



VEGETATION

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VEGETATION NOTES.

Plant communities are named for the dominant vascular plant(s). The estimated plant cover & composition is stratified & shown in fraction form.

The upper stratum, (the numerator) is composed of vascular plants, dwarf shrubs, herbs including rushes, sedges, grasses and forbs. The lower stratum (the denominator) is bryophytic & cryptogamic, this includes an often extensive dark lichen thallus forming a thin crust, which is composed of a variety of species and simply called patina here. When the denominator is missing, this denotes an absence of the lower stratum.

Examples:

a. 10% *Saxifraga oppositifolia*-*Salix*
50% moss-patina

b. 5% *Saxifraga oppositifolia*-herb barrens.

The following abbreviations are made:

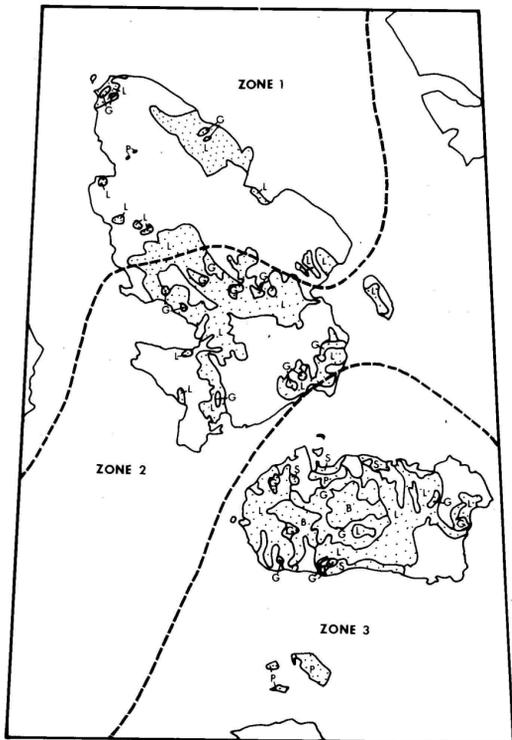
Amund Ringnes Island = A.R. Is.

Cornwall Island = C. Is.

Table Island = T. Is.

Large portions of A.R. Is. are not vegetated. These include active eolian deposits, areas with a high gypsum & anhydrite composition; those with exceedingly low pH (Kk bedrock); and areas that are practically pure quartz sand, (KTe-u, Kh, Ki).

VEGETATION TYPES



- ZONE 1** Dwarf shrubs generally absent. Vascular plant diversity low.
- ZONE 2** Dwarf shrubs sporadic to common but not dominant.
- ZONE 3** Dwarf shrubs often dominant. Vascular plant diversity greatest.

VEGETATION TYPES

- L** Luzula steppe
- P** Purple Saxifrage communities
- G** Grass communities
- S** Dwarf shrub communities
- B** Lichen-moss communities
- Not vegetated

VEGETATION TYPE	MATERIALS	ZONE 1	ZONE 2	ZONE 3.
G GRASS COMMUNITIES	a. Poorly drained, usually non-calcareous silts & weathered shales usually on marine veneers. Very local in occurrence often wetter phase of L.1 & 2.a (and rarely P.3a).	G.1a Grass wet meadow: <5% <i>Alopecurus</i> -herb 50-90% moss-patina <i>Alopecurus</i> is the dominant vascular plant. Herbs limited to <i>Phippsia</i> , <i>Puccinellia</i> , <i>Luzula nivalis</i> , <i>Cerastium Regelii</i> , <i>Ranunculus</i> , <i>Papaver lapponicum</i> , <i>Cardamine bellidifolia</i> , <i>Saxifraga rivularis</i> , <i>S. nivalis</i> . Local areas have <i>L. nivalis</i> in greater abundance, almost as common as <i>Alopecurus</i> . The lower stratum is primarily bryophytic with some patina & algae.	G.2b 5-10% <i>Alopecurus</i> -herb 50-90% moss-patina Increase in vascular plant species and % cover. Besides herbs from G.1a, <i>Draba</i> sp., <i>Saxifraga cernua</i> , <i>Saxifraga nivalis</i> var. <i>tenuis</i> , <i>Dupontia</i> , <i>Pleuropogon Sabinei</i> , <i>Ranunculus hyperboreus</i> , <i>R. nivalis</i> , <i>E. sulphureus</i> , <i>Stellaria longipes</i> . Lower stratum similar to G.1a.	G.3b 5-20% <i>Alopecurus</i> -mixed grass 75-100% moss-patina Increase in vascular plant species and % cover. Besides herbs from G.1a, <i>Dupontia</i> , <i>Arctagrostis latifolia</i> , <i>Pleuropogon Sabinei</i> & <i>Poa alpigena</i> much more abundant (2-10%). Herbs as in G.1a & G.2a present. <i>Melandrium apetalum</i> & <i>Saxifraga Hirculus</i> may be present. Lower stratum similar to G.1a.
	b. Moderately to well drained, non-calcareous silts & weathered shales.	G.1b <5% mixed grass-herb barrens. <i>Alopecurus</i> , <i>Puccinellia</i> , <i>Phippsia</i> , <i>Poa</i> dominant (2-5%). <i>Papaver</i> , <i>Cerastium arcticum</i> , <i>Stellaria longipes</i> , <i>Draba</i> sp., <i>Saxifraga nivalis</i> , <i>S. cernua</i> may be present. Lower stratum generally absent. Much of the driest material not vegetated.	G2b <10% mixed grass-herb barrens. Similar to G.1b, but herbs a little more abundant.	G.2b Similar to G.2b
	c. Halophytic communities. Fines adjacent to high tide zone.	G.1c Not observed.	G.2c Patchy distribution. 1-10% <i>Puccinellia phryganodes</i> <i>Stellaria humifusa</i> can be present in similar abundance. <i>Cochlearia officinalis</i> occasionally is found too.	B.3c Similar to G.2c
M SEDGE-GRASS WET MEADOW	a. Poorly drained, weakly to moderately calcareous fines.	M.1a Not observed	M.2a Not observed	M.3a 10-20% <i>Eriophorum</i> -mixed grass 75-100% moss <i>Eriophorum Scheuchzeri</i> , <i>Alopecurus</i> , <i>Dupontia</i> and <i>Arctagrostis latifolia</i> (often as emergents) common. <i>Poa alpigena</i> , <i>Juncus biglumis</i> and <i>Luzula nivalis</i> can be present. <i>Salix arctica</i> sometimes found on some locally better drained moss hummocks. Herbs include <i>Ranunculus sulphureus</i> , <i>R. nivalis</i> , <i>R. hyperboreus</i> , <i>Stellaria longipes</i> , <i>Melandrium apetalum</i> , <i>Saxifraga cernua</i> , <i>S. Hirculus</i> , <i>S. foliolosa</i> .
L LUZULA STEPPES	a. Moderately drained, non-calcareous marine reworked and weathered sands & silts. Included are stabilized eolian deposits, fine grained weathered bedrock & marine veneers.	L.1a 2-5% <i>Luzula</i> -herb 75-90% moss <i>Luzula confusa</i> usually dominant with <i>L. nivalis</i> in less abundance. <i>Alopecurus alpinus</i> may be nearly co-dominant on fine grained, less well drained areas. Caryophyllaceae often the most common herbs, include <i>Cerastium arcticum</i> , <i>C. Regelii</i> , <i>Stellaria</i> & <i>Arenaria</i> sp. Other herbs include <i>Phippsia algida</i> , <i>Papaver lapponicum</i> , <i>Saxifraga cernua</i> , <i>S. nivalis</i> and <i>S. rivularis</i> , <i>Ranunculus</i> sp. Patina is the most common lower stratum, with mosses in protected poorly drained areas. <i>Thamnia</i> & <i>Stereocaulon</i> sp. are common.	L.2a 5-10% <i>Luzula</i> - (to 3% shrub) 50-90% patina-moss <i>Luzula confusa</i> usually dominant, <i>L. nivalis</i> less common. Dwarf shrubs: <i>Potentilla hyperarctica</i> and sometimes <i>Salix arctica</i> present to 3%. <i>Alopecurus</i> may replace shrubs in importance on fine grained, less well drained areas. <i>Juncus biglumis</i> , <i>Oxyria</i> , <i>Cochlearia</i> , <i>Draba</i> sp., <i>Cardamine</i> , <i>Saxifraga caespitosa</i> , <i>S. flagellaris</i> and <i>S. foliolosa</i> . The lower stratum is similar to L.1a with <i>Rhacomitrium lanuginosum</i> often locally in protected areas, and <i>Polytrichum piliferum</i> in sandy areas.	L.3a 5-20% <i>Luzula</i> - (to 10% shrub) 50-90% patina-moss <i>Luzula confusa</i> & <i>L. nivalis</i> are dominant. Local areas <i>Luzula</i> may be present in almost pure stand. But usually dwarf shrubs <i>Potentilla hyperarctica</i> and <i>Salix arctica</i> are the most common associates, sometimes to 10%. <i>Alopecurus</i> replace shrubs as the most common associate on fine grained, less well drained materials. Herbs are like 3.2 but in somewhat more abundance. The lower stratum is similar to L.2a but lichens: <i>Alectoria</i> sp., <i>Cetraria cucullata</i> , <i>C. nivalis</i> , <i>C. islandica</i> & <i>Dactylina</i> sp. commonly present.
	b. Well drained, non-calcareous sand and silts. Primarily derived from bedrock, although dry marine reworked materials can be included.	L.1b 2-5% <i>Luzula</i> -herb barrens similar in vascular species composition by L.1a but lower stratum usually absent, or if present, less than 20%.	L.2b 5-10% <i>Luzula</i> -herb barrens. Similar in vascular plant composition to L.2a, but lower stratum is usually absent, or present in less than 20%. Dwarf shrubs are usually absent at higher elevations and on very dry materials. <i>Festuca</i> sp. <i>Poa abbreviata</i> often found.	L.3b 5-20% <i>Luzula</i> herb barrens. Similar to L.3a but lower stratum is sparse to absent. Herbs of L.3a generally present, although those requiring high moisture are usually absent. <i>Potentilla hyperarctica</i> is the common shrub, though in reduced amount (1-2%). <i>Salix arctica</i> may be present, but in low frequency.
P PURPLE SAXIFRAGE COMMUNITIES	a. Moderately drained, weakly to moderately calcareous fines, with some cobbles and gravels present. These materials are often redeposited as marine veneers.	P.1a Not present in study area.	P.2a Not present in study area.	P.3a 10-25% <i>Saxifraga oppositifolia</i> -shrub to 75% moss-patina Often dense <i>S. oppositifolia</i> (25%). Dwarf shrubs common (to 10%) including <i>Salix arctica</i> , with <i>Dryas integrifolia</i> and <i>Potentilla hyperarctica</i> . <i>P. rubricaulis</i> present but much less frequent. On less well drained areas <i>S. oppositifolia</i> - <i>Alopecurus</i> communities occur. Herbs include <i>Poa alpigena</i> , <i>Juncus</i> , <i>Luzula nivalis</i> , <i>Ranunculus</i> , <i>Cerastium Regelii</i> , <i>C. arcticum</i> , <i>Stellaria longipes</i> , <i>Arenaria</i> , <i>Melandrium apetalum</i> , <i>Papaver lapponicum</i> , <i>Cardamine</i> , <i>Saxifraga caespitosa</i> , <i>S. cernua</i> , <i>S. nivalis</i> , <i>S. rivularis</i> , <i>S. flagellaris</i> . Lower stratum composed of mosses and patina, with <i>Rhacomitrium</i> in locally sheltered areas, <i>Cetraria</i> common
b. Well drained weakly to moderately calcareous fines and gravels often of mixed lithology.	P.1b <5% <i>Saxifraga oppositifolia</i> - herb barrens. <i>S. oppositifolia</i> dominant (2.5%). No dwarf shrubs present. Herbs include <i>Saxifraga caespitosa</i> , <i>Saxifraga nivalis</i> , <i>Draba</i> sp., <i>Oxyria digyna</i> , <i>Cerastium arcticum</i> , <i>Stellaria longipes</i> , <i>Papaver lapponicum</i> , <i>Poa abbreviata</i> , <i>Festuca brachyphylla</i> , <i>L. confusa</i> . Lower stratum usually absent. <i>Thamnia</i> sp. & <i>Cetraria</i> sp. may be found scattered on the surface.	P.2b <20% <i>Saxifraga oppositifolia</i> - <i>Salix</i> barrens, and <i>S. oppositifolia</i> herb barrens. <i>S. oppositifolia</i> usually <10%. At low elevations, dwarf shrub <i>Salix arctica</i> can be common (1-5%). <i>Potentilla hyperarctica</i> present but rare. Shrubs sometimes absent. Herbs include those in P.1b plus <i>Saxifraga flagellaris</i> , <i>S. nivalis</i> , <i>Arenaria</i> sp., <i>Juncus biglumis</i> , <i>Cochlearia officinalis</i> . Local areas like P.1b. Lower stratum generally absent.	P.3b <20% <i>Saxifraga oppositifolia</i> - <i>Salix</i> barrens and <i>S. oppositifolia</i> herb barrens. Similar to P.2b. <i>Phippsia</i> , <i>Ranunculus</i> , <i>Saxifraga rivularis</i> generally absent. Lower stratum generally absent.	
S DWARF SHRUB COMMUNITIES	a. Moderately drained, non-calcareous silts and sands. Usually limited to areas with substantial marine veneer.	S.1a Not observed.	S.2a Not present in study area.	S.3a 20% dwarf shrub - (10% <i>Luzula</i>) to 75% moss-patina Dwarf shrubs <i>Potentilla hyperarctica</i> and <i>Salix arctica</i> present to 20%. <i>Luzula confusa</i> and <i>L. nivalis</i> common associates (to 10%). Herbs & lower stratum like 3.3a.
b. With substantial marine veneer, or areas with mixed lithology.	S.1b Not observed	S.2b Not present in study area.	S.3b 20% dwarf shrub (to 10% <i>oppositifolia</i>) to 75% moss-patina <i>Salix arctica</i> most common dwarf shrub. <i>Potentilla hyperarctica</i> , <i>P. rubricaulis</i> and <i>Dryas integrifolia</i> present in varying amounts. <i>Saxifraga oppositifolia</i> is the most common (to 10%) associate. Herbs & lower stratum like 4.3.	
B BRYOPHYTIC-CRYPTOGAMIC COMMUNITIES	a. Fine grained materials usually at high elevations & associated with late lying snowbeds	Ba. 75-90% Patina with assorted bryophytes. <i>Rhacomitrium</i> locally dense in some protected areas. Algae skin forms in very wet areas. <i>Dactylina</i> sp., <i>Stereocaulon</i> sp., <i>Alectoria</i> sp., <i>Cetraria</i> sp. common lichens.		
b. Gabbro blocks	Bb. 10-75% Moss-lichen. Bryophytes (often <i>Rhacomitrium</i>) in the interstices of boulders. A variety of foliose and fruticose lichens may grow in and on the bryophytic mats.			
c. Gabbro block facets	Bc. Crustose lichens occur on the exposed facets of the rock surfaces.			
E. EOLIAN COMMUNITIES	Wind sorted fines, usually well drained.	<10% vegetation rare herbs: <i>Alopecurus</i> , <i>Poa alpigena</i> , <i>Puccinellia</i> sp., <i>Luzula confusa</i> , <i>Papaver lapponicum</i> , <i>Cochlearia officinalis</i> , <i>Stellaria longipes</i> , <i>Saxifraga nivalis</i> , and <i>S. rivularis</i> . These may grow in clumps, often assuming a hummocky or tussock shape - atypical of usual growth form. Occasional tufts of <i>Polytrichum piliferum</i> may be seen.		

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