

## Toxicant Sensitivities Among Closely Related Strains/Species of the *Brachionus* Species Complex

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This research compares differences in toxicity sensitivity within and among eight strains/species within the *Brachionus plicatilis* species complex. Due to its importance in the aquaculture industry, this species complex is the most extensively studied rotifer group. However, a study to directly compare ingestion toxicity sensitivities within this species complex has not been completed. Therefore, we proposed to use a simple ingestion assay to investigate the differences in toxicant sensitivities. The ingestion assay is a sub-lethal test that can quickly evaluate toxicity. The following toxicants were picked to be analyzed: cadmium, chromium (VI), and carbofuran. The closely related species include *B. rotundiformis* (Hawaii, USA), *B. manjavacas* (Azov Sea, Russia), *B. plicatilis* (Salebrejo, Spain), *B. rotundiformis* (Adriatic, Italy), *B. manjavacas* (Pettaquamscutt, RI, USA), *B. manjavacas* (Manjavacas, Spain), *B. species* (Almenara, Lost Lake, USA), *B. plicatilis* (Tiajin, China). Results demonstrate there are significant differences between the species in all three toxicants. Despite the results not corresponding with the three named species groups, namely, *B. plicatilis*, *B. manjavacas*, *B. rotundiformis* the data does reveal differences among these species. Further research into the differential toxicity sensitivities is warranted.