

**Interlaboratory Testing of 42-d *Hyaella azteca* Survival, Growth and Reproduction Method with Sediment and Water-Only Exposures**

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Over the past four years, USEPA-Duluth, USGS-Columbia, the Illinois Natural History Survey, and Environment Canada have conducted studies to refine the USEPA/ASTM International methods for conducting 10- to 42-d water or sediment toxicity exposures with *Hyaella azteca*. In advance of revising the methods for *H. azteca*, we wanted to determine if additional laboratories using the revised methods could demonstrate improved performance of *H. azteca*. An interlaboratory study was conducted with 25 labs who volunteered to evaluate *H. azteca* 10- to 42-d sediment or water exposures. Goals of the interlab study were to determine: 1) whether the proposed new diets and water requirements will result in strong growth/reproduction of *H. azteca* in exposures across a range of laboratories, 2) whether use of the new diets/water will support increases in minimum control performance of *H. azteca* in water or sediment exposures (e.g., weight, reproduction), 3) if there are other diets or waters that are better than those being proposed. Labs were asked to prioritize two treatments for the water-only tests: 1) A diet of diatoms (*Thalassiosira weissflogii*) and flaked fish food (Tetramin<sup>®</sup>) with both rations increased weekly and 2) A diet of the same rations of Tetramin<sup>®</sup> combined with a fixed ration of yeast-cereal leaves-trout chow (YCT). Test waters were to contain  $\geq 15$  mg Cl/L and  $\geq 0.02$  mg Br/L. Labs could renew the overlying water daily or use a 3X week water replacement. Labs were encouraged to test alternate substrates, control sediments, diets, or waters of interest to them. This presentation will cover background studies on the waters and foods, the test procedures for the sediment and water-only test method, various matrices evaluated by labs, and discuss the performance of *H. azteca* studies as conducted by 24 laboratories. These results will be included in the update to the USEPA/ASTM sediment toxicity test method guidance and to develop new USEPA/ASTM guidance in for water testing. *This abstract does not necessarily reflect US EPA policy*

**Key words:** sediment toxicity, interlaboratory, amphipod, *Hyaella azteca*

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