

Bog Ecology

Outline:

1. What is a bog?
2. Bogs in our Area
3. Organisms that call the Bog Home
4. The Value of Bogs



1. What is a Bog?



1. What is a Bog?

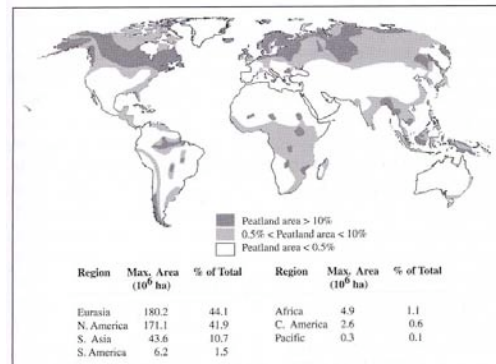


Fig. 11.1. Global distribution of peatlands. (Redrawn from Gore 1986.)

1. What is a Bog?

Combination of Conditions:

- a) Extremely moist
- b) Poor drainage
- c) Acidic
- d) Cooler temperatures
- e) Low decomposition
- f) Low nutrients
- g) Dominant plant: *Sphagnum*



by Kent Brothers

1. What is a Bog?

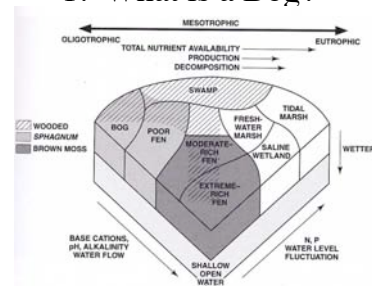
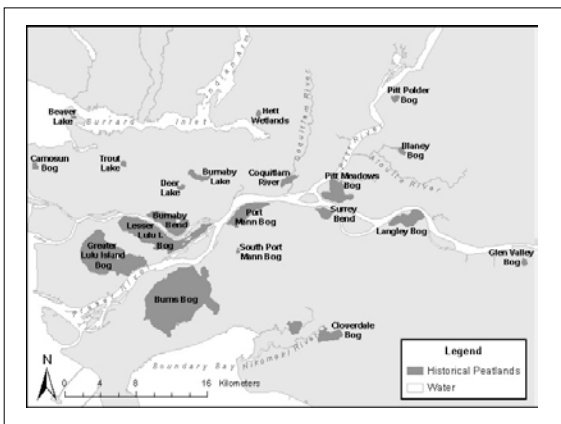
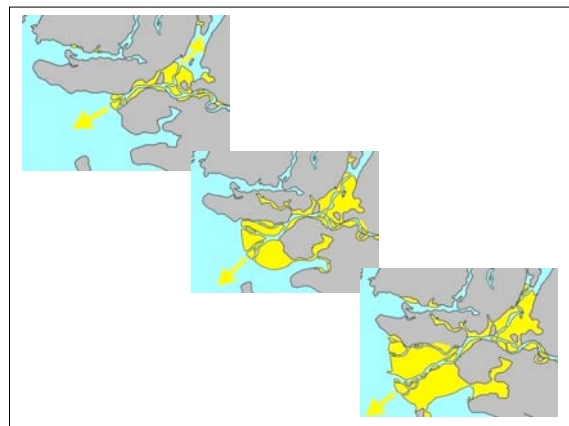
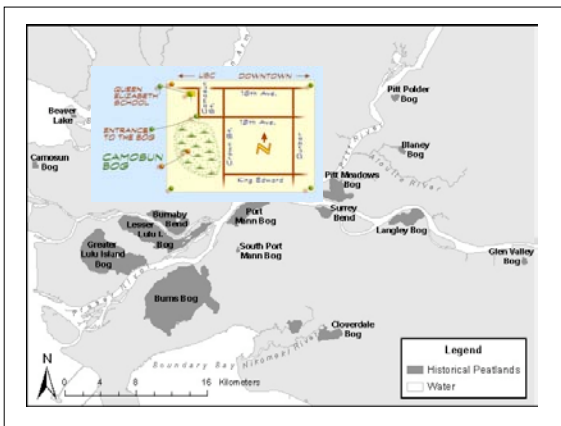
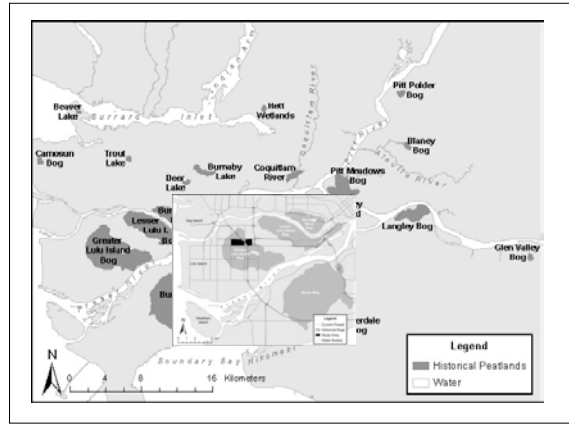
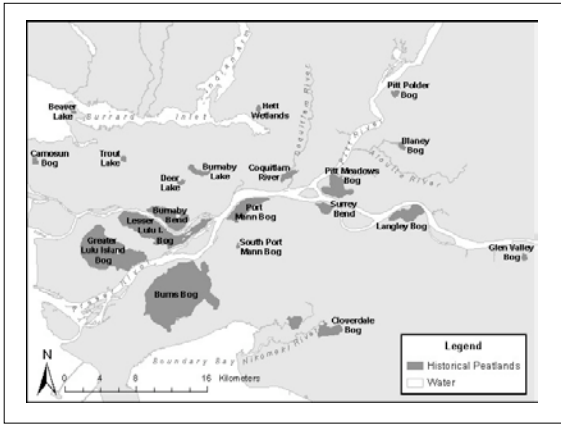
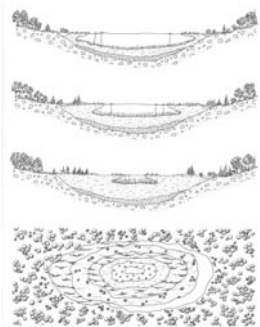


Fig. 10.4. Ternary diagram showing five wetland classes in relation to hydrology, chemistry, and vegetation. (Modified from Vitt 1994 and Zolai & Vitt 1995.)



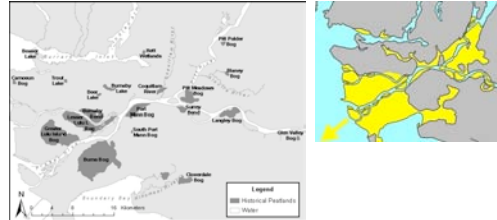
1. What is a Bog?

How Bogs are Formed



Howard Crum, 1988

Outline how Camosun Bog would have formed given that it is not part of the delta system.



2. Burns Bog



2. Burns Bog



2. Burns Bog

- Southernmost limit of dome bog
- Largest tract of under-developed land in the lower mainland
- 3,000 hectares

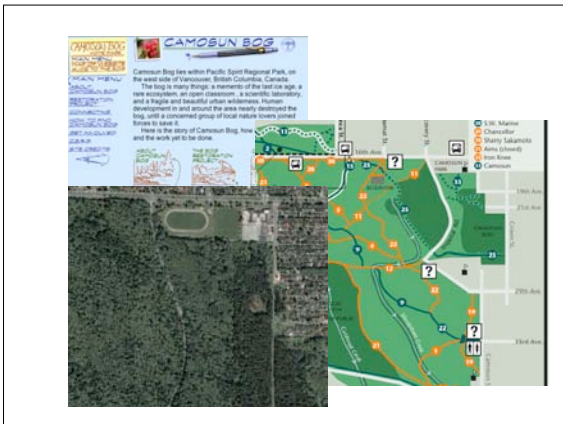
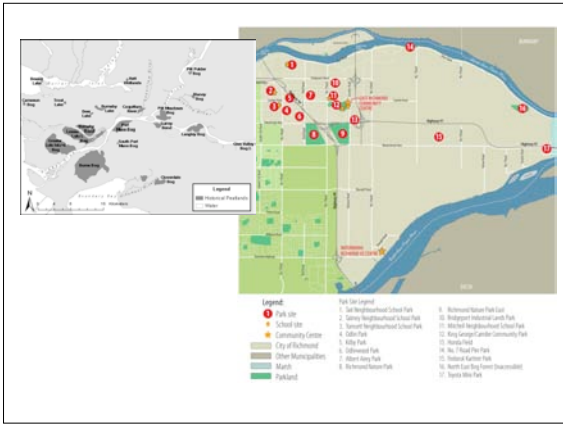
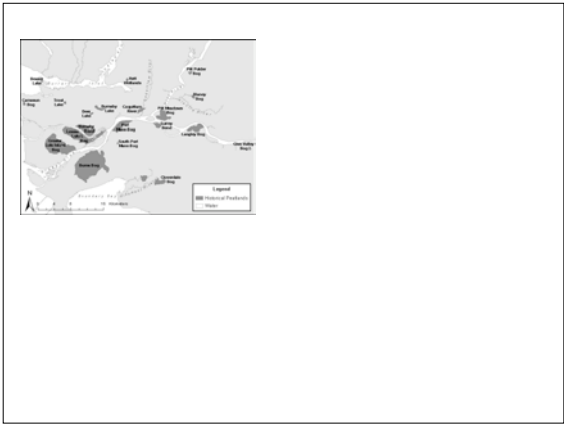


2. Burns Bog

Purchasing Partners:
 Government of Canada
 Province of BC
 Greater Vancouver Regional District (GVRD)
 Corporation of Delta

Burns Bog Ecological Conservancy Area





3. Organisms that Call the Bog Home

What is the most important plant in the bog?

3. Organisms that Call the Bog Home

SPHAGNUM - THE WONDER PLANT!!!!!!



3. Organisms.....

Sphagnum capillifolium



Sphagnum lindbergii



Sphagnum tenellum



Sphagnum fuscum



Sphagnum wilfii



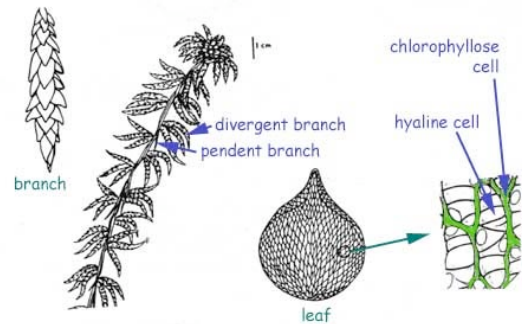
3. Organisms.....

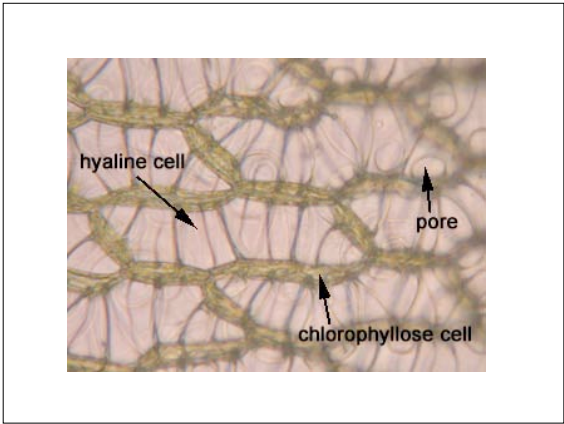
Sphagnum
- Makes environment acidic



3. Organisms.....

Sphagnum
- Makes environment acidic
*cation exchange system





3. Organisms.....

Sphagnum

- Maintains moisture and can raise water table
- Peat forming

3. Organisms.....

Aulacomnium

3. Organisms.....

Tetraplodon

Interesting substrate!!!

3. Organisms.....

Pleurozia purpurea

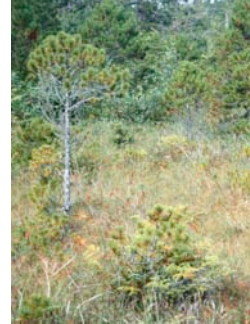
3. Organisms.....

Lichens



3. Organisms.....

Pinus contorta



2. Plants of the Bog

Endocronartium harknessii



2. Plants of the Bog

Cloudberry



2. Plants of the Bog



What does Labrador tea, bog rosemary, bog laurel, blueberry, cranberry, and salal have in common?

They all belong to the Ericaceae! - the "heath" family

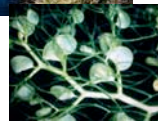


2. Plants of the Bog

Bladderwort



Sundew



4. The Value of Bogs

