The ALL Protocol

A Standard Protocol for the Collection of Ground-Dwelling Ants

Donat Agosti and Leeanne E. Alonso



There is no single best method to sample the ground-dwelling ant fauna. The objectives of each study will determine the appropriate methods and sampling intensity. For example, a wide variety of methods and a greater effort are needed to obtain a thorough inventory of the ants of an area and to collect as many species as possible. In contrast, a rapid assessment of the ant fauna using a few standardized methods and less sampling effort would allow for comparisons between different habitats and would establish a baseline for a longer-term monitoring program.

However, the use of standardized methods that can be reliably repeated in different habitats, at different times of the year, and by different researchers is beneficial. Using the same basic methodology, individual studies can be analyzed in relation to others and can thus be

put into a larger, global context. Here we present a standard protocol for the collection of ground-dwelling ants, the Ants of the Leaf Litter (ALL) Protocol. We expect that this protocol will stimulate further research on ant diversity and that it will be used by a variety of researchers in a diverse array of sites.

The ALL Protocol starts with a minimal configuration, utilizing two of the ant collecting methods that have been proven to sample the largest component of the ground- and leaf litter–inhabiting ant fauna: the mini-Winkler extractor and pitfall traps (Chapter 9). This method is rapid; sampling can be completed in a total of 3 days per site if desired. The sample size, 20 1-m² samples of leaf litter and 20 pitfall traps, has been found to be sufficient to sample at least 70% of the ant fauna (Chapter 10).