

## **EVALUATION OF COLLECTION METHODS FOR TERRESTRIAL ISOPODS**

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Terrestrial isopods (commonly called woodlice) are inconspicuous members of the ground-level fauna in both undisturbed and disturbed habitats. Isopods play a role in the flow of energy and nutrients via mass cycling, and the species composition and population density of isopod communities have been used as indicators of habitat sustainability. Population studies require unbiased measurements of the numbers of species and individuals present in a habitat. We used trap arrays consisting of three collection methods to evaluate sampling bias: (1) Leaf litter and soil at the litter-soil interface were examined by hand. (2) Potatoes were placed beneath the leaf litter in contact with the soil. (3) Squares of moist corrugated cardboard were placed beneath the leaf litter in contact with the soil. We selected 4 sites in the Natural Area on the RIT campus that had previously been the subject of a survey of vegetation. Two transects were established at each site, and trap arrays were placed at distances of 1, 10, and 30 m from the start of each transect giving a total of 24 trap arrays. We found individuals of 7 species of isopods. Porcellionids were the most abundant species, comprising more than half the total number of isopods collected and occurring at all four sites. Potatoes and cardboard, the two methods that provided an attractant for isopods, produced larger samples than did sorting through leaf litter—a total of 131 individuals from potatoes and 126 from cardboard compared to only 28 individuals from the leaf litter. A preliminary analysis suggests that the species are present at similar frequencies in the samples from potatoes and cardboard (i.e., no biases), but too few animals were collected from leaf litter to allow a robust comparison with the other two methods.