

Extract from Email from Eric Smith to Angela Nugent, July 19, 2011

I looked through the comments and noted the one by James Hurley. I thought the comment about sample size was good and glad he noticed some unusual aspects of the data and analysis. I looked at the data sets again and put together a note to clarify some points about the data and sample sizes. Basically the number of watersheds depends on what you look at - pre/post and lake/river or both.

It may help clarify - the bottom line is that the plot we have is for post data from rivers. One only gets the number of watersheds 2461 when watersheds with both post data from either lakes and rivers is used and these sites have deposition data.

Hope this will clarify things.  
Eric

Additional comments on sample sizes.

Two Excel files were sent, one that dealt with deposition and the other contained data on fish mercury levels. The second file subsistence-mercury-risk has 4117 entries. There were several variables on that data file that dealt with sample sizes. They seem to be categorized according to lake versus river and pre versus post. The variable that is in the report is N\_observations\_post\_river. This would seem to be the number of observations at a site in the post period that are from river samples.

There are 1551 non-zero values for this variable. Of these 645 are 1's (41.5%).

I combined the post lake and post river variables and found that there are 2486 sites with non-zero or non-missing fish measurements. I think the difference (2461 used) has to do with the deposition. When the mercury fish tissue data is combined with the mercury deposition data (which has 2461 observations) the resulting file has 2461 observations.

Below is the list of sites

| Obs  | HU_10_GNIS | HU_12_GNIS | HU_10_DS   | HU_10_NAME                              |
|------|------------|------------|------------|---|
| 60   |            | 304020702  |            | Sampit River                            |
| 216  |            | 1019001807 |            | Sutherland Reservoir-South Platte River |
| 1119 |            | 502000505  |            | Upper Monongahela River                 |
| 1120 |            | 503010103  |            | Beaver River                            |
| 1164 |            | 1507010204 |            | Lynx Creek-Agua Fria River              |
| 1166 | 44784      | 33995      | 1507010102 | Salt River below Saguaro Lake           |
| 1171 | 6542       | 34392      | 1502000504 | Show Low Creek                          |
| 1174 | 26645      |            | 1503020204 | Boulder Creek                           |
| 1175 | 33525      |            | 1206020207 | Beaver Creek                            |
| 1178 | 12165      |            | 1502000807 | McDonald Canyon-Little Colorado River   |

|      |       |            |                                       |
|------|-------|------------|---------------------------------------|
| 1180 | 32622 | 1502001504 | San Francisco Wash                    |
| 1373 |       | 306010108  | Coneross Creek                        |
| 1416 |       | 306010608  | Augusta Canal-Savannah River          |
| 1541 |       | 508000209  | Dicks Creek-Great Miami River         |
| 1572 |       | 504000106  | Nimishillen Creek                     |
| 1597 |       | 504000106  | Nimishillen Creek                     |
| 1773 |       | 507010105  | Pinnacle Creek-Guyandotte River       |
| 1788 |       | 505000603  | Paint Creek                           |
| 1864 |       | 503020201  | French Creek-Ohio River               |
| 2420 |       | 1904070513 | Pilot Mountain Slough-Yukon River     |
| 2421 |       | OCEAN      | Outlet Yukon River-Frontal Bering Sea |
| 2422 |       | 1904080324 | 1904080311-Innoko River               |
| 2423 |       | 1904051102 | Swanneck Slough-Tolovana River        |
| 2424 |       | 1904040117 | Outlet Kandik River                   |
| 2425 |       | 1904040405 | Outlet Ray River                      |