

A Systematic Analysis of Platanthera:

dilatata



convallariaefolia



Comparing two very similar species of Platanthera among the
Orchidaceae family in Alaska

Orchidaceae

- Part of the order Asparagales
- 735 genera worldwide
- Flowers are 3-merous and highly zygomorphic, each subtended by a single bract
- Fruit is a dry capsule

Key to Orchidaceae

1. Leaves simple, parallel veined; flowers 3-merous and zygomorphic; petals form lips and spurs varying in length

- Platanthera

2. Spur filiform usually shorter than lip

- dilatata

2. Spur parallel to lip, slender, filiform, blunt, about as long as lip

- convallariaefolia

Platanthera dilatata

- Common Names:

- Sierra bog orchid
- Scent bottle
- Tall white bog orchid
- Bog candles

- Synonyms:

- HALE5 *Habenaria leucostachys* (Lindl.) S. Watson
- LIGR11 *Limnorchis graminifolia* Rydb.
- PLLE5 *Platanthera leucostachys* Lindl.

Platanthera convallariaefolia

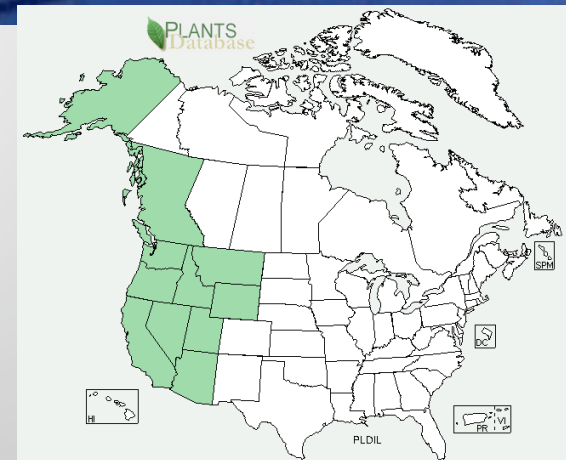
- Common Names:

- Northern green orchid
- Bog orchid

- Synonyms:

- LIHY *Limnorchis hyperborea* (L.) Rydb
- PLHYH2 *Platanthera hyperborea* (L.) Lindl. var. *hyperborean*
- PLHYM2 *Platanthera hyperborea* (L.) Lindl. var. *minor*
Lange

Platanthera dilatata



U.S. Distribution courtesy USDA Source:
[http://www.plants.usda.gov/java/profile?
symbol=PLDI3](http://www.plants.usda.gov/java/profile?symbol=PLDI3)

Platanthera convallariaefolia



U.S. Distribution courtesy USDA Source:
[http://www.plants.usda.gov/java/profile?
symbol=PLHY2](http://www.plants.usda.gov/java/profile?symbol=PLHY2)

Comparison

- *P. dilatata* and *P. convallariaefolia* can look very similar and be extremely hard to delineate differences and similarities.



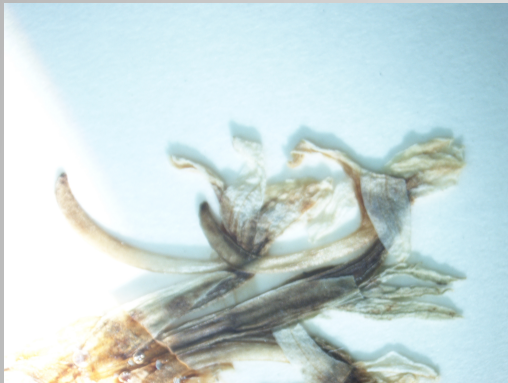
P. dilatata



P. Convallariaefolia

Thorough Comparison

- *P. dilatata* is perennial and can have spur longer than lip



- *P. convallariaefolia* spur usually shorter than lip



Thorough comparison cont.

- *Platanthera dilatata* has a dilated lip at base



- *Platanthera convallariaefolia* has a slender, non dilated lip



Differences between same species

- *P. dilatata*



Differences between same species

- *P. convallariaefolia*



Literature Cited:

- Links to specimens examined at <http://arctos.database.museum/>
- ARCTOS Links – *Convallariaefolia*
- ALAAC V99035 : Examined 5/3/2010
- <http://arctos.database.museum/guid/UAM:Herb:45449>
- ALAAC V90312 : Examined 5/3/2010
- <http://arctos.database.museum/guid/UAM:Herb:26357>
- ALAAC V74588 : Examined 5/3/2010
- <http://arctos.database.museum/guid/UAM:Herb:45447>
- ALAAC V95306 : Examined 5/3/2010
- <http://arctos.database.museum/guid/UAM:Herb:44909>
- ALAAC V96204 : Examined 5/3/2010
- <http://arctos.database.museum/guid/UAM:Herb:26348>
- ALAAC 47520 : Examined 5/3/2010
- <http://arctos.database.museum/guid/UAM:Herb:183940>

Literature Cited

- ARCTOS Links – Dilatata
- ALAAC 58118 : Examined 5/3/2010
- <http://arctos.database.museum/guid/UAM:Herb:45447>
- ALAAC 83913 : Examined 5/3/2010
- <http://arctos.database.museum/guid/UAM:Herb:45447>
- ALAAC V165345 : Examined 5/3/2010
- <http://arctos.database.museum/guid/UAM:Herb:45447>
- ALAAC V33507 : Examined 5/3/2010
- <http://arctos.database.museum/guid/UAM:Herb:45447>
- 5. ALAAC V75821 : Examined 5/3/2010 <http://arctos.database.museum/guid/UAM:Herb:45447>
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- Platanthera convallariaefolia. USDA <http://www.plants.usda.gov/java/profile?symbol=PLHY2>
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- Platanthera dilatata. USDA <http://www.plants.usda.gov/java/profile?symbol=PLDI3>
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- Reserarch conducted for this project included information from Jacob Peter Anderson's Flora of Alaska, Eric Hulten's Flora of Alaska and Neighboring territories, and William Cody's Flora of the Yukon Territory
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- P. convallariaefolia and P. dilatata distribution maps created from KML files provided by ARCTOS, using Google Earth software
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- Photos taken by Jace W. Bures