Invertebrate Supplementation as a Restoration Action in Select B-IBI Basins

This project reintroduced sensitive aquatic macroinvertebrates – “stream bugs” – to several historically degraded and isolated King County streams in an effort to jump-start ecological recovery.

Project outcomes
Bug seeding was partially successful. In all four streams where new taxa were added, at least one new taxon was found one year later. In two of those streams, the biotic integrity scores (i.e., B-IBI scores) improved. The project was only partially successful because many added taxa were not found a year later, and for those that were found, we do not yet know if they will persist over time.

Success stories
We found that when done carefully and in appropriate locations, bug seeding can help restore diverse macroinvertebrate communities.

Collecting invertebrates from a healthy stream, before transplanting them in Miller Creek

FUTURE OPPORTUNITIES
Stream restoration, water quality improvements, and stormwater controls are needed to improve conditions for stream macroinvertebrate communities throughout the Puget Sound basin. If those actions are taken, but there are no nearby sources of sensitive stream macroinvertebrates to recolonize those streams, bug seeding may help accelerate the recovery that would be slow or impossible otherwise.

Although bug seeding may be appropriate in some cases, do not transplant invertebrates on your own. Moving macroinvertebrates from one stream to another requires permits and careful planning to ensure no pathogens or non-native species are added unintentionally.

FOR MORE INFORMATION
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