

# What to Do with the Data

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At their most basic, the data from biodiversity surveys consist of specimens to which are attached ecological and taxonomic attributes. Ecological attributes might include date of collection, locality, habitat, quadrat number, or collection method. Taxonomic attributes might be species identification, higher taxa to which the species belongs, or perhaps a predefined functional group. This chapter describes how these data can be organized, visualized, and analyzed. The procedures outlined here are not unique to leaf litter ants, and I present only a cursory overview of a subject about which volumes have been written (e.g., Pielou 1975, 1984; Southwood 1978; Ludwig and Reynolds 1988; Magurran 1988; Hayek and Buzas 1996).

## Organizing the Data

Imagine an example in which an investigator takes a litter-soil sample in a patch of forest, extracts the ants in a Berlese funnel, and mounts one or a few specimens of each different species in the sample. The investigator can present the results as a species list. Now imagine that the investigator has taken two samples instead of one. Some species will be common to both samples; others will be unique to one or the other. These results can be presented as a matrix with two columns and as many rows as there are species in both samples combined. The presence of a species in a particular sample is indicated by a check mark. Data such as these are presence-absence data or incidence data.