

## 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?

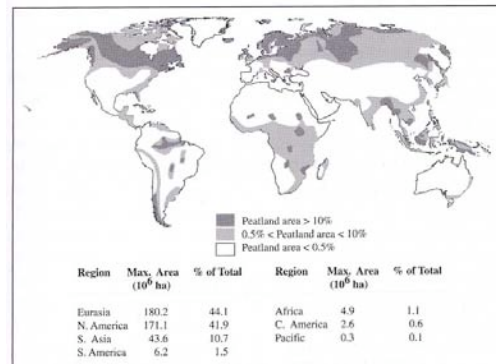


Fig. 11.1. Global distribution of peatlands. (Redrawn from Gore 1986.)

## 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?

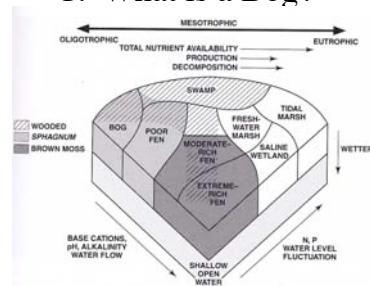
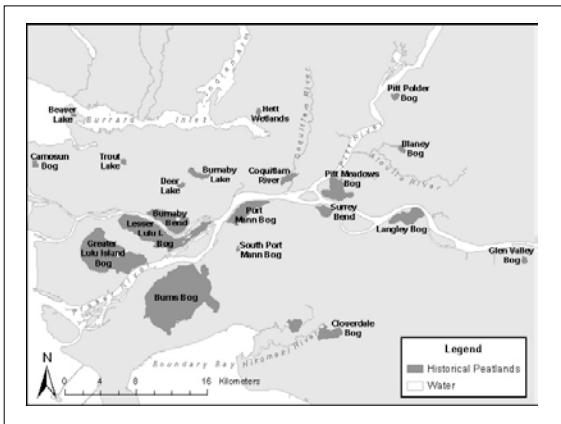
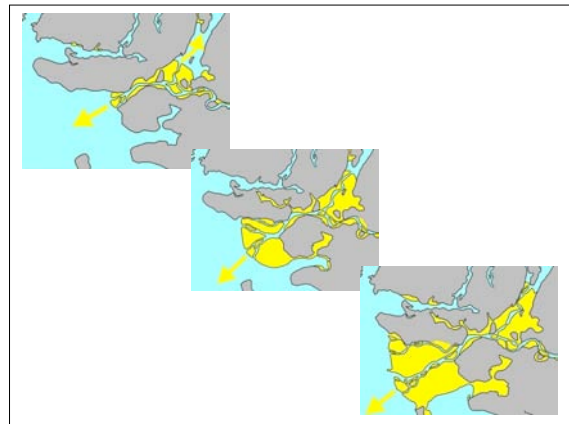
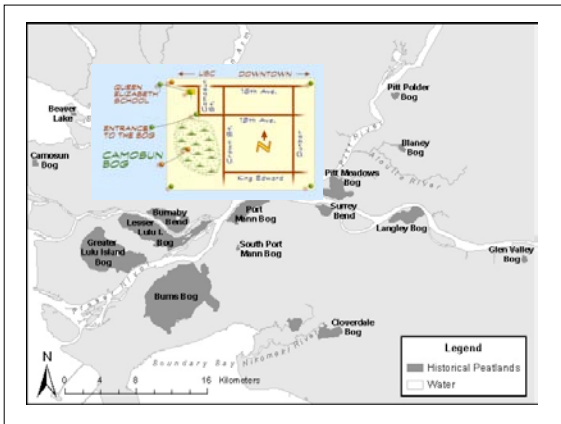
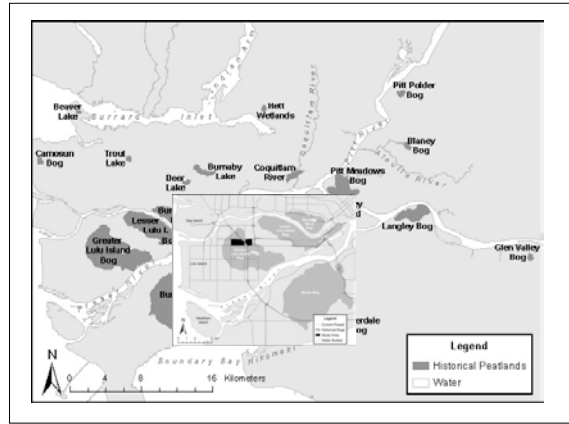
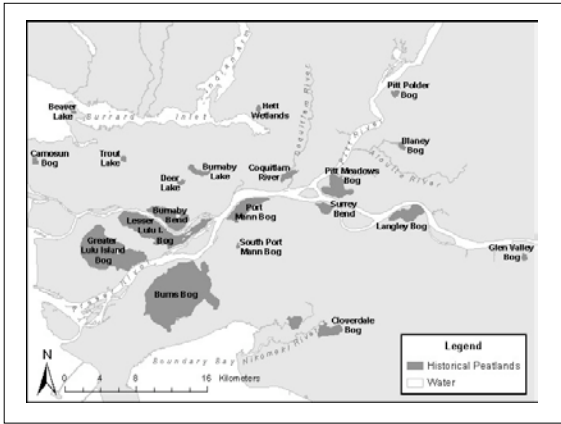



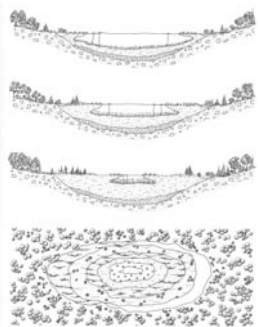
Fig. 10.4. Ternary diagram showing five wetland classes in relation to hydrology, chemistry, and vegetation. (Modified from Vitt 1994 and Zolai & Vitt 1995.)



# 1. What is a Bog?

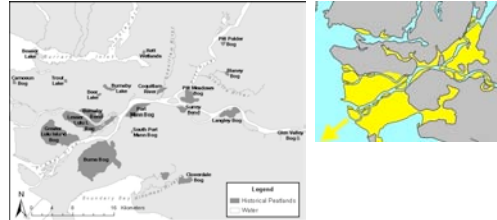
**How Bogs are Formed**





Howard Crum, 1988

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



## 2. Burns Bog



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## 2. Burns Bog

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

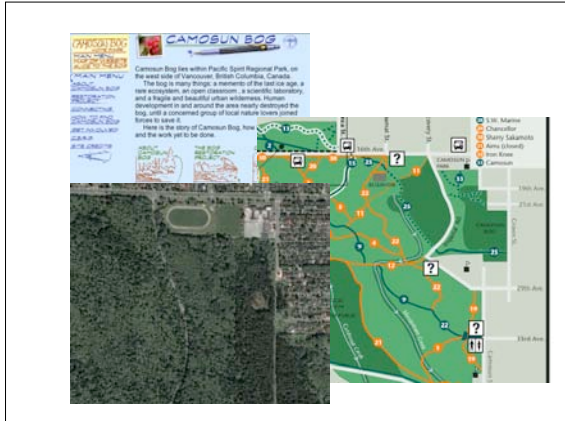
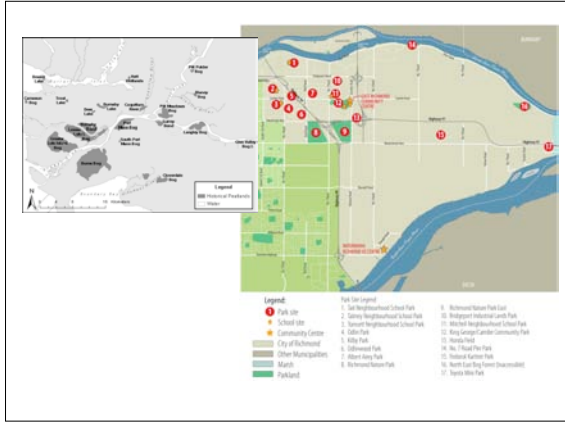
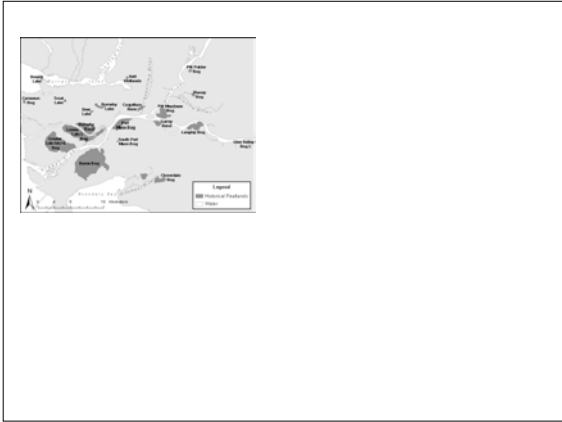


## 2. Burns Bog

**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!!!!!!



by Kent Brothers

### 3. Organisms.....

*Sphagnum capillifolium*



*Sphagnum lindbergii*



*Sphagnum tenellum*



*Sphagnum fuscum*



*Sphagnum wilfii*



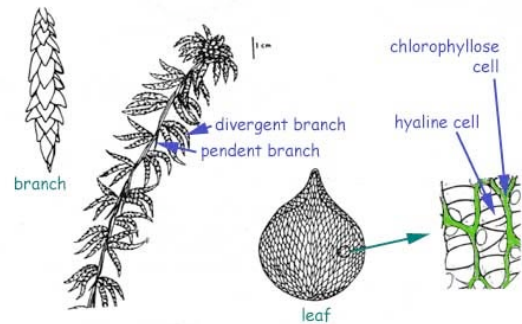
### 3. Organisms.....

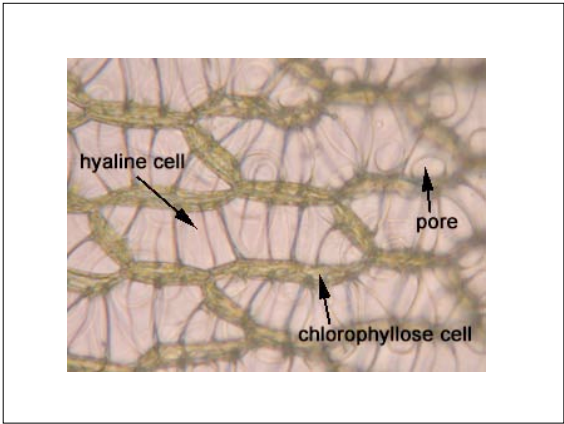
*Sphagnum*  
- Makes environment acidic



### 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*

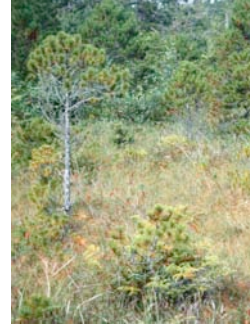
### 3. Organisms.....

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

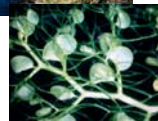


### 2. Plants of the Bog

Bladderwort



Sundew



#### 4. The Value of Bogs

