

Figure 4. Bucket Trap with Wire Mesh Vertebrate Exclusion Cover

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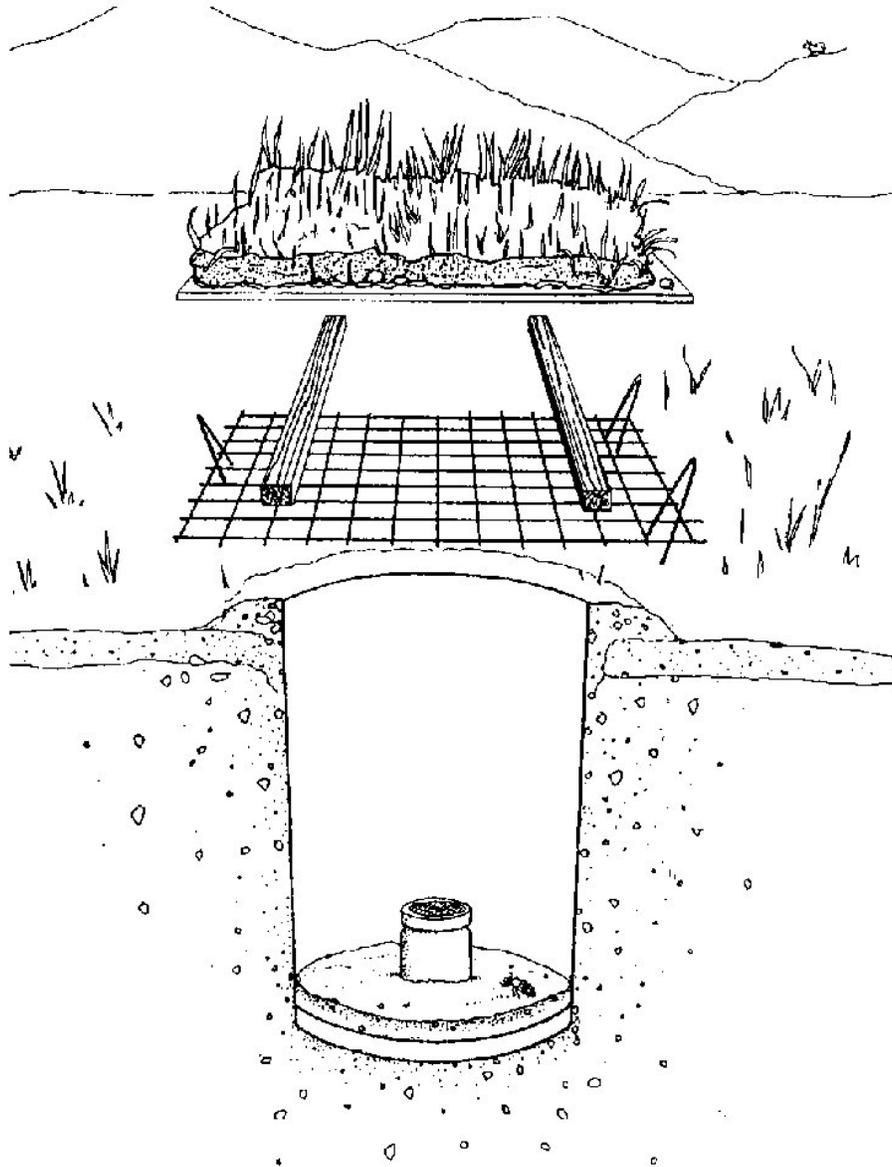


Fig. 4. The 18.9 liter bucket used for the majority of this study. The bucket was buried in the ground and a berm of soil (6–8 cm) was formed around the bucket lip. Bait is placed in the screen container. A plastic rain cover is placed over the bucket and supported by wood or stones. Wire screen is used over the bucket in areas with vertebrate scavenger activity.

Results and Discussion

Trapping Techniques. For most insect sampling, the key issue is sampling efficiency and numbers collected per unit of effort. However, in sampling an endangered species, minimizing mortality during sampling is a key requirement. In evaluating trapping methods for *N. americanus*, we needed to weigh both efficiency and survivorship with emphasis on survivorship.

With these requirements, trapping results indicated that a five-gallon bucket was the best, although perhaps not the most practical, pitfall trap. Small diameter cups and pipe