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*Vaccinium
ovalifolium*

*Vaccinium
alaskensis*



Michelle Cason

About *Vaccinium*

- *Vaccinium ovalifolium* = Oval-leaf blueberry, oval-leaf huckleberry
- *Vaccinium alaskensis* = *V. alaskaense*, Alaskan blueberry, Alaskan huckleberry
- Important for humans and wildlife
 - Contain antioxidants, vitamins, energy
 - Humans: commercial, recreational, and subsistence value
 - Wildlife: food and cover for birds, small and large mammals

Habitat

- *V. ovalifolium*
 - Cool, moist
 - Submontane to subalpine
 - Open slopes, edges of bogs, swamps, meadows
 - Grows in N-poor soils
 - Sea level to tree line
 - Successional status
 - Well in open, early successional habitats
 - Well in old forests after self-thinning
 - Poor in immature, dense forests
 - Common in post-avalanche areas
- *V. alaskensis*
 - Cool, moist
 - Especially montane forests
 - Grows in N-poor soils
 - Sea level to 1,800 meters
 - Successional status
 - Well in open, early successional habitats
 - Well in old forests after self-thinning
 - Poor in immature, dense forests

(USDA Forest Service)

Botanical Characteristics of *Vaccinium*

- Common to Ericaceae
 - Shrub
 - Leaves simple
 - Flowers perfect
 - Calyx and corolla 4 or 5 each
 - Fruit a capsule or berry
- Deterministic to *Vaccinium*
 - Creeping or upright dwarf shrubs
 - Flowers axillary or in terminal racemes
 - Corolla campanulate or globose-urceolate
 - Fruit is a berry with many seeds

Key for *V. ovalifolium* and *V. alaskensis*

Leaves deciduous, thin; flowers single in axils; anthers with horns

Branches angled; plant usually more than 20 cm tall

Leaves not serrate in apex

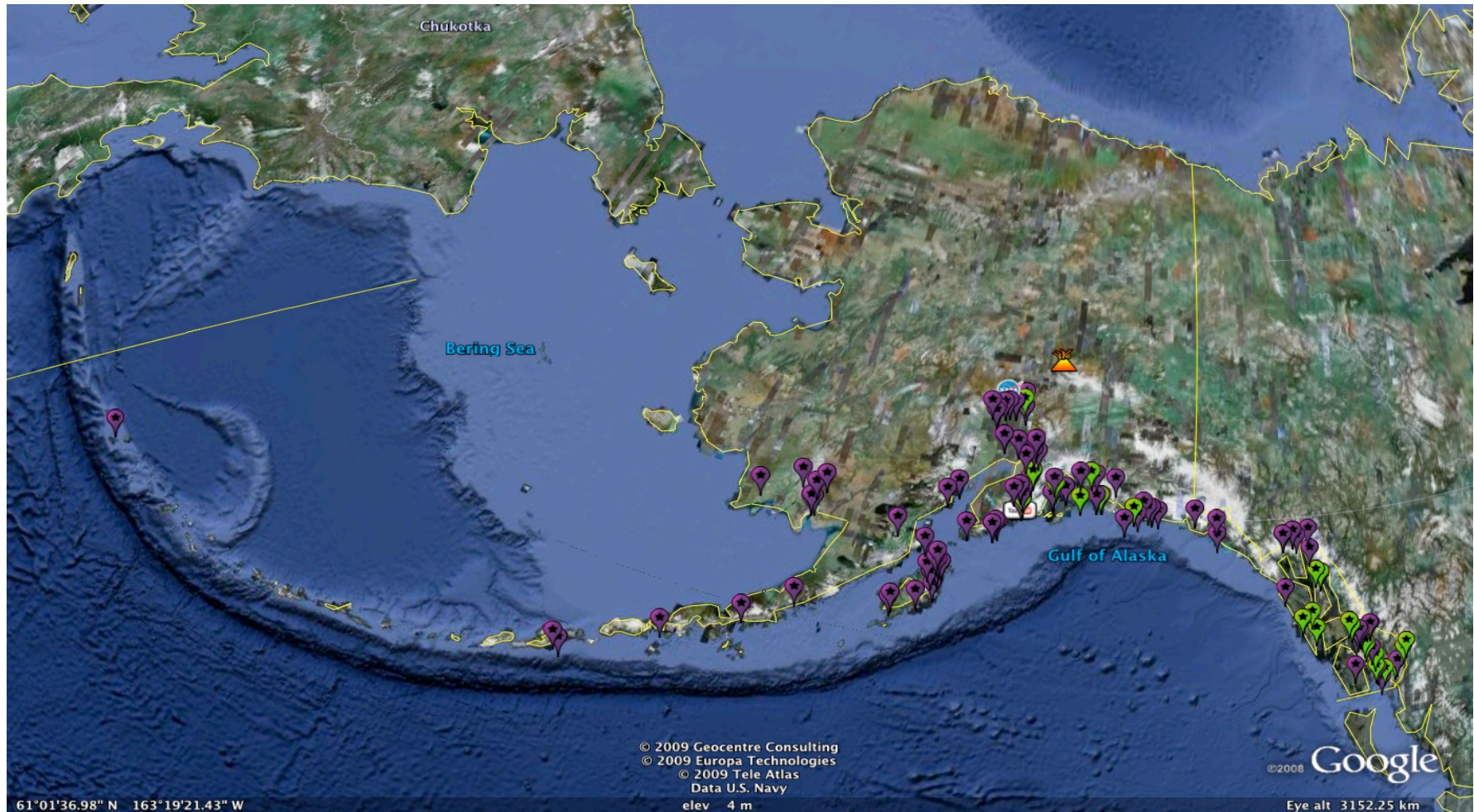
Leaves longer than 1-2 cm; fruit blue

Leaves glandular-serrate only at extreme base, lacking glands on midvein below; pedicels short, curved, in fruit cylindrical.....*V. ovalifolium*

Leaves glandular-serrate in lower half, with scattered glands on midvein below; pedicels long, straight, in fruit thicker at apex.....*V. alaskensis*

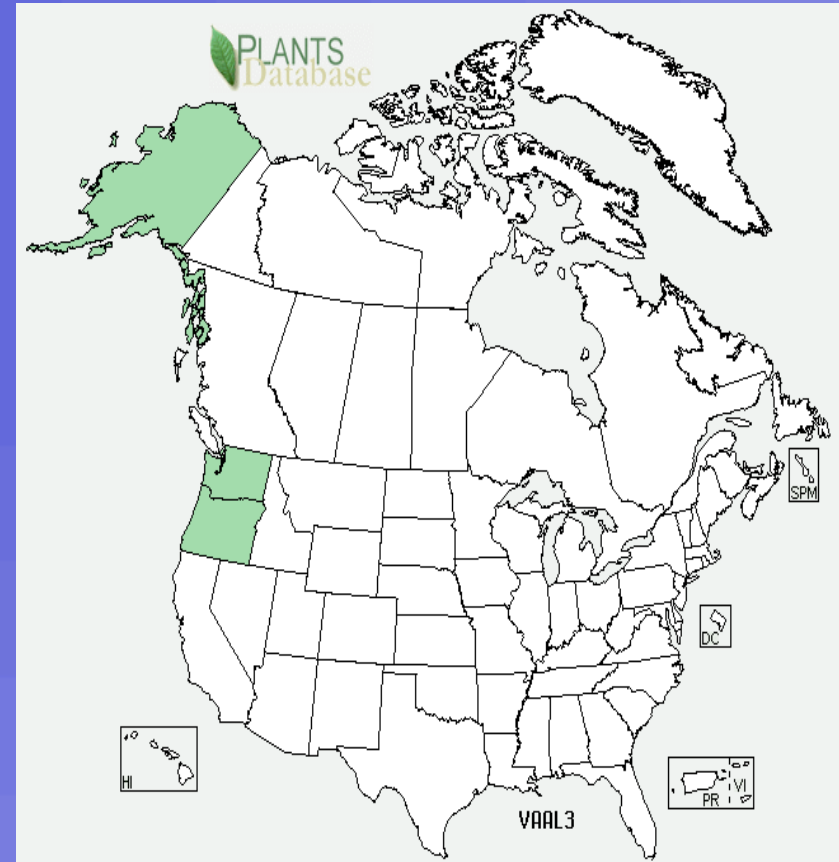
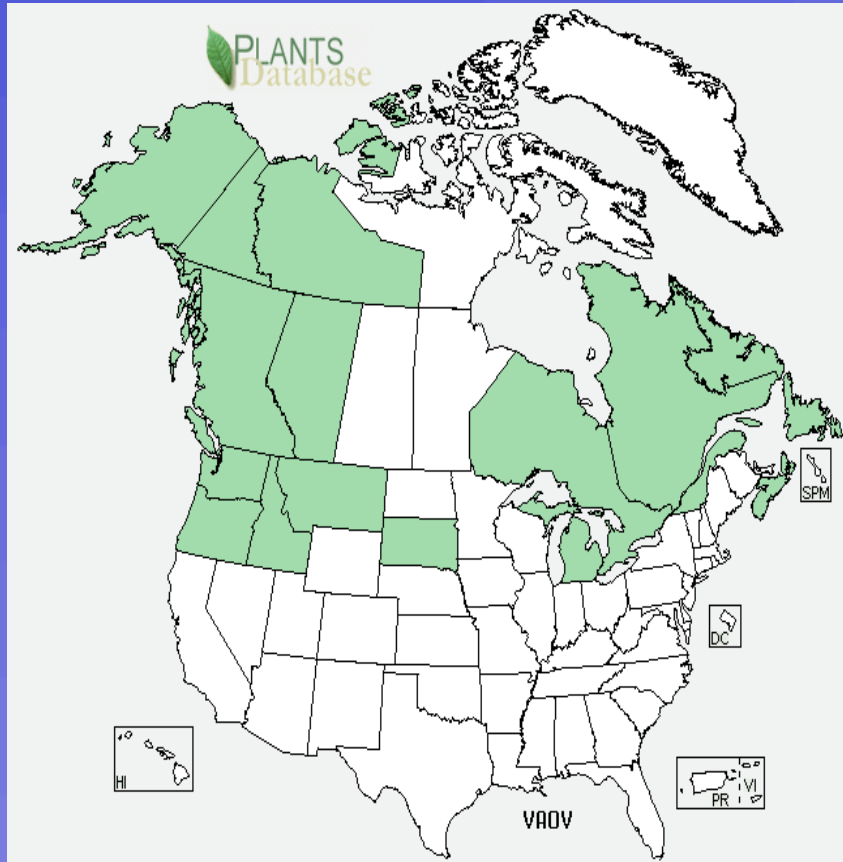
(Hulten)

Distribution of *V. ovalifolium* and *V. alaskensis* in Alaska



Green=*V. alaskensis*, Purple=*V. ovalifolium*

Distribution for *V. ovalifolium* *V. alaskensis* in North America



(USDA Natural Resources Conservation Service)

Hulten's Descriptions

- *V. ovalifolium*

Shrubs 50-100 cm tall, flowering early, when leaves are half expanded; twigs conspicuously angled; leaves ovate-elliptic to obovate, entire or mostly with few glandular teeth near base; flowers single in axils; pedicels short, recurved in fruit, not thickened toward apex; corolla pinkish, subglobose; style included; berry globose, blue-black. Transitions to *V. alaskensis* seem to occur.

- *V. alaskensis*

Very similar to *V. ovalifolium* but taller with larger leaves, glandular-serrated in lower half and very sparsely glandular along medium vein below; pedicels longer, straight, thickened toward apex; style usually exserted. Berry said to be more sour than that of *V. ovalifolium*.

Differences between species, According to Hulten

<i>Vaccinium ovalifolium</i>	<i>Vaccinium alaskensis</i>
Shorter	Taller
Smaller leaves	Larger leaves
Entire or mostly, with few glandular teeth near base	Glandular-serrulated in lower half
Pedicels shorter	Pedicels longer
Pedicels recurved in fruit	Pedicels straight
Pedicels not thickened towards apex	Pedicels thickened toward apex
Style included	Style exserted
Berry more sweet	Berry more sour

Pedicle Differences

V. ovalifolium

Pedicle recurved, not thickened toward apex.



74893

V. alaskensis

Pedicle longer, straight, thickened toward apex.



V136947

Style Differences

V. ovalifolium

Style included, shorter than corolla.



V75413

V. alaskensis

Style exerted, longer than corolla.



V75895

Summary

- *V. ovalifolium* has a larger distribution, more diverse habitats
- *Vaccinium ovalifolium* and *Vaccinium alaskensis* have reliable differences when in flower and fruit.
- Important to look at multiple styles or pedicels per plant.
 - Style and pedicel characteristics not absolute rules
- Vegetative differences not as reliable
 - What to do when plant not in flower or fruit????

“Whole Picture” of Vegetative Growth May Help Distinguish Species

- *V. alaskensis* can be more robust
 - Taller shrub*
 - Bigger leaves**
 - Woodier stems**
- Berry of *V. alaskensis* more sour*
- Leaves of *V. ovalifolium* glandular serrate only at extreme base, leaves of *V. alaskensis* glandular-serrate on lower half**
- Leaves of *V. ovalifolium* wider at base, leaves of *V. alaskensis* wider apex**

* = Hulten observation

** = Cason observation



Literature Cited



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Images Used

Lindsey Koepke. United States, WA, Pierce Co., Mount Rainier National Park, Tahoma Creek Trail. June 25, 2005

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V75895. UA Museum Herbarium. University of Alaska Fairbanks.

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