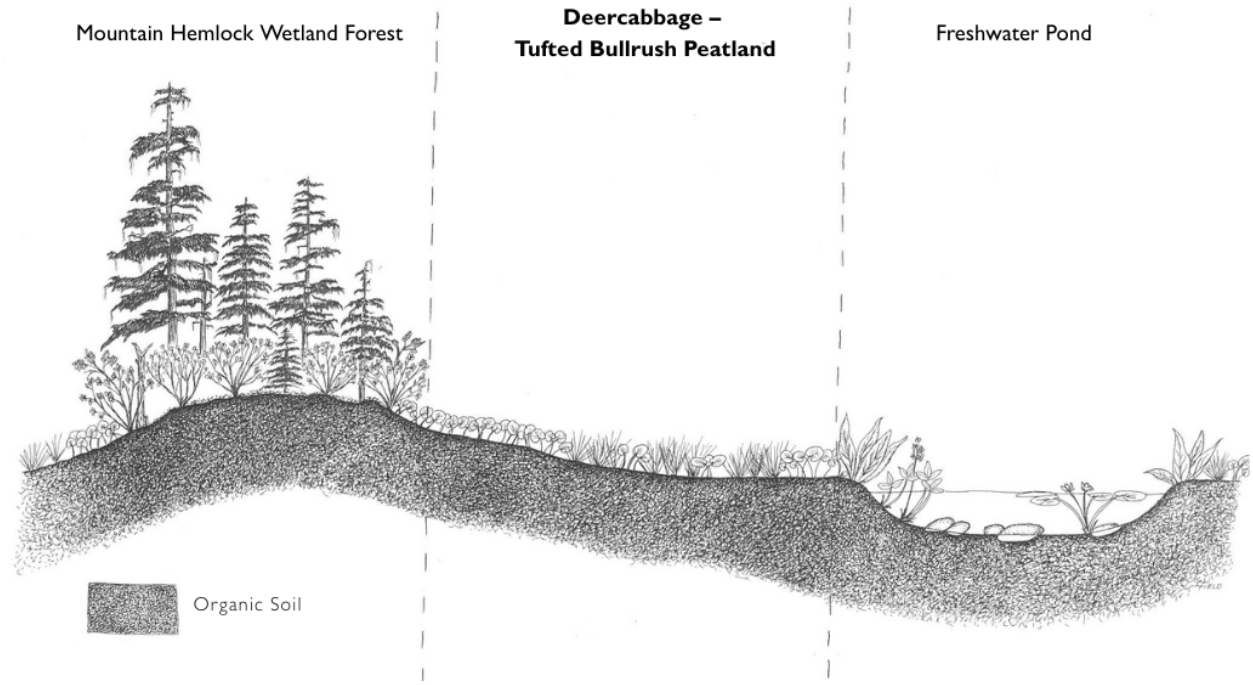
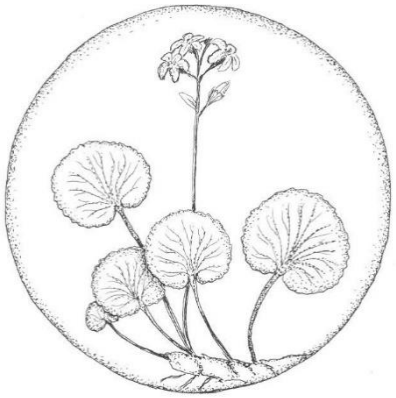
Deer Cabbage – Tufted Bullrush Peatland



Deer cabbage – tufted bullrush peatlands develop as a mosaic of small islands of dwarf mountain hemlock (*Tsuga mertensiana*) skirted by the low shrubs Alaska blueberry (*Vaccinium ovalifolium)*, false azalea *(Menziesia ferruginea)* and Sitka mountain-ash *(Sorbus sitchensis*), interspersed in a larger matrix dominated by deercabbage (*Nephrophyllidium crista-galli*) and tufted bulrush (*Trichophorum caespitosum*) with minor contributions of long-awned sedge (*Carex macrochaeta*), and species of *Sphagnum* moss. Drier microsites support crowberry (*Empetrum nigrum*) dominated dwarf shrub communities whereas wetter microsites support tall cottongrass (*Eriophorum angustifolium*) and carnivorous forbs such as roundleaf sundew (*Drosera rotundifolia*) and common butterwort (*Pinguicula vulgaris*).



Deer cabbage (Nephrophyllidium crista-galli)

Environment:

As shallow and flowing groundwater is requisite for the formation and maintenance of these types of peatlands, the habitat typically develops across gentle slopes, or in areas of groundwater discharge such as toe-slopes, alpine basins, and adjacent to ponds and small streams. High precipitation and shallow bedrock, which retards infiltration, can overcome the drainage

afforded by terrain, allowing peatlands to develop on relatively steep slopes. Saturation and inundation slow soil decomposition such that organic matter accumulates as sedge peat. Poorly-drained soils range from organic veneers over wet mineral soils, to peat over shallow bedrock, to deeper organics. Small channels are common.

Disturbance:

The dominant factor governing the dynamics of peatlands is hydrologic regime. Changes in water level or frequency and duration of inundation may initiate transition to a different habitat type. Peatlands are slow-developing systems that are difficult to restore following disturbance. Sloped peatlands are susceptible to soil creep and landslides whereas those developing on gentle terrain are more stable.

Animal Species Supported:

Mammals:

Moose (*Alces alces*) – **Tunturpak, Teqliq** [Chenega], **Teggliq** [NW, PG]

Showshoe hare (*Lepus americanus*) – **Uskaanaq** [NW, PG]

Sitka black-tailed deer (*Odocoileus hemionus* ssp. *sitkensis*) – **Tuntuq, Puhgutaaq** [Chenega]

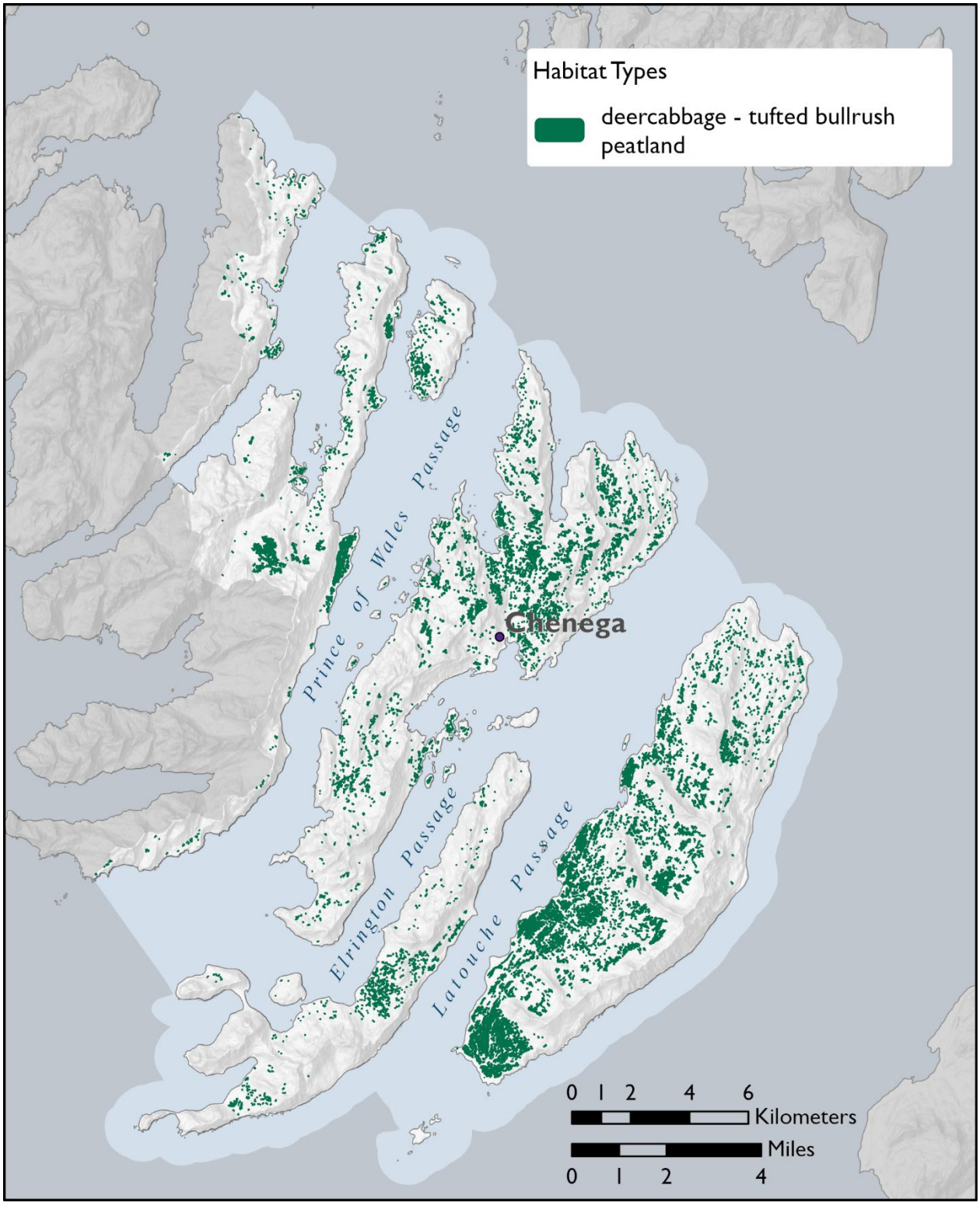
Black bear (*Ursus americanus*) – **Tan'erliq**

Fox (*Vulpes vulpes*) – **Kaugya'aq; Kangilngaq, Uuquciik** [NW, PG]

Birds:

Sandhill crane (*Grus canadensis*) – **Tatellgaq** [NW, PG]

Bald eagle (*Haliaceetus leucocephalus*) – **Kuckalaq** [Chenega], **Kum'agyak** [NW, PG]


Habitat Types
deercabbage - tufted bullrush peatland
Prince of Wales Passage
Chenega
Elrington Passage
Latouche Passage
0 1 2 4 6
Kilometers
Miles
0 1 2 4

Subsistence Plants:

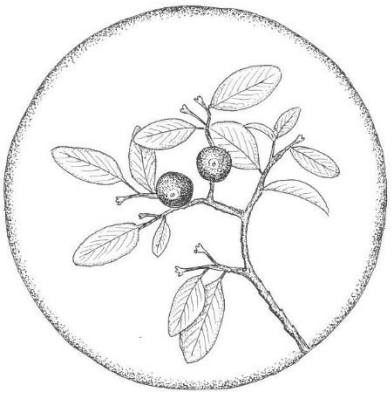
Species: Common name (*Scientific name*) – **Alutiiq name** [if known]
[NW = Nanwalek; PG = Port Graham; PWS = Prince William Sound]

Mountain hemlock (*Tsuga mertensiana*) – **Allcig**: No documented use by Alutiiq, but other regional groups used bark and pitch as an infusion for tuberculosis, diarrhea, toothaches, and as a poultice for burns and skin conditions. Bark can be used as fiber, and branches are used to collect herring eggs during spawning.

Crowberry (*Empetrum nigrum*) – **Augyaq, Shiksha, Pakik** [Chenega]: Berries are collected from August to September and eaten fresh, used in *akutaq*, or cooked with fish. Berries are used in jams, jellies, and desserts, and now frozen for long-term storage. Stems can be boiled into a tea to facilitate menstruation, burnt into a smoke used for fumigation, or to cleanse homes and visitors of diseases and evil spirits.

Large-leaf avens (*Geum macrophyllum, G. calthifolium*): Leaves and branches can be warmed and used as steam bath switches and poultices to treat aches, pains, and broken bones.

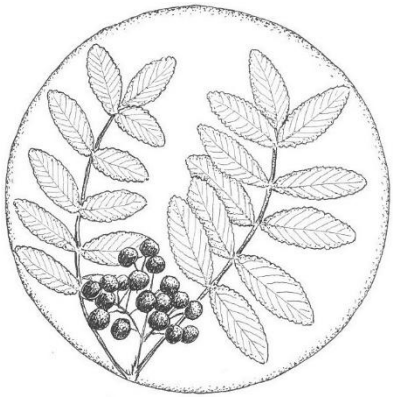
Round-leaved sundew (*Drosera rotundifolia*): No documented use by Alutiiq, but other regional groups used sap as an antibacterial ointment on cuts and wounds.



Shrubby cinquefoil (*Dasiphora fruticosa*) – **Qutul'iiq, Qutuneskiiq, Yaakuutaaq** [PG], **Quturnirpak**: Stems can be cut and boiled into a tea to treat colds, pneumonia, sore throat, tuberculosis, gas, and gastrointestinal problems.

Early blueberry (*Vaccinium ovalifolium*) – **Cuawak**: Berries are collected from August to September for use in jams, jellies, and deserts, and *akutaq*. Berries were once stored in oil, but are now frozen for long-term storage. Berries can be mashed to make a purplish-red dye.

Wild iris (*Iris setosa*) – **Naus'nitsaruak**: Roots can be boiled into an infusion to treat constipation. Roots can also be boiled and used as a poultice for infected wounds. Petals can be collected to be used as a purple dye for basket making. **CAUTION:** plant is poisonous and should not be ingested; may cause irritation or allergic reaction from handling.



Sitka mountain-ash (*Sorbus sitchensis*) – **Esqunaq**: Leaves (summer use) and cambium (winter use) can be boiled for one hour as an infusion to treat arthritis, childbirth, colds, flu, coughs, chest congestion, fever, hair problems, sore throat, pneumonia, stomach trouble, and tuberculosis. Shoots can be used as steam bath switches to help alleviate gas during pregnancy and to facilitate delivery of a healthy baby. Fresh berries can be eaten to help treat respiratory distress, and some people pick berries for jam. **CAUTION**: fruits are high in tannins and should not be consumed in quantity; seeds contain a cyanide-producing glycoside.

Cottongrass (*Eriophorum angustifolium*) – **Culuguat Weg'et, Culuguaq Qiii'aq, Qinugyuguaq**: Tufts can be placed in the outer ear to treat an infection. A hot poultice can be placed on the ear during a steam bath to release natural healing oils and melt ear wax. Stems can be twisted to make a wick for a stone oil lamp.

Moss (*Sphagnum* spp.) – **Uruq**: Collected and dried for use as baby diapers, toilet paper, and absorbent material for menstruating women. Also used as insulation for houses and clothing, material for camp bedding, camouflage for snares and traps, to cover graves, to remove the hair from seal skins, to fill leather balls for *laptuuk*, and as a wick for an oil lamp.

Club mosses (*Lycopodium* spp.) – **Uruq, Muruq**: Plants can be collected and used to make grave wreaths.

Bog cranberry (*Oxycoccus microcarpus*) – **Kislitsa, Kenegtag**: Berries are edible. Plant can be dried, ground into a powder, and cooked into a laxative for constipation and to induce vomiting.

Nagoonberry (*Rubus arcticus*) – **Puyurniq**: Berries are edible and highly prized, but difficult to collect due to size and abundance. Can be eaten fresh or preserved as jam or jelly.

Buckbean (*Menyanthes trifoliata*): No documented use by Alutiiq, however other regional groups used leaves as a poultice for infected sores. Leaves can also be boiled into a tea to treat digestive tract issues or to relieve fever and headaches.

American burnet (*Sanguisorba canadensis*): No documented use by Alutiiq, but other regional groups collected fresh leaves for eating and use as seasoning. Leaves also can be used to stop internal and external bleeding.

An example of deercabbage – tufted bullrush peatland habitat (PC: ACCS – Cordova, AK)