

FIELD LOG –

Weeks of April 7 and April 14, 2014

Higher than average snow fall, subsequent snow melt and frequent heavy rain events have promoted elevated flows in the Susquehanna River and tributaries for much of this early spring season. Much of the river work has suffered and has been postponed for when flows decrease. Staff biologists have managed to complete some tributary work.

- While continuous instream monitors (CIMs) have not yet been deployed at core large river sites, CIMs were successfully deployed in a handful of tributary sites. CIMs will collect temperature, pH, specific conductance and dissolved oxygen data throughout the sampling season.
- As part of the thiamine/thiaminase portion of the 2014 effort, rusty crawfish (*Orconectes rusticus*) have been successfully collected at a handful of sites. Rusty crawfish are not native to the Susquehanna River. Non-native species containing thiaminase (enzyme that breaks down thiamine) are known to have caused reproductive failure in some fish species. There appears to be similarities between smallmouth bass fry survival and previous cases of reproductive failure due to vitamin B1

(thiamine) deficiency. Smallmouth bass are thought to feed heavily on crawfish. Crawfish are reported to contain thiaminase but it is unknown if thiaminase is greater in the rusty crawfish compared to the native species that have been displaced by this non-native species.

- Water chemistry grab samples have also been successfully collected at select tributary sites. Preliminary chemistry results will be used to adjust sample sites throughout the sampling season.