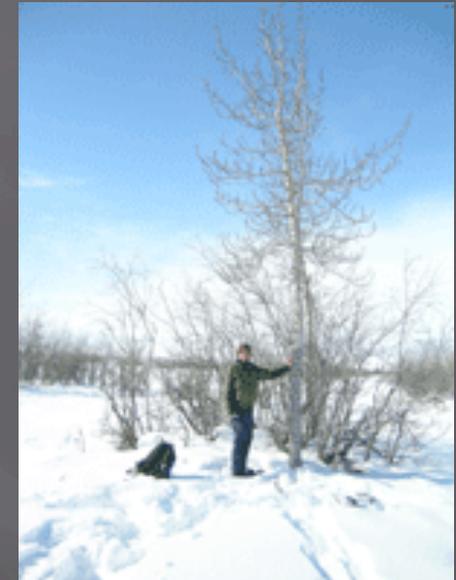




# Background

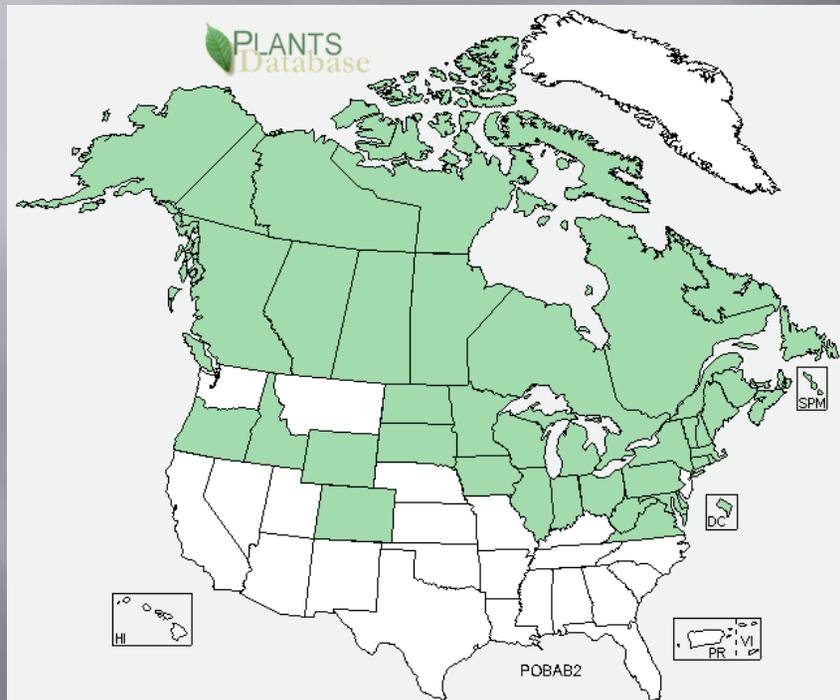
- ▣ Members of the *Populus* genus in the Salicaceae family
- ▣ Dioecious plants with unisexual catkins
- ▣ *P. balsamifera*:
  - Successional species common in glacial moraines and river banks.
  - Also a fire succession species
- ▣ *P. tremuloides*:
  - Occurs often on ponds/lakes and grassy uplands as well as upland slopes.
  - Often intermingled with *P. balsamifera*.



[http://users.iab.uaf.edu/~matt\\_olson/lab\\_site.htm](http://users.iab.uaf.edu/~matt_olson/lab_site.htm)

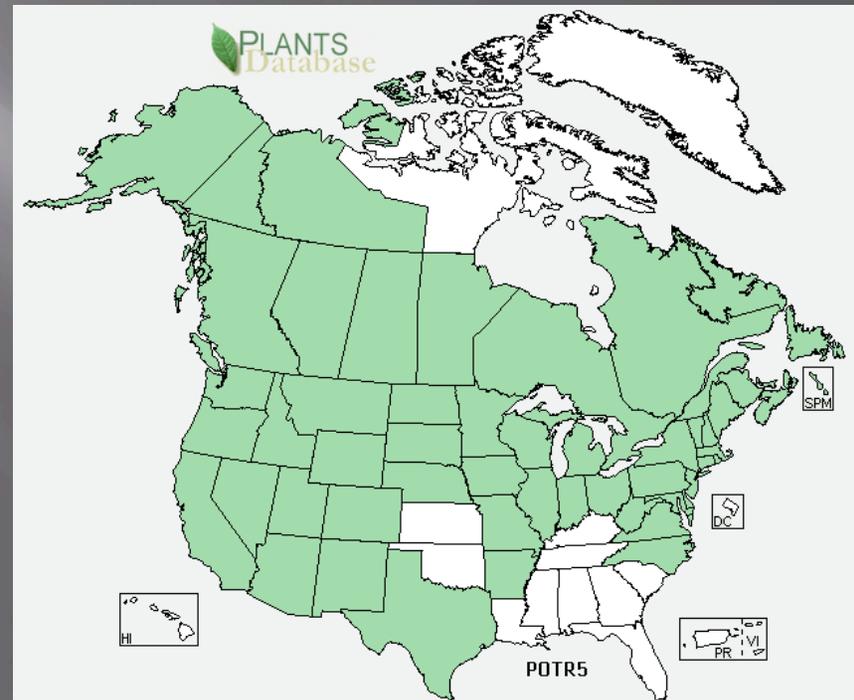
# Distribution

*P. Balsamifera* distribution



<http://plants.usda.gov/java/profile?symbol=POBAB2>

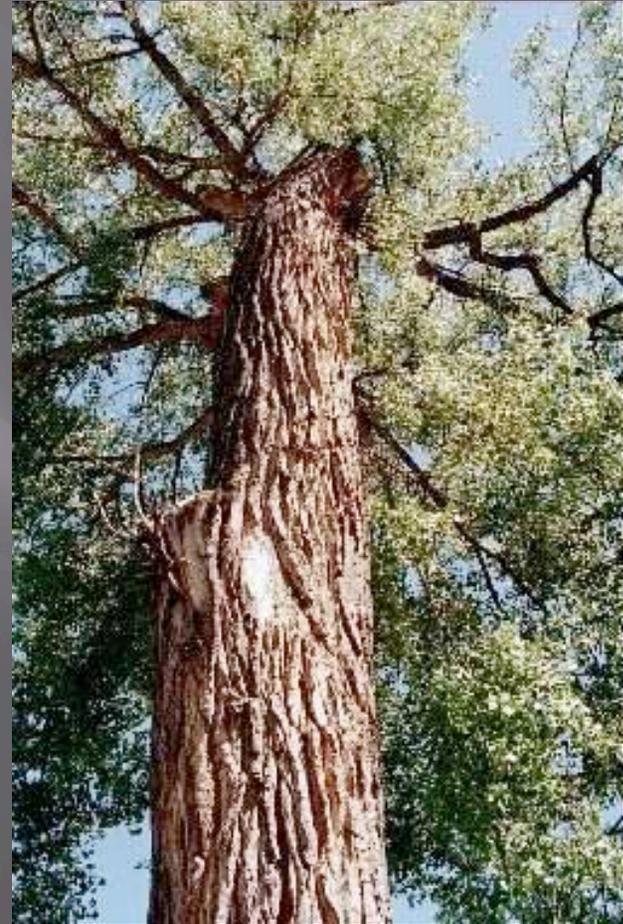
*P. Tremuloides* distribution



<http://plants.usda.gov/java/nameSearch>

# *P. balsamifera*

- ▣ Cottonwood/Balsam Poplar
- ▣ Mature Trees:
  - Usually 12-15 meters. Up to 30 meters.
  - Bark is brown to light grey and furrows heavily with age



<http://deq.mt.gov/ClimateChange/images/CottonwoodTree.jpg>

## *P. tremulooides*

- ▣ Trembling/Quaking Aspen
- ▣ Mature Trees:
  - Grows 10-12 meters tall
  - Bark is white, sometimes becoming grey with age.
  - Sometimes shallowly furrowed



[http://www.domtar.com/arbres/english/Image/arbres/album/p\\_tremb.jpg](http://www.domtar.com/arbres/english/Image/arbres/album/p_tremb.jpg)

# Leaf shape/Color

## *P. BALSAMIFERA*

- ▣ Leaf color:
  - Deep green
  - Shiny above
  - Paler below

Arctos #3

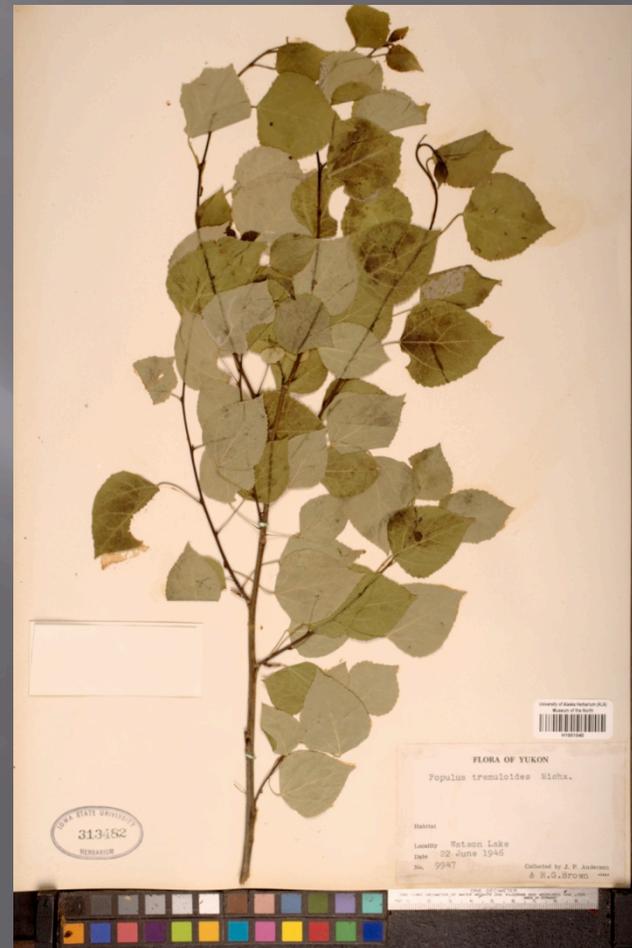


Arctos #1

- Leaf size/shape:
  - 4-12 cm. in length
  - Broadly lanceolate to ovate

# Leaf shape/color

- ▣ *P. tremuloides*
  - *Leaf color:*
    - ▣ *Yellowish-green above*
    - ▣ *Paler/glaucous beneath*
  - *Leaf Size/Shape:*
    - ▣ *3-7 cm. in length*
    - ▣ *Ovate or suborbicular*



Arctos #2

# Stems

Species # v112172

- ▣ *P. balsamifera*:
  - ▣ Stems covered in tiny, pubescent hairs.



- ▣ *P. tremuloides*:
  - ▣ Stems completely glabrous



Species #002170

# Capsules

Species # 45970

- *P. balsamifera* :
  - Capsules larger, 4-8 mm.
  - Completely glabrous
  - Narrowly ovate to lanceolate



- *P. temuloides*:
  - Smaller capsules, 3-4 mm.
  - Said to be smooth (glabrous?).
  - Almost always lanceolate



Species #121203

# Petiole

- *P. balsamifera*:
  - Glabrous, usually 1/3 as long as leaf blade.
  - Often with glands at base
  
- *P. tremuloides*:
  - Also glabrous, but usually as long as leaf blade.
  - Seldom bearing glands
  - Much more flexible

Arctos #1



Arctos #3

## Conclusion

- ▣ Younger plants can be difficult to tell apart
- ▣ *P. balsamifera* can be difficult to distinguish from other subspecies
- ▣ Rare occurrences of hybridization between *P. tremuloides* and *P. balsamifera*

## Works Cited

- ▣ Hulten, E. 1968. *Flora of Alaska and neighboring territories*. Stanford university press. 331-332
- ▣ Cody, W.J. 1996. *Flora of the Yukon Territory*. NRC research press. 212-213
- ▣ Brayshaw, T.C. 1965. *Native poplars of southern alberta and their hybrids*. Department of forestry. 15-16.
- ▣ Quaking aspen in Katmai national monument. 2-4

## Arctos #

- ▣ Arctos #1= Arctos UAM herbarium #67434
- ▣ Arctos #2= Arctos UAM herbarium #208589
- ▣ Arctos #3= Arctos UAM herbarium #55529