

ROPs - SediMite Update

SRST Expert Panel Meeting

October 6th, 2010

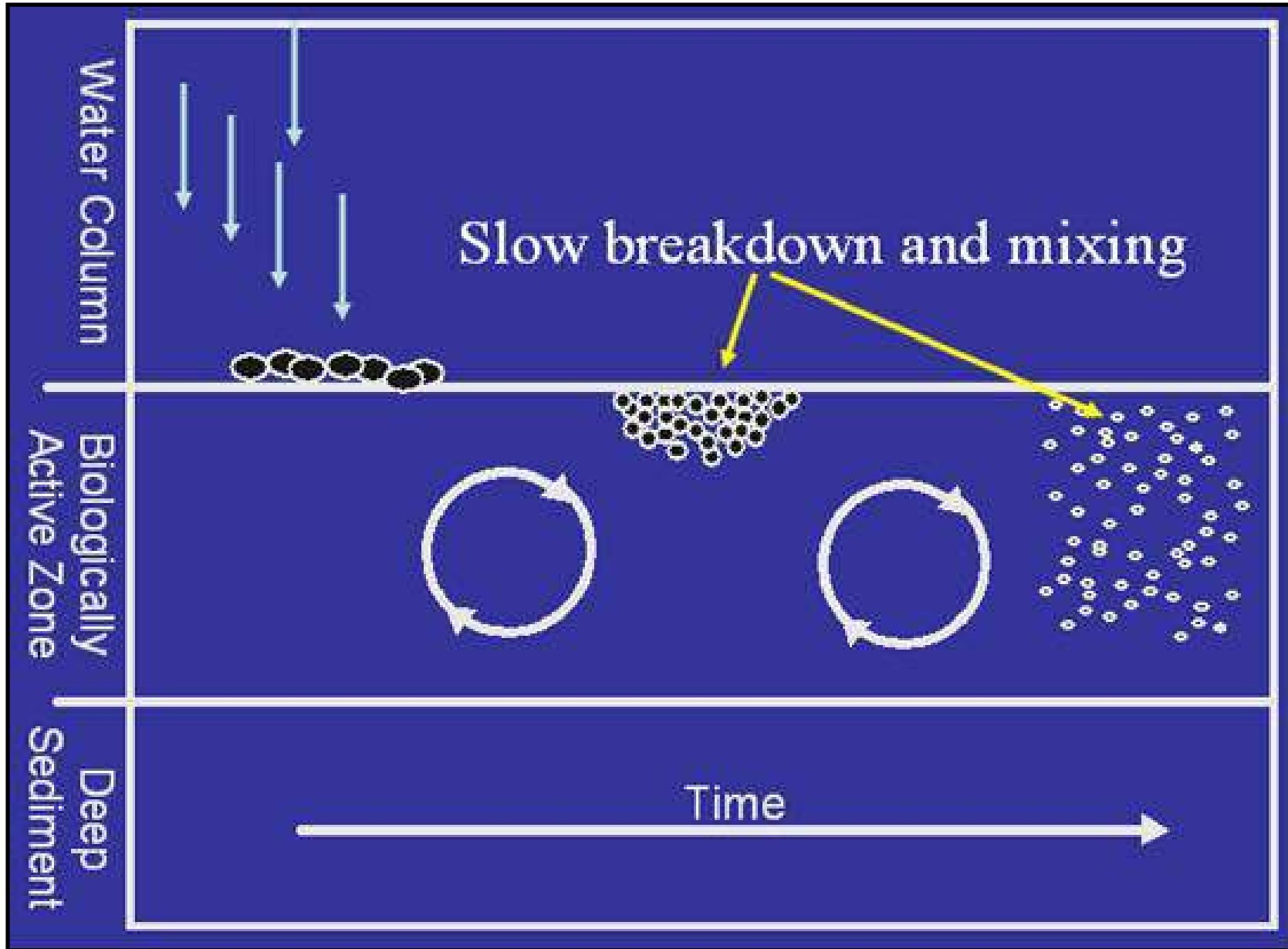
Rich Landis

Cindy Gilmour - SERC

Upal Ghosh - UMBC

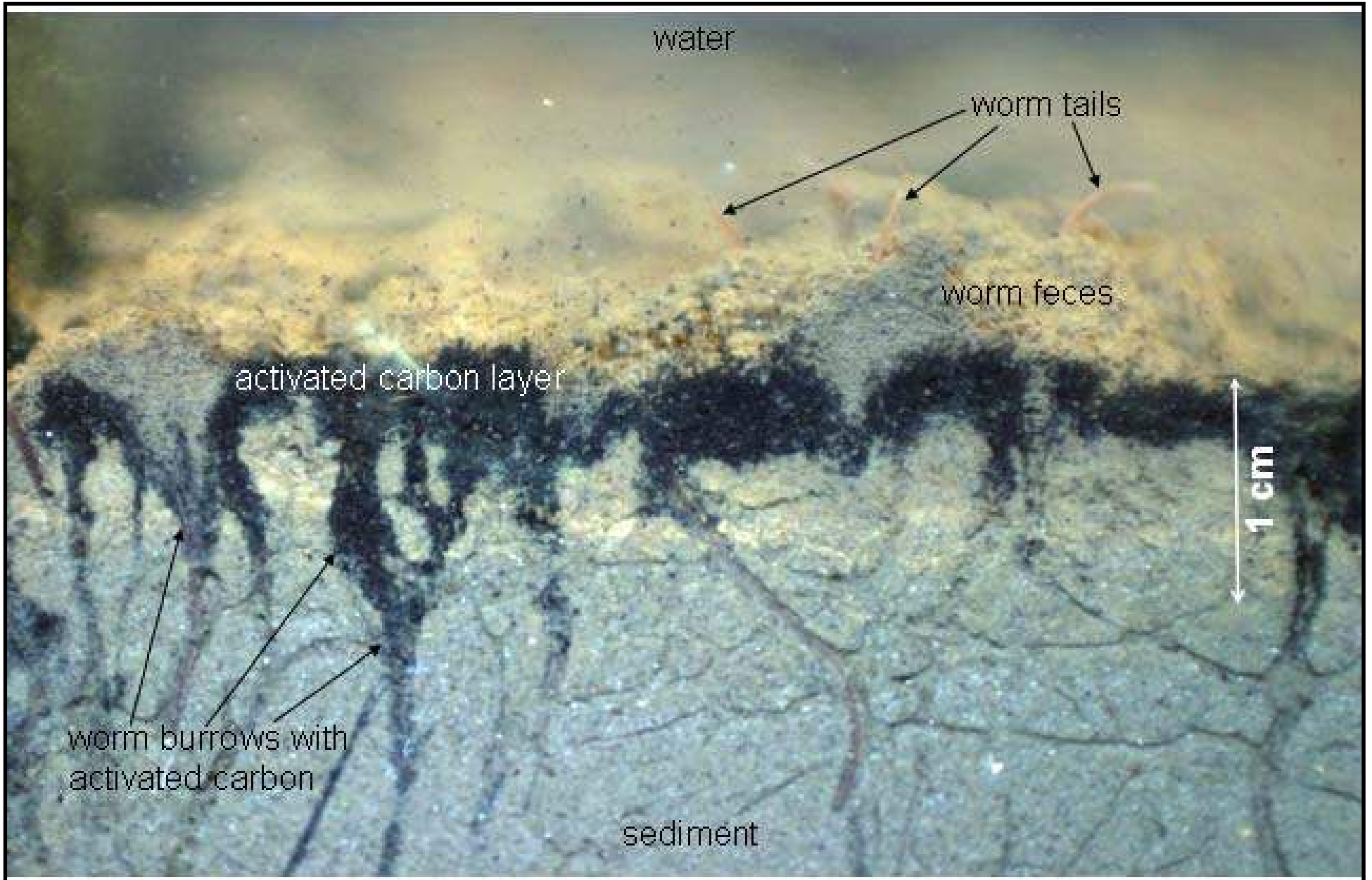
Betsy Henry - Exponent

Charlie Menzie - Exponent



Courtesy: Upal Ghosh - UMBC

12/3/2012

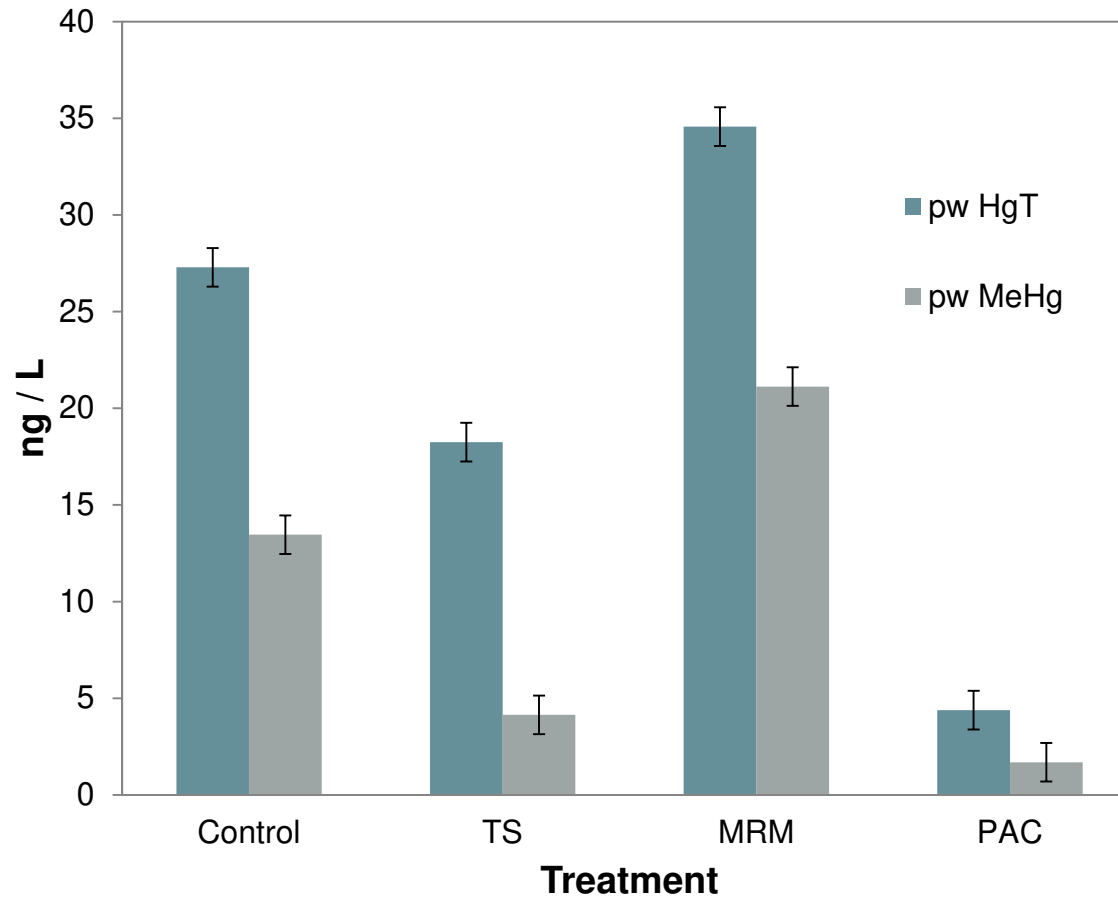


Courtesy: Upal Ghosh - UMBC

12/3/2012



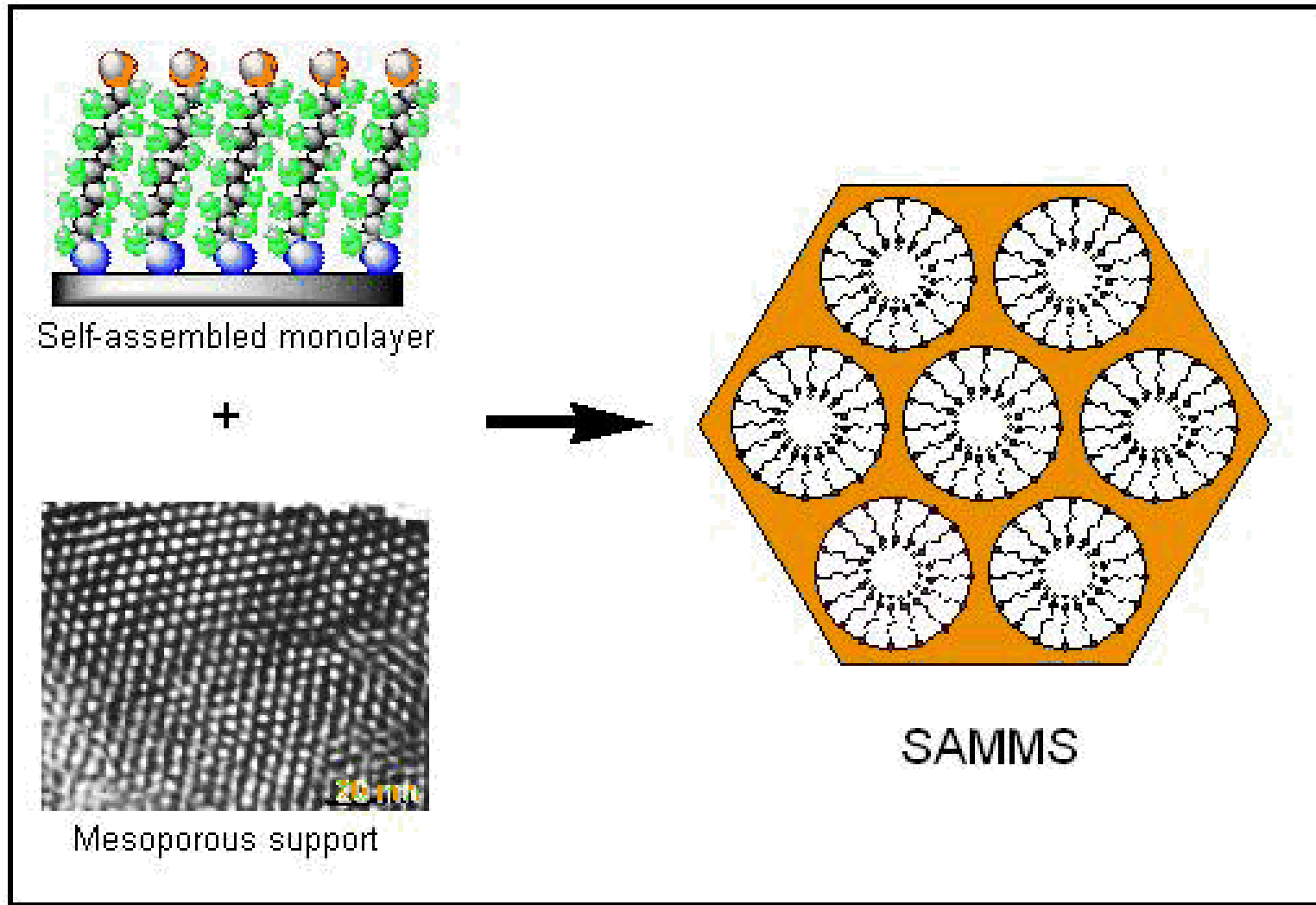
- 750 cc of sediment from RRM 4.0
- Three amendments:
 - Thiol SAMMS, Activated Carbon, Cetco MRM
- Fourteen day exposure and uptake study
 - 25 C, 12 hr light, 12 hr dark
- Five replicates

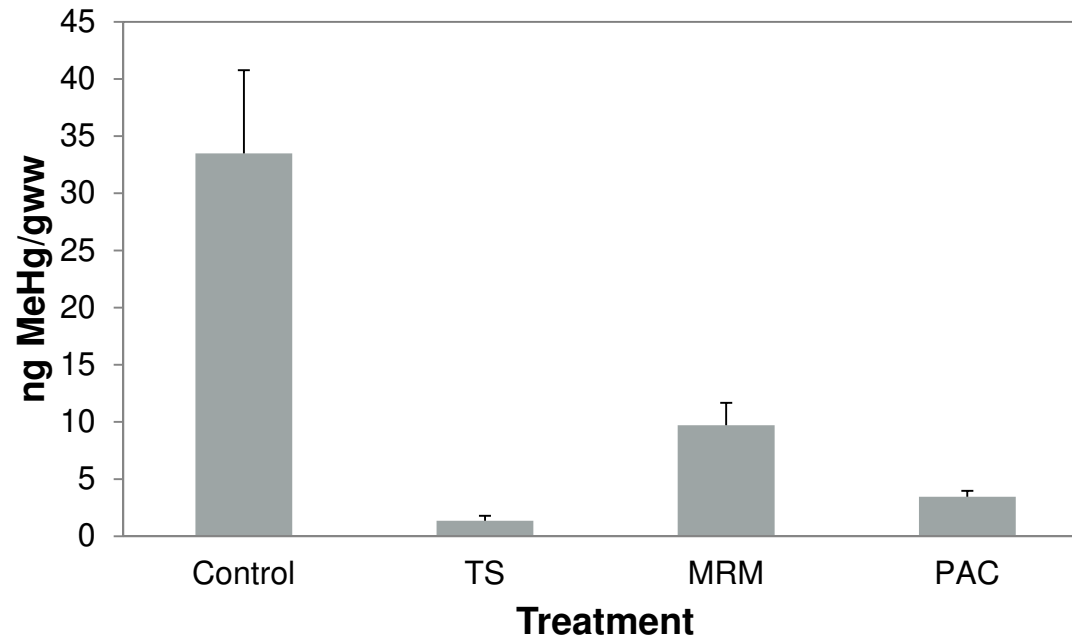
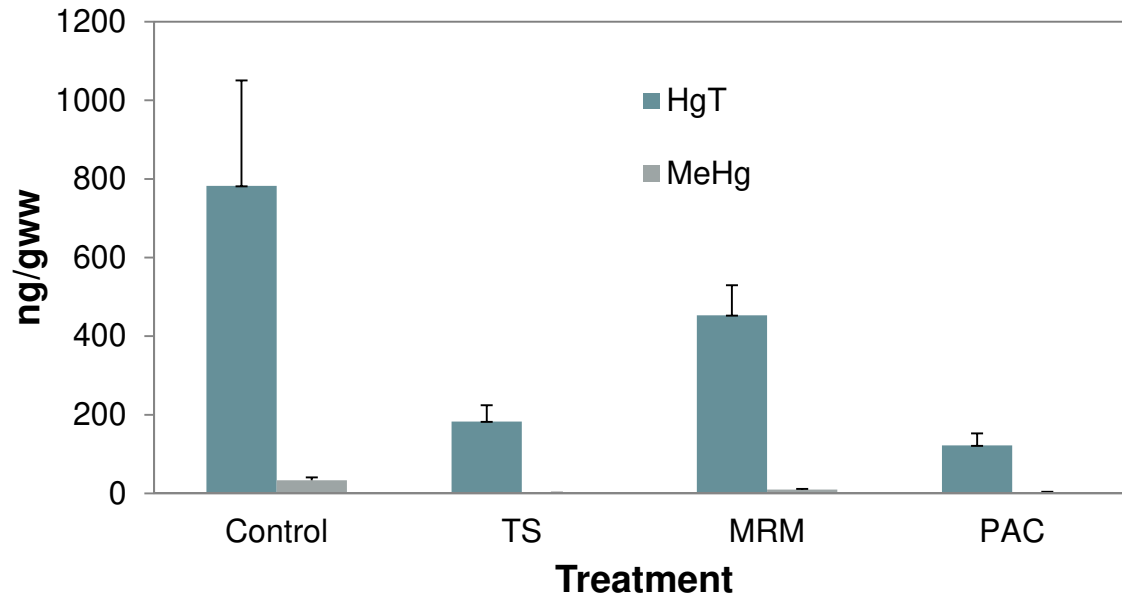


Amendments:

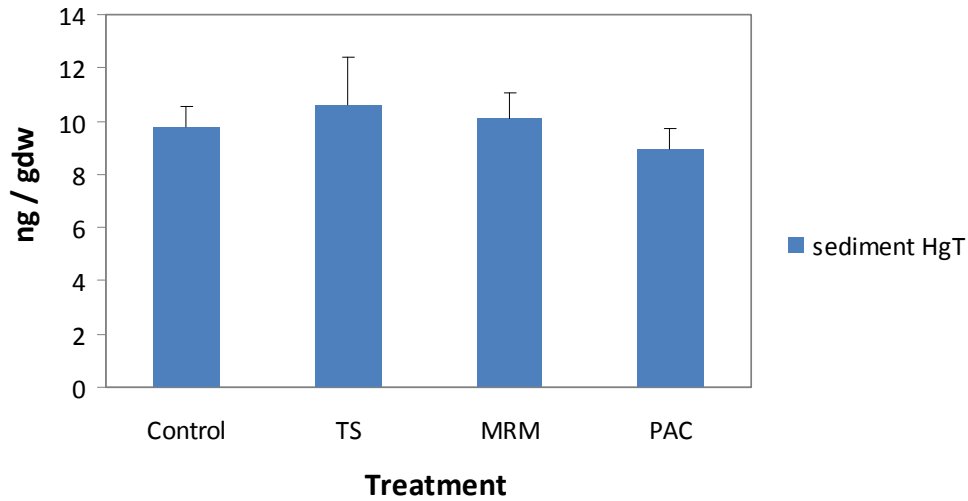
- Thiol SAMMS
- Powdered Activated Carbon
- Organoclay from Cetco (MRM)

Self-Assembled Monolayers on a Mesoporous Support

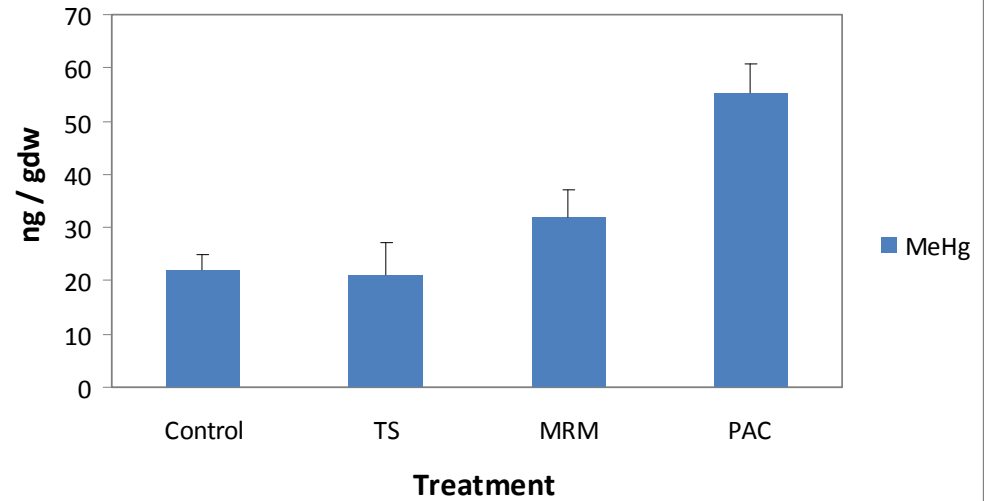




South River Microcosms Sediments



South River Microcosms Sediments



Path Forward

- Conduct a longer term (12 wks vs 2 wks) lab study
 - Determine if the PAC amended sediment MeHg data repeats
 - Determine if char has a similar impact on the sediment data
 - Develop an understanding of the fate of Hg on PAC and Char
 - Repeat biological uptake by worms (PAC & char)
 - Do worms do better maintaining body mass with char vs PAC?
- Sediment has been collected from the same location (RRM 4.0) and a "cow pond"
- SOW and budget near completion.
- Timing of study - roughly 6 months from contract mod.

Questions?