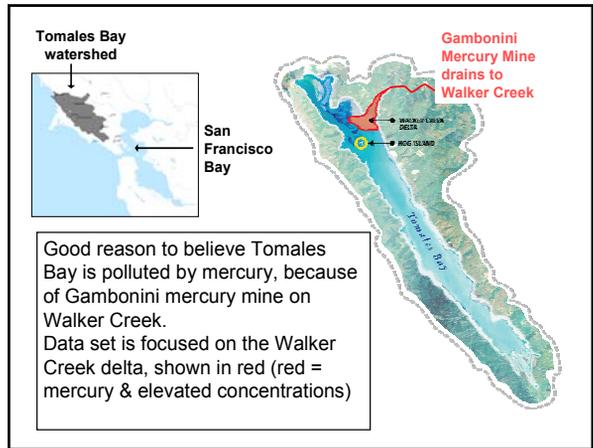
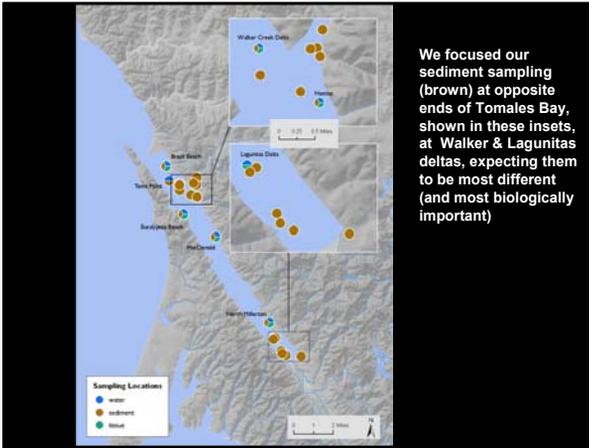
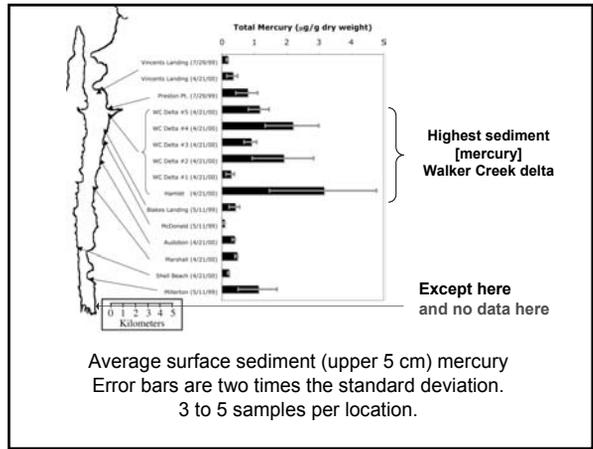
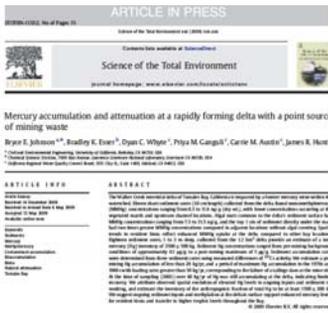


Mercury in Tomales Bay

Data & Statistical Analysis for Training Academy
 Carrie M. Austin, P.E.
 San Francisco Bay Regional Water Board



Several previous studies

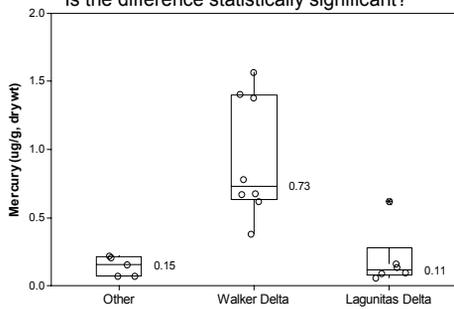


Sediment Sampling

- PLAN**
- $n = 8$ for each of Walker Creek delta and Lagunitas Creek delta at head of bay, additional samples from along the bay
 - Each sample composited in field from 4 locations 1 meter apart
 - Each delta sample collected in replicate within 100 meters (submitted individually to lab, then average results)
- REALITY**
- field error, $n = 6$, not 8, at Lagunitas

Total mercury in sediment (2009)

Walker Creek delta is obviously different, and
"other" is similar to Lagunitas Creek delta
Is the difference statistically significant?



ACTIVITY

Compare total mercury in sediment from Walker
Creek delta to "other" and
"Lagunitas Creek delta" sites combined

- Load Walker Creek dataset
- Recode Location so there is only "Walker delta" & "other"
Data → *Manage variables in active...* → *Recode...*
Click "Location" → New variable name (e.g. AllOther) →
Recode directives: "Lagunitas delta" = "other"
- Do boxplots of mercury, by groups using "AllOther"
- Do independent sample t-test to compare mercury; look at
CI for difference.
- Create new variable: log(mercury) and repeat.