Ecological Site Description ID:	R236XY130AK—Western Alaska Maritime Dwarf Scrub Loamy Slopes, Moist

Ecological Dynamics of the Site:

This western Alaska maritime ecological site is located in undulating areas of upland hills and plains that are linear across and down or linear across and convex down. These areas are typically found at elevations between sea level and 2,050 feet with slopes of 0 to 43 percent. Slope aspect does not appear to influence the plant community dynamics of this site as it is found on all aspects.

This ecological site is correlated to D36-Western maritime low scrub loamy eolian slopes; D36-Western maritime low scrub loamy eolian slopes, frozen; D36-Western maritime low scrub loamy eolian slopes, wet; and Egtuk and Klutuk soils. Soil characteristics that are likely to influence plant community dynamics include a cryic or gelic soil temperature regime, an udic or aquic moisture regime with slow to moderate permeability to a depth of 10 inches, and moderately acidic to extremely acidic soil (pH 5.6 to 3.5). Soil component D36-Western maritime low scrub loamy eolian slopes, frozen, has permafrost between depths of 26 and 53 inches, which can restrict the presence and growth of plants due to the gelic temperature regime and its impermeability to water. These soils are poorly to well drained. Annual precipitation is usually between 21 and 63 inches, and the annual frost-free period ranges from 80 to 140 days. Parent material can vary, but is typically organic material over coarse-loamy eolian deposits. Volcanic ash, loess and cryoturbate may also be present.

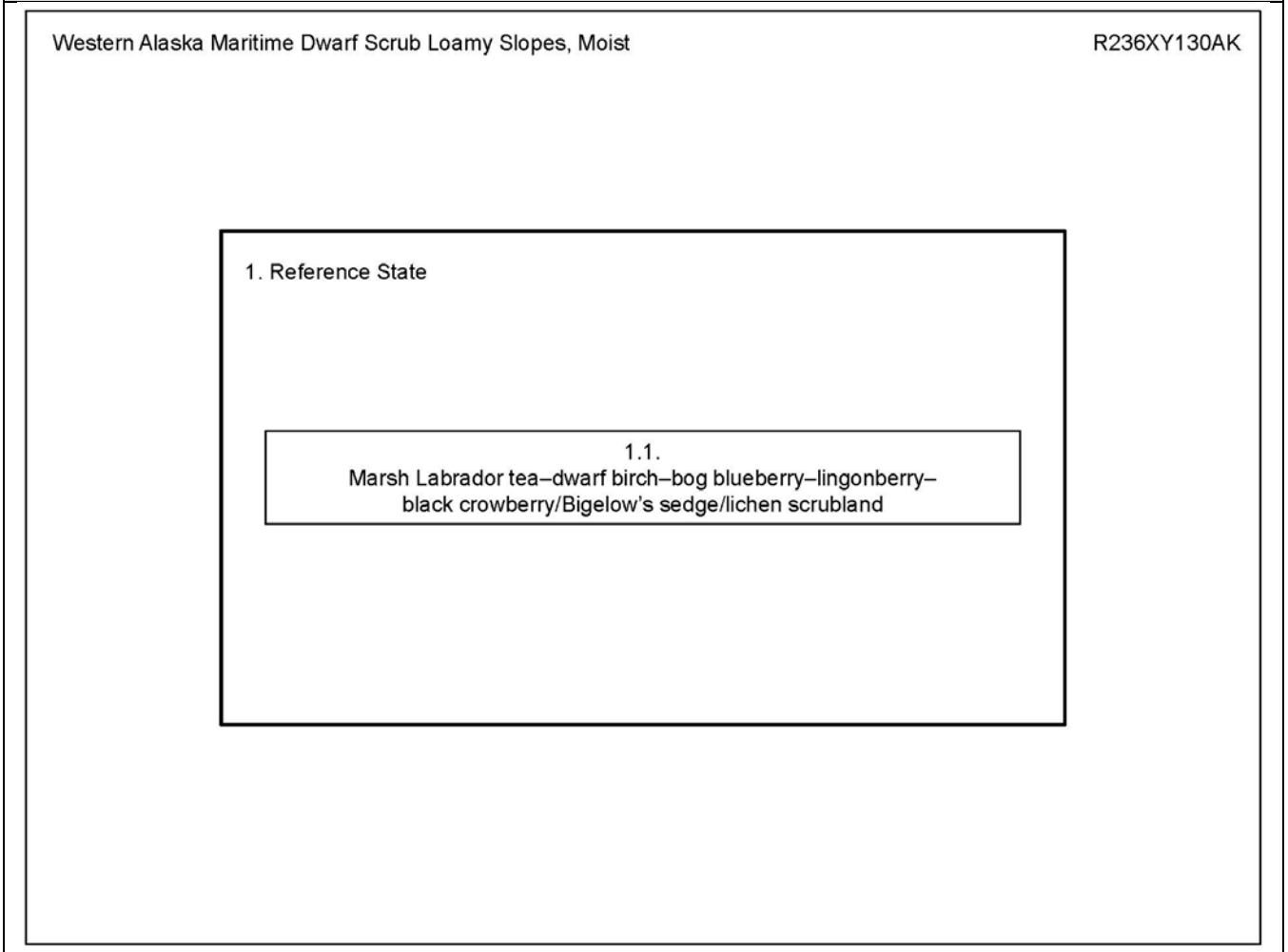
The reference community phase is typified by scrubland consisting of dense and diverse low and dwarf shrubs with sporadic graminoids and lichen ground cover. Ecological sites R236XY140AK (Western Alaska Maritime Tussock Loamy Slopes) and F236XY171AK (Western Alaska Maritime Woodland Peat Slopes) are also found on undulating uplands in the survey area and are linear across and down or linear across and convex down, but those ecological sites are proximal to organic depressions or drainageways. Ecological site R236XY130AK is not adjacent to said landforms. Differences in landform (proximity to drainageways or depressions), soil characteristics, and disturbance regimes (ponding of R236XY140AK and R236XY171AK) result in distinct reference community states and phases that make the use of unique ecological sites necessary.

The reference community phase of this ecological site is stable, mostly likely due to the relatively stable landform and lack of a disturbance regime. While natural variations in plant richness and cover may be evident, there is no known disturbance that significantly alters the vegetative community; therefore, only a reference community phase is described. No alternative states have been observed.

Slight to moderate browsing of willows by moose and of lichens by caribou is possible on this ecological site, but it does not appear to affect the ecological processes significantly enough to alter the communities.

This report provides baseline vegetation inventory data for this ecological site. Future data collection is needed to provide further information about existing plant communities and the disturbance regimes that would result in transitions from one community to another.

State and Transition Diagram:



Phase 1.1			
Community Phase Number:	1.1	Community Phase Name:	Marsh Labrador tea-dwarf birch-bog blueberry-lingonberry-black crowberry/Bigelow's sedge/lichen scrubland

Community Phase Narrative:

The reference community phase for this ecological site is characterized by dense scrubland consisting of low and dwarf shrubs. Annual plant production is visually estimated to be mainly among shrubs. Typically, this community consists of marsh Labrador tea (*Ledum palustre* ssp*. decumbens*), dwarf birch (*Betula nana*), bog blueberry (*Vaccinium uliginosum*), lingonberry (*Vaccinium vitis-idaea*), and black crowberry (*Empetrum nigrum*). Other common species may include Bigelow's sedge (*Carex bigelowii*), variegated sedge (*Carex stylosa*), bluejoint grass (*Calamagrostis canadensis*), and alpine bearberry (*Arctostaphylos alpina*). Sporadic, rare white spruce (*Picea glauca*) individuals or groupings of a few trees also occur. Lichens*, particularly reindeer lichen (*Cladina spp.*) and cup lichen (*Cladonia spp*.), are common (total mean cover ~35 percent) throughout. Other ground cover may include mosses (~21 percent cover), herbaceous litter (~45 percent), and woody litter (~2 percent). About 1 percent is bare soil.

* Common lichen species include star reindeer lichen (*Cladina stellaris*), reindeer lichen (*Cladina stygia, Cladina mitis*, and *Cladina arbuscula*), greygreen reindeer lichen (*Cladina rangiferina*), and snow lichen (*Stereocaulon spp.*)

Community Phase Canopy Cover

(Vegetation data in the table are provided as constancy (percent) and average canopy cover (percent) of the most dominant and ecologically relevant species for this community phase.)

Plant group	Common name	Scientific name	USDA plant code	Constancy (percent)	Average canopy cover (percent)
S	Marsh Labrador tea	*Ledum palustre* ssp. *decumbens*	LEPAD	98.2	25.7
S	Bog blueberry	*Vaccinium uliginosum*	VAUL	97.3	18.8
S	Dwarf birch	*Betula nana*	BENA	97.3	18.0
S	Black crowberry	*Empetrum nigrum*	EMNI	95.5	25.0
S	Lingonberry	*Vaccinium vitis-idaea*	VAVI	95.5	7.0
S	Alpine bearberry	*Arctostaphylos alpina*	ARAL2	45.5	1.3
G	Bigelow's sedge	*Carex bigelowii*	CABI5	53.6	10.4
G	Variegated sedge	*Carex stylosa*	CAST10	36.6	5.1