

I liked the general idea presented in this paper- of using regulated systems to test experimental concepts such as disturbance theory. The introduction nicely sets the stage for readers and suggests a rigorous experimental design to test the effects of dewatering on stream zoobenthic assemblages. Having said this, I came away highly disappointed in the effort. The experiment was conducted once along a supposedly dewatering gradient with benthic kick samples taken at periodic times before, during, and after dewatering- All within a one month period. sampling consisted of spot samples for water quality, single kick samples for invertebrates, and cross-section for habitat changes. The lack of detailed methods makes a complete assessment of rigor impossible. I also found the results section lacking in detail as well, and most of the results are based on various NMS analyses. I found no data backing up the statements in the text or linking the so-called dewatering gradient to individual sites. Figure 1 is even used in error in the text showing the supposedly extreme dewatering event on stream channel depths and perimeters. Little information is given towards water quality, even though pHs were highly acidic- although the authors state values were near-neutral to acidic- no near neutral values are given and I suspect given pHs less than 4 are quite tough for most stream biota. The results of habitat properties clearly lack the rigor necessary for a complete assessment of the results. The authors further present values for the PERMDISP without giving readers any information on what they mean- To me, a change from 33.79 to 35.65 is not that great - but again no significance was mentioned in the text.

There were some interesting topics in the discussion, even if the study failed to test them. The idea of increased dispersion fits with other papers regarding an increase in variance as systems move from one ecosystem state to another. Although again, no data other than those for the invertebrates are given in this context.

So, although the ideas introduced and discussed are highly relevant to understanding response patterns and are important for examining and testing ecological concepts- the study design, in my opinion, failed to meet the rigor necessary to be used in this context. Readers are left guessing as to what actually happened during the dewatering (habitat conditions) and whether the invertebrates were responding to dewatering or some other change is left open. I probably have missed something, but am sorry I could not be more positive (the paper simply lacks enough detail for a true assessment of the study).