

Scatter plots of biometric value versus % flow metric alteration
Feb 22, 2012

This file contains the scatter plots and quantile regressions for the following biometrics and flow metrics, but only for those combinations with a statistically significant quantile regression:

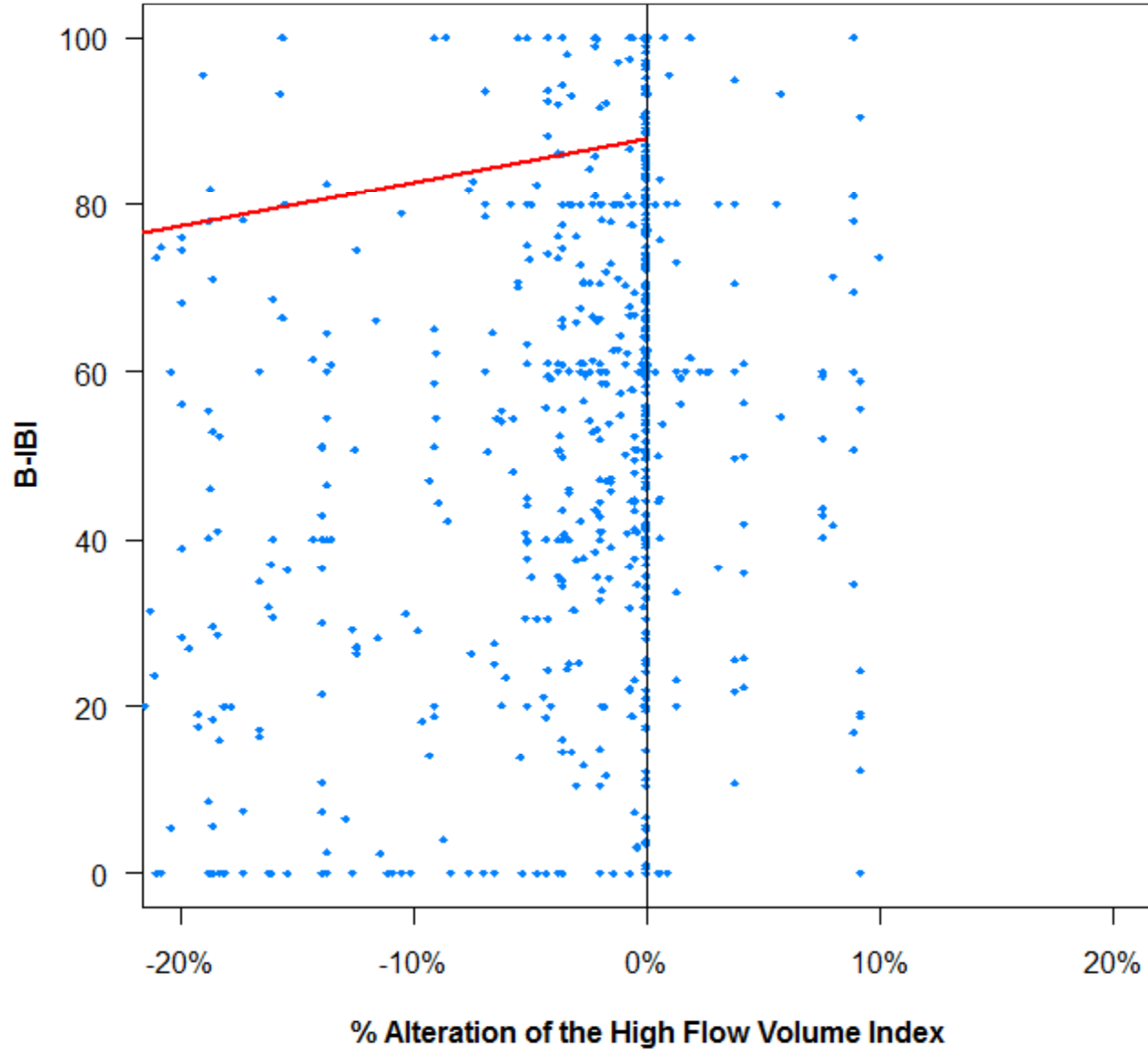
	High Flow Index MH21	High Flow Duration DH17	High Pulse Count	Median Annual Flow	Flashiness	Extreme Low Flow Freq.	Low Pulse Duration
BIBI*	x	x	x	x	x	x	x
Shannon-Wiener	x	x	x		x		x
Hilsenhoff Biotic Index		x	x		x		x
%EPT	x	x			x		
%Chironomidae	x	x		x	x		x
%Scraper	x	x	x		x		x
%Clinger	x	x		x	x		x

* Chessie BIBI, or Chesapeake Basin-wide Index of Biotic Integrity

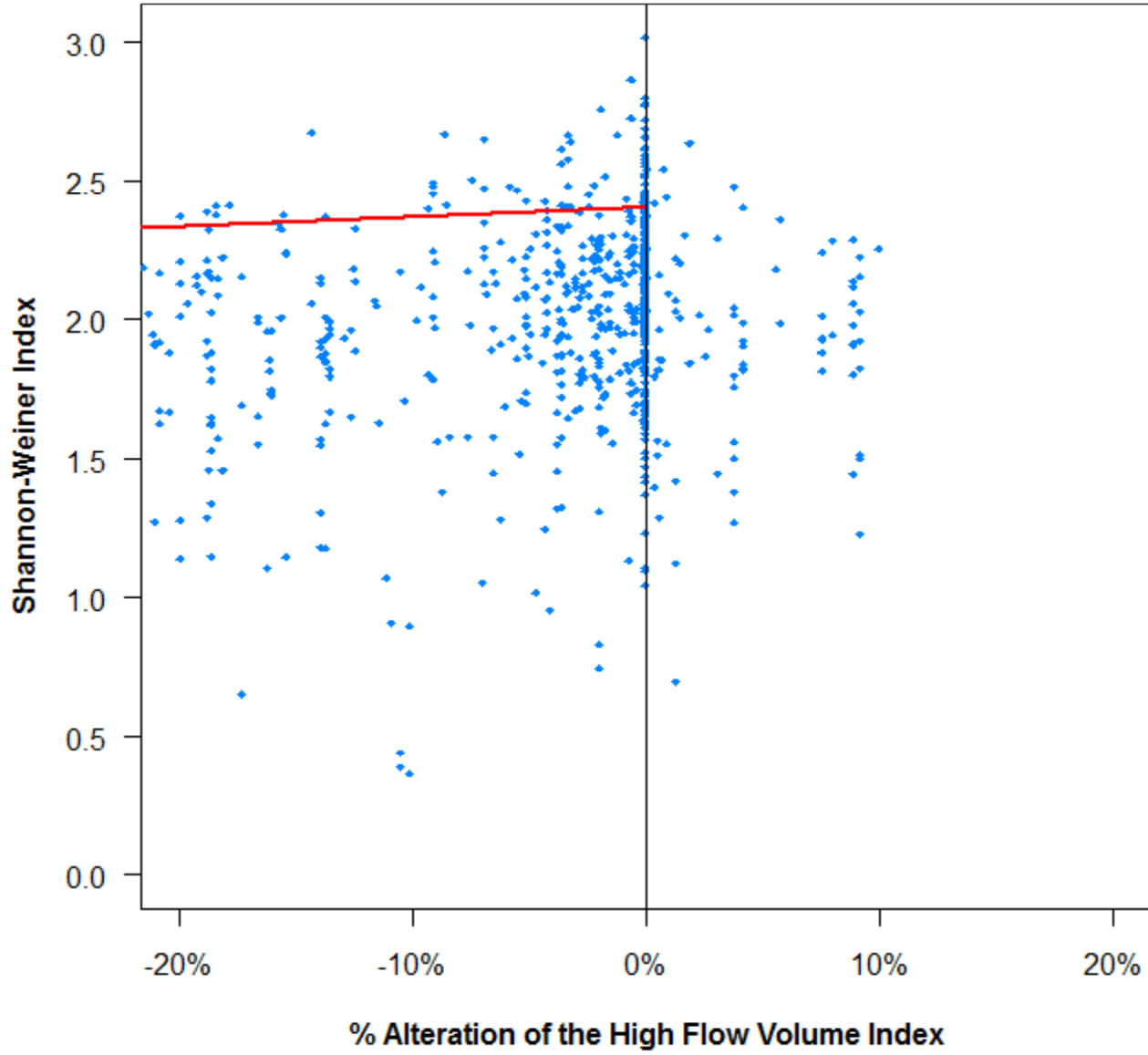
Metric definitions are provided in Supplemental Tables A and B at the back of the report.

- 1) Quantile regressions are calculated separately for positive flow alteration and for negative flow alteration.
- 2) A red quantile regression line indicates the regression is significant at the 0.01 level. Quantile regressions significant at the 0.05 level are shown in black.
- 3) Lower biometric values indicate decreasing biological health, except for % Chironomidae and Hilsenhoff Biotic Index where increasing values indicate decreasing health.
- 4) A summary table of quantile regression statistics for all biometric – flow metric combinations is in the file QuantileRegr_Data_R-scripts.xlsx on the “Summary” tab
- 5) In some cases, the X-axis scale has been adjusted to not show a few extreme values so that greater resolution can be provided for the great majority of points.

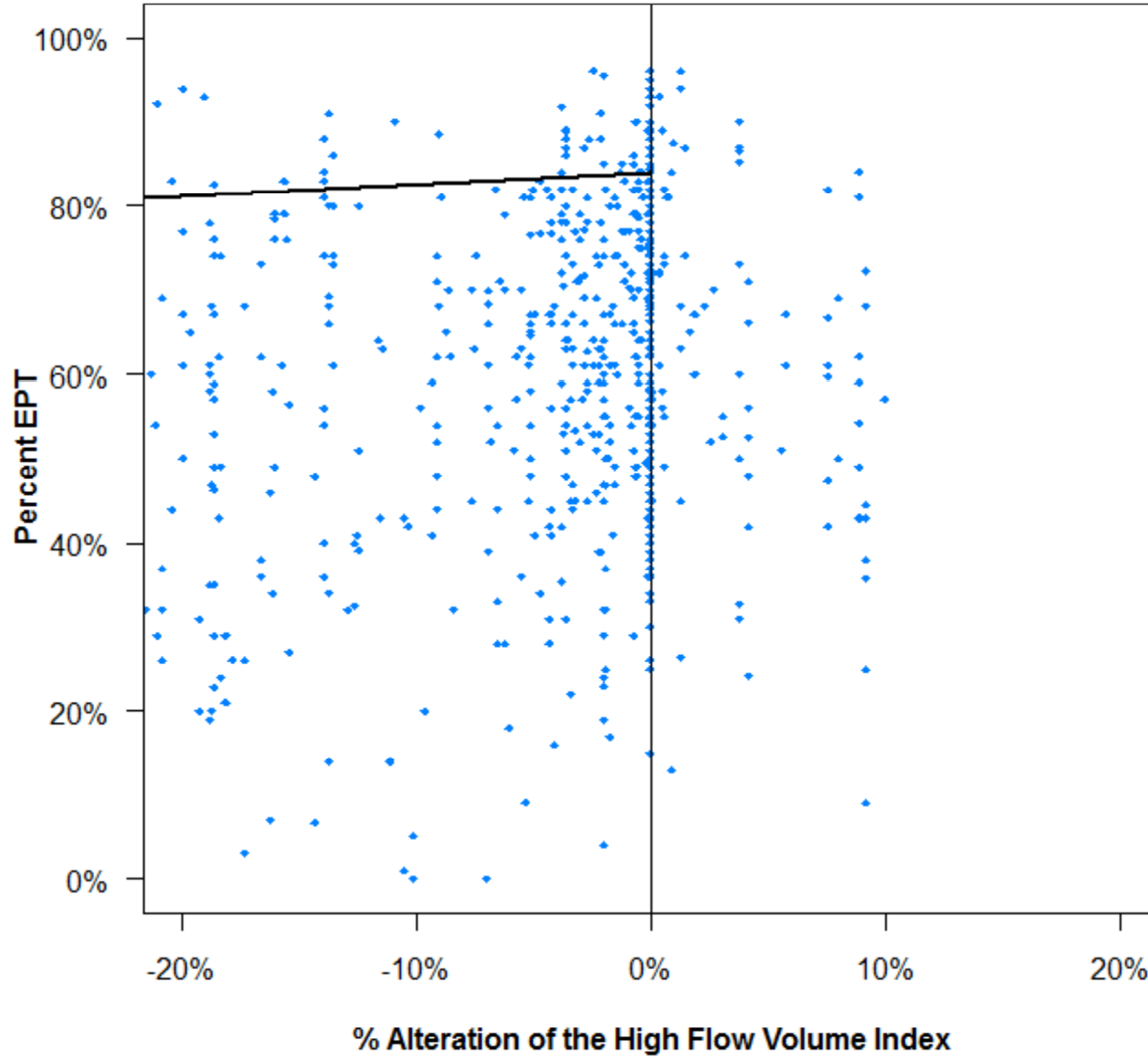
B-IBI vs. MH21



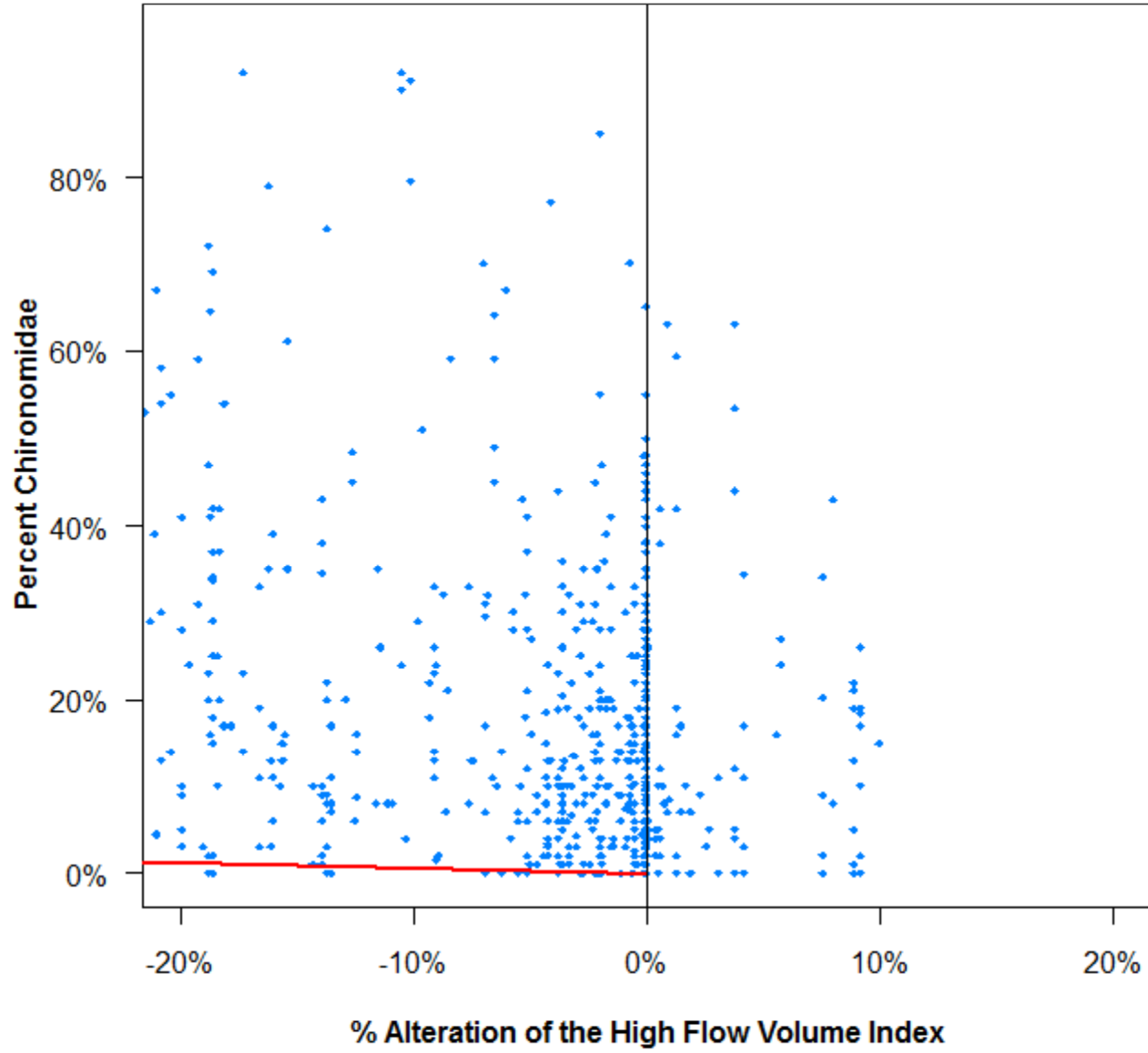
Shannon-Weiner Index vs. MH21



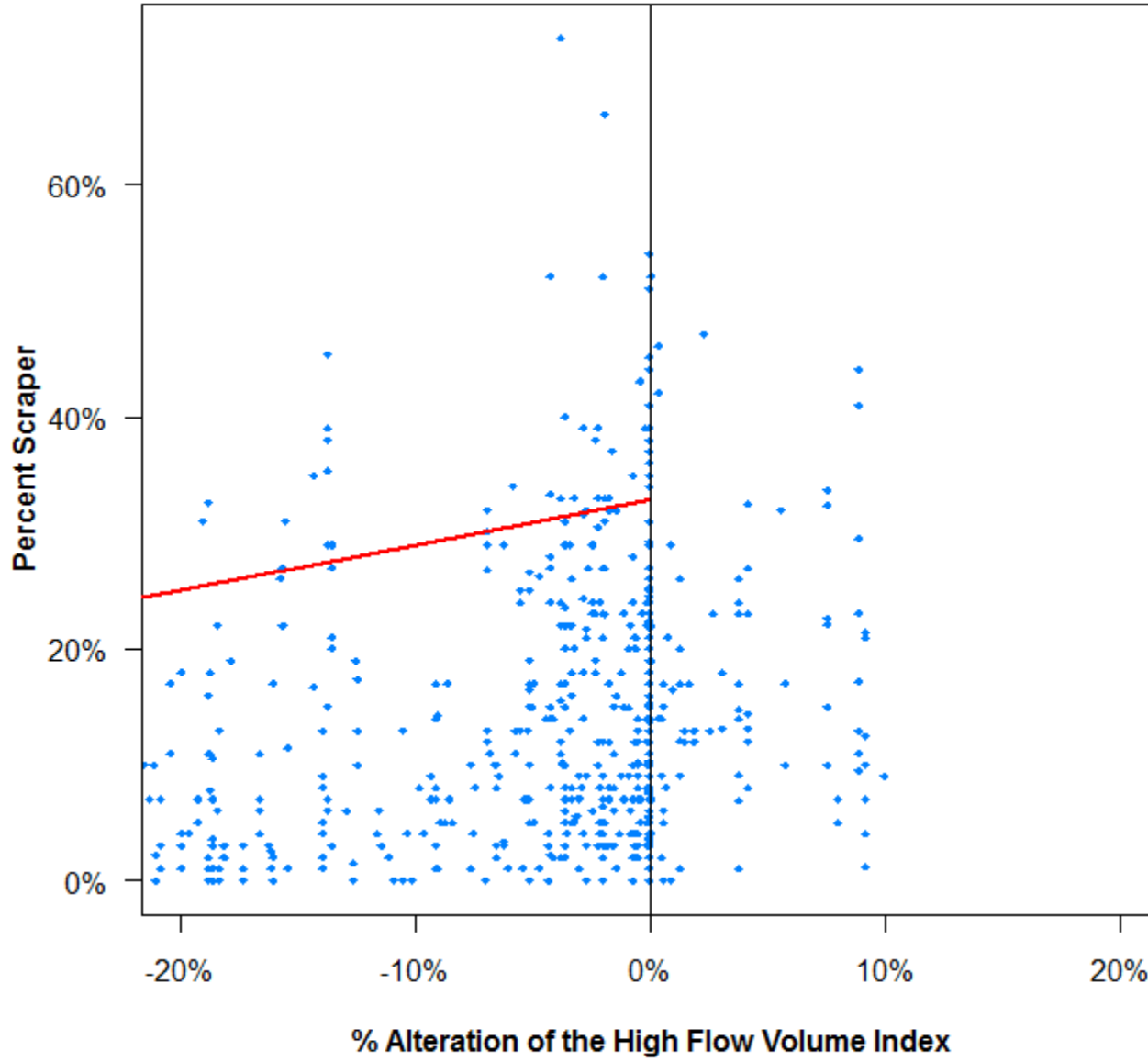
Percent EPT vs. MH21



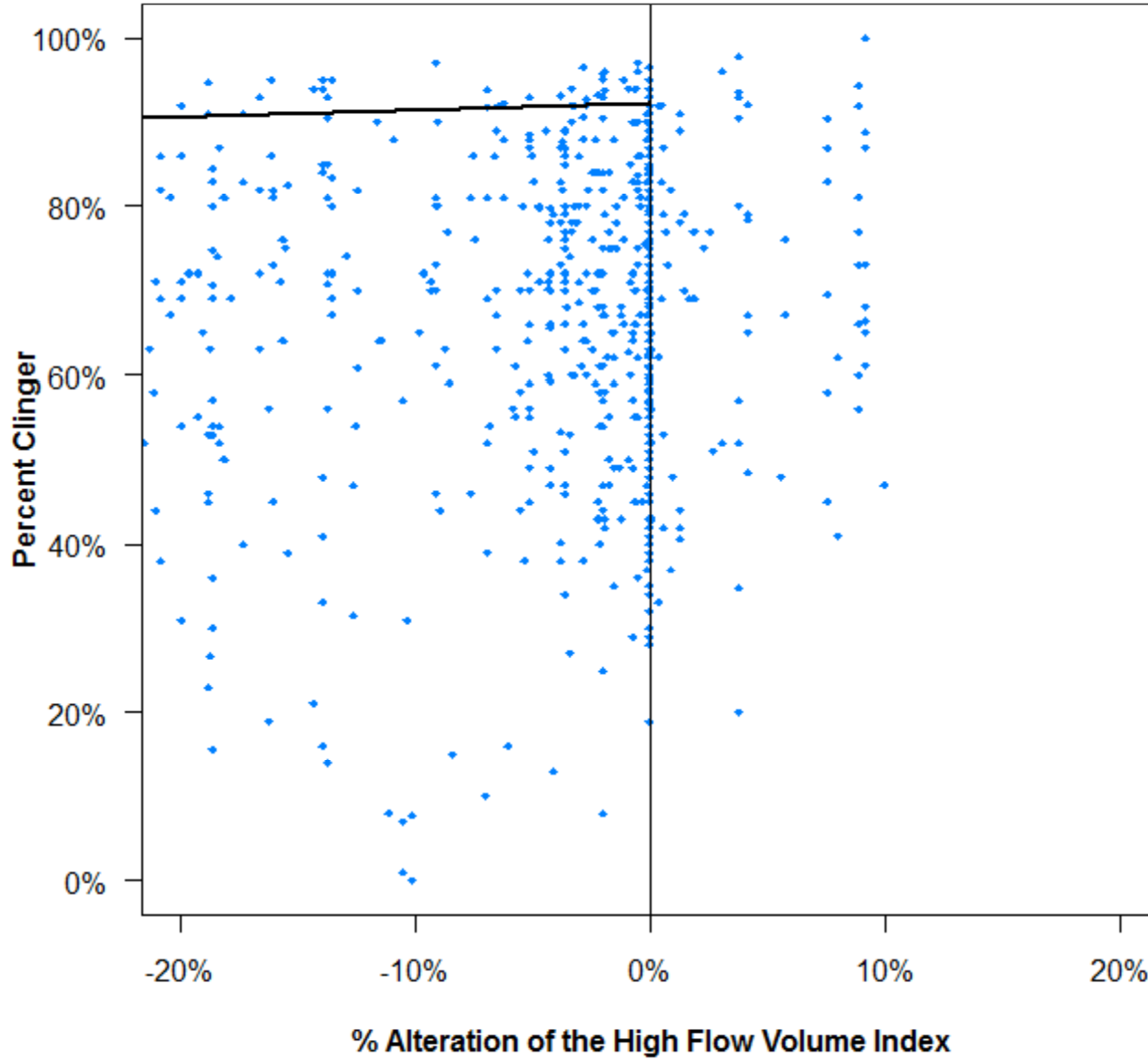
Percent Chironomidae vs. MH21



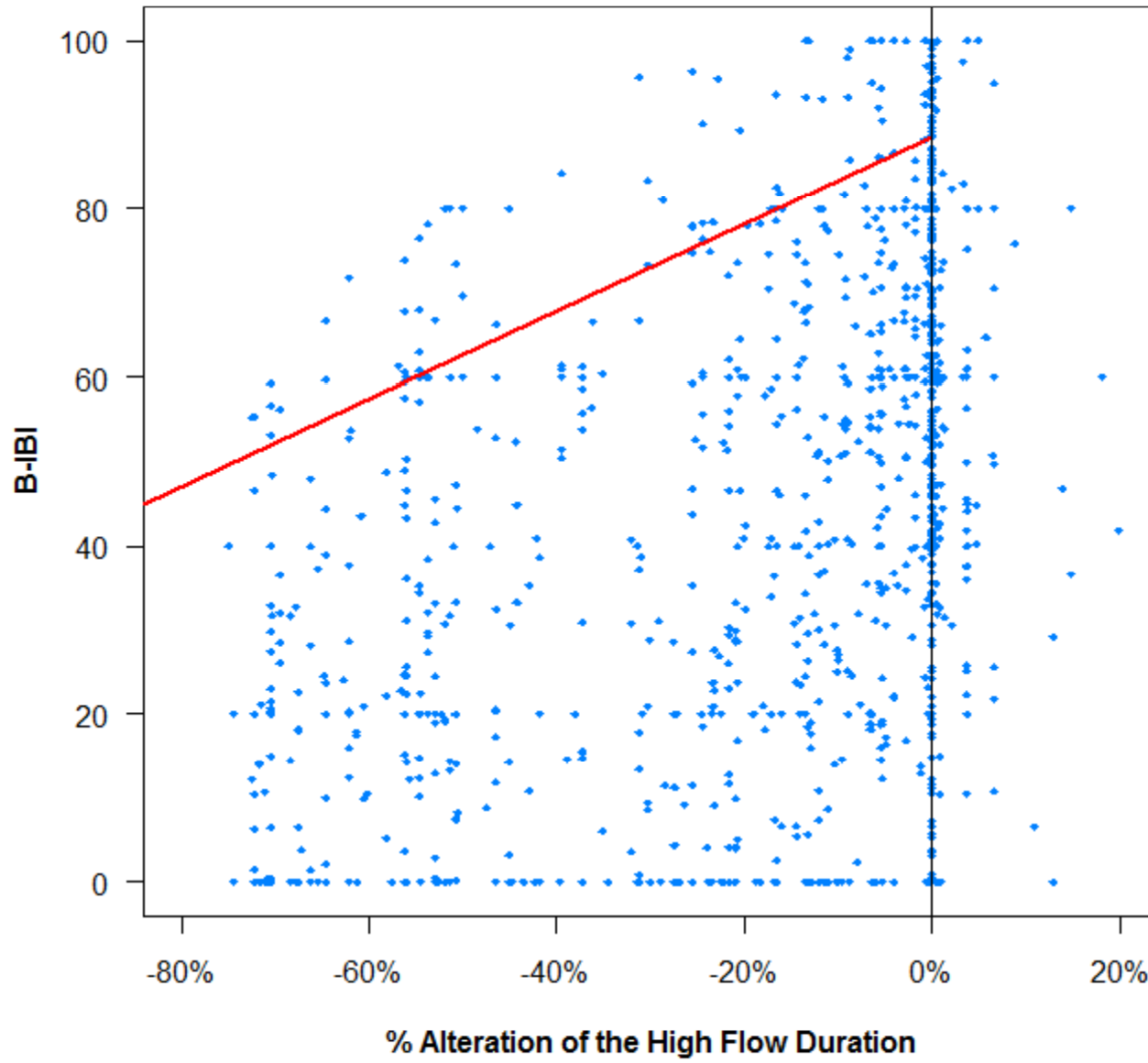
Percent Scraper vs. MH21



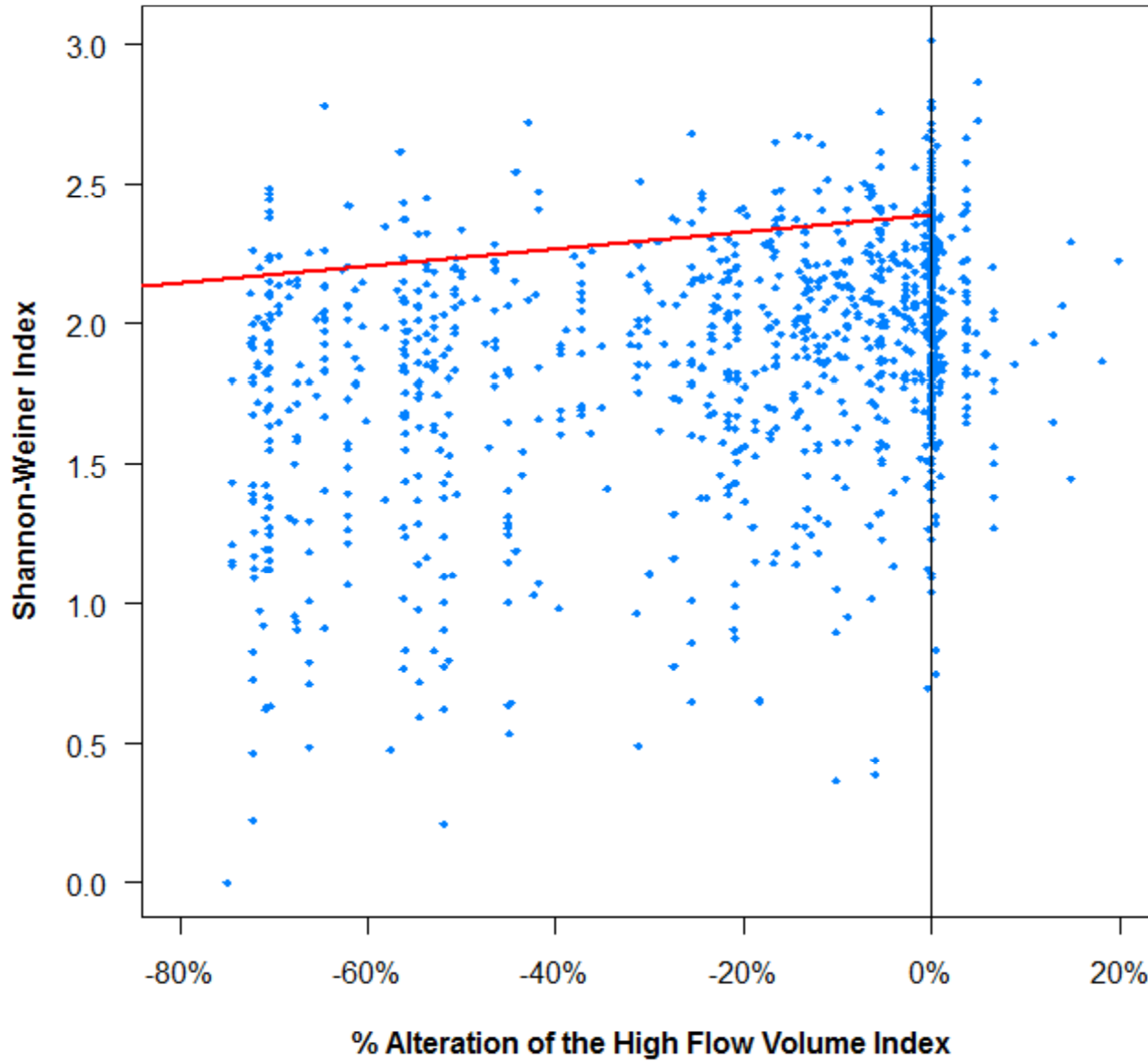
Percent Clinger vs. MH21



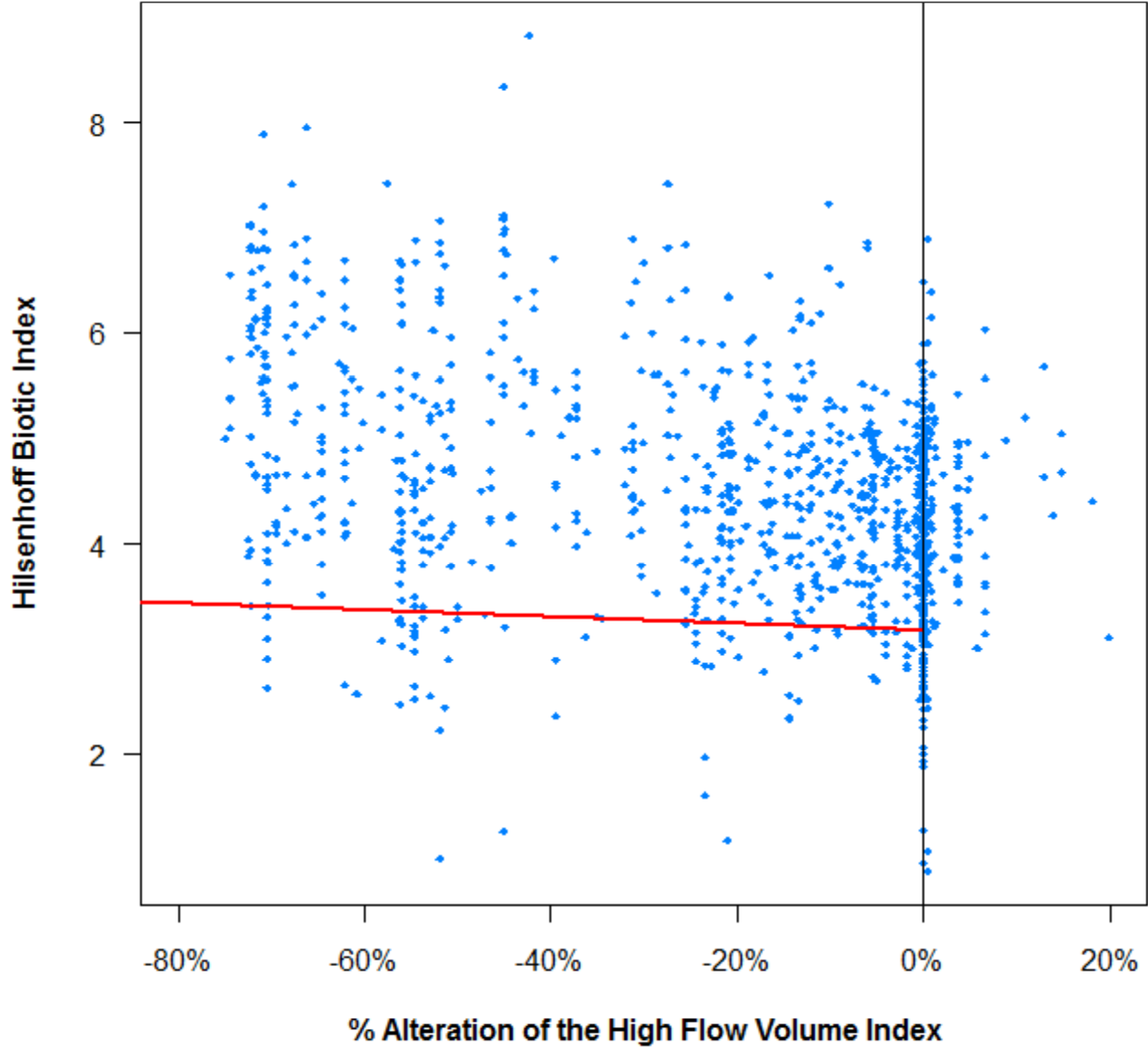
B-IBI vs. DH17



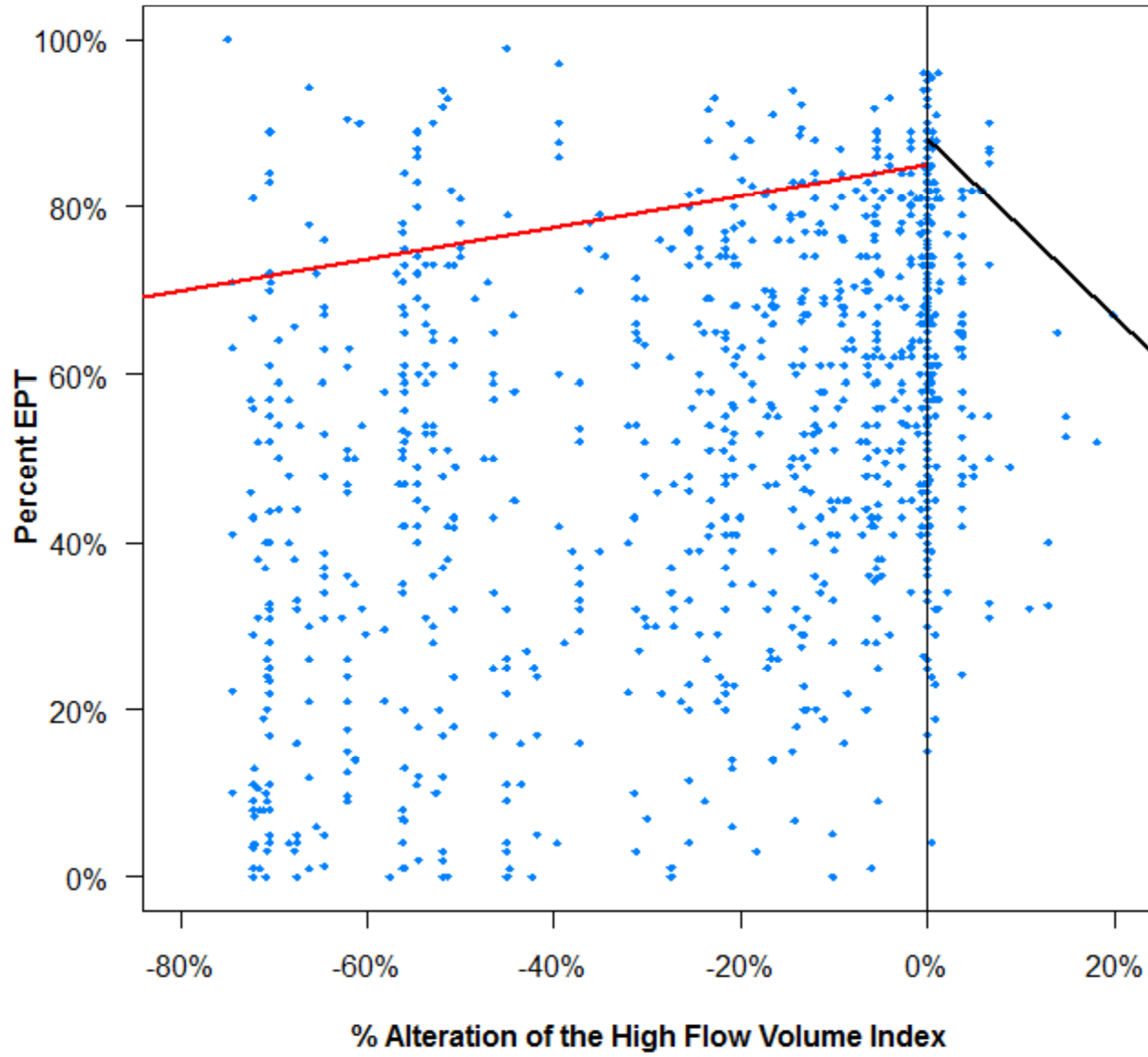
Shannon-Weiner Index vs. DH17



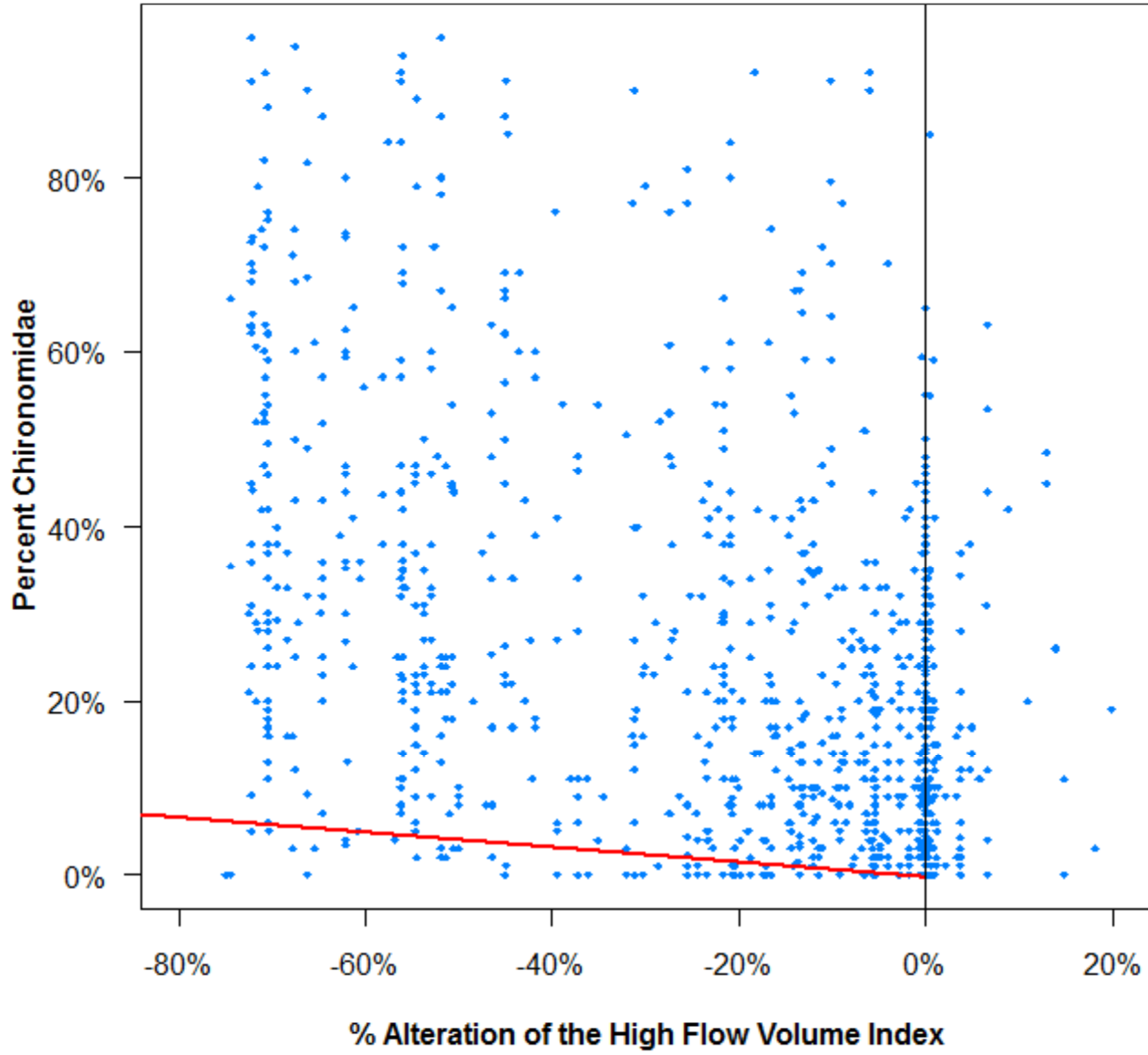
Hilsenhoff Biotic Index vs. DH17



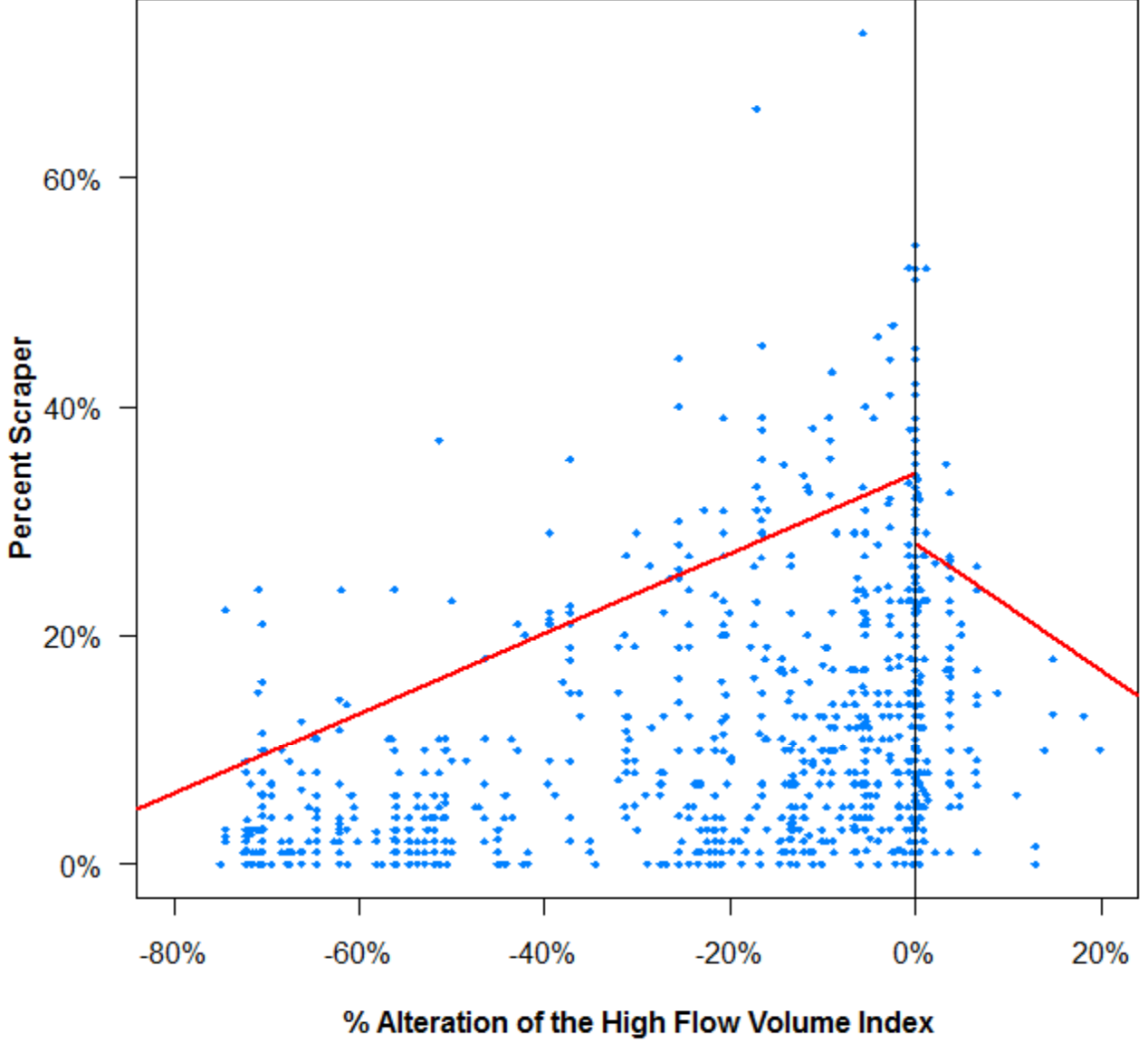
Percent EPT vs. DH17



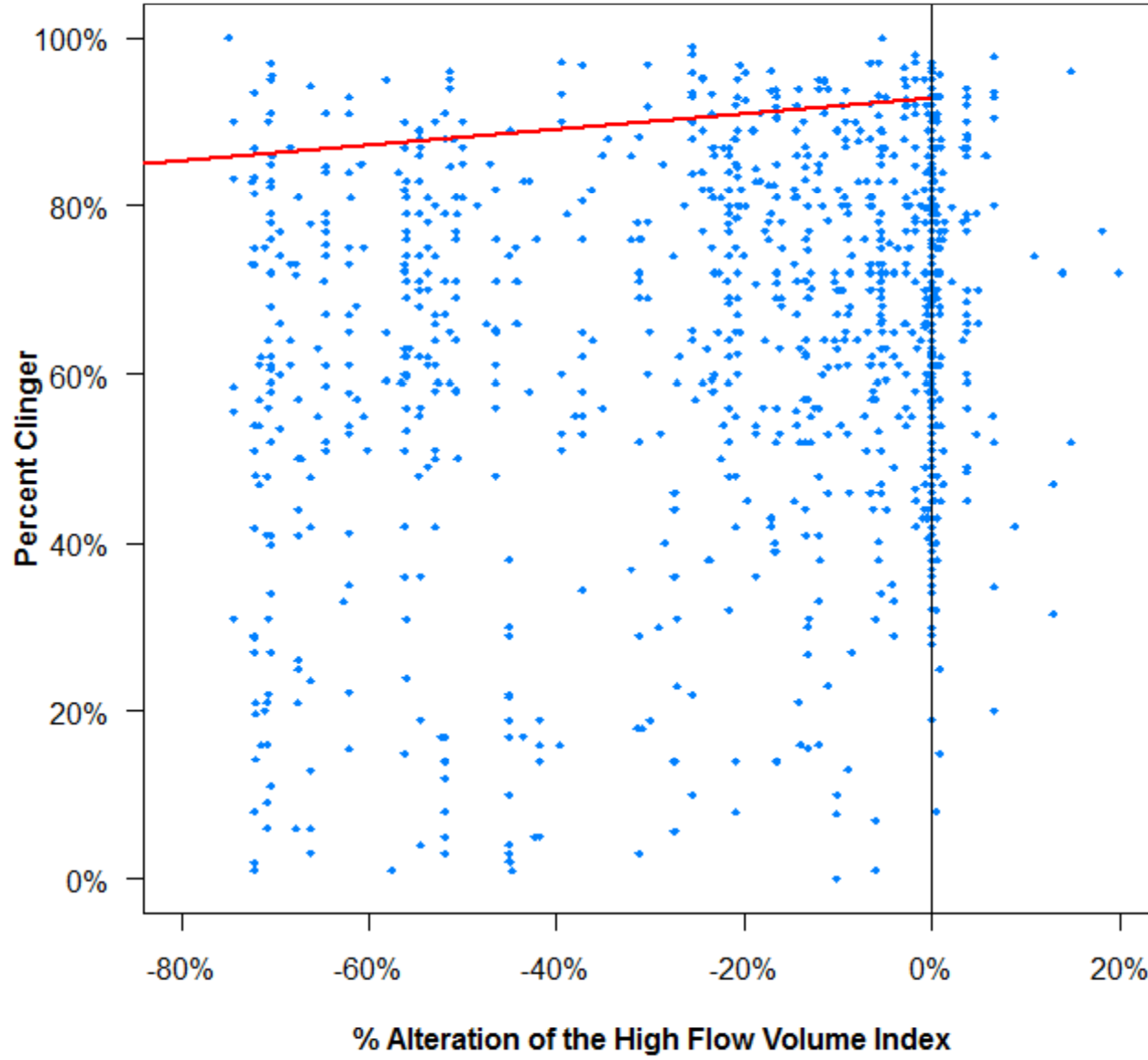
Percent Chironomidae vs. DH17



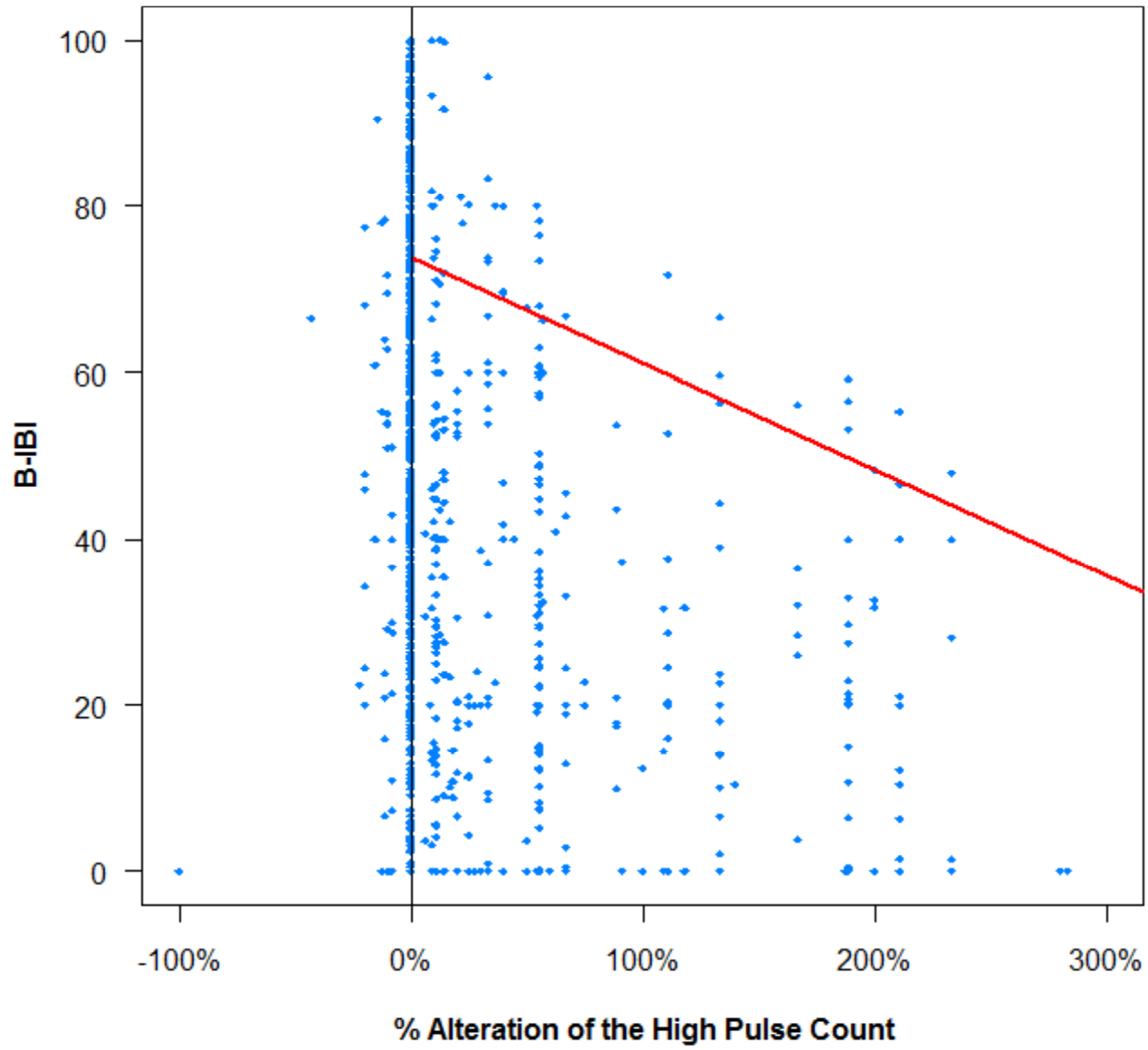
Percent Scraper vs. DH17



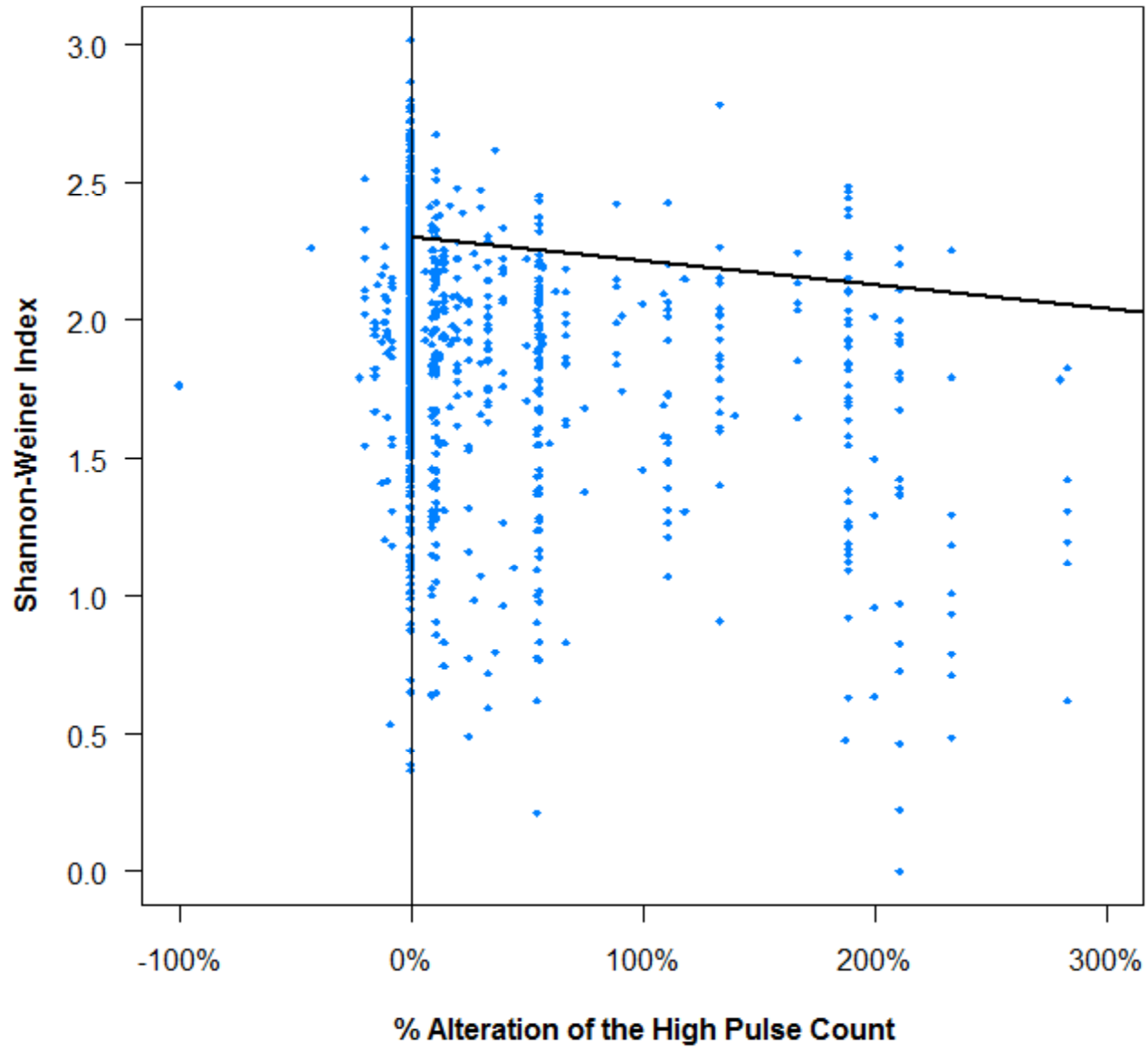
Percent Clinger vs. DH17



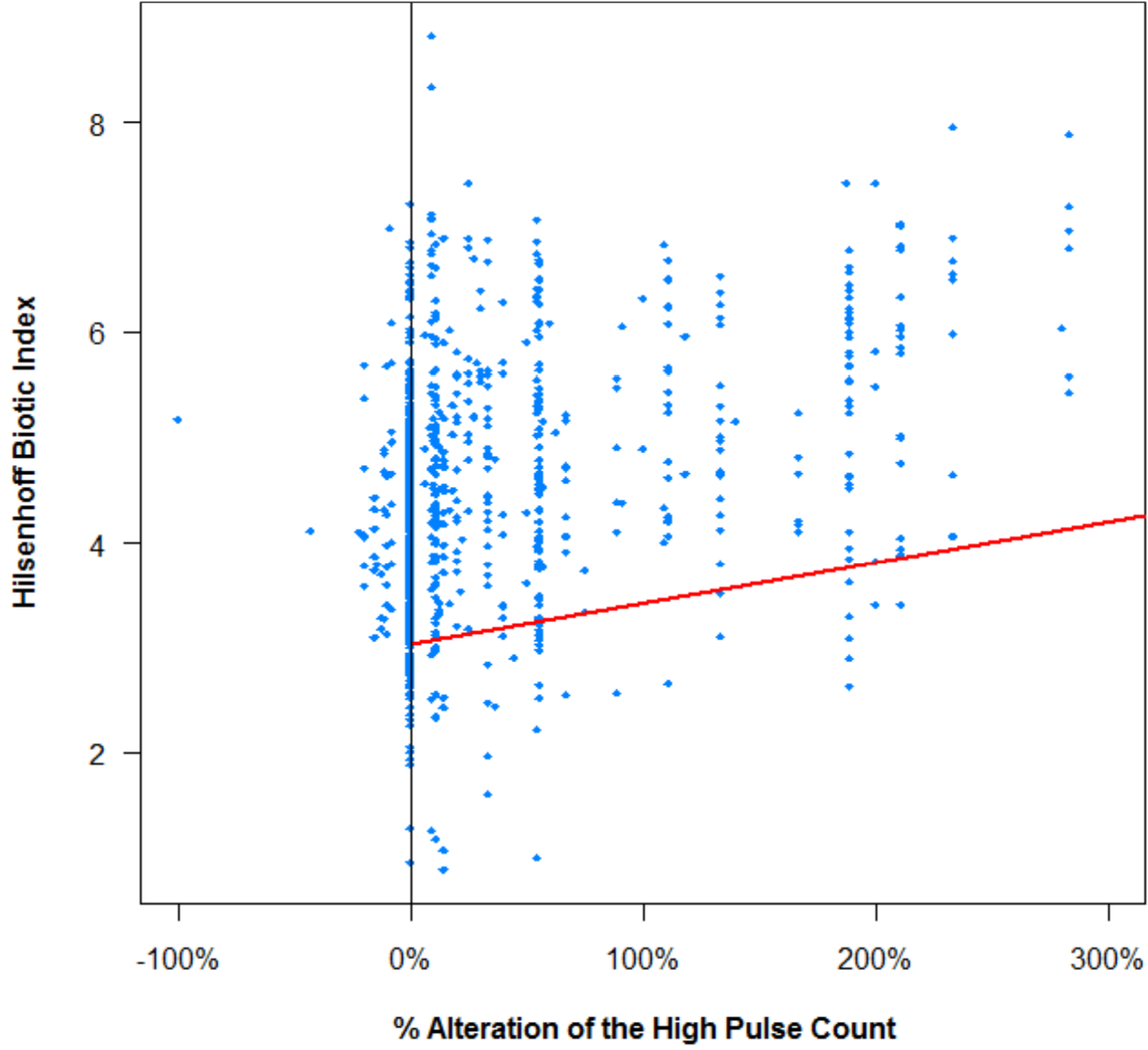
B-IBI vs. HighPulseCount



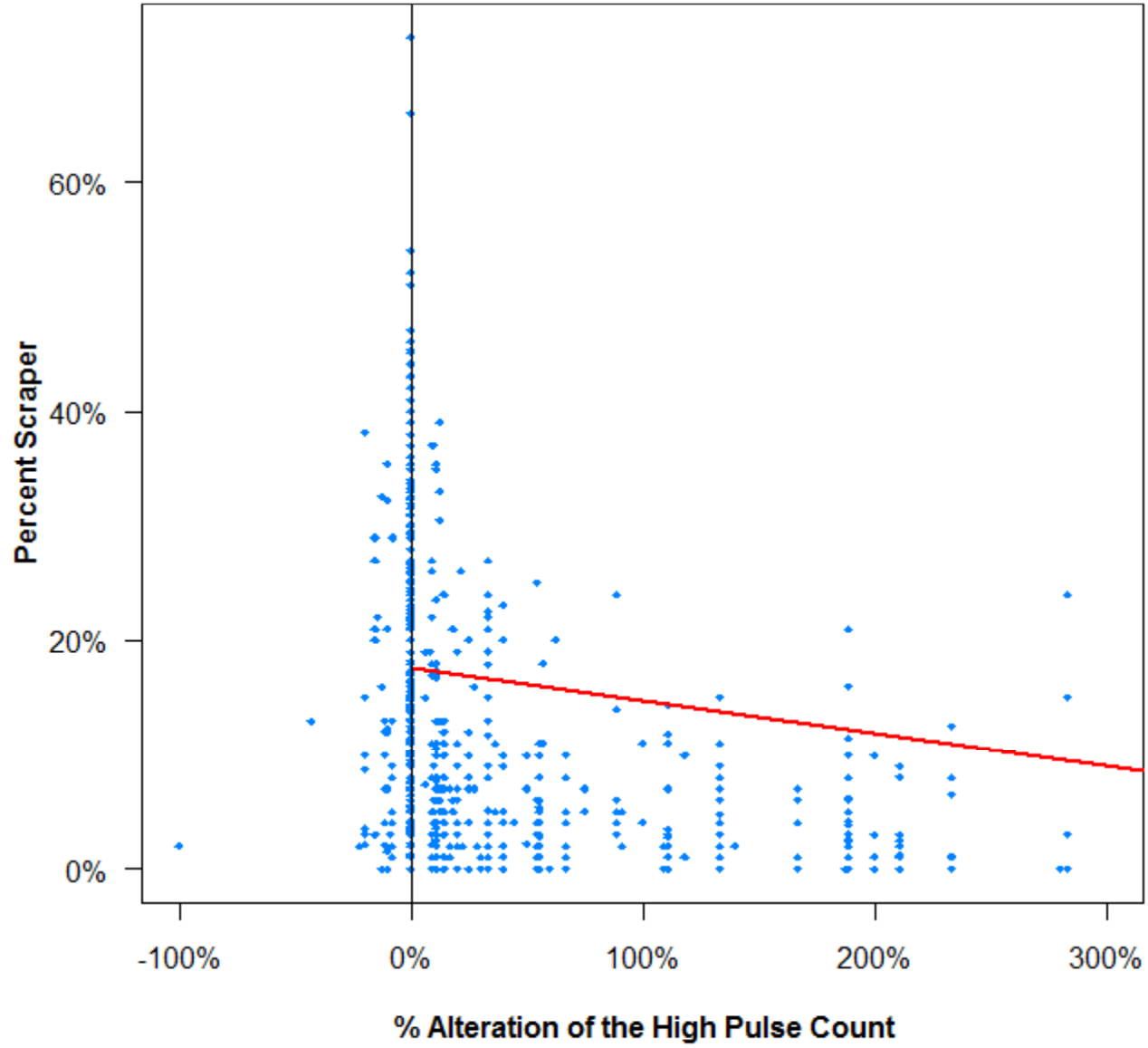
Shannon-Weiner Index vs. HighPulseCount



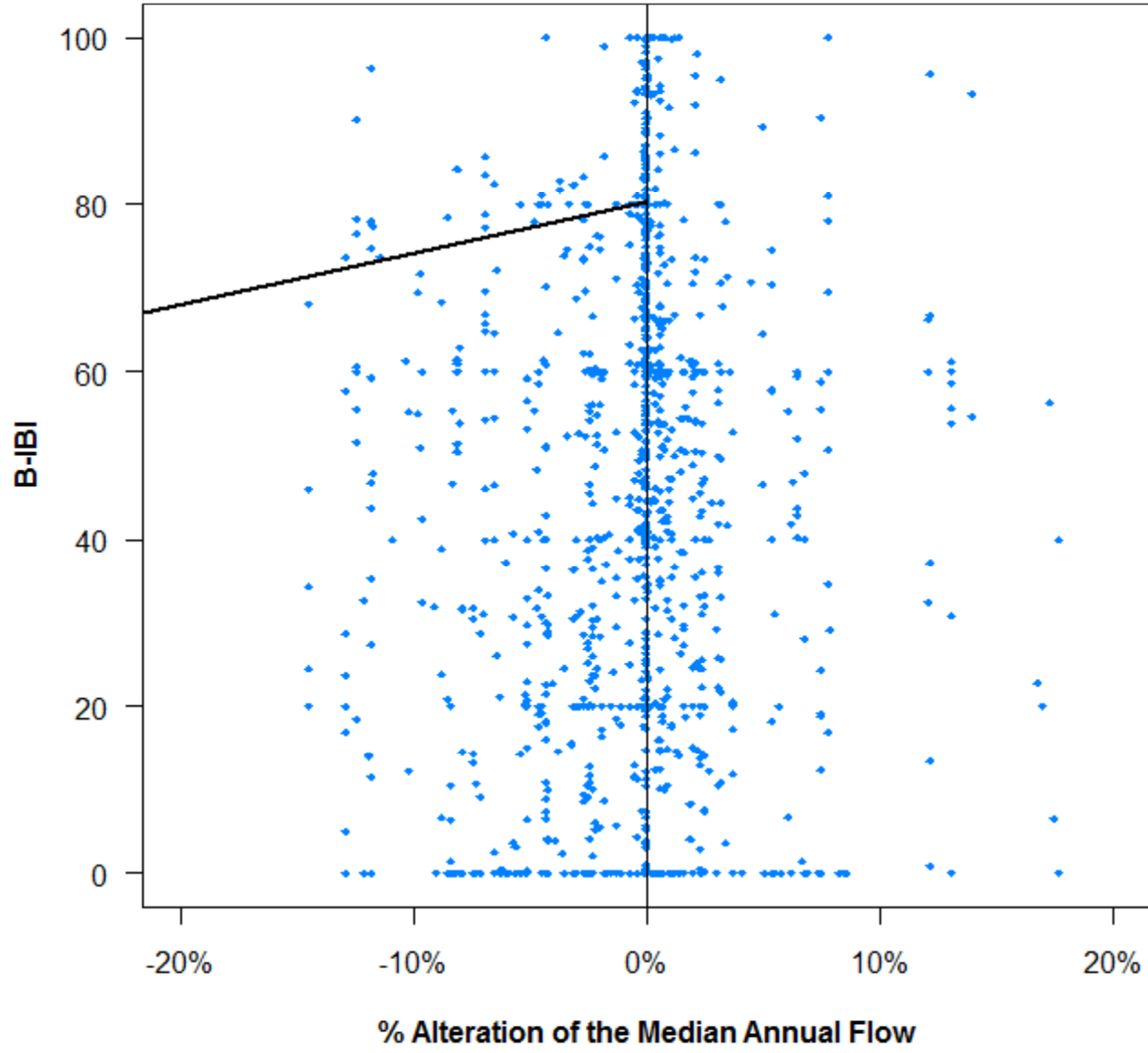
Hilsenhoff Biotic Index vs. HighPulseCount



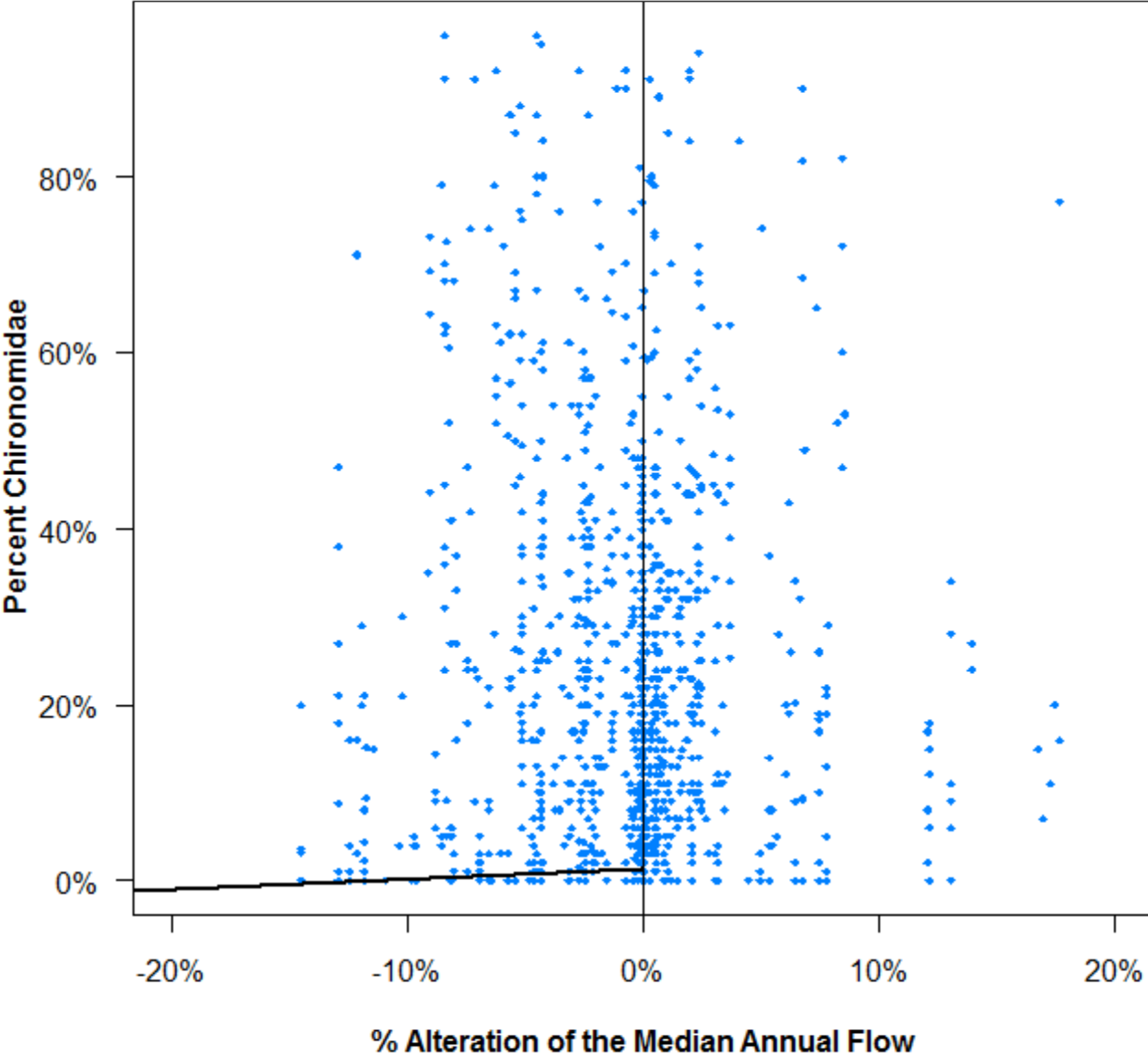
Percent Scraper vs. HighPulseCount



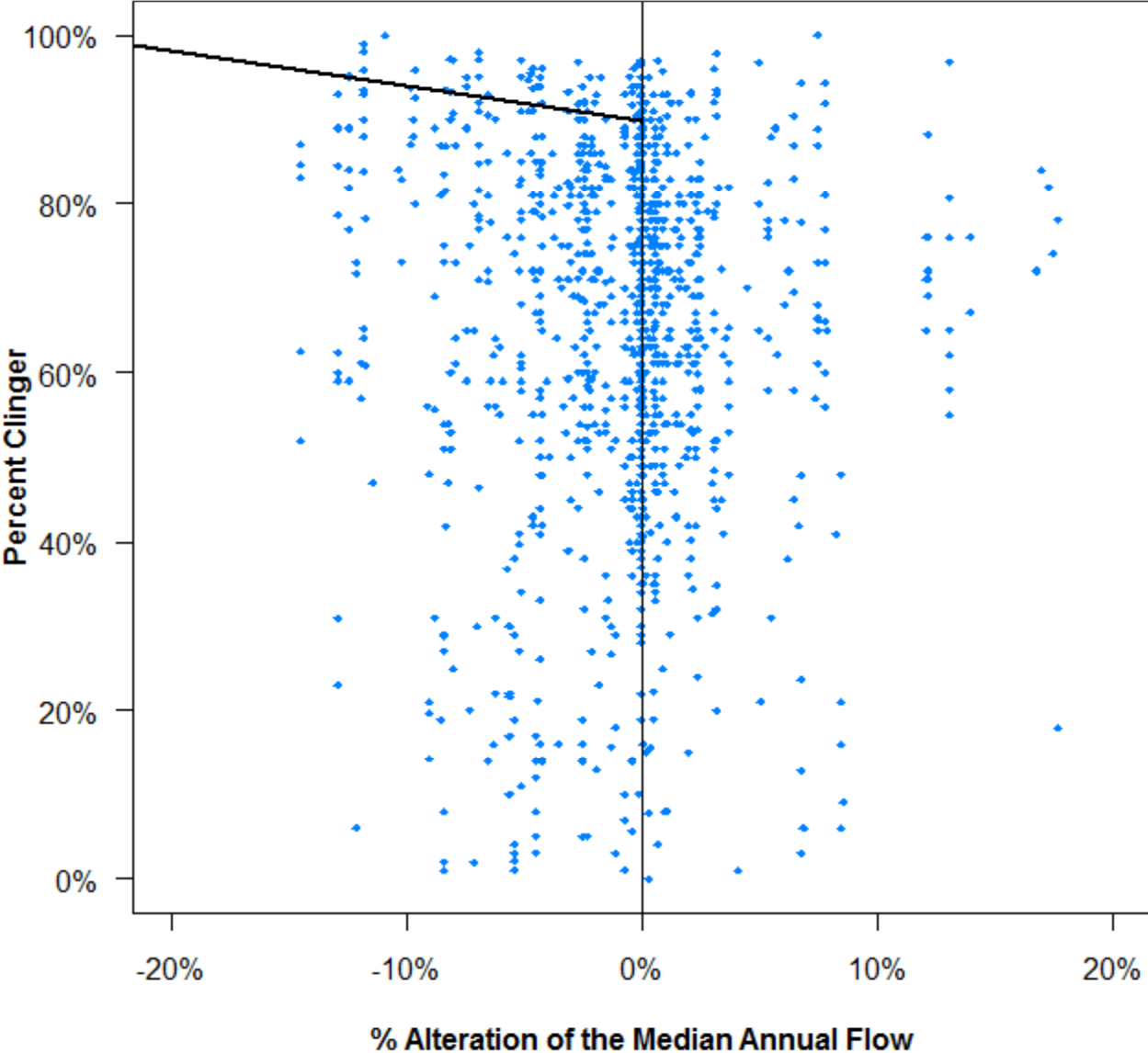
B-IBI vs. Median Annual Flow



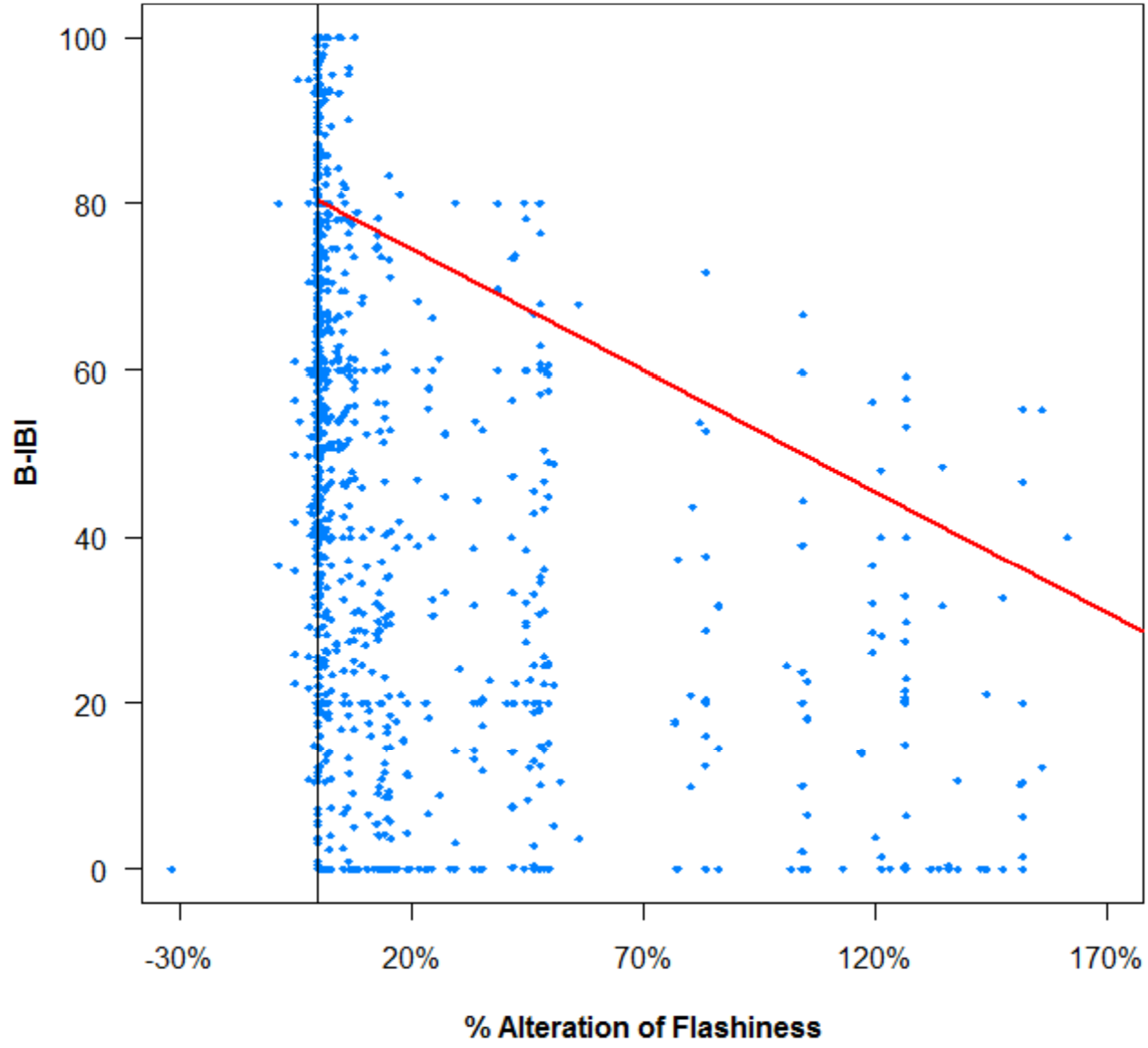
Percent Chironomidae vs. Median Annual Flow



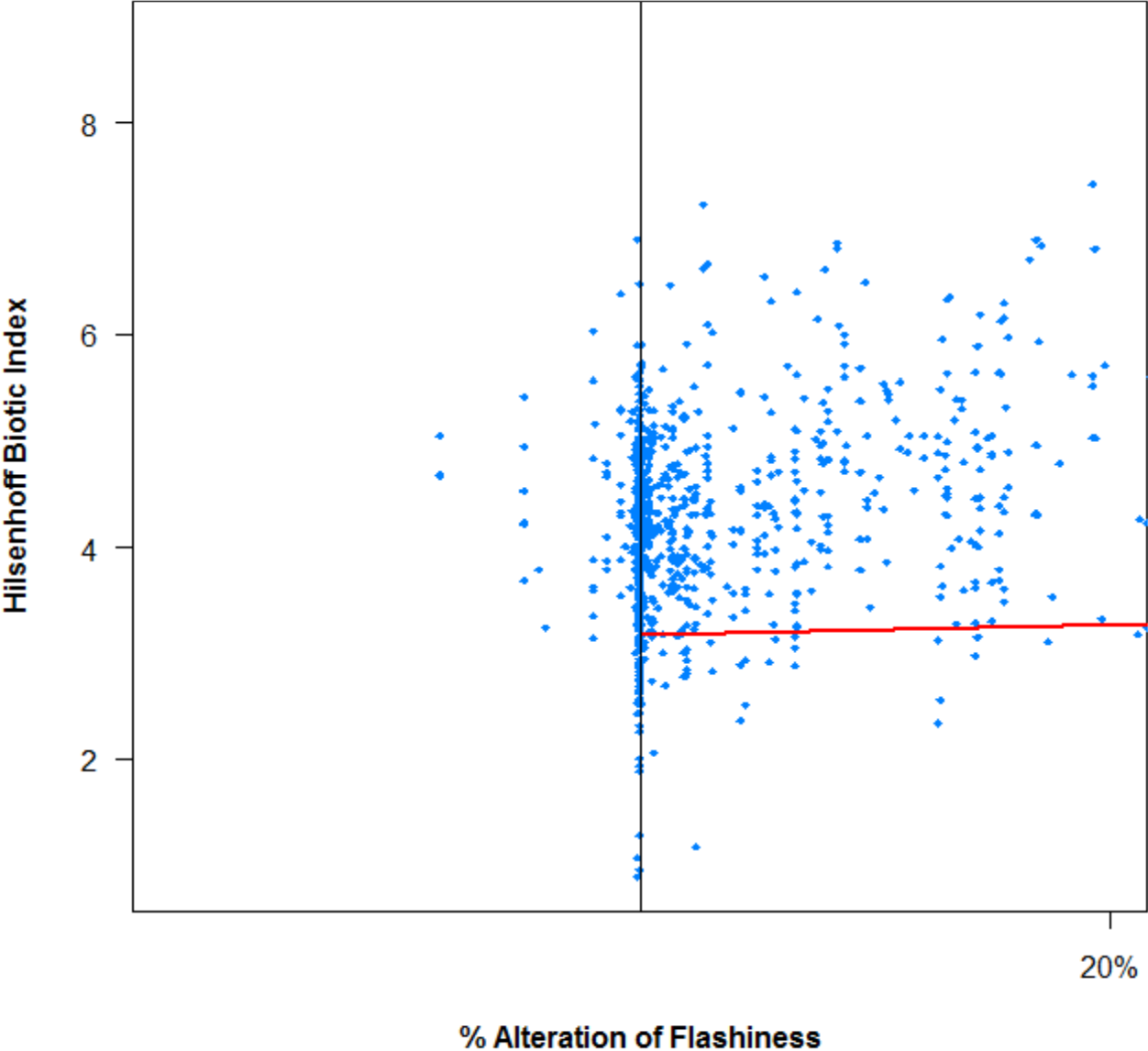
Percent Clinger vs. Median Annual Flow



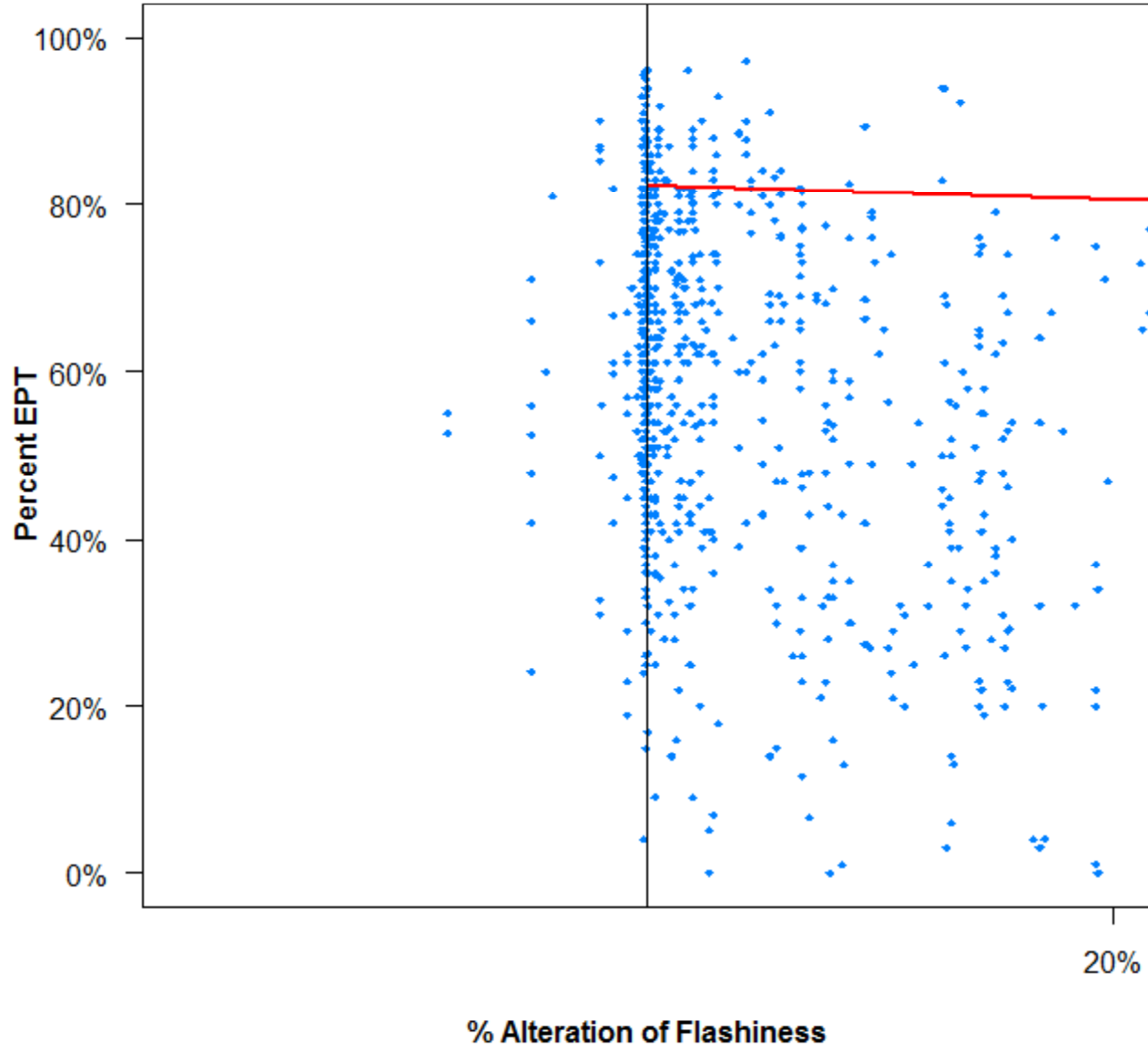
B-IBI vs. Flashiness



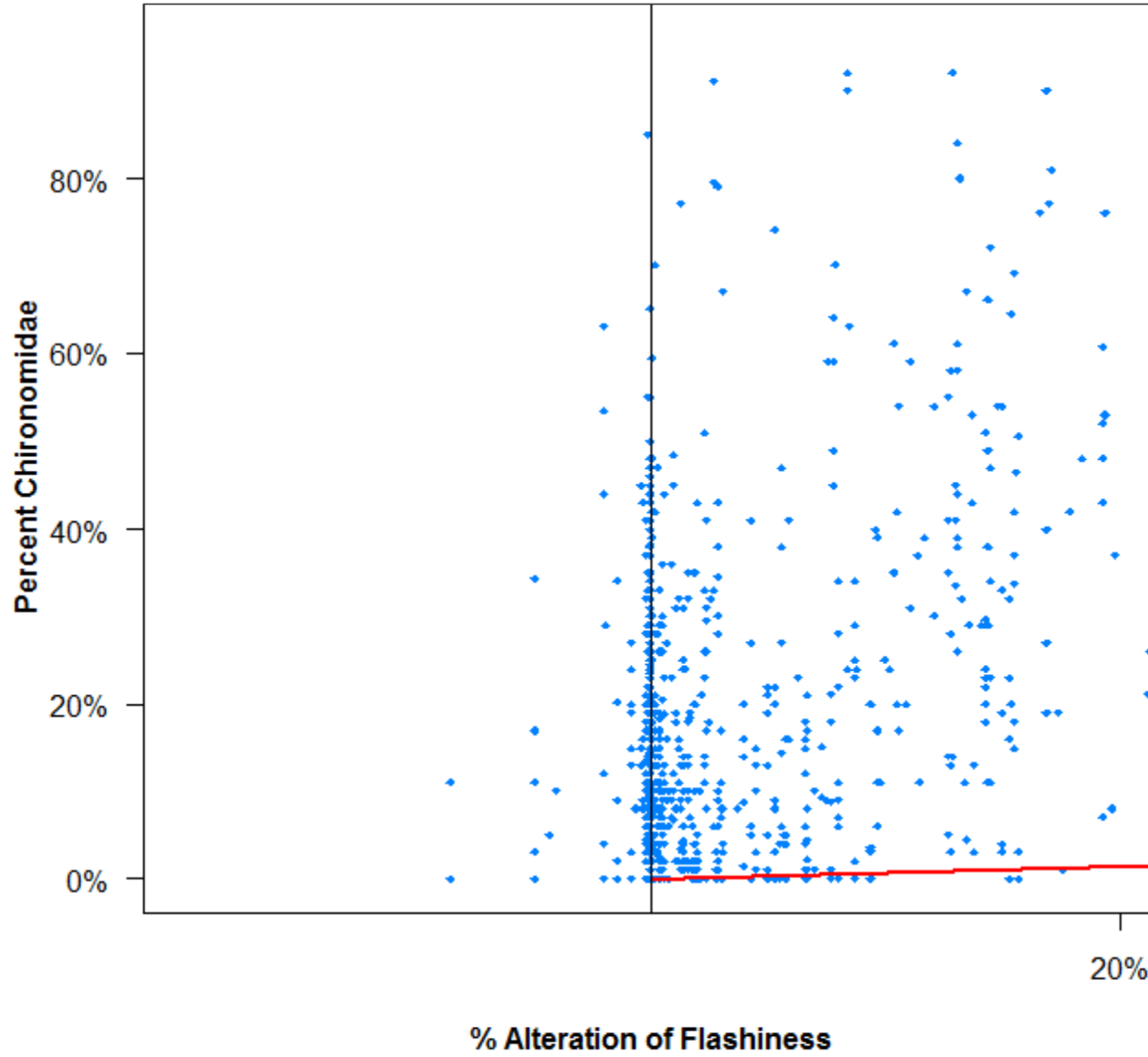
Hilsenhoff Biotic Index vs. Flashiness



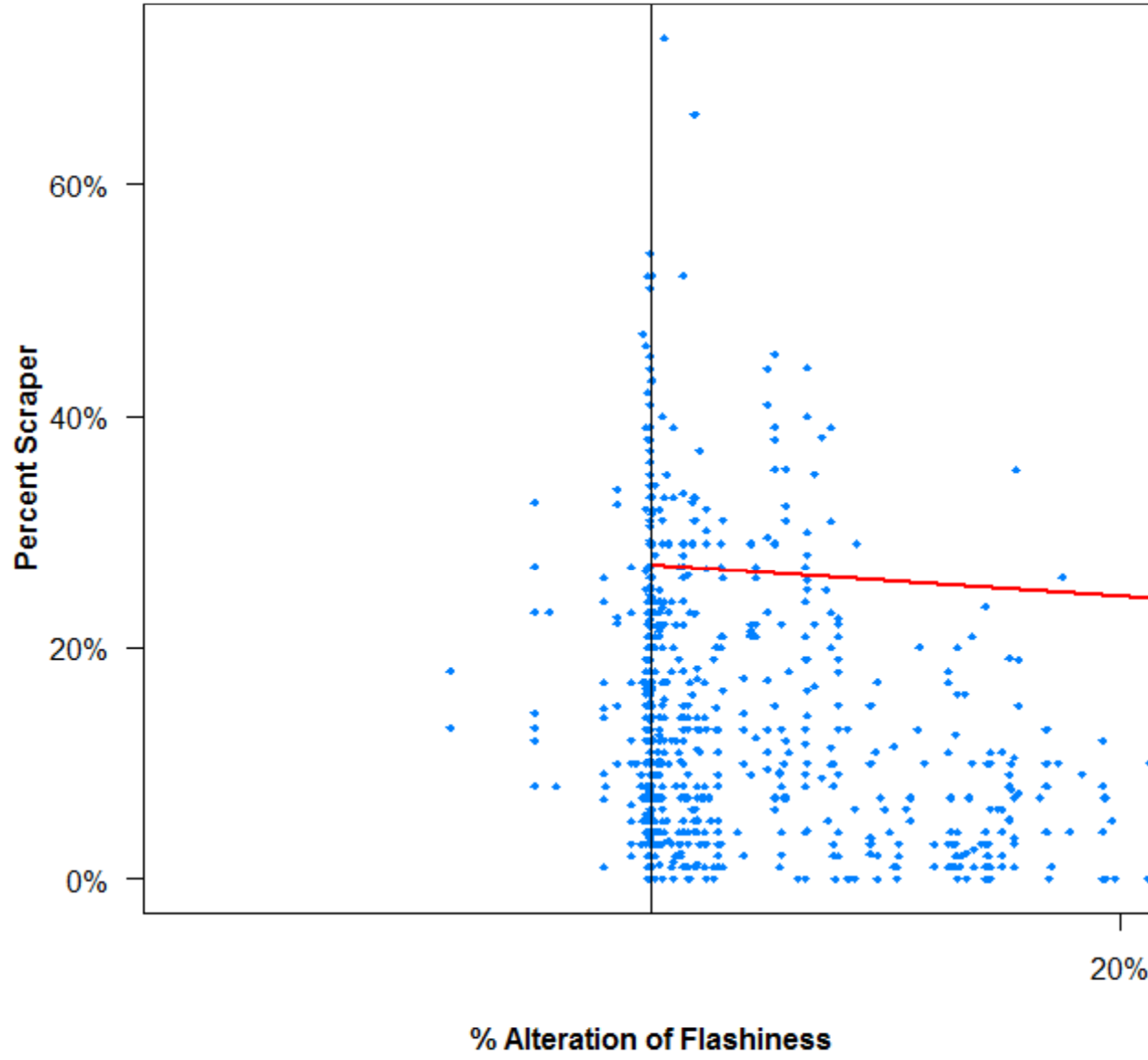
Percent EPT vs. Flashiness



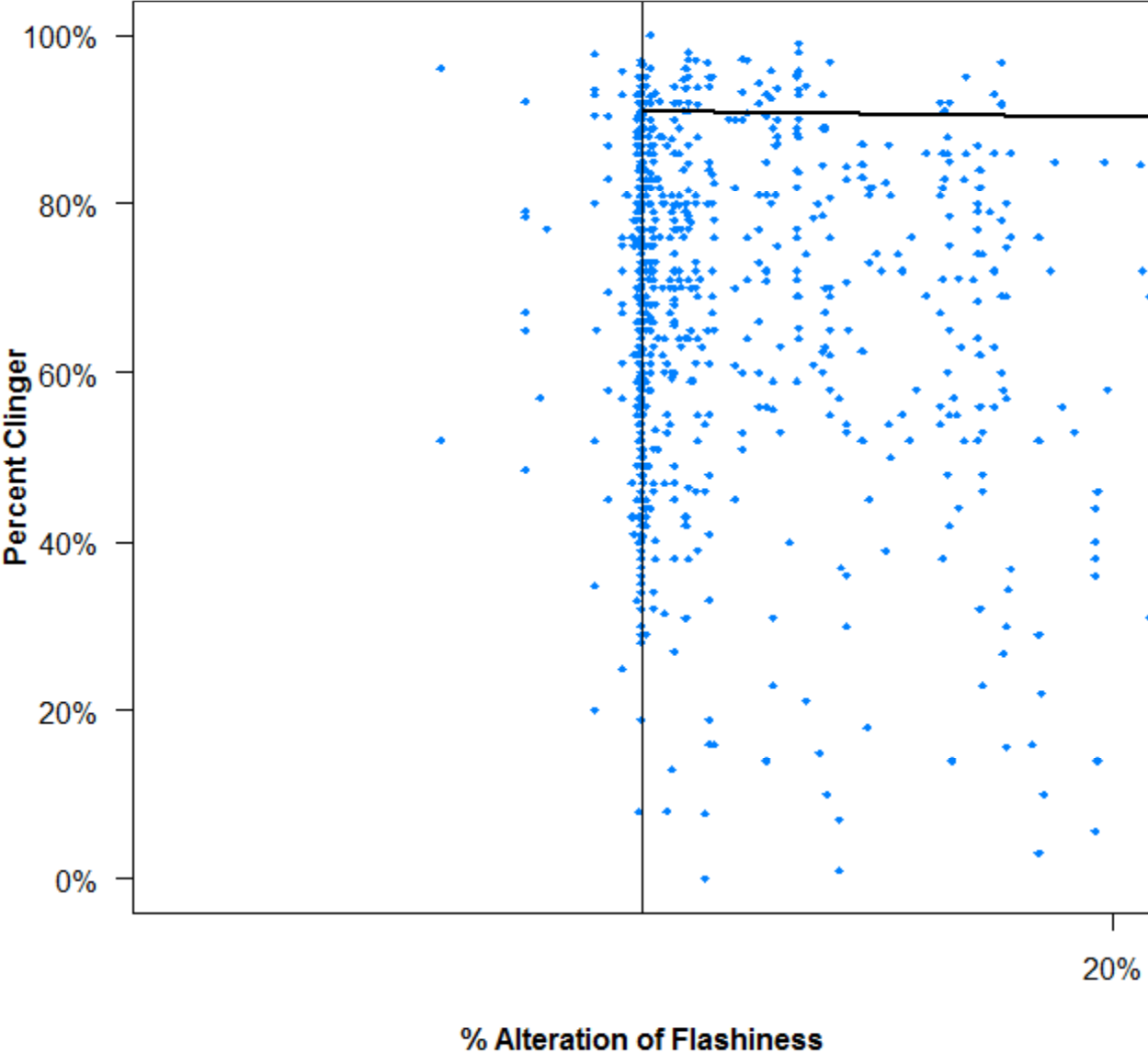
Percent Chironomidae vs. Flashiness



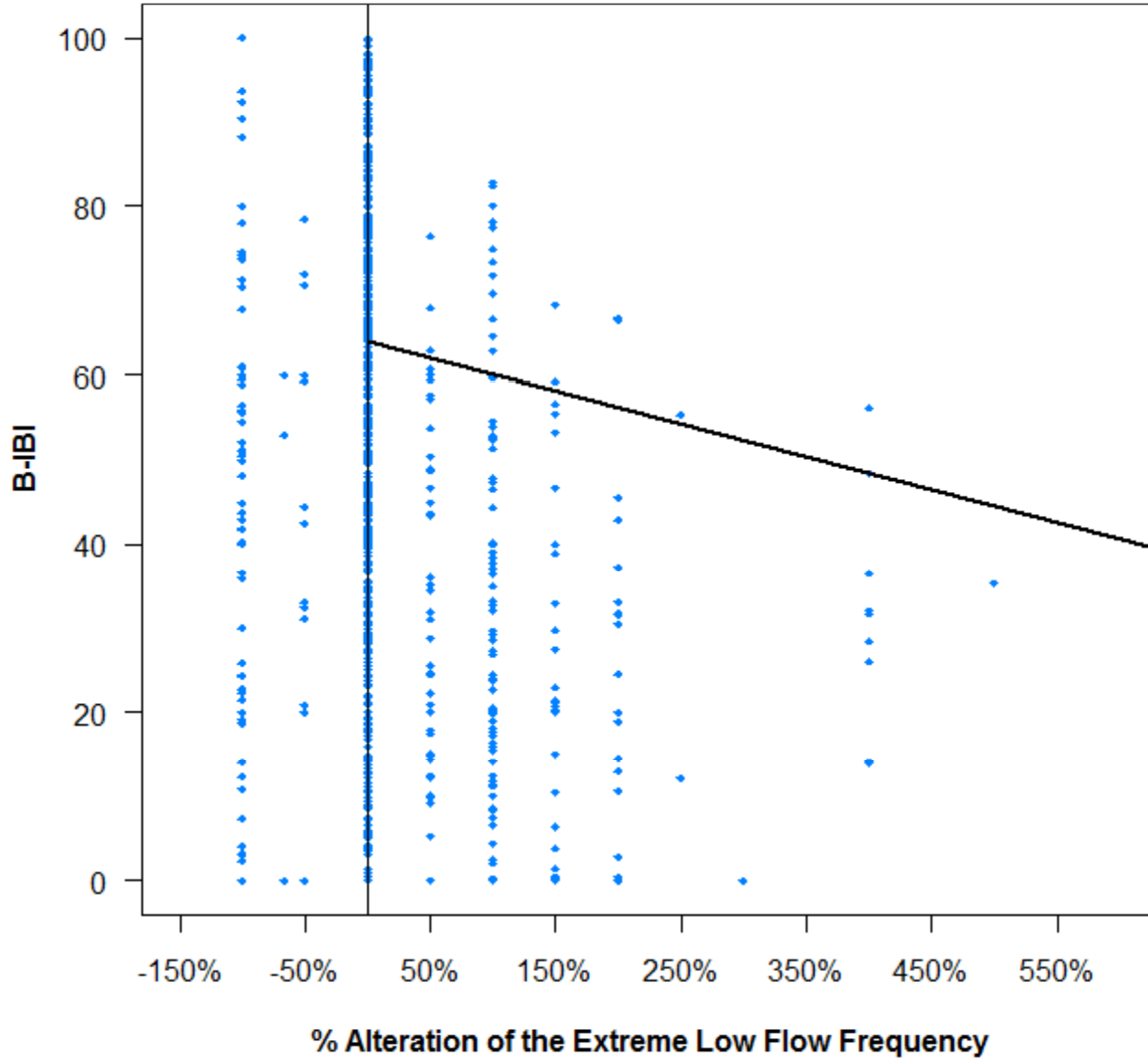
Percent Scraper vs. Flashiness



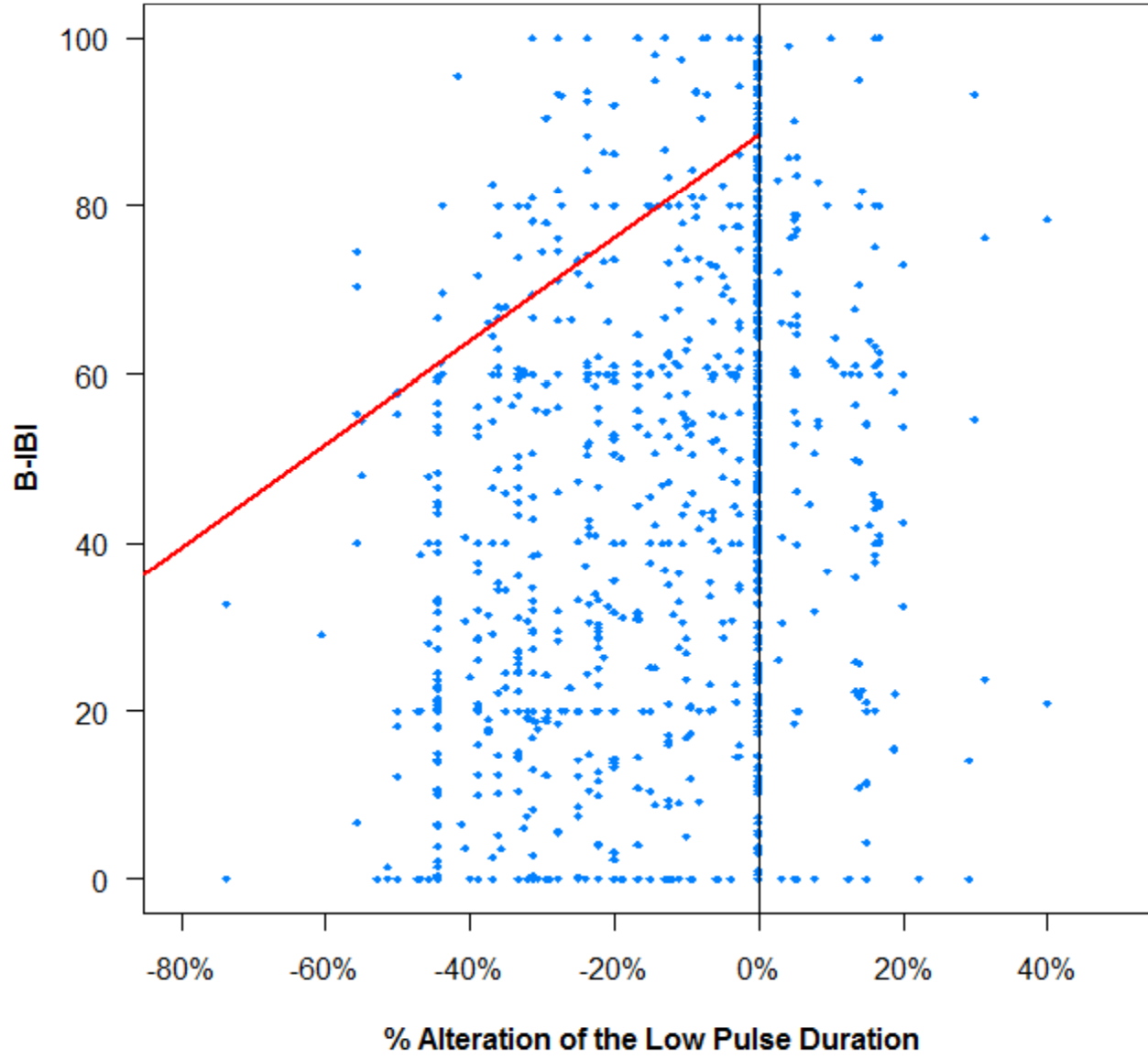
Percent Clinger vs. Flashiness



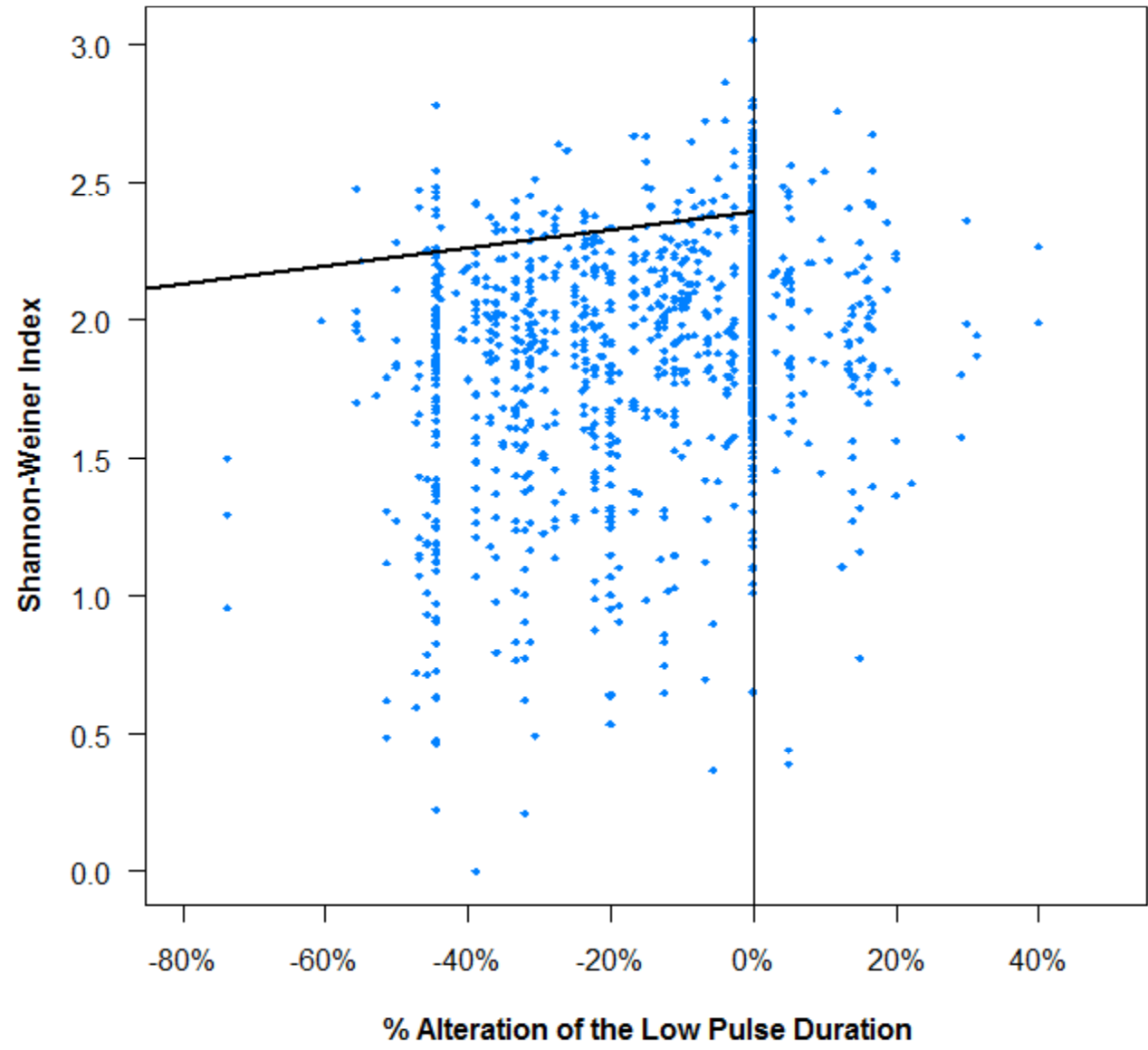
B-IBI vs. Extreme Low Flow Frequency



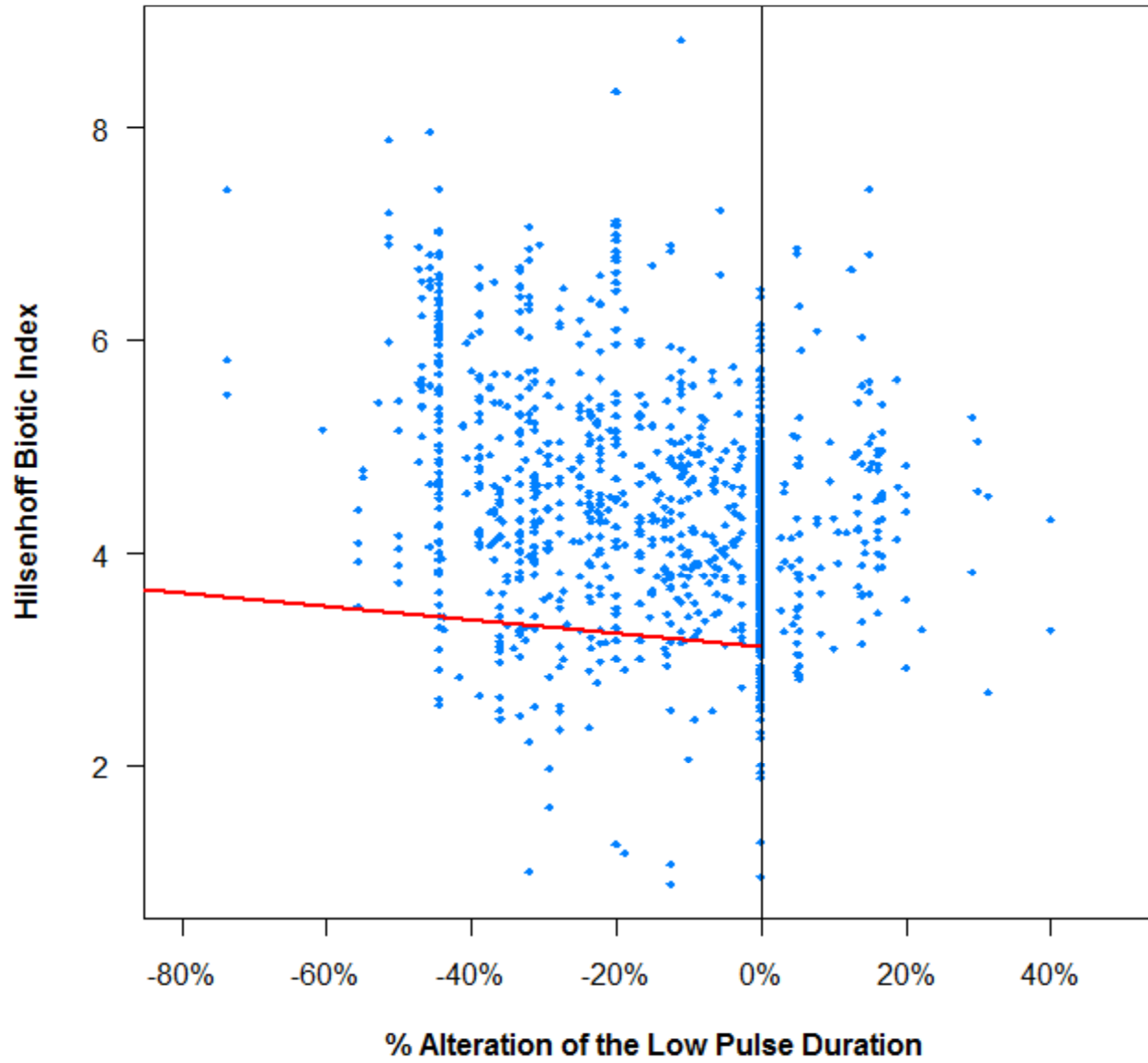
B-IBI vs. Low Pulse Duration



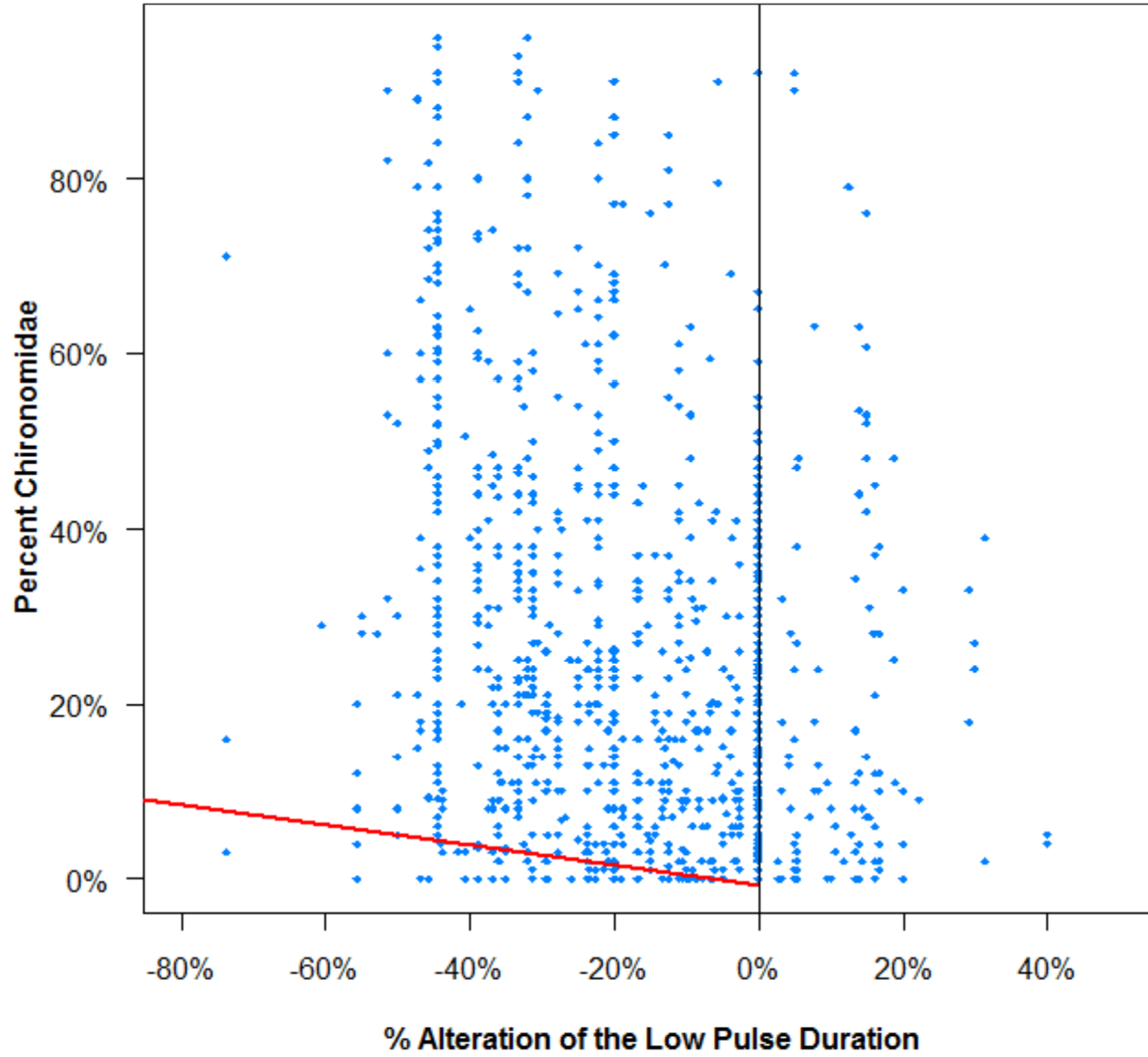
Shannon-Weiner Index vs. Low Pulse Duration



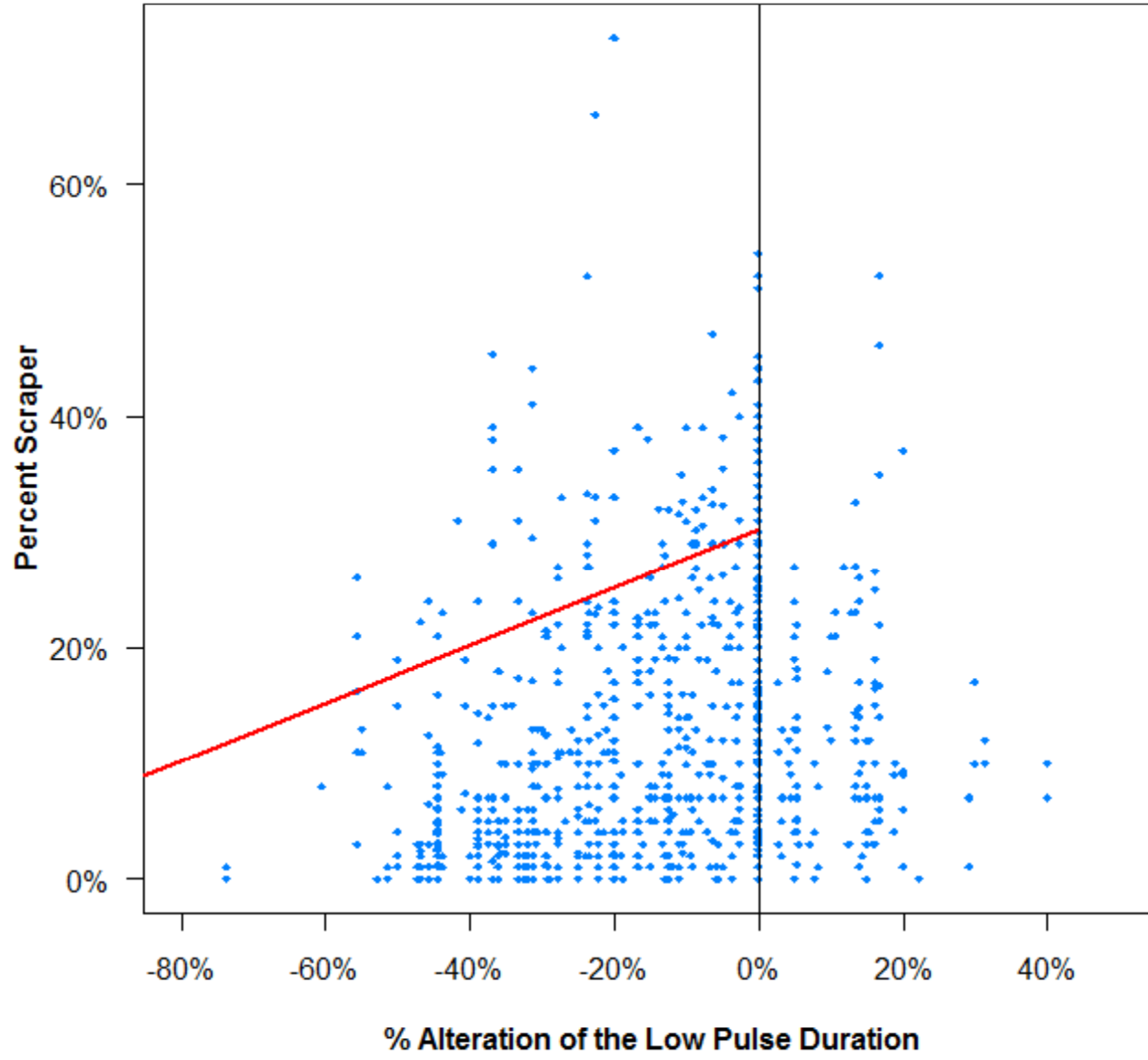
Hilsenhoff Biotic Index vs. Low Pulse Duration



Percent Chironomidae vs. Low Pulse Duration



Percent Scraper vs. Low Pulse Duration



Percent Clinger vs. Low Pulse Duration

