



# 2007 Fish and Sediment Mercury Trust Fund Monitoring

Calvin Jordan



# 100 year Monitoring Plan

- H<sub>2</sub>O bimonthly
- Fish tissue every 5 years (was every 3 years)
- Sediment every 10 years
- Floodplain every 20 years

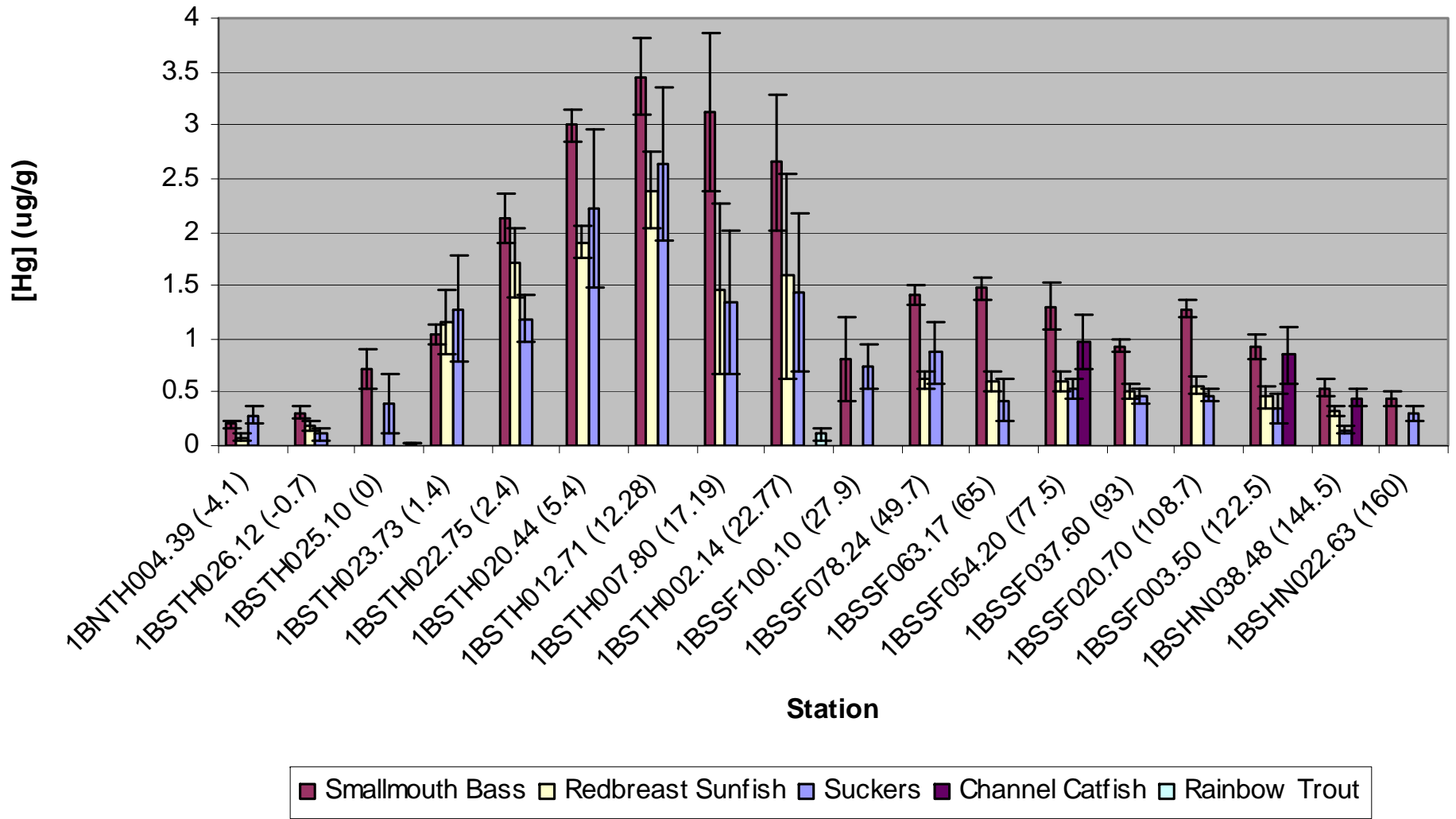
# Fish Tissue

- Fish tissue data available from following years:
  - DEQ 1977-1981
  - LMS 1983-1987
  - AMRL 1992, 1994, 1996
  - **DEQ 1999, 2002, 2005, 2007**

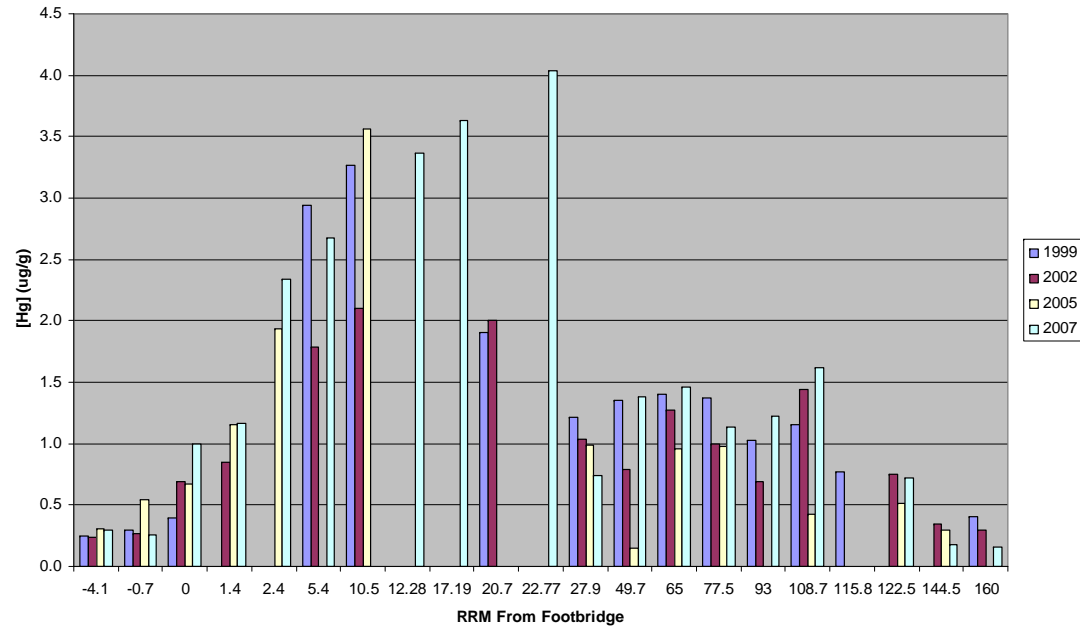
# 2007

- 18 stations on North River, South River, South Fork Shenandoah and Shenandoah Rivers
- Species collected included smallmouth bass, redbreast sunfish, suckers, channel catfish and rainbow trout

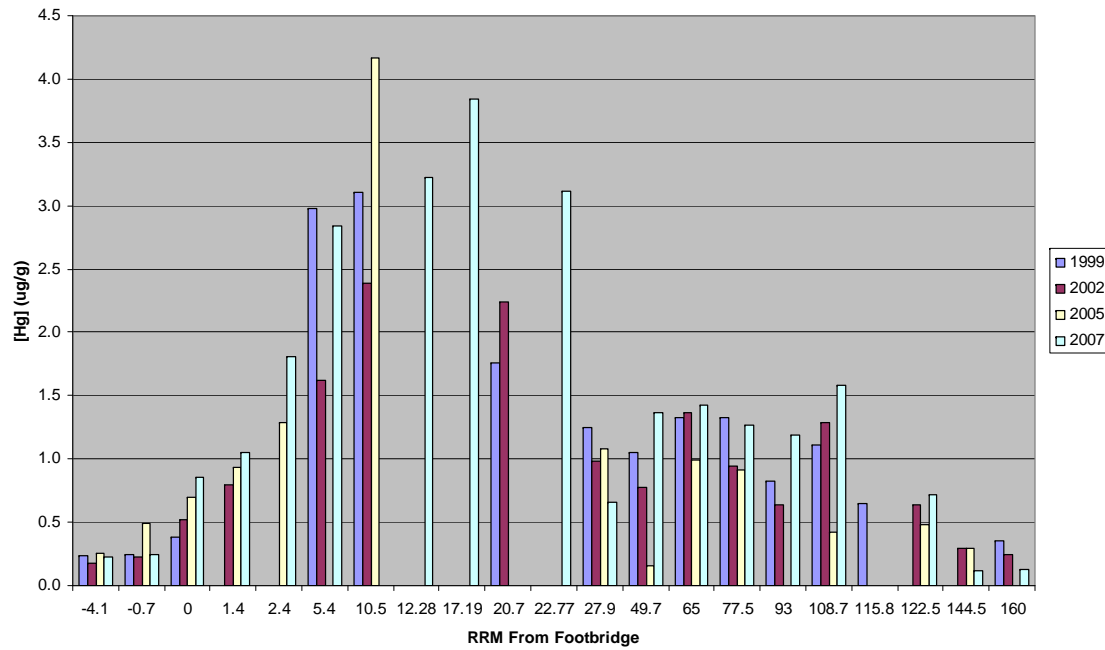
### 2007 Fish Mercury



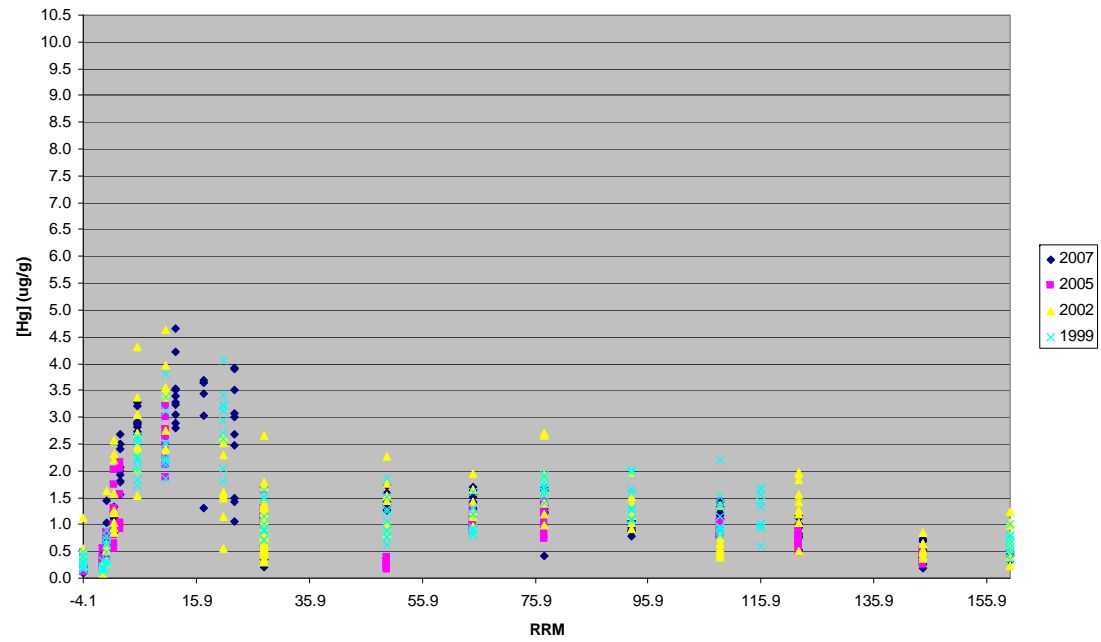
Average Normalized Smallmouth Bass Hg



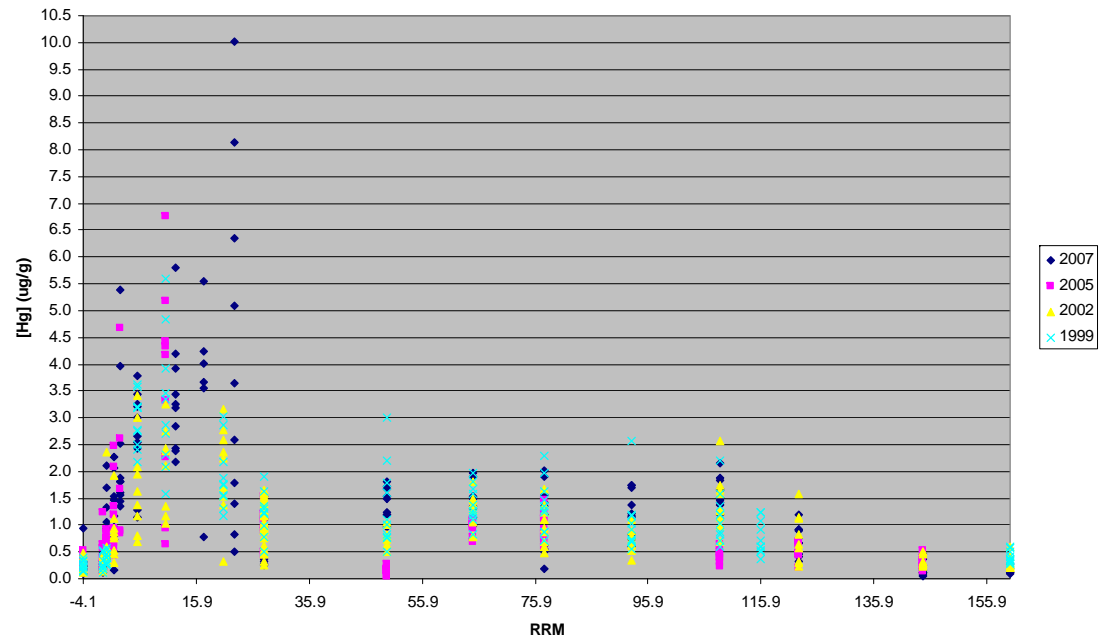
Median Normalized Smallmouth Bass Hg



### Smallmouth Bass Hg



### Normalized Smallmouth Bass Hg

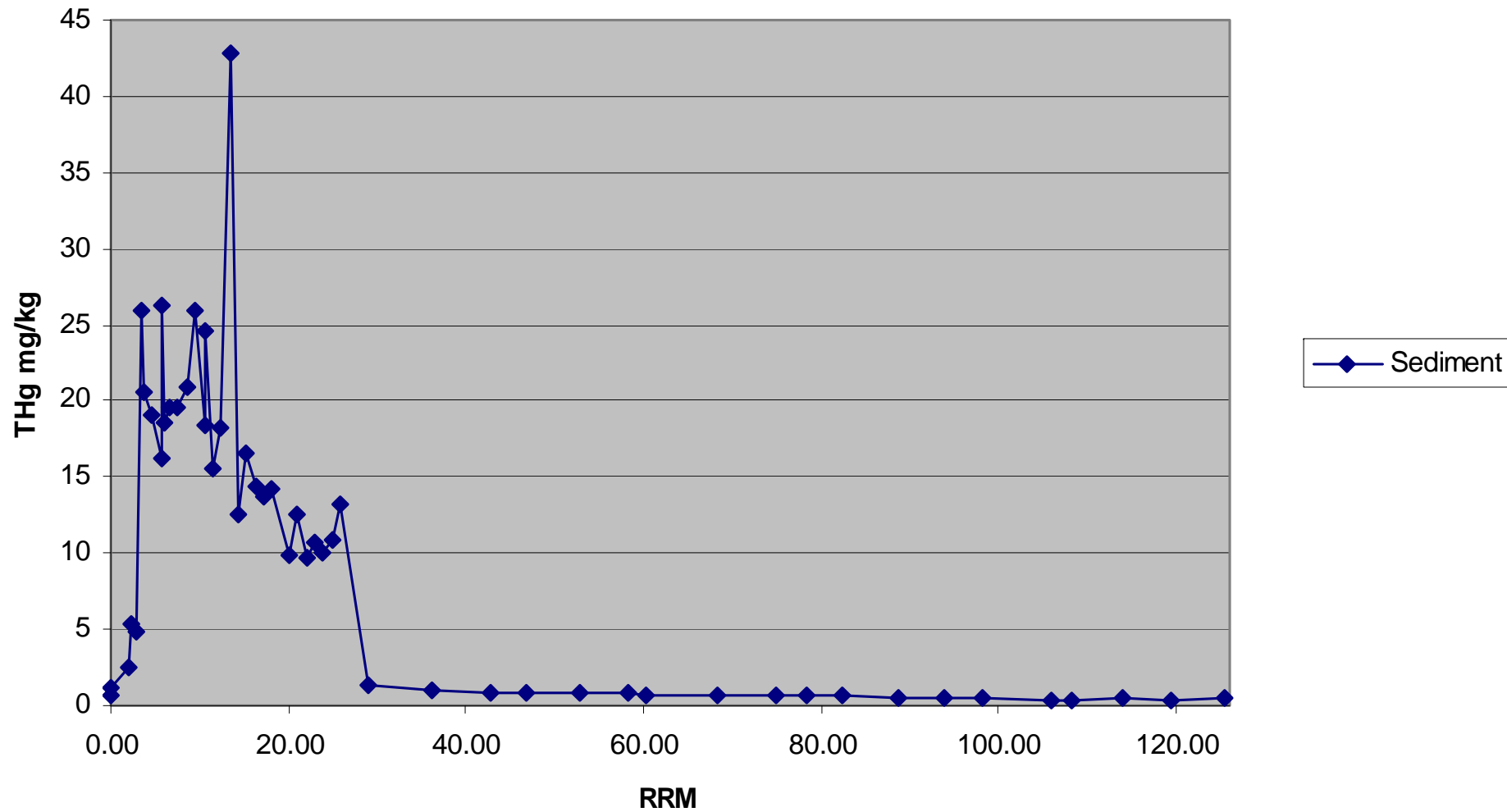


# 2007 Sediment Monitoring

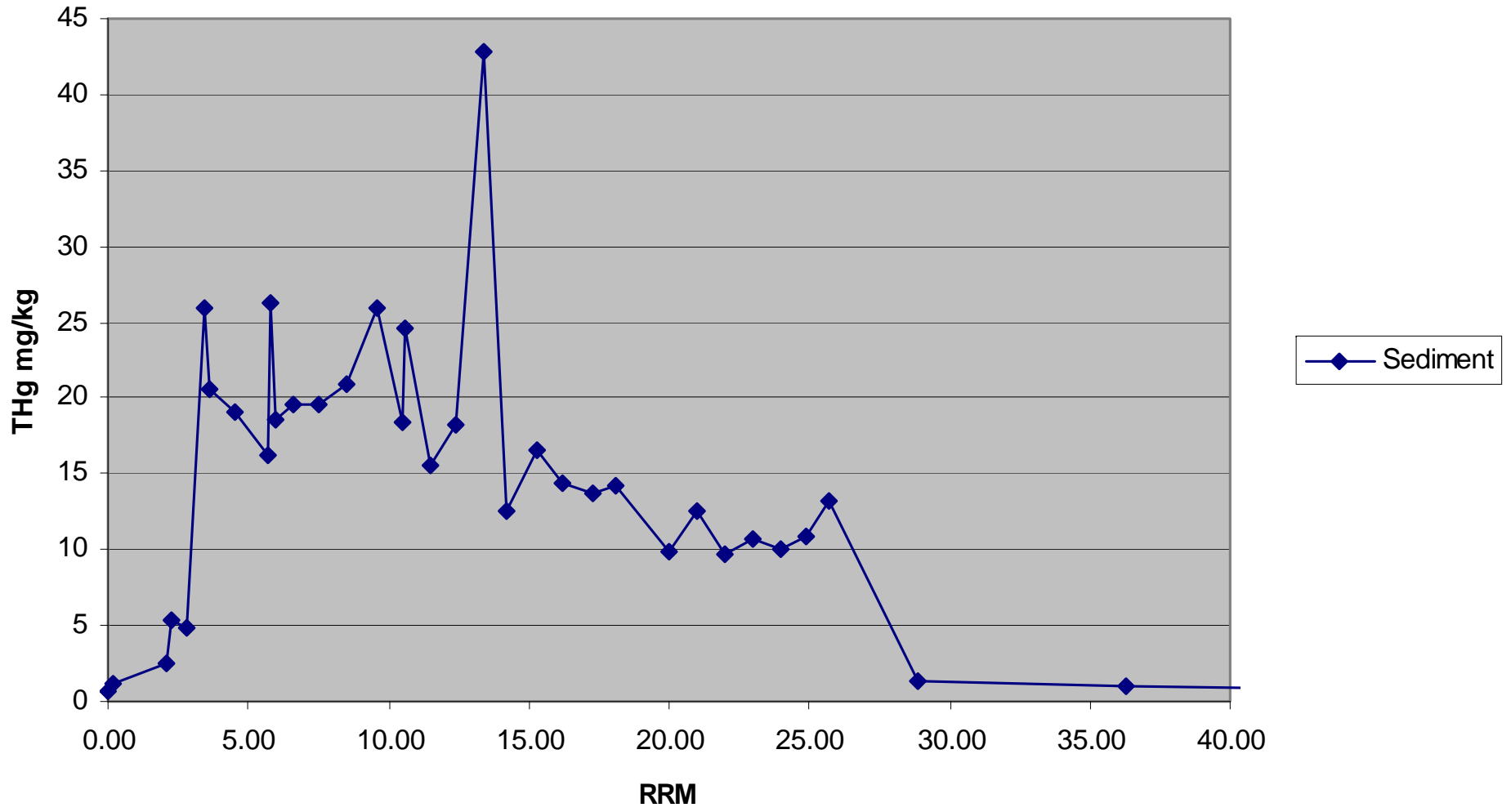
- 54 stations on North River, South River and South Fork Shenandoah River
- Stations spaced in approximately 1 mile intervals on the South River and approximately 5 mile intervals on the South Fork
- Samples collected using “guzzling” technique
- Samples analyzed for total Hg, Se, Cu, Tl, Zn, Pb, Sb, Mn, Ni, Fe, Cr, Cd, Be, As, Al, and Ag



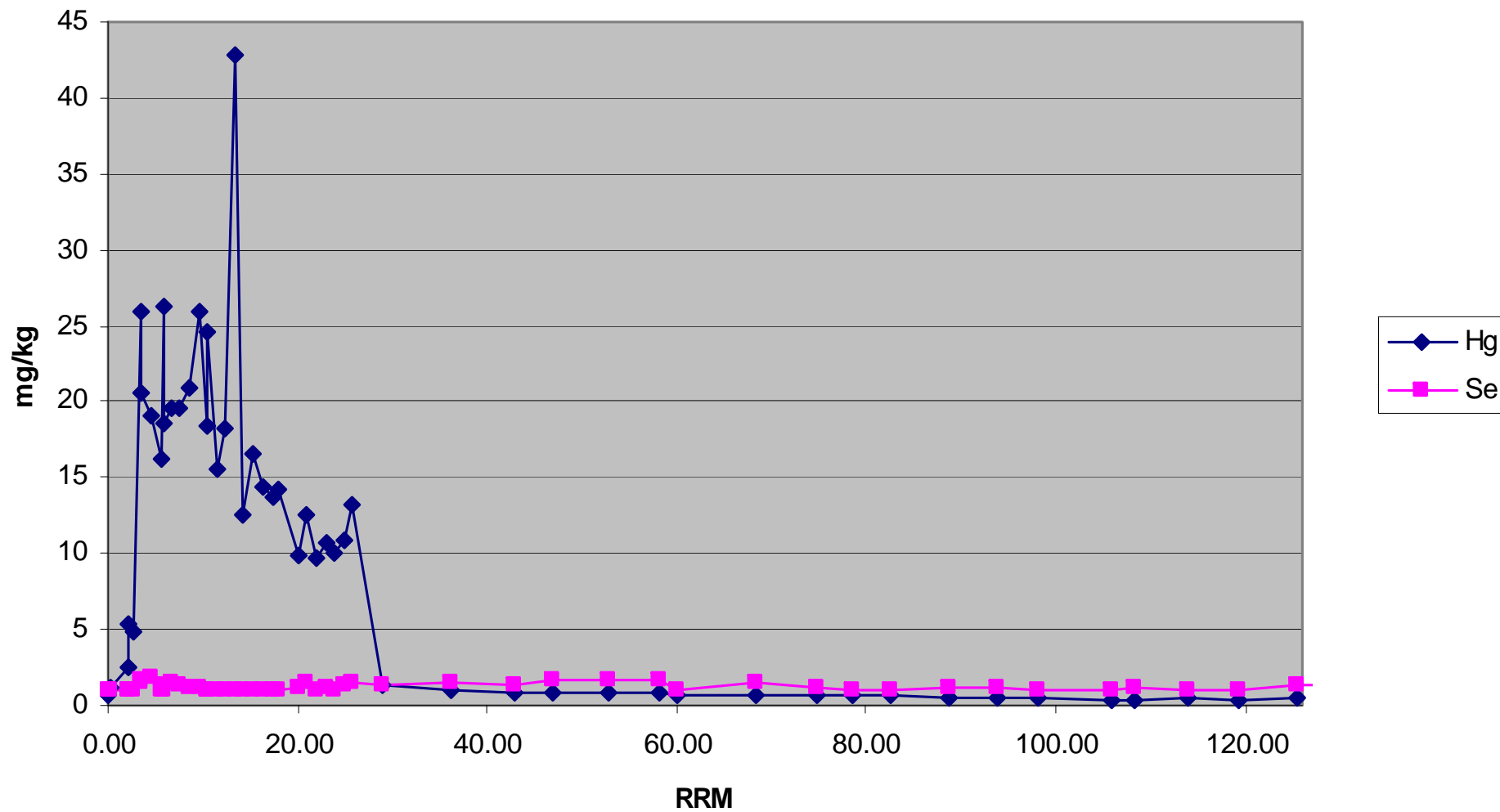
### 2007 Sediment Hg



### 2007 Sediment Hg



### 2007 Sediment Hg and Se



### 2007 Sediment and Fish Hg

