuss matters relating to the National Park.

Jact No 126/2011, Article 457

Chapter II. The Board of Directors of Vatnajökull National Park

■ **Article 4.** *The board of directors of Vatnajökull National Park*

□ Vatnajökull National Park is a governmental institution and [the Minister] ¹⁾ supervises all matters relating to the Park. The institution shall be governed and the National Park managed by a special board of directors nominated by [the Minister.] ¹⁾ The board of directors shall consist of seven members: the chairpersons of all the National Park's regional committees, one member nominated by environmental protection organisations and two members appointed by the Minister without prior nomination, i.e. the chairperson and deputy-chairperson [one of whom shall have specialist knowledge concerning National Parks.] ²⁾ Substitute members shall be appointed in the same manner. [One member nominated by outdoor activities organisations and one member jointly nominated by tourism organisations shall have observer status during meetings of the board of directors.] ²⁾ The board of directors of Vatnajökull National Park shall be appointed for a period of four years at a time.

¹⁾Act No 126/2011, Article 457 ²⁾Act No 101/2016, Article 3

■ Article 5. Decision-Making of the board of directors and its day-to-day management

The board of directors of Vatnajökull National Park shall convene whenever it is deemed necessary, and at least every three months, and its decisions on the basis of this legal Act shall be made during those meetings. A regional committee can, if it considers it necessary to seek the opinion or decision of the board of directors regarding a particular issue, request that a meeting of the Park's board of directors be convened. The outcome of issues discussed during the board of directors meetings shall be resolved by a majority vote. All decisions by the board of directors shall be in compliance with the Administrative Procedures Act. [The board of directors of Vatnajökull National Park shall establish its own procedural rules, in which the implementation of the board of directors' functions shall be detailed.] ¹⁾

¹⁾Act No 101/2016, Article 4

Article 6. *The Role of the board of directors*

☐ The board of directors of Vatnajökull National Park oversees the conservation of nature within the National Park. The main tasks of the board of directors are:

- 1. The formulation of policies relating to the National Park, in accordance with the objectives of this Act.
- 2. Overall management of the preparation of a proposal for [a control and management plan]¹⁾ and a regulation for the National Park.
- 3. [Approving a budget for the National Park, allocating funds to the administrative regions and approving the operational schedule for each region.] 1)
 - 4. Harmonisation of operations within the National Park's administrative regions.
- 5. Monitoring the implementation of the National Park's rules and [the stewardship and conservation plan.] $^{1)}$
 - 6. Cooperation with public bodies, communities and stakeholders in the affairs of the National Park.
- [7. Drawing up and submitting a recommendation to the Minister for the appointment of the managing director.
- 8. Overseeing the formation of an employment policy, including by setting conditions for allowing the operation of economic activities within the National Park, and agreements thereon.
 - 9. Drawing up job descriptions for the general manager and the Park wardens.] 1)
- ☐ The Minister can lay down, in a regulation, further provisions regarding the tasks and activities of the board of directors of Vatnajökull National Park.

¹⁾Act No 101/2016, Article 5

Article 7. Regional committees

□Vatnajökull National Park is divided into four administrative regions which shall be operated as independent administrative units under the responsibility of Park wardens. Each administrative region shall have a regional committee appointed by [the Minister] ¹¹) for four years at a time. The boundaries of each administrative area shall be laid down in the Regulation ²¹ on Vatnajökull National Park. □Each regional committee shall consist of six members: three members nominated by the local authorities of the communities within the respective administrative region, one member jointly nominated by tourism organisations operating within the respective administrative region, one member nominated by outdoor activity organisations and one member nominated by environmental protection organisations. [The same entities shall nominate the same number of substitute members in the same manner.] ³¹) Each regional committee elects its chairperson from among the local council members, and also elects a deputy chairperson.

A Park warden attends the regional committee meetings.

¹⁾Act No 126/2011, Article 457 ²⁾Regulation No 608/2008,

cf. 755/2009, 764/2011, 463/2013, 724/2013, 749/2013, 457/2014 and 730/2017. 3)Act No 101/2016, Article 6

Article 8. *The role of the regional committees*

- ☐ The role of the Vatnajökull National Park regional committees is:
- 1. To serve in an advisory capacity to the Park warden and the board of directors of Vatnajökull National Park on issues pertaining to their respective administrative regions of the Park.
- 2. To [oversee the preparation of] ¹⁾ proposals for [stewardship and conservation plans] ²⁾ for their respective regions.
- 3. To [approve] ¹⁾ the proposal for the operational schedule for their respective administrative regions within the budgetary framework they are set by the board of directors.
- 4. To make recommendation for the recruitment of Park wardens for their respective administrative regions.

☐The Minister can lay down, in a regulation, further provisions for the tasks and activities of the regional committees of Vatnajökull National Park.

¹⁾Act No 101/2016, Article 7 ²⁾Act No 101/2016, Article 5

- **■** [Article 8a. Cooperation between the board of directors and the regional committees
- ☐ The board of directors of Vatnajökull National Park and the regional committees for each individual administrative region shall cooperate on issues pertaining to the Park and its objectives under Article 21 1)

¹⁾Act No 101/2016, Article 8

Article 8b. *The managing director*

The Minister appoints a managing director for a period of five years at a time, following a recommendation by the board of directors of Vatnajökull National Park.] 1)

¹⁾Act No 101/2016, Article 8

Article 8c. *Role of the managing director*

The managing director is in charge of the daily management of Vatnajökull National Park under the auspices of the Park's board of directors and in keeping with a job description drawn up by the board. The managing director enforces the decisions of the board of directors of Vatnajökull National Park, oversees the daily management of the Park, its finances and financial accounts and is responsible for running the National Park in accordance with the applicable laws and regulatory acts. The managing director oversees all personnel matters. ¹⁾

¹⁾Act No 101/2016, Article 8

Article 9. Park wardens

□[Each administrative region shall have a Park warden who is hired at the recommendation of the respective regional committee.] ¹⁾ The hiring of two Park wardens is allowed for those administrative areas where the two main visitor centres are situated. The board of directors determines the division of

labour between the Park wardens within the same administrative regions in consultation with the regional committee, including the way in which their responsibilities pursuant to Article 10(1–3) are divided; the division of labour shall be described in the Park wardens' official duty regulation.

¹⁾Act No 101/2016, Article 9

Article 10. *The role of Park wardens*

□[A Park warden is in charge of the daily management, personnel matters and management of each administrative region, in consultation with the managing director and in keeping with a job description drawn up by the National Park's board of directors. The Park warden is accountable to the managing director for the finances and financial accounting.] 1)

¹⁾Act No 101/2016, Article 10

Article 11. The role of the Environment Agency of Iceland

The Environment Agency of Iceland provides assistance and professional counselling to the board of directors and regional committees in carrying out their functions, under a special cooperation agreement.

Chapter III. [The Stewardship and Conservation Plan]¹⁾ for Vatnajökull National Park 1)Act No 101/2016 Article 5

<u> </u>
Article 12 . [Stewardship and conservation plan] 1
☐ A [stewardship and conservation plan] 1) shall be prepared for Vatnajökull National Park, as
detailed in this appropriate. The feterrandelin and appropriate plan is the National Deale's unique

detailed in this provision. The [stewardship and conservation plan is the National Park's principal instrument of control. The plan details the conservation objectives, the policy of the board of directors and the manner in which control and conservation are to be implemented in accordance with this

Act.] 2)

[This stewardship and conservation plan shall contain details of the conservation objectives for individual areas within Vatnajökull National Park, specific conservation efforts, land use, construction projects, transportation activities and other infrastructure in the area. It shall address the public right of access, accessibility to the area, and its uses.

Conditions may be set in the stewardship and conservation plan for the manner in which any construction projects shall be carried out and on the monitoring of such projects in order to ensure that they do not unnecessarily disturb the biota, geological formations, hydrography, topographies or cultural property within Vatnajökull National Park.] ²⁾

☐ The regional committees shall, each for its respective region, prepare a proposal for a [stewardship and conservation plan] 1) in collaboration with the Environment Agency of Iceland and the Icelandic Institute of Natural History [and, as the case may be, other appropriate specialist governmental institutions.] 2) While drawing up the [stewardship and conservation plan] 1) each regional committee shall consult with the owners of land within their respective regions of the National Park, with local councils and other stakeholders in the area.

The board of directors of Vatnajökull National Park reviews the proposals of the regional committees and uses them as the basis of [a stewardship and conservation plan]¹⁾ for Vatnajökull National Park. The board shall take care that [the stewardship and conservation plan]¹⁾ complies with this Act and with the Regulation on Vatnajökull National Park. The board may amend the regional committees' proposals. The board's proposal for [the stewardship and conservation plan]¹⁾ for Vatnajökull National Park shall be prepared up in collaboration with the Environment Agency of Iceland and the Institute of Natural History [and, as the case may be, other appropriate governmental institutions.] ²⁾ The proposal shall be publicly notified and the public and stakeholders shall be given the opportunity to submit their comments before the final proposal is submitted to the Minister. The deadline to submit comments on [the stewardship and conservation plan]¹⁾ shall be at least six weeks from the date of the notification.

The board's proposal for [the stewardship and conservation plan]¹⁾ for Vatnajökull National Park shall be submitted to [the Minister]³⁾ for approval. [The Minister] ³⁾ can make amendments to [the stewardship and conservation plan 1 if he considers that it or parts of it contravene the provisions of

this Act [or] ²⁾ of the Regulation on Vatnajökull National Park ²⁾ When [the Minister] ³⁾ has confirmed [the stewardship and conservation plan] ¹⁾ for Vatnajökull National Park it shall be notified in ⁴⁾ Section B of the Government Gazette and shall enter into force upon its publication. [The stewardship and conservation plan] ¹⁾ may be amended, following the procedure set out in the provisions of [paragraphs 4–6]. ²⁾ The Park's board can propose amendments to [the stewardship and conservation plan] ¹⁾ without having received a proposal from the regional committee in question. In such cases, the opinion of the regional committee [in question] ²⁾ shall always be sought before the proposal is submitted to [the Minister.] ³⁾ [The stewardship and conservation plan] ¹⁾ for Vatnajökull National Park shall be revised at least every 10 years. [Upon expansion of the National Park, an Annex containing a description of the boundaries and natural features of the area and provisions on the stewardship and conservation of the new area, may appended to the stewardship and conservation plan without revising the whole plan. The procedure is laid out in paragraphs 4–6. The Annex shall be integrated into the stewardship and conservation plan the next time it is revised. ²⁾ The Minister shall lay down, in a regulation, more detailed provisions on the contents of [the stewardship and conservation plan] ¹⁾ and on the procedure for preparing and ratifying it. ¹⁾ Act No 101/2016, Article 5 ²⁾ Act No 101/2016, Article 11 ³⁾ Act No 126/2011, Article 457 ⁴⁾ Notice
No 725/2013. ■ A 1: 1: 1: 1: 1: 1: 1: 1: 1: 1: 1: 1: 1:
Article 13. Legal implications of [the stewardship and conservation plan] $^{1)}\Box$ The local councils are bound by the contents of [the stewardship and conservation plan] $^{1)}$ when they prepare their
organisational plans for areas within Vatnajökull National Park.
□[No special authorisation is required, ipso jure, from Vatnajökull National Park for any construction
projects foreseen by the stewardship and conservation plan. However, such construction projects may be subject to an implementation permit or a construction licence from the community in question. The Park warden concerned must always be consulted before any construction work begins.
☐ The Park warden concerned monitors any construction projects and their compliance with the
provisions of this Act, those of the Regulation on Vatnajökull National Park and the stewardship and
conservation plan, and with the conditions set out for the construction projects therein.
□All those who travel within the National Park and those who stay there, such as for travel or work,
are bound by the plan, as applicable. In other respects, the provisions of the Nature Conservation Act
apply to any construction projects within Vatnajökull National Park.
The Minister is authorised to lay down, in a regulation, more detailed provisions on the legal
implications of the stewardship and conservation plan. ²⁾ 1) Act No 101/2016, Article 5 ²⁾ Act No 101/2016, Article 12

Chapter IV. General Principles

Article 14. *Prohibition of damage and disturbance*

□Any damage to, or disturbance of, biota, geological formations, [topographies and cultural property]¹¹) within Vatnajökull National Park is prohibited. All construction projects within the National Park shall comply with the Park's conservation objectives set out in the provisions of this Act, in regulations derived from them and in the Park's [stewardship and conservation plan]¹¹¹. Work done with the aim of reclaiming land resources, protecting biota, geological formations and areas of land, e.g. due to encroachment by humans, animals or plants or due to natural disasters, water erosion and coastal erosion, soil erosion or other disturbances by humans or natural forces, is allowed.

¹⁾<u>Act No 101/2016, Article 13</u> ²⁾<u>Act No 101/2016, Article 5</u>

Article 15. [Visits, conduct and traffic within the Park] $^{(1)}$

☐ [The public is allowed to travel within Vatnajökull National Park and stay there for legitimate purposes.

DEvery individual is obliged to respect nature and cultural properties within the National Park and to show extreme care and consideration so that nature, cultural properties and structures within the Park do not suffer any damage. Visitors of the National Park are obliged to follow the instructions of the Park's staff as regards their treatment of the environment and their conduct within the Park.

□Provisions shall be laid down, in a regulation, ²⁾ on the pitching of tents and traffic on foot, on horseback and on bicycles, as well as on motorised traffic within Vatnajökull National Park.] ¹⁾ □ Off-road traffic by motorised vehicles is prohibited within Vatnajökull National Park. However, the driving of such vehicles is allowed on the surface of glaciers and in areas where winter driving is authorised, pursuant to [paragraph 6], ¹⁾ as long as the ground is frozen and covered in snow. The prohibition of the driving of motorised vehicles within specific areas of Vatnajökull glacier, all the year round or during specific times of the year, may be made through a regulation. ■[The landing of aircraft within Vatnajökull National Park is subject to authorisation from a Park warden. Further procedures and provisions on authorisations shall be laid down in a regulation.] ¹⁾ □ The [stewardship and conservation plan] ¹⁾ for Vatnajökull National Park shall specifically lay out information about all roads within the Park that are open to traffic. Additionally, all areas where winter driving on snow or frozen ground is allowed shall be defined, along with the conditions for such driving. Traffic on particular roads and tracks or within certain areas may be limited to specific times of the year or to specific uses, such as hunting, rounding up livestock or for other agricultural activities or for research, if it is considered necessary for the conservation of the area in question. □[If an area or its biota is at risk for damage and immediate action is considered necessary, the Park warden responsible can decide to temporarily close down a specified area to all traffic.] ¹⁾ The decision by a Park warden to temporarily close down an area shall be published in Section B of the Government Gazette and by other prominent means in newspapers and on the National Park's website. □ The provisions of this Act regarding off-road driving within Vatnajökull National Park supersede
the provisions of the Nature Conservation Act on the same subject, and those of any regulations laid
down according to it.
¹⁾ Act No 101/2016, Article 14. ²⁾ Regulation No 608/2008,
cf. 755/2009, 764/2011, 724/2013, 749/2013, 457/2014 and 730/2017.
[Chapter IV A. Activities within Vatnajökull National Park]
¹⁾ <u>Act No 101/2016, Article 15</u>
■ [Article 15a. Agreements with service providers
□No economic activities may be operated within the National Park without prior agreement with
Vatnajökull National Park.
Such agreements shall set out the necessary conditions for these activities, including due to the
National Park's conservation objectives. Further provisions on such conditions, on procedure and the
drawing up of agreements shall be laid down in more detail in a regulation.] ¹⁾ Act No 101/2016, Article 15
[Article 15b. Authorisations
☐ Organised events and projects which require the use of facilities, manpower or equipment within
the National Park, such as filming, art events, assemblies and research, are subject to authorisation
from a Park warden. The Park warden may set any conditions necessary for granting authorisations.
The Park warden may temporarily close down individual areas of the National Park if it is necessary
due to events or projects for which an authorisation has been granted. Such decisions shall be made, as
far as possible, in consultation with representatives of tourism organisations that may have plans for
tours in the area. The decision by a Park warden to temporarily close down an area according to this
provision shall be published in Section B of the Government Gazette and by other official means in
newspapers and on the National Park's website.
The provisions on authorisations in this Act supersede the provisions of the Public Lands Act and
the Act on the Determination of Boundaries for Privately Owned Land, Publicly Owned Land and

The Minister may lay down more detailed provisions on authorisations in a regulation.

1) Act No 101/2016, Article 15

Highland Pastures.

Chapter V. Services within Vatnajökull National Park **16. gr.** [Visitor centres and service facilities] 1 Services and information are provided at the Vatnajökull National Park's visitor centres and service centres. The Park's visitor centres shall be situated in the following locations: Ásbyrgi, Mývatnssveit, Skriðuklaustur, Hornafjörður, Skaftafell and Kirkjubæjarklaustur. The Minister determines the details of the locations of the National Park's visitor centres, in a regulation. Ustnajökull National Park is furthermore authorised to operate information and service centres where the public is given information about nature conservation within the Park and provided with services as needed, and according to a more detailed decision by the Park's board.] 1) The visitor centres and service centres form the National Park's service network. [The Park's board determines the locations and operating arrangements of the service centres and the board's policy thereon shall be set out in the stewardship and conservation plan.] 1) ¹⁾Act No 101/2016, Article 16 **Article 17....**¹⁾ Chapter VI. Monitoring and Settlement of Disputes **Article 18.** *Monitoring* The Park wardens monitor, within their respective areas, compliance with the provisions of this Act, those of derived regulations and of the [stewardship and conservation plan] 1) for Vatnajökull National Park. The Park wardens are in charge of communications with the police and other supervisory bodies due to any violations of this Act and its derived regulations. A Park warden may close down the National Park or individual areas within the Park without prior notice if he believes that the presence of humans or any traffic through the area is likely to cause damage to biota, geological formations [topographies or cultural property]²⁾ or if a hazardous situation arises within the Park due to a natural hazard. □ A Park warden may, in cases of dire necessity, in consultation with other authorities as the case may be, undertake construction work that is not anticipated in the stewardship and conservation plan, such as having a new road or path laid, or take other measures that make it easier to get to or away from a particular area. Such construction work must be in response to a natural hazard or other unexpected circumstances and the work must be done in the interest of safety or to enable research that is necessary to ensure public safety. The stewardship and conservation plan shall include further definitions of the general conditions for, and the extent of, such work as might become necessary, such as on marking and parametrisation, the removal of roads and other work that must be implemented once the natural hazard or other unexpected circumstances are no longer present.] ²⁾ A Park warden or other Park staff may expel from the National Park any person who transgresses against the provisions of this Act and those of the Regulation on Vatnajökull National Park.

¹⁾Act No 101/2016, Article 5 ²⁾Act No 101/2016, Article 18

■ **Article 19.** *Dispute over the implementation of the Act*

Decisions taken on the basis of this Act may be appealed to [the Minister]. 1) A ministerial ruling is the final ruling at the administrative level.

All those who have legally protected interests connected to the appealed decision, as well as environmental protection organisations and outdoor activity organisations with legal jurisdiction in Iceland, provided they have more than 30 members and the purpose of the organisation is to protect the interests the appeal pertains to, have the right of appeal under this Article. Environmental protection organisations are defined as organisations whose main purpose is to protect the environment. Outdoor activity organisations are defined as organisations whose main purpose is to promote outdoor activities and protect the environment. Organisations under paragraphs 2 and 3 shall be open to the public, issue annual reports on their activities and their accountancy data shall be audited.

¹⁾Act No 126/2011, Article 457

Chapter VII. Miscellaneous Provisions
Article 20. Regulation on Vatnajökull National Park
☐ The board of directors of Vatnajökull National Park shall, in consultation with the regional
committees and the Environment Agency of Iceland, draft a regulation ¹⁾ on the National Park and
submit it to the Minister. [The regulation shall provide for the establishment of the National Park, its
boundaries and the administrative regions within it, conservation and levels of conservation and the
locations of the visitor centres.] ²⁾
☐ The contents of the draft Regulation on Vatnajökull National Park shall be made known to the local
authorities in the area, to landowners and to other stakeholders and they shall be given the opportunity
to submit their comments on it. The opinion of the Icelandic Institute of Natural History shall be
sought with regard to the ecological tolerance of those areas in which hunting and livestock grazing
will be allowed. In setting out the Regulation, the criterion for land use within the National Park shall
be for it to be sustainable in the opinion of the Icelandic Institute of Natural History.
¹⁾ Regulation 608/2008,
cf. 755/2009, 764/2011, 463/2013, 724/2013, 749/2013, 457/2014 and 730/2017. ²⁾ Act No 101/2016,
Article 19
Article 21. Fees
☐ The decision to levy guest fees for services and entry to Vatnajökull National Park, in order to meet
expenses due to services to and monitoring of guests, may be laid down in a regulation. The amount of
the fee shall be published in a regulation and based on the operational schedule for the whole Park,
which the Vatnajökull National Park's board of directors submits to [the Minister] ¹⁾ for approval. The
fee may be determined as a fixed daily amount for staying in the National Park, providing access to
services offered by the Park in all of its administrative regions. A special fee may be collected for
access to camp sites within the National Park. A discount may be given if payment is made for longer
periods of time or if payment is made for many individuals at once. Visitor fees shall accrue to
Vatnajökull National Park regardless of the administrative area in which they are collected. The
Minister determines, by regulation ²⁾ , the procedure for fee collection within the National Park,
following a recommendation by the Park's board.
[The collection of fees for the issuing of authorisations and agreements is authorised under article
15(5), article 15a and article 15b. The fees shall cover the costs of issuing authorisations, oversight
and monitoring of the activities the authorisations are issued for. The Minister determines, by
regulation, the amount of the fees and the procedure for collecting them, following a recommendation
by the Park's board.] 3)
¹⁾ Act No 126/2011, Article 457 ²⁾ Regulation no 727/2017. ³⁾ Act No 101/2016, Article 20
Article 22. Liability and per diem fines
☐ Violations of this Act and its derived regulations are punishable with fines or imprisonment of up to
two years. All fines accrue to the State Treasury.
☐ Per diem fines of up to 500 thousand ISK, which accrue to the Treasury, may be levied in order to
compel the parties concerned to take action they are legally bound to take under this Act, or cease any
illegal activities.
Article 23
Article 24. Entry into force

☐ This Act shall enter into force on 1 May 2007. ☐ Transitional Provisions

- 1. The board of directors and the regional committees of Vatnajökull National Park shall be appointed before 1 June 2007.
- 2. The roads and areas where winter driving is allowed within Vatnajökull National Park shall me mapped out pursuant to article 15(3), alongside the preparation of the conservation plan for the Park.
- 3. The staff of Skaftafell National Park and Jökulsárgljúfur National Park shall take precedence in the allocation of job positions within Vatnajökull National Park during its first year of operation. The provisions of Article 7 of Act No 70/1996, on the Rights and Duties of Civil Servants, do not apply to

job positions that are filled according to this point.

- 4. The provisions of this Act on the administrative structure of Vatnajökull National Park shall be reviewed no later than 1 January 2013, in cooperation between the State and communities.
- 5. The conservation plan for Vatnajökull National Park shall be finalised no later than two years after the Park's establishment. The proposals of the regional committees pursuant to article 12(3) shall be sent to the Park's board no later than 18 months after the establishment of Vatnajökull National Park.
- 6. In derogation to the provisions of article 13(2), the board of Vatnajökull National Park may give authorisation for construction projects within the Park until the conservation plan enters into force. The opinion of the Environment Agency of Iceland shall be sought before such an authorisation is granted. Conditions may be laid out, in the conservation plan or when such an authorisation is granted, for the manner in which construction projects shall be carried out, and on the monitoring of such work in order to ensure that the work does not unnecessarily disturb the biota, geological formations or topographies within Vatnajökull National Park. The Park warden concerned monitors the compliance of such construction projects with the provisions of this Act and those of the Regulation on Vatnajökull National Park and checks that the conditions which were laid out when the authorisation was granted are being followed. Any authorisation granted by the board under this provision shall be notified on the National Park's website and elsewhere in a prominent manner.

REGULATION

on Vatnajökull National Park

CHAPTER I

Declaration of Protection for Vatnajökull National Park. General provisions

Article 1

Declaration of protection for Vatnajökull National Park

The area delimited in Article 3 and Annex I is hereby, in the framework of this Regulation, declared to be a protected area and a National Park, in accordance with Article 1 of the Act on Vatnajökull National Park. This protected status enters into force through the establishment of this Regulation. In addition to public lands, there are also areas of land within Vatnajökull National Park which the private land-owners and local gorvernments have agreed should be given protected status.

Vatnajökull National Park is a governmental institution and the Minister for the Environment and Natural supervises all matters relating to the Park. A special board of directors, appointed by the Minister for a period of four years at a time, manages the institution and oversees the operation of the National Park. The managing director of Vatnajökull National Park is empowered by the board, through an official duty regulation, to manage its daily operations and administration. Vatnajökull National Park is divided into four administrative regions, cf. Article 6, each of which is overseen by a regional committee; cf. the Act on Vatnajökull National Park, Articles 7 and 8.

Article 2

The objective of the declaration of protection

The objective of the declaration of protection for Vatnajökull National Park and its primary spheres of influence is to protect nature in the area, including topographies, biota and natural formations, and its cultural property, as well as to give the public an opportunity to get to know and enjoy the nature and history of the area. Information about nature and nature conservation, history, human life and cultural property of the area shall be offered within the National Park, as well as support for research to further knowledge of these factors.

This type of land use is designed to support communities and economic activities near the National Park and therefore the establishment of Vatnajökull National Park should be considered to be an important action to strengthen the communities in the area.

Article 3

Boundaries of the National Park and of specific areas within the Park

The boundaries of the National park are laid out in Points 1–3 below; see also the map in Annex I to this Regulation. All the coordinates are given in the Isnet93 system. Wherever the boundaries follow the edge of a glacier, the reference is the glacier edge as it was on 1 July 1998:

1. A line from the edge of Austurtungnajökull glacier where the river Lambatungnaá runs from under the glacier, along the glacier's edge to a point on the mountain Goðaborg with the coordinates E671864 m, N450243 m; from there a straight line to the top of the mountain Geitafellstindur and onward in a straight line to the glacier snout at the lowest point of Hoffellsjökull glacier, coordinates E673332 m, N440320 m, and from there along the edge of the glacier to the eastern boundary line of the farm Flatey á Mýrum where it touches the glacier's edge. From there along the farm's boundaries to a point 200 metres above the electrical power line that intersects the Flatey lands. From there along the electrical power line at a distance of 200 metres, to the boundary between Flatey farm and the farm Skálafell. From there to the top of the mountain Hánípa and onward along a line midway between Hánípa and the mountain Snjófell, to the edge of the glacier. Along the glacier edge to the river Kolgríma and along the western bank of Kolgríma to point M (coordinates E661187 m, N421142 m). However, the National Park's boundaries shall be drawn 100 metres north of a mine that is situated in Hjallanes down by Kolgríma, so that the mine will be situated outside the National Park. From point M up to the rock face above the escarpments that skirt the lowest line of cliffs to the Kistugil ravine (a line drawn between the following points: A660861 m, N421038 m; A660607 m, N420765 m; A660537 m, N420949 m). From there up along the east side of Kistugil to point N (coordinates E660542 m, N420933 m) and from there to a cairn at point O (coordinates E660508 m, N421238 m) to a cairn at point P (coordinates E660012 m, N421441 m) at the side of the mountain. From there in a straight line to the edge of the glacier through point R (coordinates E659813 m, N422084 m). From there along the edge of the glacier to a point in Fellsárjökull glacier (coordinates E639657, N410468) along the river Fellsá to the Fellsfoss waterfall and from there in a straight line to the sea across Hrollaugsaur (coordinates E643576, N402299). West along the coastline to a point (coordinates E631684, N390291) on the beach at Breiðamerkurfjara just east of the mouth of the river Breiðá (Breiðárós) and from there in a straight line east of the river Fjallsá to the glacier at Fjallsárlón glacier lake (coordinates E627105, N393970) to a point (coordinates E625006, N391770) in the southern part of Hrútáriökull glacier. From there along the edge of the glacier to the boundary between the farms of Svínafell and Skaftafell II at the edge of Svínafellsjökull glacier, and from there along an extension of that boundary line on Svínafellsjökull glacier to the intersection with a rhumb line from the marker at Gömlutún through the front edge of Hafrafell mountain, and along that line through the front edge of Hafrafell to the marker at Gömlutún, and from there to the boundary between the counties of Austur-Skaftafellssýsla and Vestur-Skaftafellssýsla in Skeiðarársandur at Highway 1. From there along a line northwards along the county boundaries, to the edge of Skeiðaraárjökull glacier, and from there to the intersection with a line drawn to point 1 (coordinates E547164 m, N407083 m) at the glacier edge, from there to point 2 (coordinates E546329 m, N405705 m) to the south of Fljótsoddi, from there in a line along points 3 to 20, south-east, south and to the west of Innri-Eyrar to point 20 (coordinates E540777 m, N396544 m) east of the mountain Blængur. From there to the highest point of the mountain Varmárfell, point 21 (coordinates E538705 m, N393125 m). From there to the highest point on the mountain Hnúta, point 22 (coordinates E528737 m, N387484 m), and from there to the hill Innra-Grjótárhöfuð, point 23 (coordinates E522619 m, N383196 m), south of the river Skaftá. From there to point 24 (coordinates E519347 m, N381663 m). From there to point 25 (coordinates E517764 m, N381660 m) by the Fjallabaksleið nyrðri road, approx. 1km south of the Eldgiá ravine. From there along a dotted line through points 26 to 37, 500 metres west of the Fjallabaksleið nyrðri road, to Landmannalaugar, From there to point 37 (coordinates E511443 m, N385844 m) at the junction on the trail to Faxasund, across the highest point of the mountain Breiðbakur, point 38 (coordinates E531513 m, N409494 m); from there to coordinates E540539 m, N420228 m at the edge of Tungnárjökull glacier to the boundary of the communities of Skaftárhreppur and Ásahreppur where the river Tungná runs from under the Tungnárjökull glacier. Along the river Tungná to point A (coordinates E537750 m, N423116 m) east of Jökulheimar. From there in a straight line to point B (coordinates E523446 m, N416683 m), which is located on an 815 metre high peak in the far south of the Ljósufjöll mountain range. From there in a straight line to point C (coordinates E519371 m, N415861 m) which is located on the community boundaries between Ásahreppur and Rangárþing ytra between the Svartikambur ridge and the hill Pveralda. From there in a straight line to Pveralda at Austurbotnar in Pórisvatn lake and from there in the same direction to point D (coordinates E511087 m, N424643 m). From there in a straight line to Hvannagil ravine (coordinates E518743 m, N431517 m). Along Hvannagil and then to the river Kaldakvísl to point E (coordinates E537575 m, N447537 m), south of the mountain Syðri Háganga. From there in a straight line to Hraunbúi (coordinates E541737 m, N443929 m) and then eastwards to point F (coordinates E545382 m, N448350 m) and from there in a straight line to Skerðingur (coordinates E546539 m, N455644 m), Krosshnjúkar (coordinates E544529 m, N461447 m) and Fjórðungakvísl (coordinates E541782 m, N474087 m). From there to point G (coordinates E543077 m, N476013 m) and along a line from point G between the following points: H (coordinates E544473 m, N476816 m), I (coordinates E544528 m, N476661 m), J (coordinates E545448 m, N475961 m) and K (coordinates E546621 m, N475790 m). From there along a track north of the Tungnafellsjökull glacier and east along the Dyngiufiallaleið road (see coordinates in Annex 4, Table 1) to point L (coordinates E582902 m, N504084 m) on the boundary between the communities of Þingeyjasveit and Skútustaðahreppur. From there in a straight line north along the community boundary line to the public lands boundary line (coordinates E583290 m, N533119 m), as per the decision by the Icelandic Wilderness Committee, 6 June 2008 in Case No 1/2007. From there in a north-easterly direction to a point south of Suðurárbotnar (coordinates E584084 m, N536263 m) and from there south-east to the source of the river Suðurá (coordinates E589424, m, N532285, m). Then to the east to a point (coordinates E599832 m, N532285 m), where the Bláfjallshalar hills can be seen towards true north. From that point straight north to the south end of Bláfjallshalar (coordinates E599832 m, N543511 m). From there in a straight line south-east to a benchmark at the elevation of 860 metres (coordinates E614242 m, N520630 m) south of the mountain hut Bræðrafell at the mountain Kollóttadyngja and then in a straight line north past the roots of the mountain Herðubreiðartögl (coordinates E623529 m, N519569 m). From there in a straight line to the centre of the river Jökulsá á Fjöllum north of the mountain Hlaupfell (coordinates E631409 m, N515719 m). From there in a northerly direction along the centre of the river, along the community boundary between Skútustaðahreppur and Fljótsdalshérað, to Árkross where the river Kreppa flows into the river Jökulsá á Fjöllum (E630946, N522956). From there southwards along the main fork of the river Kreppa, east of the mountain Lónshnúkur, to where Kreppa meets the river Kverká and then along Kverká to the glacier Brúarjökull (E637496, N478888). From there along the edge of the glacier to the eastern boundary of the nature reserve in Kringilsárrani where the river Jökulkvísl runs from under the glacier; cf. notice No 181/2003. From there along the eastern boundary of the nature reserve to point S (coordinates E650403 m, N477828 m) east of the Hálslón reservoir. From there in a line 1km away from, and following the eastern bank of, Hálslón (625 metre contour line) to the road to Kárahnjúkar (Kárahnjúkavegur), and then east along a line 200 metres south of, and following, the road, to the Hraunaveituvegur road to the west of the river Jökulsá in Fljótsdalur. From there along a line 200 metres to the west from the Hraunaveituvegur road and following that road and a track to the Eyjabakkavað ford. From there in a straight line to a point (coordinates E671027 m, N477861 m) 1km to the south of the Kelduárlón reservoir and from there in a straight line to the Háuklettar boulder field. From Háuklettar in a straight line to the hill Markalda through the innermost part of the mountain Geldingarfell, along the county boundaries between Múlasýsla and Austur-Skaftafellssýsla, to the beginning point at the edge of the glacier. The part of the mountain Ærfjall that rises above the edge of the glacier surrounding the mountain does not fall within the National Park boundaries.

- 2. From the south and east of the waterfall Dettifoss in a straight line to the highest peak of the mountain Eilífur. From Eilífur northwards to the Langahlíð hillside, which marks the boundary out towards the south- and westernmost point of the Langavatnshöfði hill. From there in a straight line to the Botnslækur stream at the southern end of Ásbyrgi and from there the boundary follows the southern boundary of the farm Meiðavellir in a westerly direction to the Sjónarhóll hill (E611939 m, N613360 m). North from Sjónarhóll to a point (E611805 m, N614813 m) to the southernmost part of the eastern edge of the Kiðagil ravine (E611822 m, N614908 m) and from there northwards to the south-west corner of the fence around a hayfield (E612128 m, N616075 m) and from there in a straight easterly line to the cliff edge of Ásbyrgi to a point (E612803 m, N615930 m). From there to point Y (coordinates E613224 m, N615889 m) to the western edge of the mountain Eyjan and across Eyjan directly to point Z (coordinates E613437 m, N615942 m) to the eastern edge of Eyjan and then along the cliff side to the highway. East along the highway until it reaches the eastern side of the older Ásbyrgi road and along this to the boundary fence of the forestry area and east to the Ásbyrgi cliffs. From there along the cliff side as far as it reaches, north to the highway and along the highway to the river Jökulsá. The eastern boundary of the National Park follows the centre line of the river Jökulsá á Fjöllum.
- 3. The river bed of Jökulsá á Fjöllum within the boundaries of the farms Hólssel, Víðidalur and Möðrudalur. To the west, the boundary of the Park follows the centre line of the river Jökulsá á Fjöllum. To the east the boundary follows the bank of Jökulsá. More precisely, the bed of the river Jökulsá á Fjöllum is considered to lie within the Park between the following points of intersection:
 - a. Hólssel; from the north, the boundary is delimited by the intersection point between Jökulsá and a line from the mountain Syðra-Normerlsfjall directly west to Jökulsá. From the south the boundary is delimited by the stream Ytri-Vatnsleysa.
 - b. of the valleys Víðidalur and Möðrudalur; in the north, the boundary is delimited by the river Skarðsá and from the south by the mouth of the river Arnardalsá (Arnardalsárós).

In the areas of Esjufjöll, Jökulsárgljúfur, Skaftafell and Askja special rules apply; cf. Articles 10, 16 and 30 of this Regulation. The coordinates of these areas are set out in Annex 4, Table 2, to this Regulation.

Article 4 Definitions

The meaning of words and terms in this regulation is as follows:

- (1) Guidelines for Protected Area Management Categories means specific classes and criteria for protected areas (International Union for Conservation of Nature IUCN) 1994.
- (2) A group riding tour means a riding tour with more than 20 horses.
- (3) *Biological diversity* means diversity of organisms, diversity within species and the diversity of the ecosystem the organisms are part of.
- (4) Sustainable tourism means tourism that meets the needs of both tourists and local people while promoting conservation and increased market opportunities for the future. This means that resources are managed in such a way as to fulfil economic, social and aesthetic needs while maintaining culture, necessary ecological processes, biological diversity and necessary living conditions.
- (5) Sustainable land use means land use utilising a particular biological resource in such a way as to not exploit its capital, i.e. using it in such a way that it is able to renew itself.
- (6) *Defined staging points* means staging points for horse riders, as per Article 14, that are defined in the management plan and shown on published maps of the National Park, but are not necessarily signposted.
- (7) A riding route means a route intended for traffic on horseback that is identified in the management plan.
- (8) A cautionary approach means the point of view that management, decision-making and planning are based on in specific cases. Its purpose is to minimise as much as possible any negative effects from construction projects and human activities on the land, biota, biological diversity, soil, plants, trees, vegetative cover, topographies, landscapes, geological formations, cultural property, water, including groundwater, water catchment areas, the flow direction of water, its volume and quality or other factors of nature and other natural conditions within the National Park, as per criteria in individual provisions of this Regulation. A cautionary approach may be applied even when there is no scientific certainty on the possible outcome of construction projects, actions or lack thereof, or when it is unclear what exactly the connection is between cause and effect.
- (9) A cycling or hiking route means a route that is identified in published National Park documentation.
- (10) A cycling, hiking or riding path means a route with an altered surface that is identified in National Park documentation.
- (9) *A road* means a permanent road, street, trail, path, alley, bridge, square, parking area or similar, used for general traffic.
- (10) Management plan means a plan made for Vatnajökull National Park in accordance with the provisions of Articles 12 and 13 of the Act on Vatnajökull National Park. The management plan shall set out the conservation objectives for individual areas within Vatnajökull National Park, specific conservation actions, land use and construction projects, roads, riding paths, footbridges and the main hiking routes, public right of way, tourist access to the area, and hunting. The management plan will also specify cycling and riding routes, as well as pollution prevention measures and other factors
- (11) *Protection category* means a defined category of protected status along with criteria according to the *Guidelines for Protected Area Management Categories*.
- (12) Motor vehicle means a vehicle outfitted with a motor that propels it.

Article 5

Level of protection and international conservation conventions.

The levels of conservation for specific areas or landscapes within the National Park shall reflect the objectives of the declaration of protection and other land use in the area and shall conform to the *Guidelines* for Protected Area Management Categories.

The following conventions and their subsequent amendments shall be taken into consideration during the preparation of the management plan and the implementation of this Regulation:

- (1) The Convention for the Protection of the World Cultural and Natural Heritage; cf. notice No 42/1995 in Section C of the Government Gazette.
- (2) The Convention on Wetlands of International Importance, Especially as Waterfowl Habitat; cf. notice No 1/1978 in Section C of the Government Gazette.
- (3) The Convention on Biological Diversity; cf. notice No 11/1995 in Section C of the Government Gazette.

(4) The Convention on the Conservation of European Wildlife and Natural Habitats; cf. notice No 17/1993 in Section C of the Government Gazette.

Article 6

The administrative regions of the National Park.

Vatnajökull National Park is divided into four administrative regions and each region has a regional committee appointed by the Minister for the Environment and Natural Resources for a period of four years at a time. The administrative regions are: (1) The northern region, (2) the eastern region, (3) the southern region and (4) the western region. The boundaries of the administrative regions are shown in a map in Annex II to this Regulation.

Each administrative region is an independent administrative unit under the responsibility of a Park warden. Two Park wardens may be hired for those administrative areas where the two main Park facilities are situated. The board of directors determines the division of labour between the National Park wardens within the same administrative regions in consultation with the regional committee, and the division of labour shall be described in the Park wardens' letter of appointment.

Article 7

The management plan and its legal effectiveness.

The management plan for Vatnajökull National Park shall be drawn up in accordance with the provisions of the Act on Vatnajökull National Park, Articles 12 and 13. It shall set out the conservation objectives for individual areas within Vatnajökull National Park, specific conservation actions, land use and construction projects, roads, riding paths, footbridges and the main hiking routes, public right of way, tourist access to the area, and hunting. The management plan will also specify cycling and riding routes, as well as pollution prevention measures and other factors.

The regional committees shall, each for its respective region, draw up a proposal for a management plan in collaboration with the Environment Agency of Iceland and the Icelandic Institute of Natural History. While preparing the management plan, each regional committee shall consult with the owners of land within their respective regions of the National Park, with local councils and other stakeholders in the area.

The board of directors of Vatnajökull National Park reviews the proposals of the regional committees and uses them as the basis of the management plan for Vatnajökull National Park. The board shall take care that the management plan complies with the Act and Regulation on Vatnajökull National Park. The board can amend the regional committees' proposals. The board's proposal for the management plan for Vatnajökull National Park shall be prepared in collaboration with the Environment Agency of Iceland and the Icelandic Institute of Natural History. The proposal shall be publicly notified and the public and stakeholders shall be given the opportunity to submit their comments before the final proposal is submitted to the Minister. The deadline to submit comments on the proposal for the management plan shall be at least six weeks from the date of the notification.

The board's proposal for the management plan for Vatnajökull National Park shall be submitted to the Minister for the Environment and Natural Resources for approval. The Minister for the Environment and Natural Resources can amend the management plan if he considers it, or specific parts of it, to contravene the Act on Vatnajökull National Park, this Regulation or the Park's conservation objectives. When the Minister for the Environment and Natural Resources has ratified the management plan for Vatnajökull National Park it shall be notified in Section B of the Government Gazette and shall enter into force upon publication.

The management plan may be amended, using the procedure laid out in paragraphs 2–4. The Park's board of directors can propose amendments to the management plan without having received a proposal from the regional committee in question. In such cases, the opinion of the regional committee shall always be sought before the proposal is submitted to the Minister for the Environment and Natural Resources. The management plan for Vatnajökull National Park shall be revised at least every 10 years.

Local councils are bound by the contents of the management plan when they draft their patial plans for areas within Vatnajökull National Park.

Construction projects, road construction and any removal of materials within Vatnajökull National Park are only authorised if they are anticipated in the Park's management plan. Conditions may be set out in the management plan for the manner in which any construction projects may be carried out and on the monitoring thereof in order to ensure that such construction projects do not unnecessarily disturb nature, e.g. biota, geological formations, hydrography or topographies, or cultural properties within Vatnajökull National Park. Under this Act, no special authorisation from the Park's board is necessary for any construction work

anticipated in the management plan. The Park warden concerned monitors the compliance of such construction projects with the provisions of the Act on Vatnajökull National Park and those of this Regulation and the management plan, and that the conditions set out for the project in the management plan are being followed. In other respects the provisions of the Nature Conservation Act apply to any construction projects within Vatnajökull National Park.

CHAPTER II Traffic and visits to the National Park

Article 8

Opening hours and services in the National Park

Vatnajökull National Park is open all year round and visitors who travel within it do so at their own responsibility.

The public's access to the National Park shall be facilitated as much as possible without causing damage to nature or cultural properties.

Visitor centres are situated within Vatnajökull National Park, where information and services are available. The National Park's visitor centres are situated at the following locations:

- (1) Ásbyrgi;
- (2) Mývatnssveit;
- (3) Skriðuklaustur;
- (4) Höfn í Hornafirði;
- (5) Skaftafell;
- (6) Kirkjubæjarklaustur.

The objective of operating visitor centres is to be able to give the public information and education about nature in the area, e.g. topographies, biota and geological formations, and on nature conservation, the history, human life and cultural properties of the area, as well as any necessary services. The board of directors of Vatnajökull National Park determines the arrangement of the operation of the visitor centres and other information and service centres within the National Park and close to it.

Article 9

Rights and obligations of visitors

The public is free to travel within Vatnajökull National Park and to stay there for legitimate purposes, as is further laid down in this Regulation. Every individual is obliged to respect nature and cultural properties within the National Park and to show extreme care and consideration so that no damage is caused to nature, cultural properties and structures within the National Park. The burying or burning of refuse within the National Park is prohibited.

Visitors to the National Park must obey the instructions of the Park wardens and other Park staff as regards their treatment of the environment and their conduct within the Park, and must be familiar with Park rules, which can be found on the Park's website and at the visitor centres.

Article 10 *Camping*

Visitors to the National Park must camp within organised camp sites. The Park's management plan sets out rules in camping away from organised camp sites.

The board may, in cooperation with the regional committee in question, lay out special rules on camping for specific areas, including a complete ban on camping. Such rules shall be published on the Park's website and in its visitor centres.

Article 11 Pets

Pets may only be brought into the National Park under the secure control of their owners. Care must be taken that pets do not disturb the National Park's plant and animal life, damage nature and cultural properties or disturb visitors.

Article 12

Fire

The lighting of open fires out in the wilderness of the National Park is prohibited. Visitors who have brought in their own firewood are allowed to light camp fires in specially designed and marked fire pits. The collecting of firewood is prohibited within the National Park.

Special care must be taken when cooking appliances are used in vegetated areas and in other places where a fire could cause damage. The board may, in cooperation with the regional committee in question, lay out rules banning the use of cooking appliances in particularly fragile areas of the National Park, temporarily or permanently. Such rules shall be notified on the Park's website and at its visitor centres.

Article 13

Foot traffic etc.

Visitors of the National Park may travel through it on foot, on skis, skates, snowshoes and non-motorised sleds or by other comparable means. Where there are marked trails, visitors must use those or follow the instructions of the Park wardens.

Article 14

Traffic on horseback

Horseback riding within the National Park is allowed, on defined or marked riding routes. Temporary corrals for resting or over-night confinement of horses may be erected at defined staging points. Group riding tours within the National Park are subject to an authorisation from a Park warden, who can set conditions for the travel mode in conformity with the provisions of the management plan in order to ensure that there will be no damage to nature and cultural properties within the Park.

Travellers on horseback must make sure, during rides in the highland areas of the National Park and other sparsely vegetated areas, that they have enough feed for their horses. The pasturing of horses within the National Park is prohibited, except in cases covered by paragraph 1.

Article 15 *Cycling*

Bicycling is allowed on roads, in parking areas and on marked cycling tracks within the National Park. Bicycling is allowed on hiking paths where cycling is not specifically prohibited, with the condition that no damage is done and cyclists shall take full consideration of foot traffic. The Park warden can allow bicycle traffic on specific riding routes or tracks, on the condition that the bicyclists take full consideration of riders on horseback and make way for them. The Park wardens can prohibit bicycle traffic on hiking paths and hiking routes with heavy traffic or where there is risk of damage to the vegetation. The derogations in Article 16(2) and Article 17 from the prohibition of the off-road driving of motorised vehicles for particular purposes also apply to bicycle traffic.

Article 16

Motorised vehicle traffic

The off-road driving of motorised vehicles is prohibited within Vatnajökull National Park. Motorised vehicle traffic is only allowed on roads designed for it, in accordance with the management plan and in compliance with any signs, on the condition that the roads are not impassable due to muddy conditions or closed under an order from the Icelandic Road and Coastal Administration or a Park warden.

In derogation to paragraph 1, the driving of motorised vehicles and snowmobiles is allowed within the National Park as long as the ground is covered in snow and frozen, and care is taken not to cause any damage. This does not apply to Jökulsárgljúfur, Skaftafell, Hoffell and Askja; cf. the delimitation on the map in Annex 2 and the coordinates in Annex 4, Table 2. Motorised vehicle traffic on Vatnajökull glacier is allowed, except on routes that have been marked for other uses, as per paragraph 3.

The following areas of Vatnajökull glacier are closed to motorised vehicle traffic, unless the Park warden authorises it. All the coordinates are given in the ISN93 system:

- (1) Hvannadalshnúkur, the whole year, within a frame delimited by these coordinates (ISN93): E612950 m, N392450 m; E614190 m, N392450 m; E614190 m, N391580 m; E612950 m, N391580 m.
- (2) Öræfajökull, from 20 April to 15 September, south of a line extending between the coordinate points (ISN93) E609570 m, N392483 m and E620811 m, N392483 m.
- (3) Kverkfjöll, from 15 June to 15 September, north of a line extending between the coordinate points (ISN93) E609800 m, N466255 m and E613690 m, N461603 m.

The above mentioned areas identified in paragraph 3 are shown on a map in Annex I to this Regulation.

Article 17

Off-road driving for specific purposes

In urgent cases, the off-road driving of motorised vehicles is allowed within the National Park when the ground is not covered in snow or frozen (cf. Article 16(2)), for soil reclamation work and to halt soil erosion, for construction projects, the laying of electrical cables, roads and other utility installations, research, film-making, land surveying and agricultural activities, provided that the activities in question can not be carried out in any other way. Such driving of motorised vehicles shall take place after consultation with a Park warden and with authorisation from landowners or rights holders where applicable. A comparable authorisation is in place for law enforcement and rescue operations, with the exception of manoeuvres.

Off-road driving is allowed on cultivated land for agricultural purposes, as long as it causes no damage to nature.

Special care must be taken when driving off-road under this provision, in order to reduce the risk of damage to nature. Such driving must take plce using the proper equipment. All efforts must be made during the above-mentioned activities to transport materials and other necessities in such a way as to avoid off-road driving.

Article 17a Closure of areas

In derogation to the provisions of Article 8, the Park warden may, for the purposes of film-making, temporarily close down specific areas of the National Park to general traffic. Such a closure shall only be authorised if it is considered necessary and does not cause unnecessarily severe disruptions to other economic activities or to public access. Such closures shall not last any longer than necessary and shall not reach a larger area than necessary. Such a decision of closure shall be published in Section B of the Government Gazette and by prominent means in newspapers and on the Park's website. The decision shall be justified in the notice, the boundary of the closed off area shall be mentioned and also the length of the closure.

Article 18

Activities within the National Park

Any research into the natural features and cultural properties within the National Park that is not done on behalf of the Park authorities or as part of the adopted management plan, as well as any film-making, filming of advertisements and other such activities, is subject to authorisation from a Park warden.

Tourism services that have facilities within the National Park shall be organised on the basis of sustainable tourism principles.

Article 19 *Use of firearms.*

All use of firearms is prohibited within the National Park, unless allowed under Articles 26, 28, 29 or 30.

CHAPTER III General Protective Rules

Article 20

Prohibition of damage and disturbance

Any damage or disturbance of nature within the National Park, e.g. biota, geological formations or topographies, cultural properties and man-made structures, is prohibited.

More precisely, paragraph 1 refers to biota, biological diversity, soil, plants, trees, ground cover, topographies, landscapes, geological formations, water, including groundwater, water catchment areas, the flow direction of water, water levels, volume and quality of water, or other factors of nature.

Article 21

Conservation of biological diversity.

Special emphasis shall be placed on the conservation of biological diversity within the National Park. Where the exploitation of individual species is allowed, care shall be taken to ensure it is in keeping with the

adopted management plan. If ecosystems or habitats have been damaged or diminished so as to affect biological diversity, an implementation scheme on improving the situation and reclaiming the ecosystems, if that is considered possible, shall be drawn up. The scheme shall be part of the management plan for the region in question, and shall reflect the conservation objectives of the National Park and the protection category of the area in question.

The Park warden is responsible for implementing the scheme mentioned in paragraph 1 and for monitoring the necessary actions that are taken.

Article 22 Modification of biota

It is prohibited to cultivate or spread foreign plant and tree species, as well as the seeds thereof, within the National Park. Foreign plant species are those that are subject to the definition in Regulation No 583/2000 on the Import, Cultivation and Distribution of Foreign Plant Species.

It is prohibited to bring foreign animal species, including insects, into the National Park or to distribute them within it.

Article 23

Inscriptions on natural formations and cultural properties

Any kind of inscription on natural formations or cultural properties within the National Park is prohibited.

Article 24

Reclamation of land resources, biota, geological formations and land areas

Action may be taken within the National Park with the purpose of protecting and/or reclaiming land resources, biota, geological formations and areas of land, cultural properties and man-made structures, e.g. due to encroachment by humans, animals or plants or due to natural disasters, water erosion or coastal erosion, soil erosion or other disturbances by humans or natural forces.

Actions taken in accordance with paragraph 1 shall comply with the conservation objectives of the National Park, the defined protection category for the area in question and the provisions of this Regulation.

Pending the approval of the management plan, the board of directors of Vatnajökull National Park may authorise any actions covered by paragraph 1. The Environment Agency of Iceland and other specialist bodies shall be consulted as necessary in each case, before any decision is made.

Landowners or occupants shall also be consulted if the decision concerns an area within the National Park that is privately owned or occupied by people, as well as the regional committee concerned.

A decision made in accordance with paragraph 3 shall be based on the National Park's conservation objectives, the defined protection category for the area concerned, and on the cautionary approach. Authorisations may be subject to conditions regarding the manner in which construction work will be carried out and monitored, in order to ensure that the work does not cause undue disturbance of biota, geological formations or topographies.

A decision by the board in accordance with paragraph 3 shall be advertised on the Park's website and by other prominent means, and shall include the premises of the decision, the main justifications, and any conditions, if applicable. The right to appeal, the method of appeal and the deadline for appeal shall be mentioned as well.

The Park warden in question monitors the compliance with the conditions set by the board.

Article 25

Pollution control

The Park's management plan shall set out any specific pollution control measures that may be necessary in order to attain and maintain the Park's objectives. They shall be based on the Park's conservation objectives, the defined protection category for the area concerned, and on the cautionary approach.

In other respects, pollution control within the National Park is governed by the provisions of Act No 7/1998 on Hygiene and Emissions Control and any regulations pursuant to that Act.

CHAPTER IV **Provisions on Construction Projects and Land Use**

Article 26

Traditional land use

Traditional land use, such as livestock grazing, the hunting of birds and reindeer, fishing in rivers and lakes and the collecting of driftwood is allowed for rights holders within the areas delimited in Annex III, subject to compliance with the provisions of laws covering each type of land use. Such use is prohibited in other areas of the National Park.

According to Article 20(2) of the Act on Vatnajökull National Park, land use within the National Park shall be sustainable.

The rights of farmers to herd sheep on horseback will continue to be considered a traditional right of farmers within the areas delimited for traditional land use in Annex III. The provisions of Article 17 apply to any off-road driving within those areas.

Article 27

Fishing in rivers and lakes

Fishing is only allowed in rivers and lakes within Vatnajökull National Park inside the areas covered by Article 26; cf. Annex III.

Article 28

Hunting of birds and reindeer

Hunting of birds and reindeer within Vatnajökull National Park is only allowed inside the areas covered by Article 26; cf. Annex III. Hunting is covered by Act No 64/1994 on the Conservation, Protection and Hunting of Wild Birds and Wild Mammals and by regulations pursuant to that Act.

The driving of vehicles by reindeer hunting guides is covered by Regulation 528/2005, as amended by Regulation 497/2007.

Article 29

Hunting of mink

Mink hunting is allowed within Vatnajökull National Park and is covered by Act No 64/1994 on Conservation, Protection and Hunting of Wild Birds and Wild Mammals and by Regulation No 437/1995 on the Hunting of Minks and Foxes, with subsequent amendments.

Article 30

Hunting of foxes

Fox hunting continues to be prohibited within the following areas: In Skaftafell, in Jökulsárgljúfur and in Esjufjöll, as delimited in the map in Annex I and by the coordinates given in Annex 4, Table 2.

Article 31

Construction, removal of materials, etc.

Construction projects, the laying of roads, paths and trails and any removal of materials within the National Park are only authorised if they are anticipated in the Park's management plan.

Any construction undertaken in accordance with paragraph 1 shall comply with the conservation objectives of the Park, the defined protection category for the area in question and the provisions of this Regulation. Local plans shall be made for all construction projects within the National Park.

Conditions may be set in the management plan for the manner in which any construction projects may be carried out and on the monitoring of such work in order to ensure that such construction work does not unnecessarily disturb nature in the area, such as topographies, biota and geological formations.

The board of directors of Vatnajökull National Park may, until the Management plan enters into force and in consultation with the local council in question, authorise construction projects covered by paragraph 1. Before such a decision is made, the Park warden and regional committee in question, the Environment Agency of Iceland and other specialist bodies shall be consulted as necessary in each case. Landowners and occupants shall also be consulted if the decision concerns an area within the National Park that is privately owned or occupied by people, as well as the regional committee concerned.

When making a decision according to paragraph 4, the board shall base it on the Park's conservation objectives, the defined protection category for the area concerned, and on the cautionary approach. Authorisations may be subject to conditions regarding the manner in which the work will be carried out and

monitored, in order to ensure that the work does not cause undue disturbance of biota, geological formations or topographies.

A decision by the board in accordance with paragraph 4 shall be advertised on the Park's website and by other prominent means, and shall include the premises of the decision, the main justifications, and any conditions, if applicable. The right to appeal, the method of appeal and the deadline for appeal shall be mentioned as well.

The Park warden concerned monitors the compliance of such construction projects with the provisions of the Act, Regulation and management plan for Vatnajökull National Park and that the conditions for the construction project in question, which were set in the management plan or in the board's authorisation, are being respected.

In other respects the provisions of the Nature Conservation Act apply to any construction projects within Vatnajökull National Park.

CHAPTER V Special Protective Actions

Article 32

The closure of the National Park or of individual areas within it in order to protect nature and/or human lives

If an area is at risk for damage and immediate action is considered necessary the Park warden responsible for the region in question can decide to temporarily close down a demarcated area to all traffic by motorised vehicles. Such a decision by a Park warden to temporarily close down an area shall be published in Section B of the Government Gazette and by other prominent means in newspapers and on the Park's website. The decision shall be justified in the notice, the boundary of the closed off area shall be mentioned and also the length of the closure.

A Park warden may close down the National Park or individual areas within the Park without prior notice if it is considered that the presence of humans or traffic through the area is likely to cause damage to nature, e.g. biota, geological formations or topographies. This includes the closure of an area during the reindeer calving period, or due to other similar reasons. Such decisions, including the reasoning for them, shall be made public at the location in question if possible, and on the Park's website, without delay, and shall be announced at the next meeting of the Park's board and the regional committee in question.

A Park warden may close down the National Park or individual areas within the Park without prior notice if a hazardous situation arises within the Park due to a natural hazard.

Article 33

Expulsion from the National Park

A Park warden or other Park staff may expel from the National Park any person who transgresses against the provisions of the Act on Vatnajökull National Park and those of this Regulation and such transgressions shall be reported to the police if necessary.

CHAPTER VI Miscellaneous Provisions

Article 34

Administrative decisions and right of appeal

Decisions made on the basis of this Regulation may be appealed to the Minister for the Environment and Natural Resources. A ministerial ruling is the final ruling at the administrative level.

All those who have legally protected interests connected to the appealed decision, as well as environmental protection organisations and outdoor activity organisations with legal jurisdiction in Iceland, provided they have more than 30 members and the purpose of the organisation is to protect the interests the appeal pertains to, have the right of appeal under this Article. Environmental protection organisations are defined as organisations whose main purpose is to protect the environment. Outdoor activity organisations are defined as organisations whose main purpose is to promote outdoor activities and protect the environment. Organisations under paragraphs 2 and 3 shall be open to the public, issue annual reports on their activities and their accountancy data shall be audited.

Article 35 *Per diem fines.*

The board of directors of Vatnajökull National Park may decide to levy per diem fines of up to 500 thousand ISK, which accrue to the Treasury, in order to compel the parties concerned to take action they are legally bound to take under the Act on Vatnajökull National Park and this Regulation, or cease any illegal activities.

Article 36 *Criminal liability*

Under Article 22 of the Act on Vatnajökull National Park, any violation of this Regulation is punishable with fines or imprisonment of up to two years.

Article 37

Legal reference and entry into force

This Regulation is adopted in accordance with the provisions of Articles 7, 15 and 20 of the Act on Vatnajökull National Park and enters into force forthwith. At the same time the following regulations cease to apply: Regulation No 879/2004 on Skaftafell National Park, including subsequent amendments, cf. Regulation No 367/2005; and Regulation No 359/1993 on Jökulsárgljúfur National Park, including subsequent amendments, cf. Regulations No 285/2001 and 929/2005. Notice No 188/1978 on the Esjufjöll Nature Reserve also ceases to apply henceforth.

The Ministry for the Environment and Natural Resources, 7 June 2008.

Þórunn Sveinbjarnardóttir.

Ingibjörg Halldórsdóttir.