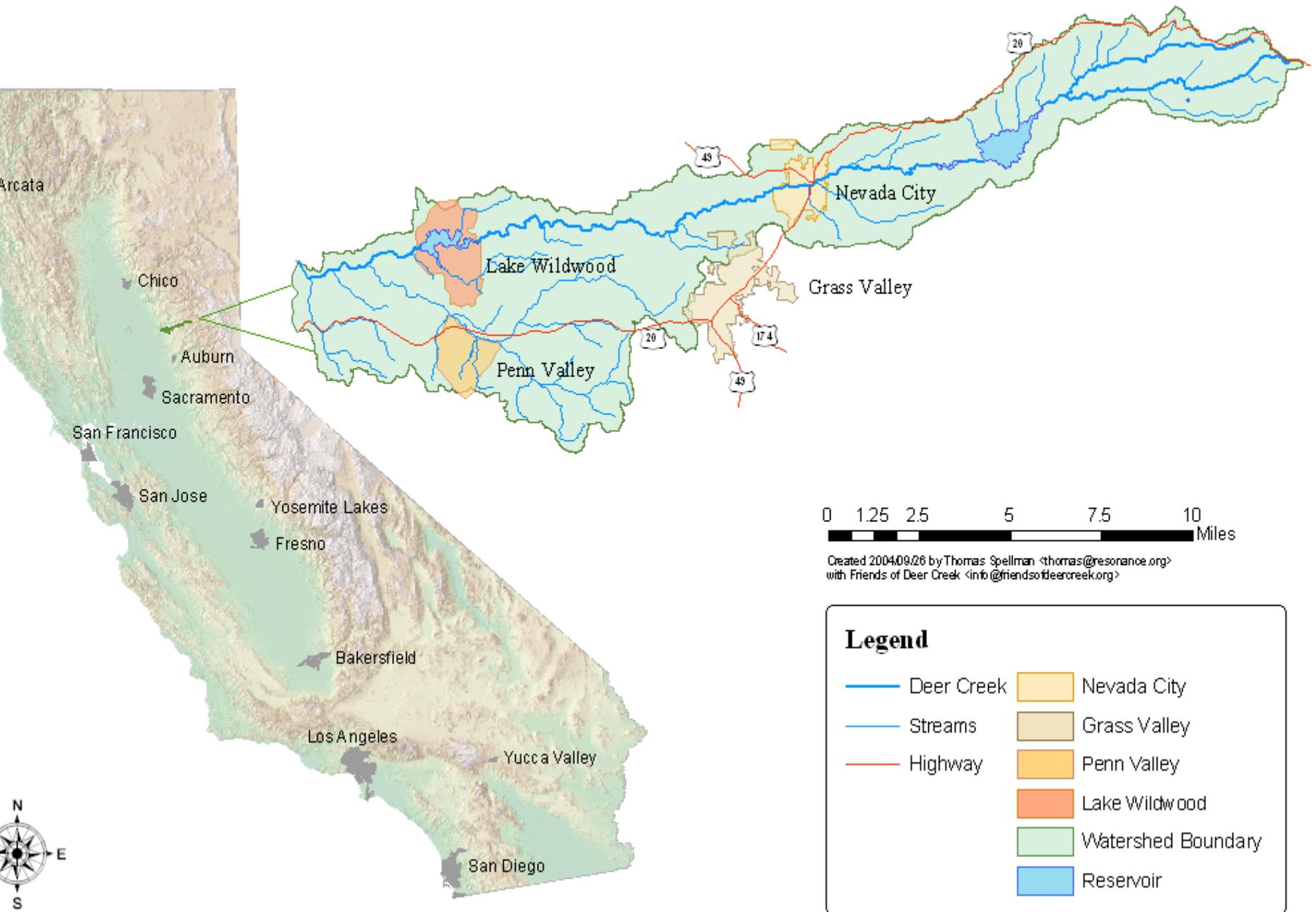


# Friends of Deer Creek

## Macroinvertebrate Program

# Deer Creek Watershed



Deer Creek, Nevada County

Approx. 1850



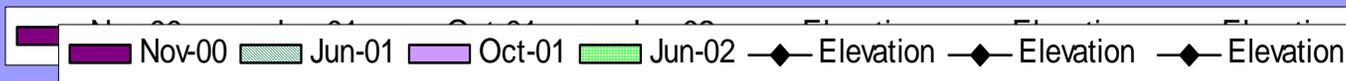
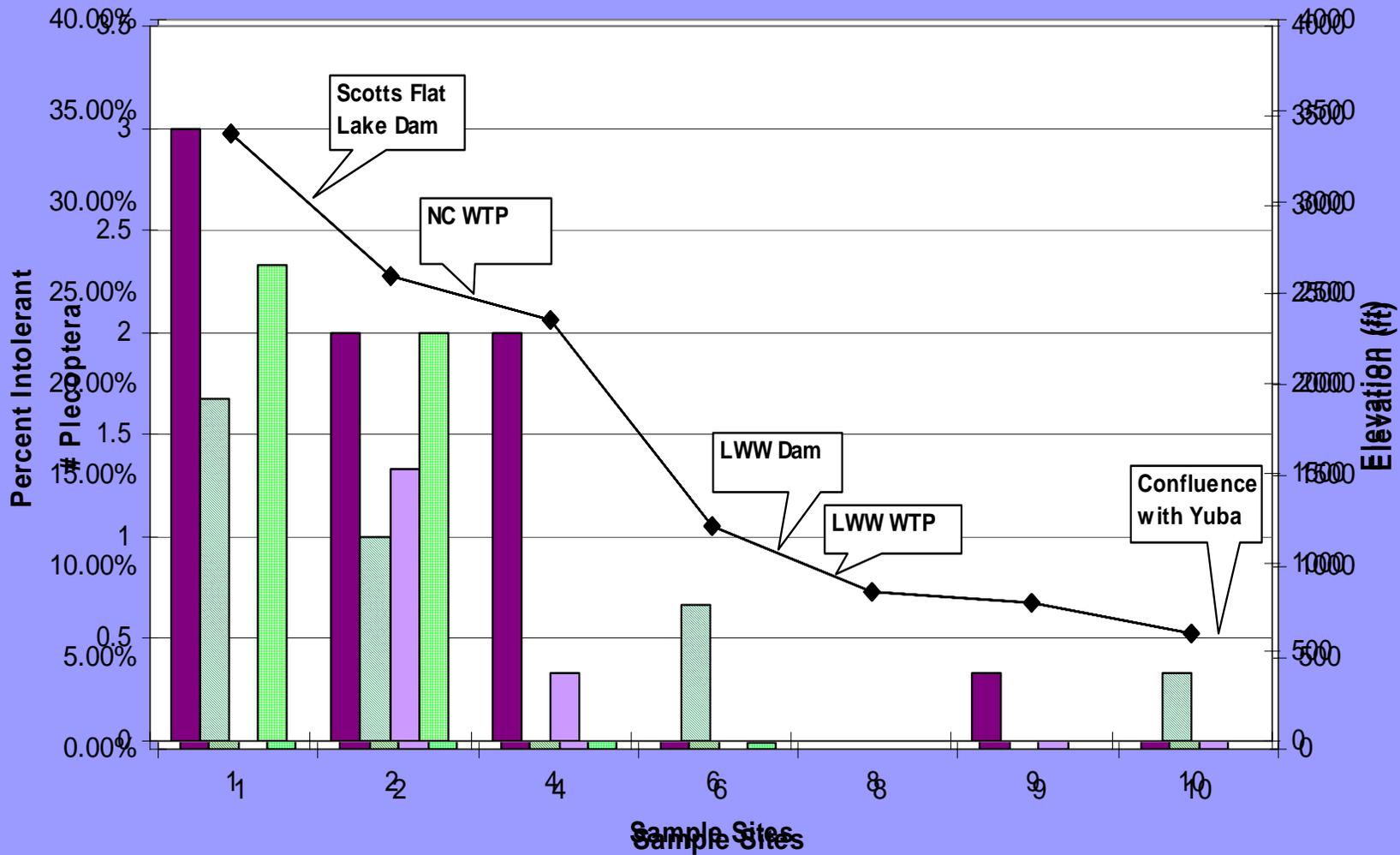
# Deer Creek - upstream, through town and downstream



40 monitors are monitoring monthly at 16 sites along Deer Creek for dissolved oxygen, pH, temperature, turbidity, conductivity, nitrate, phosphates, sediment and bacteria. In Oct and June, 11 sites are monitored for macroinvertebrates. 6 are monitored for algae dry mass and identification.

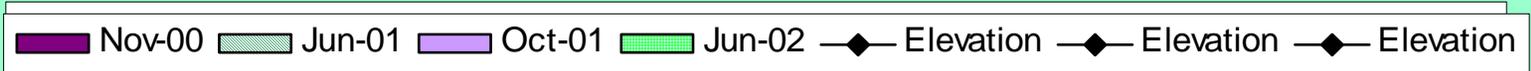
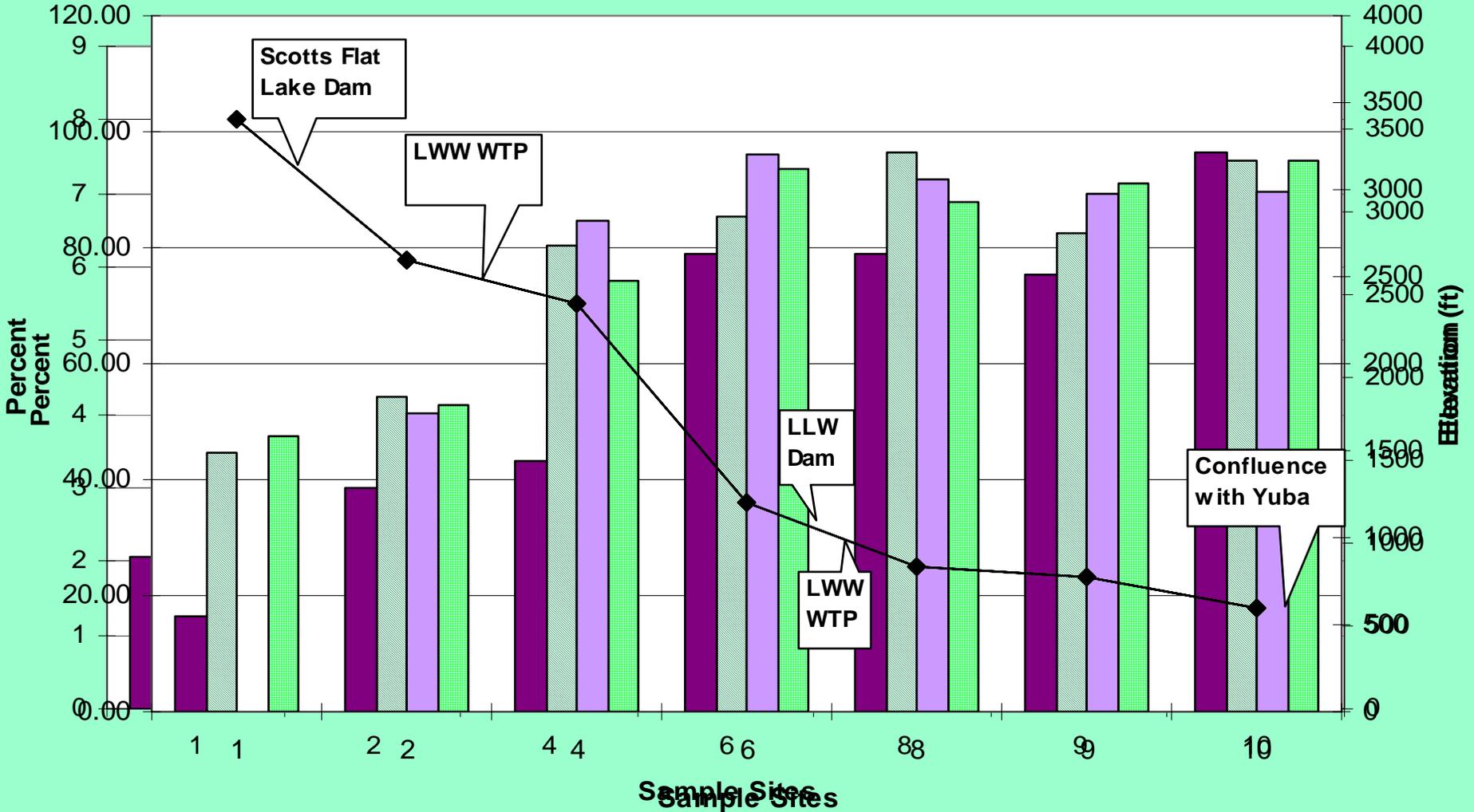


# Percent Intolerant Families

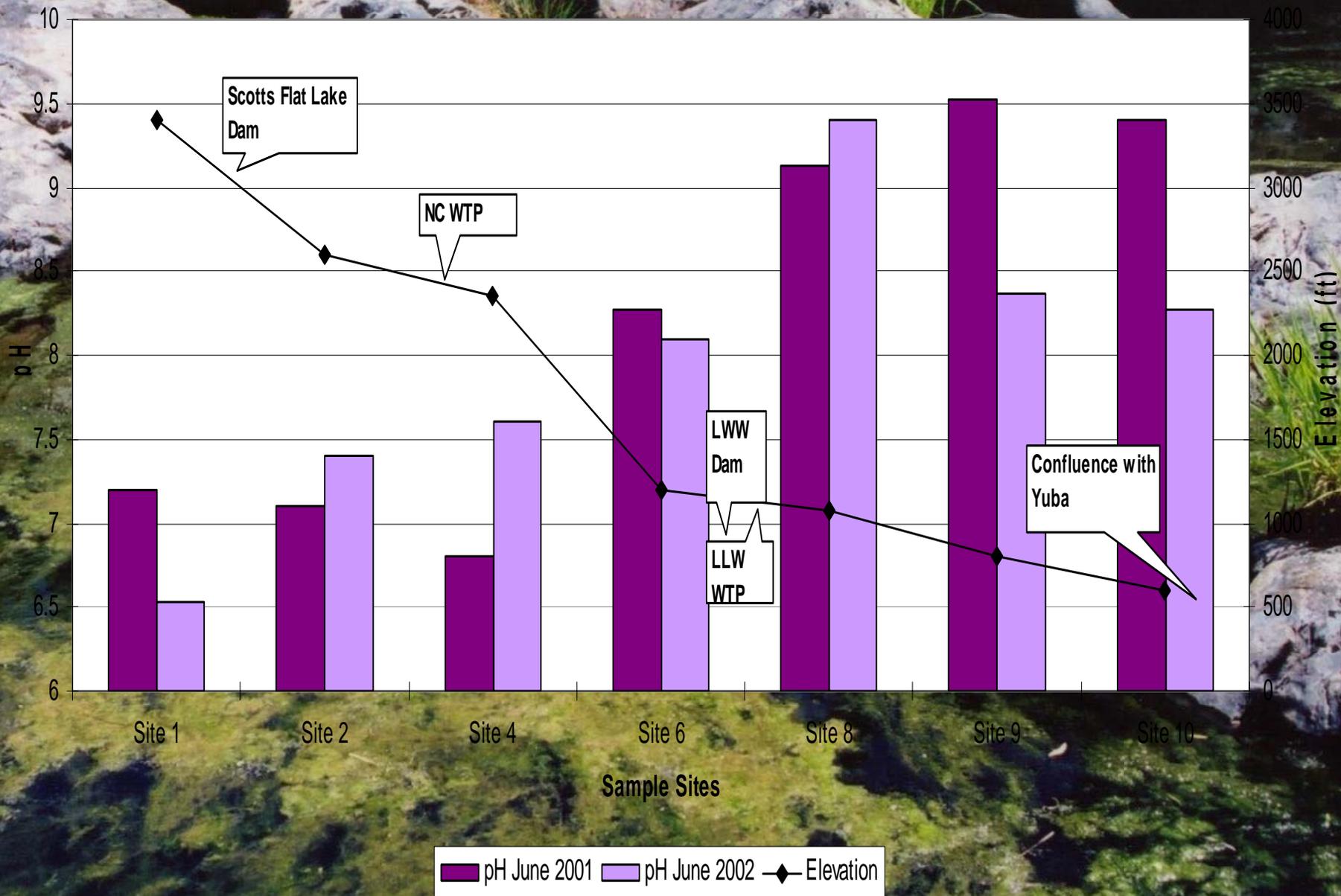


# Feeding Groups

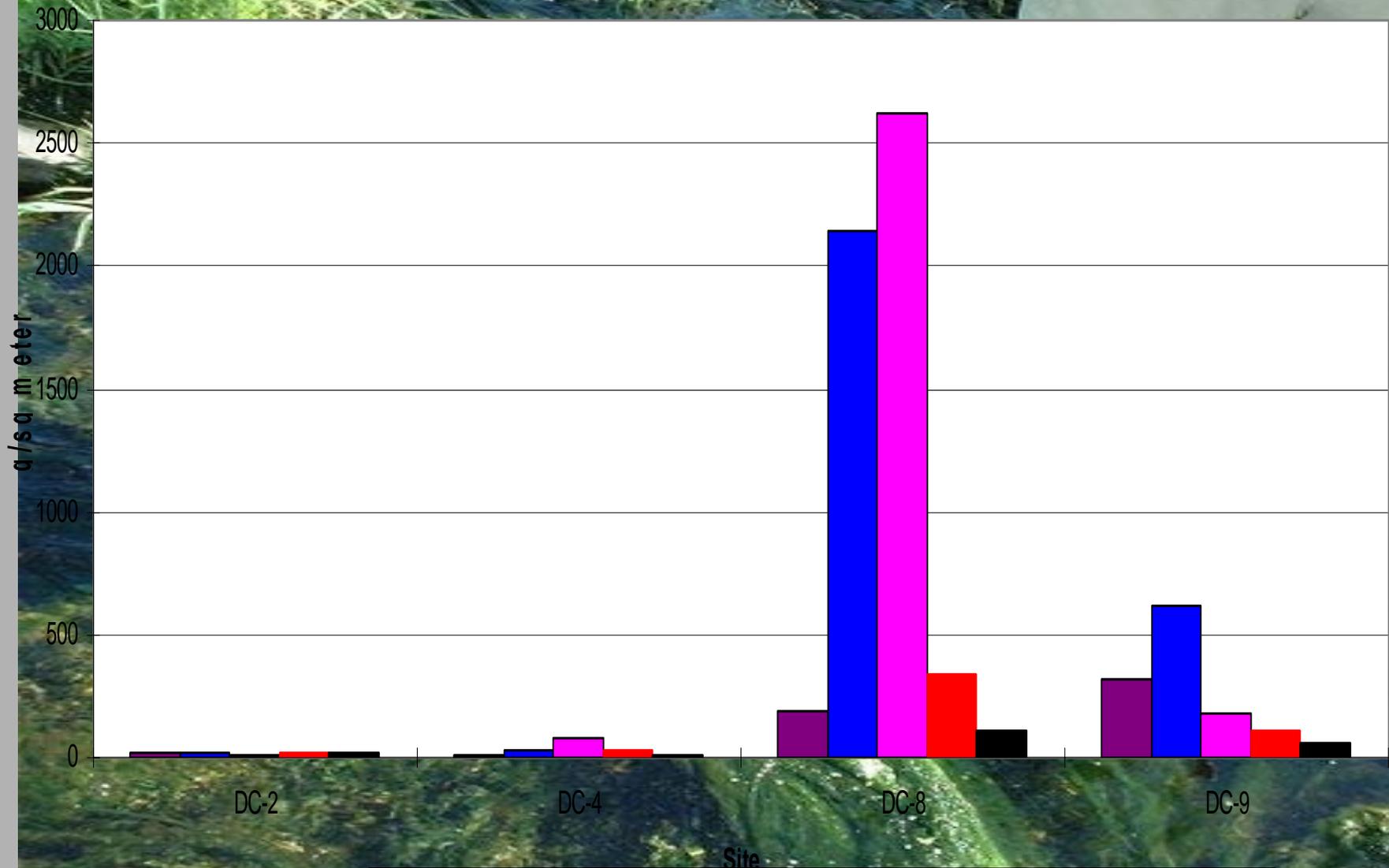
Percent Collectors (Filters & Gatherers)  
Percent Shredders



# pH June 2001 & 2002



# Algae Dry Mass Studies 2004

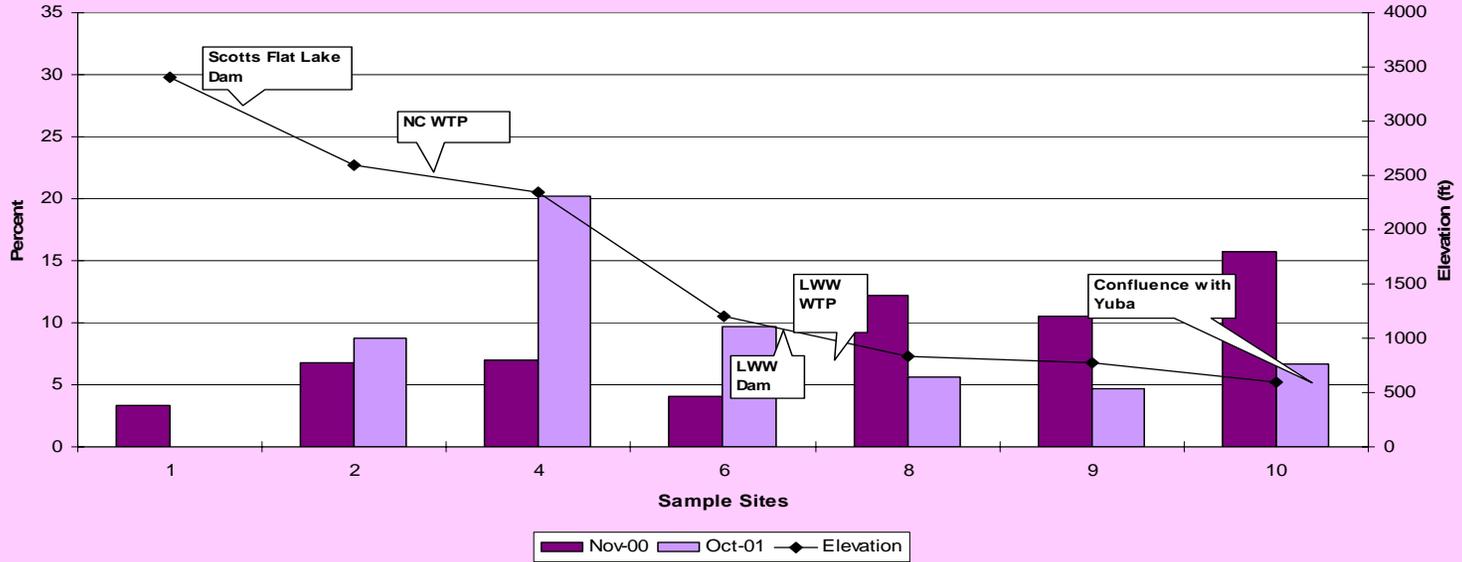


■ Dry Mass June ■ Dry Mass July ■ Dry Mass August ■ Dry Mass September ■ Dry Mass October

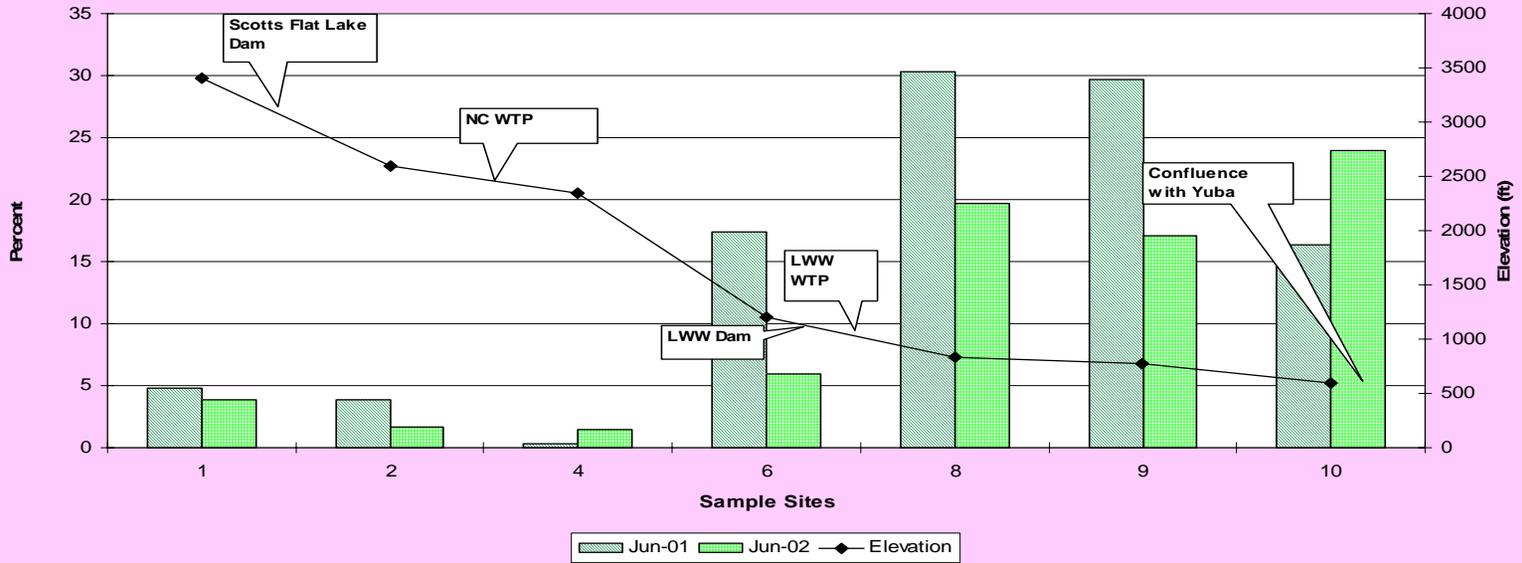


# Seasonal Differences

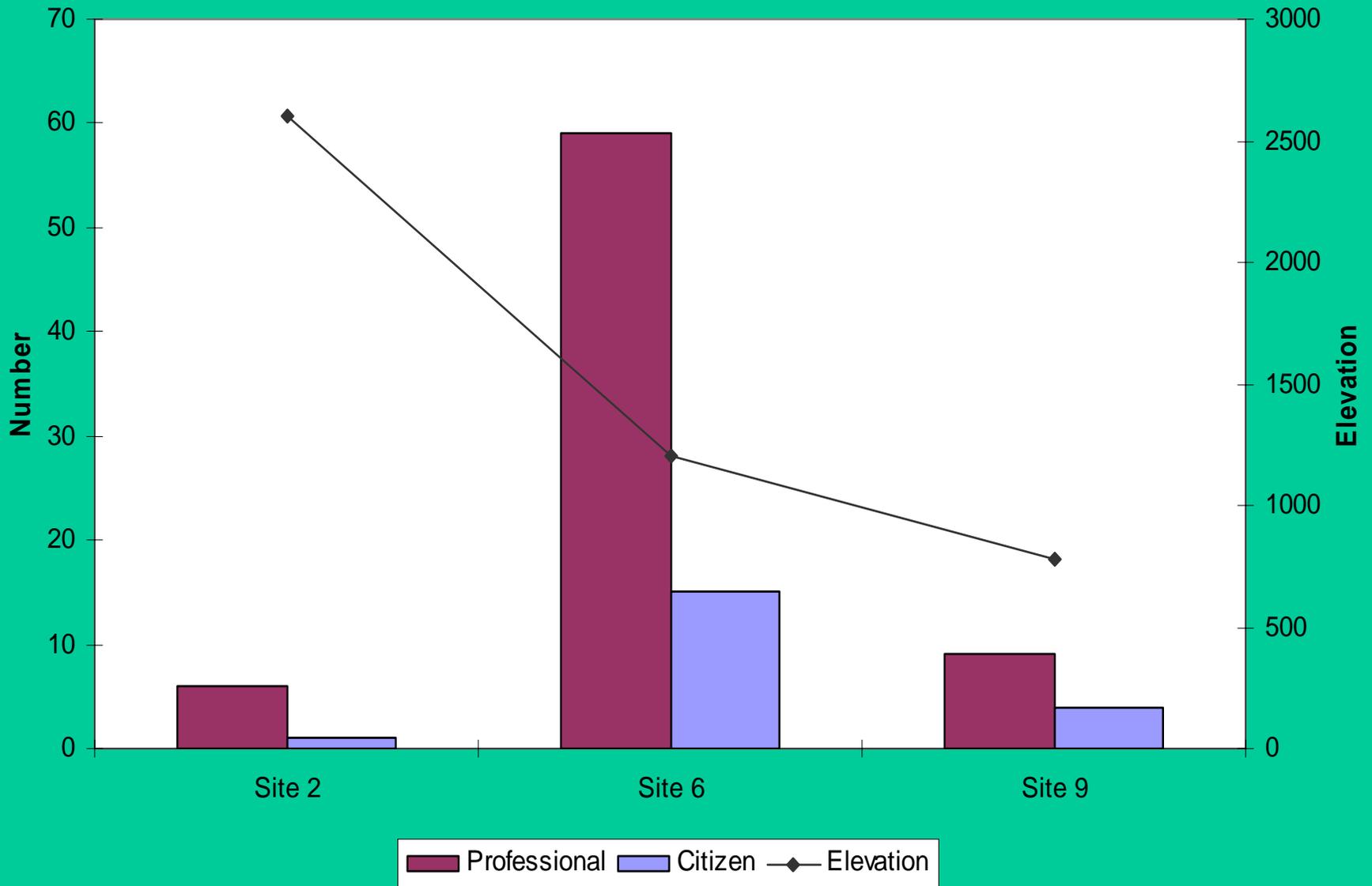
## Percent Hydropsychidae Fall



## Percent Hydropsychidae Spring



# Number of Elmidae Professional (300 bugs) vs. Citizen (100 bugs)



# What have we learned?

❖ For the v  
organize

❖ We may

❖

❖

❖

❖

❖

❖

❖ Have fu



a group

urate metrics.

a  
bugs.

d  
e.

STA  
S

# The Future

**Look at historical conditions of Deer Creek to help us determine reference.**

**Use macroinvertebrate data for the formation of our restoration plan to pick most degraded areas.**

**Work with our citizen monitors on the EPA Stressor Identification Guidance Document to find causes of our biological impairments.**

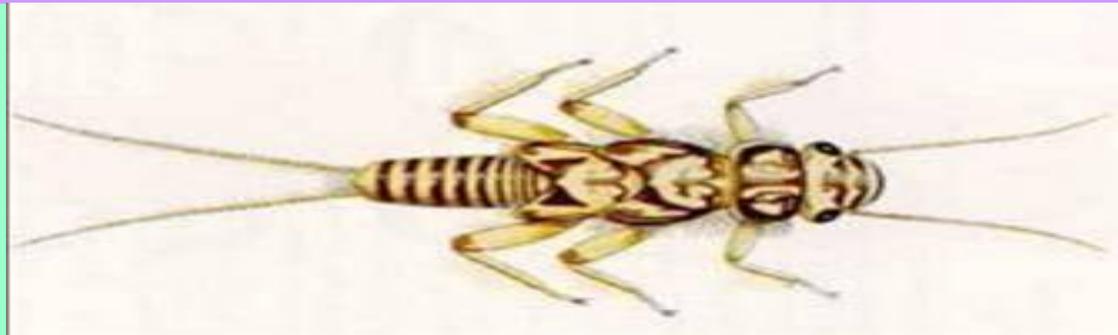
**Fish surveys and pebble counts on same sites as macroinvertebrates.**

**Do diagnostic tests using macroinvertebrates on Deer Creek and tributaries (i.e. Site 6). Baseline sampling reduced to once/year.**

**Mercury study using macroinvertebrates.**

**A study using macroinvertebrates identified to professional level and compare metrics using family level.**

**Correlate macroinvertebrate data with the algae, bacteria, sediment and vegetation studies.**





**Joanne Hild**  
**[jshild@sbcglobal.net](mailto:jshild@sbcglobal.net)**  
**(530)265-6090**  
**[www.friendsofdeercreek.org](http://www.friendsofdeercreek.org)**