

# A Systematic Analysis of *Ledum* (Labrador Tea)



Specimen (10)



Specimen (3)



Specimen (4)



*L. palustre decumbens* (Hult.)



*L. palustre groenlandicum* (Hult.)



Specimen (9)



Specimen (8)



Specimen (13)

# *Ericaceae* (Heath Family)

- Order Ericales
- 116 - 125 genera, 14 genera occur in Alaska
- Plants grow in acidic, nutrient-poor soils
- Almost always have mycorrhizal root associations
- Fruit is a capsule, berry, or drupe
- Multiple subfamilies including *Pyrolaceae* and *Empetraceae*

# Key to Genus

Ovary inferior, forming a berry crowned by calyx teeth:

With petals nearly distinct, reflexed; plant trailing .....

*Oxycoccus*

With corolla campanulate or globular; stem erect; low shrub ..... *Vaccinium*

Ovary superior:

Fruit a berry or berrylike:

Calyx becoming accrescent and fleshy, enveloping the fleshy capsule ..... *Gaultheria*

Calyx dry, not becoming fleshy; fruit a drupe or drupaceous berry, subtended by calyx ..... *Arctostaphylos*

Fruit a dry capsule:

Petals distinct:

Leaves glabrous beneath; flowers large, solitary, copper-colored ..... *Cladothamnus*

Leaves brown-woolly beneath; flowers small, white ..... *Ledum*

# Step By Step...

Ovary inferior, forming a berry crowned by calyx teeth:

**Ovary superior:**



Specimen (9)

Fruit a berry or berrylike:  
**Fruit a dry capsule:**



Specimen (6)

**Petals distinct:**



Specimen (10)

Leaves glabrous beneath; flowers large, solitary, copper-colored

**Leaves brown-woolly beneath; flowers small, white**



Specimen (12)



Specimen (11)

According to Hulten there is only one species of *Ledum* in Alaska:

*Ledum palustre*

- Common Names:

- Labrador Tea

- Hudson's Bay Tea

- Marsh Tea

- Greenland Tea

- Trapper's Tea

- Moth Herb



# Uses

- Tea
  - The leaves of *Ledum* are used
  - Mainly mixed with other teas to add a spicy fragrance
  - Labrador Tea is sipped by Yup'ik natives to treat food poisoning or stomach aches
  - USE IN MODERATION IS ADVISED
  - *Ledum* contains the narcotic toxin Ledol, which can cause drowsiness and cramps
  - In large quantities, Ledol can have other serious effects such as paralysis and heart palpitations
- Moth Herb
  - Add leaves to potpourris to repel moths

# *Ledum palustre*

Two subspecies:

*Ledum palustre* subsp. ***decumbens***

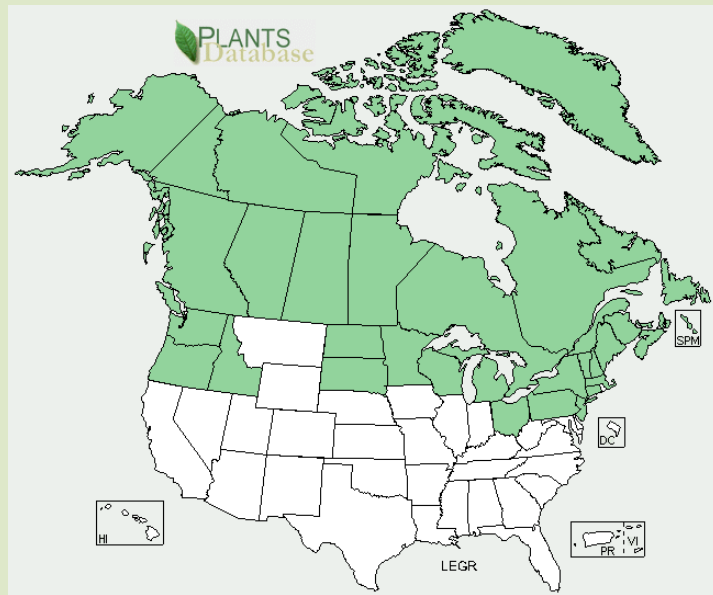
(Marsh Labrador Tea)

*Ledum palustre* subsp. ***groenlandicum***

(Bog Labrador Tea)

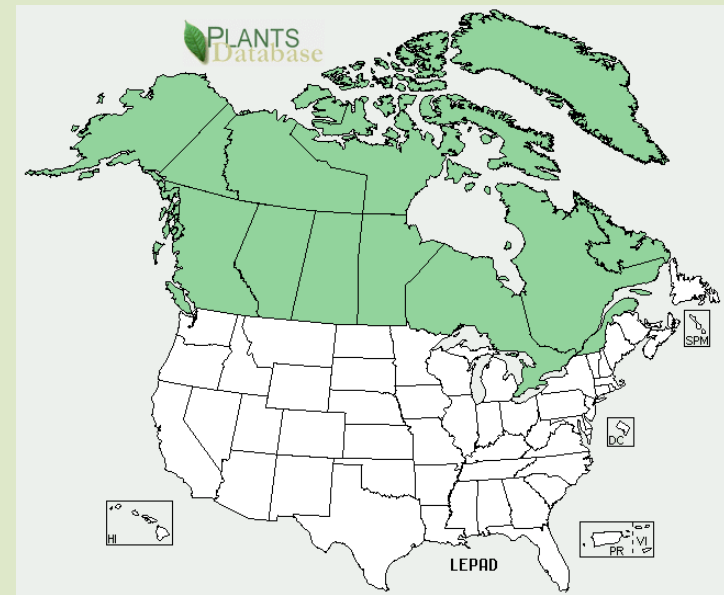
# Distribution

*L. palustre decumbens*



Distribution courtesy of USDA

*L. palustre groenlandicum*



Distribution courtesy of USDA

# Key to Subspecies

Leaves linear; stamens mostly 10; pedicels

hooked in apex ..... *L. palustre* subsp. *decumbens*

Leaves linear-oblong to oblong; stamens mostly 8;

pedicels arcuate ..... *L. palustre* subsp. *groenlandicum*

# *decumbens* vs. *groenlandicum*

Leaves linear



Specimen (4)

Leaves linear-oblong  
to oblong



Specimen (13)

# *decumbens* vs. *groenlandicum*

Pedicels hooked  
in apex



Specimen (3)

Pedicels arcuate



Specimen (8)

# *decumbens* vs. *groenlandicum*

Pedicels covered in curled  
rusty hairs intermixed  
with sessile glands



Specimen (5)

Pedicels with fine white  
pubescence intermixed  
with sessile glands



Specimen (14)

# *decumbens* vs. *groenlandicum*

Strongly revolute margins



Specimen (4)

Slightly to strongly revolute margins



Specimen (12)



- Overall Size:

## *decumbens*



Specimen (2)



Specimen (1)

Leaves 0.3 – 1.5cm long,  
0.1-0.3cm broad

Shrub up to 50cm tall

## *groenlandicum*



Specimen (7)



Specimen (7)

Leaves 2-4.5cm long,  
0.3 – 1.5cm broad

Shrub up to 80cm tall

# ARCTOS Links – *decumbens*

1. ALAAC 83621 : Examined April 26, 2010  
<http://arctos.database.museum/guid/UAM:Herb:46245>
2. ALAAC 8901 : Examined April 26, 2010  
<http://arctos.database.museum/guid/UAM:Herb:72677>
3. ALAAC 94069 : Examined April 26, 2010  
<http://arctos.database.museum/guid/UAM:Herb:135990>
4. ALAAC 91454 : Examined April 30, 2010  
<http://arctos.database.museum/guid/UAM:Herb:79933>
5. ALAAC 83621 : Examined April 30, 2010  
<http://arctos.database.museum/guid/UAM:Herb:46245>
6. ALAAC 4429 : Examined April 29, 2010  
<http://arctos.database.museum/guid/UAM:Herb:65057>

# ARCTOS Links - *groenlandicum*

7. ALAAC 74929 : Examined April 29, 2010  
<http://arctos.database.museum/guid/UAM:Herb:62437>
8. ALAAC V125420 : Examined April 29, 2010  
<http://arctos.database.museum/guid/UAM:Herb:20814>
9. ALAAC V96885 : Examined April 29, 2010  
<http://arctos.database.museum/guid/UAM:Herb:24944>
10. ALAAC 70972 : Examined April 29, 2010  
<http://arctos.database.museum/guid/UAM:Herb:90975>
11. ALAAC 49444 : Examined April 29, 2010  
<http://arctos.database.museum/guid/UAM:Herb:91734>
12. ALAAC V107098 : Examined April 30, 2010  
<http://arctos.database.museum/guid/UAM:Herb:24948>
13. ALAAC V76527: Examined April 30, 2010  
<http://arctos.database.museum/guid/UAM:Herb:65952>
14. ALAAC V071924 : Examined May 3, 2010  
<http://arctos.database.museum/guid/UAM:Herb:58225>

# Literature Cited

- Anderson, Welsh. *Anderson's Flora of Alaska and Adjacent Parts of Canada*. Provo: Brigham Young University, 1974.
- Cody, W.J. *Flora of the Yukon Territory*. 2<sup>nd</sup> ed. Ottawa: NRC Research Press, 2000.
- Hulten, Eric. *Flora of Alaska and Neighboring Territories: A Manual of the Vascular Plants*. California: Stanford University, 1968.
- Schofield, J.J. *Alaska's Wild Plants: A Guide to Alaska's Edible Harvest*. Washington: Alaska Northwest, 1993.

# Literature Cited

- Viereck, E.G. *Alaska's Wilderness Medicines: Healthful Plants of the Far North*. Washington: Alaska Northwest, 1987.
- Walters, Keil, Murrell. *Vascular Plant Taxonomy*. 5<sup>th</sup> ed. Dubuque: Kendall/Hunt, 2006.
- Distribution Map – decumbens  
<http://plants.usda.gov/java/profile?symbol=lepad>
- Distribution Map – groenlandicum  
<http://plants.usda.gov/java/profile?symbol=LEGR>
- All Photos Taken By Rebecca Konieczny