

Henry and Laura Nohr Chapter

## TROUT UNLIMITED INTERNSHIP 2010-2011

### Harker-Lee Creek Overview

- The Harker-Lee Creek feeds into Otter Creek and is part of the Otter Creek Watershed
- Harker Creek is a Class I and II trout stream and was last stocked in 1978
- Lee Creek is a Class I trout stream and was last stocked in 1996

Source: [dhr.wi.gov](http://dhr.wi.gov)

# Area Map



# Sites



2006 Restored



2010 Restored



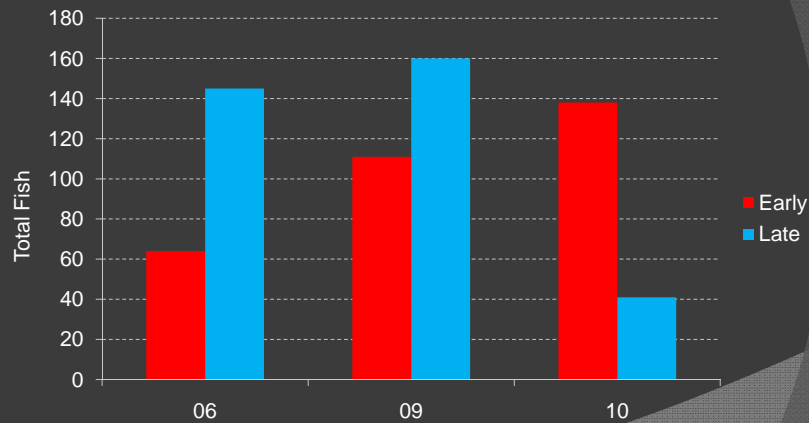
2009 Restored

## Sampling

- Habitat (substrate, erosion, discharge, temperature, macrophytes)
- Invertebrates
- Streambank Vegetation (cover, stem count)
- Fish

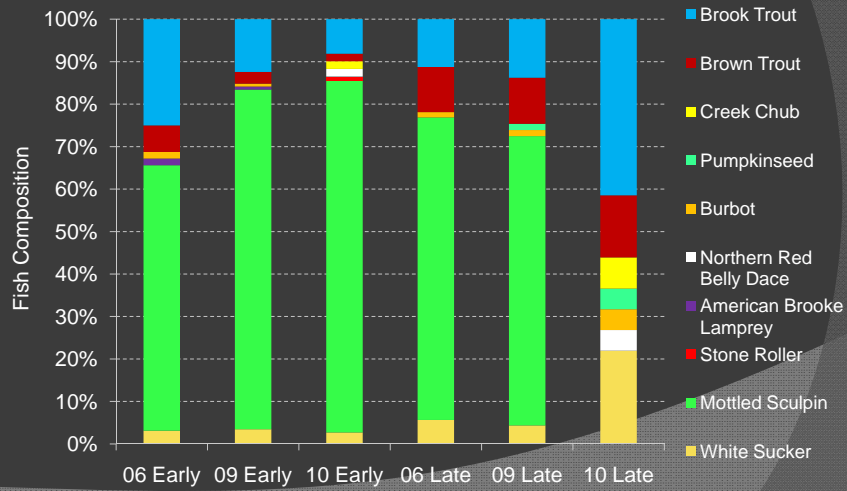


## The Great Mystery...

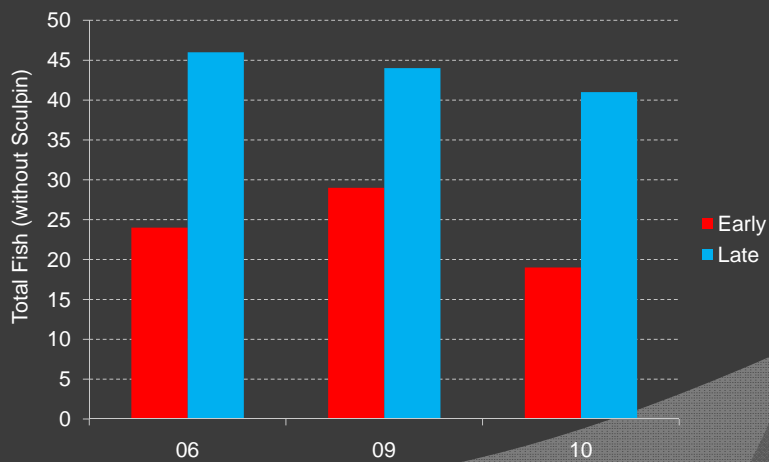


What stands out here?

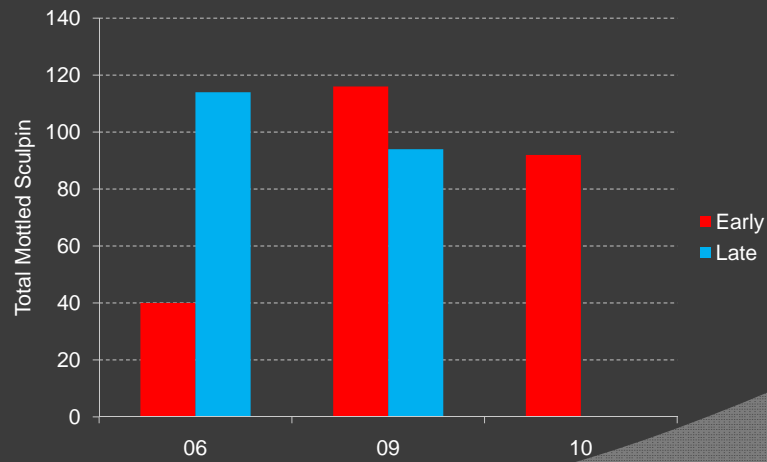
## Why the drop in 2010-restored late summer?



## What the site fish totals look Like without Sculpin included



## Let's compare only Sculpin

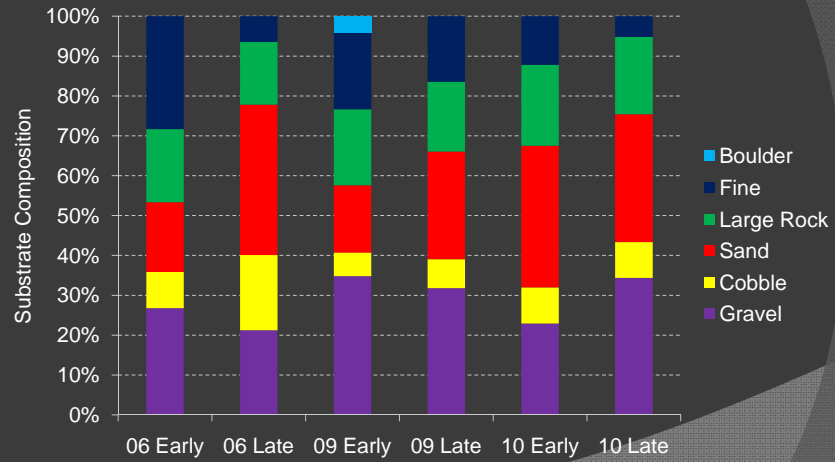


## The Mottled Sculpin's habitat preference and feeding habits

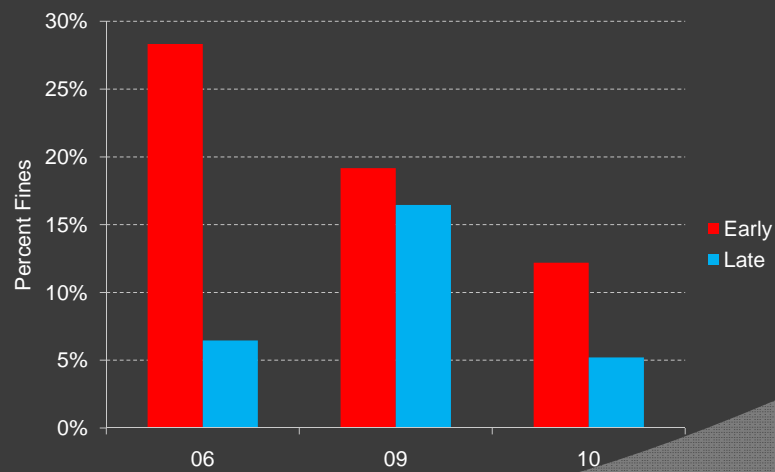
- Rocky (cobble/gravel/boulder) substrate
- Clean, fast flowing water
- Aquatic invertebrate and insect larva diet



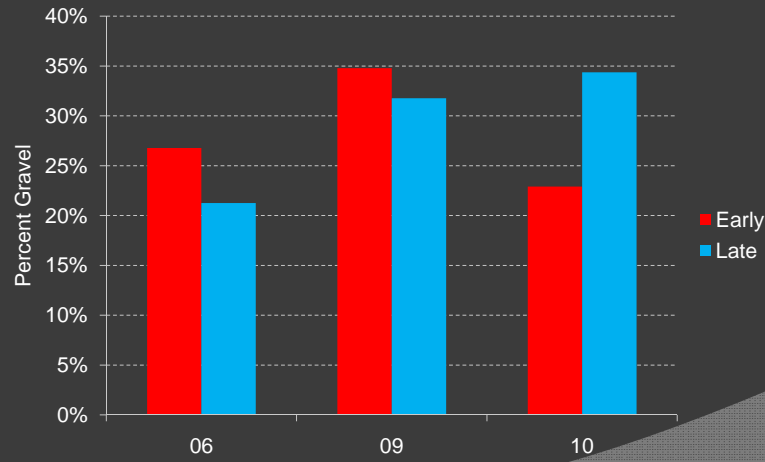
## Is the Habitat a Suspect?



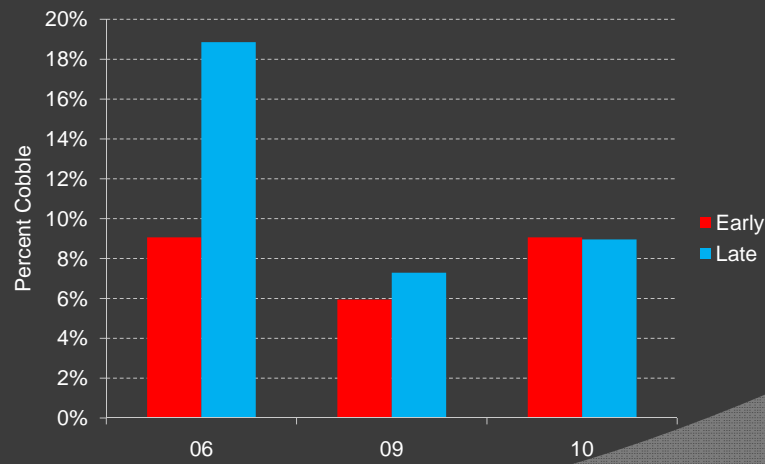
## Did the Restoration Earlier in the Year Cause High Fine Loading?



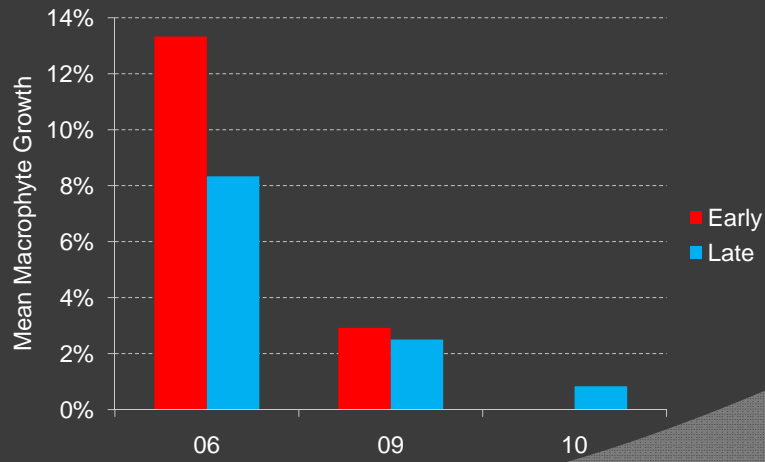
## How is the gravel composition compared with the other sites?



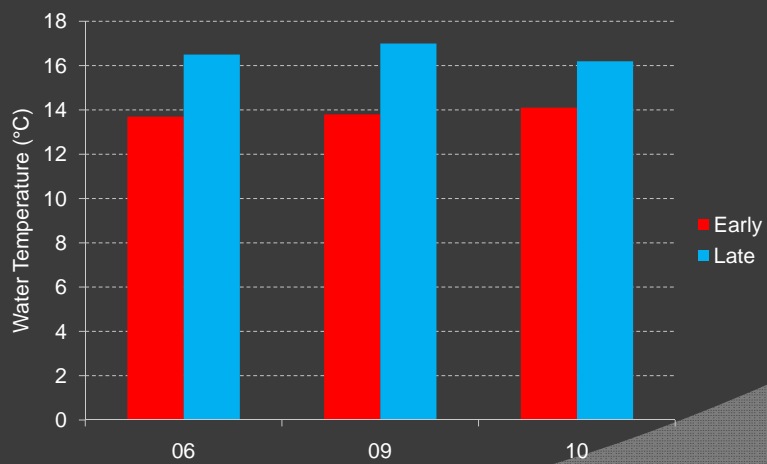
## Cobble?



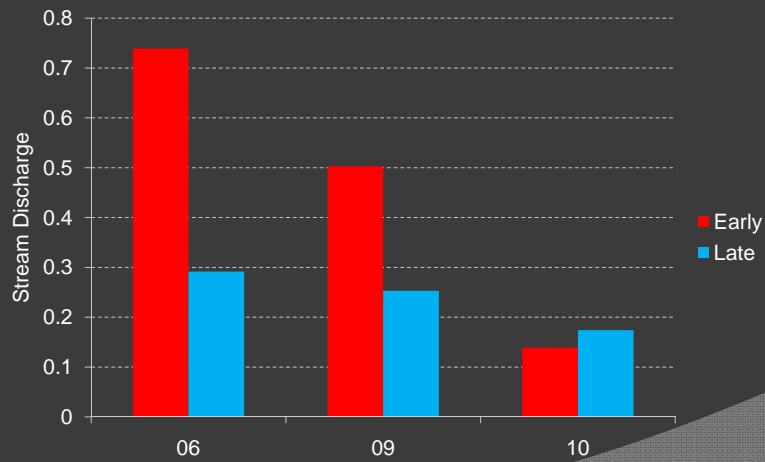
## Is there a comparatively high level of macrophytes?



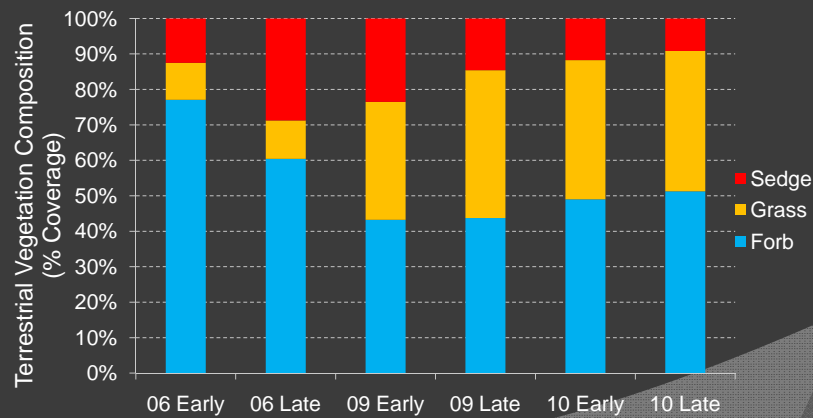
## Temperature Differences?



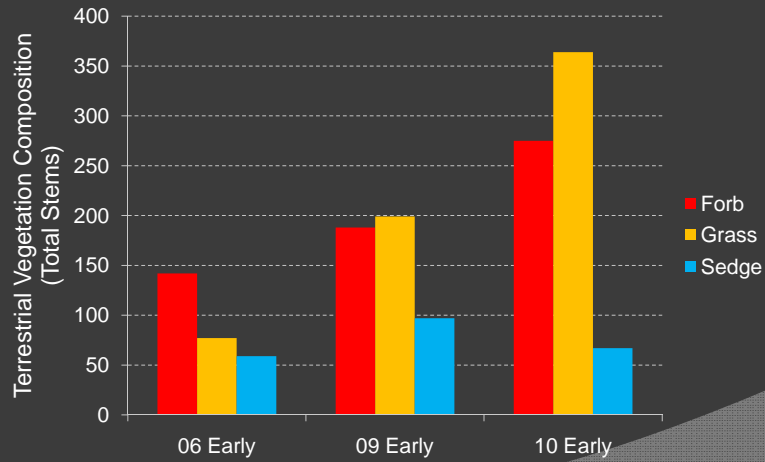
## Stream Discharge?



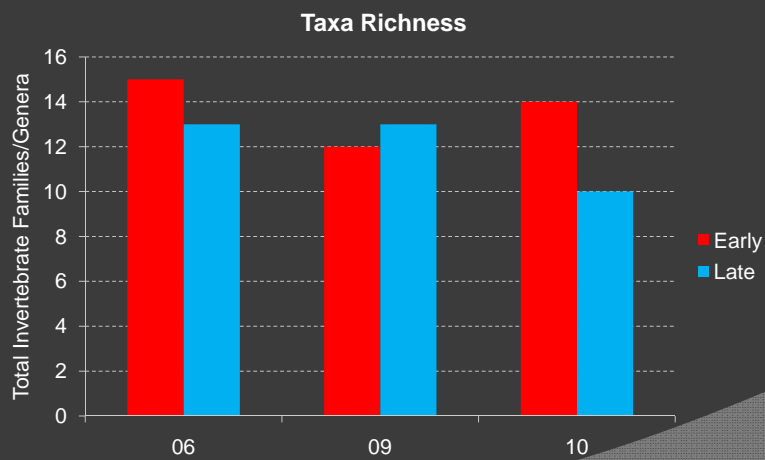
## Does the vegetation outside of the stream offer any clues?



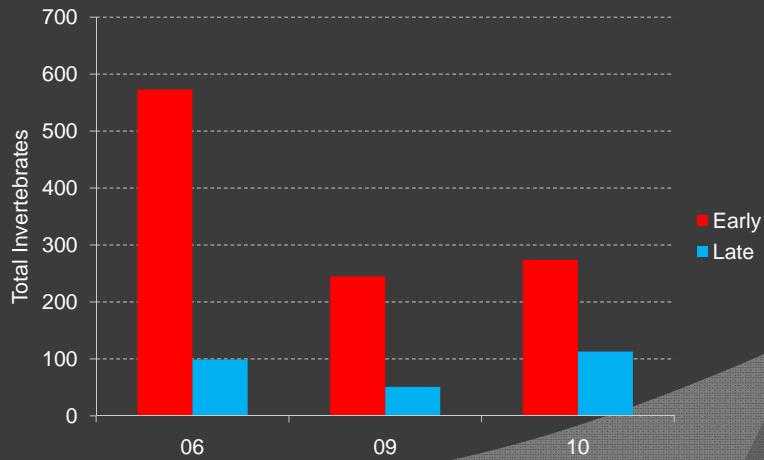
## Streambank Vegetation Continued...



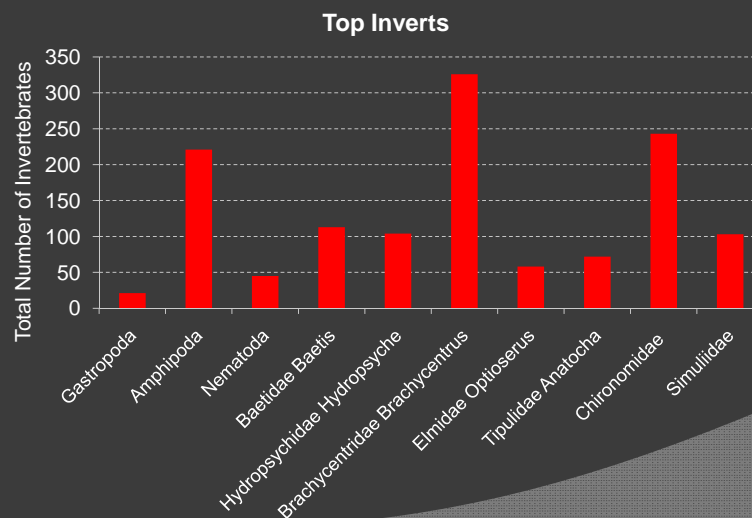
## Do the invertebrates give any hints?



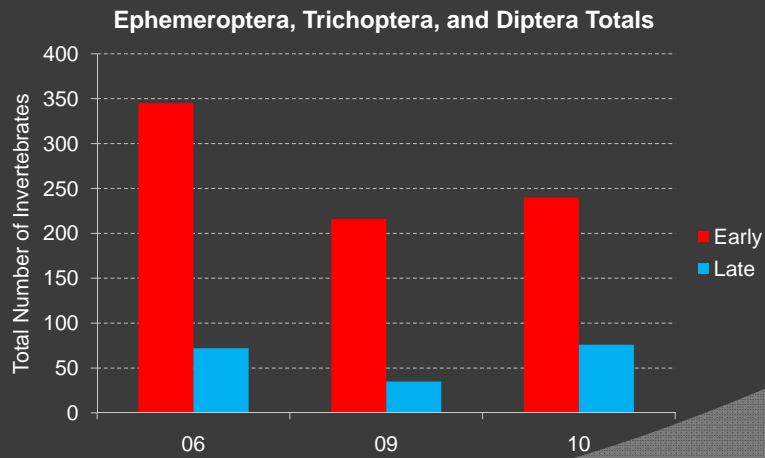
## Is their food gone? And where did the late summer invertebrates go?



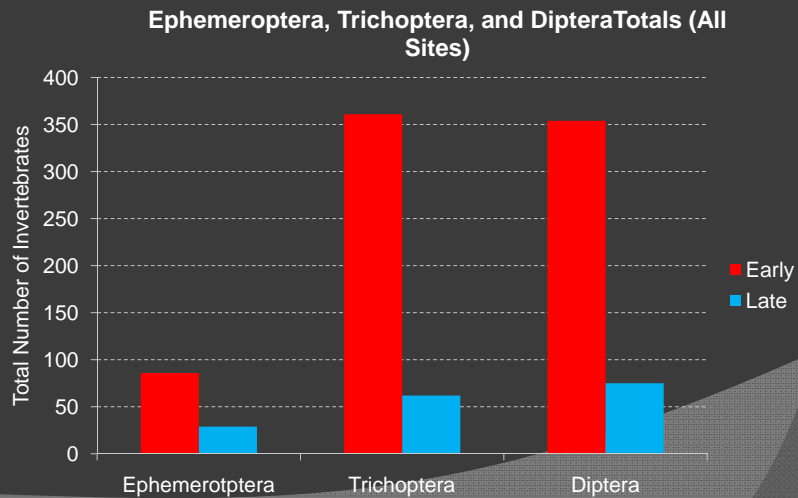
## Type of Invertebrates Present



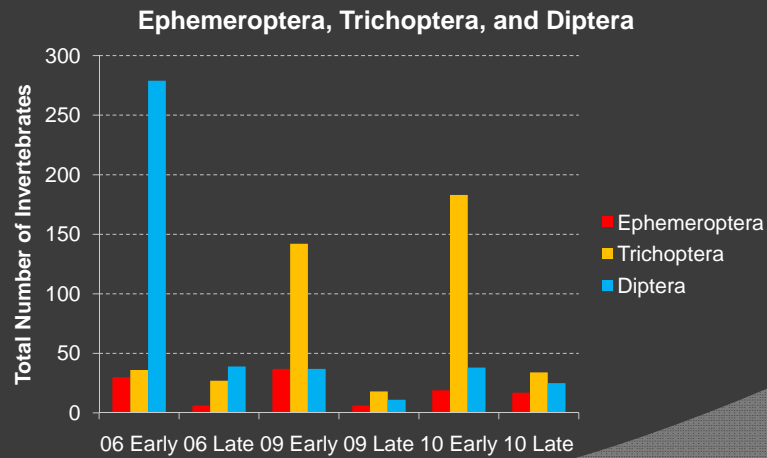
## Site comparisons of hatching insects



## Site comparisons of hatching insects continued...



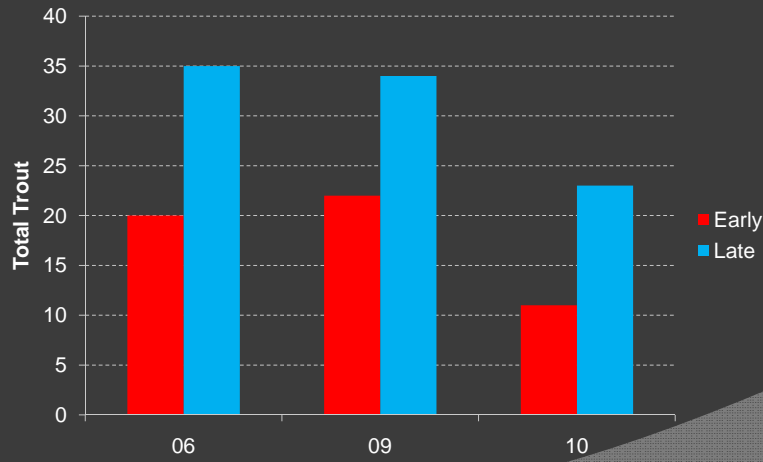
## Site breakdown of invertebrates affected by the hatch



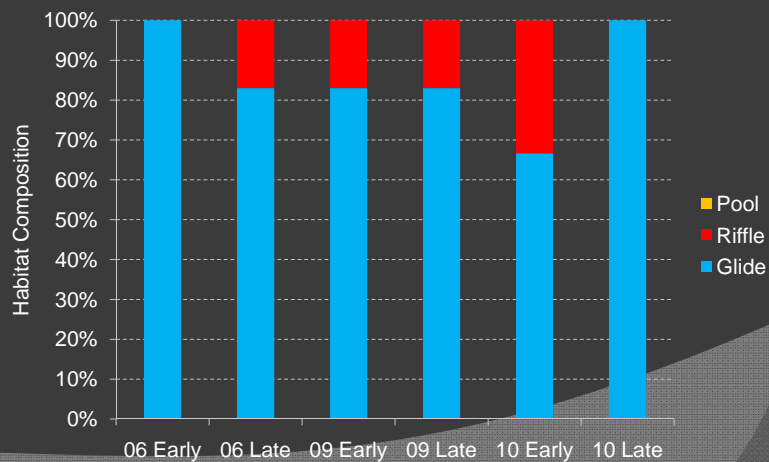
## The mystery remains unsolved...

- The habitat was fairly consistent with other sites
- Invertebrate numbers weren't down any more than the other sites
- Continued monitoring may be needed

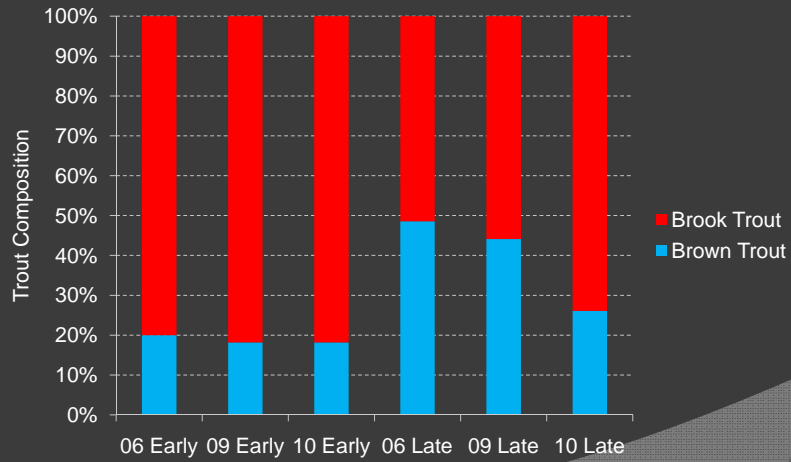
## Trout Numbers



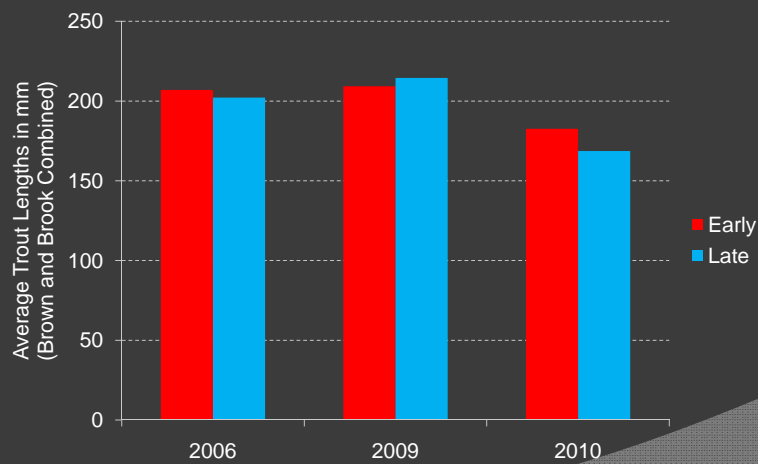
## Possible reason trout numbers may seem low – Habitat Composition



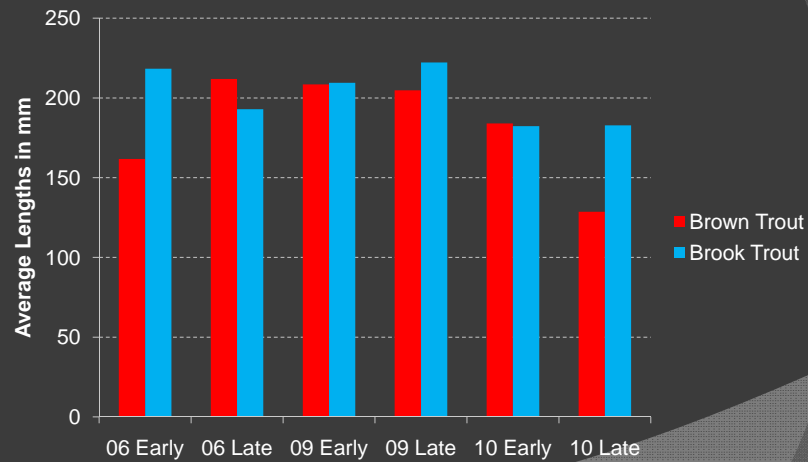
## Why the increase in late summer?



## Trout Lengths



## Lengths broken into species



## Conclusions/Interesting Finds

- No Mottled Sculpin in the late summer 2010-restored section
- Fish sample Included Burbot and Pumpkinseed
- Early vs. Late Season revealed hatch and brown trout movement
- Restoration over multiple years revealed streambank vegetation succession
- Site's health indicated by invertebrates, fish, and habitat
- Negligible erosion on banks

Thank you!

