

Procedures for sorting and identifying specimens to morphospecies are given in Chapter 11.

### Labeling Samples and Specimens

All samples must be labeled immediately with proper labels (Chapter 11).

### Time Requirements

A minimum of 3 days is needed to use the standard ALL Protocol. The leaf litter collections should be run through the mini-Winkler extractor for a 48-hour period. Pitfall traps should also be left out for 48 hours. Both the mini-Winkler extractor and the pitfalls can be left running for a longer time if desired, but samples should be collected from both at 48 hours in order to obtain the standard sample. More time may produce additional species, but the benefits should be weighed against the advantages of running more transects instead.

For inventories, it is recommended that more than one transect be run and the species-accumulation curves be plotted by sample and transect (Chapter 13). This approach will provide a review of the fraction of the ant fauna sampled and will help determine if additional transects are needed. Additional sampling methods—such as the inspection of dead wood, soil scraping, and direct sampling—may be added in order to maximize the diversity of ants sampled (Chapter 9).

### Timetable

An estimate is given in this section for the amount of time required for one person to carry out the standard ALL Protocol. It is recommended that two people carry out the protocol together, to provide assistance with leaf litter gathering, sifting, and other tasks. The estimated total time needed to sample, process, and identify ant specimens from one transect is 161 working hours for a single professional.

### Field Work

*All times are in hours.*

	One Person	Two People
DAY ONE		
Early morning		
1. Mark transect	1.5	1.0
2. Dig in pitfall traps	1.5	1.0
3. Collect Winkler samples	5.0	3.0
Afternoon		
1. Fill in Winkler apparatus	3.0	2.0
Late afternoon/early evening		
1. Direct collecting	<u>1.0</u>	<u>1.0</u>
Total	12.0 hours	8.0 hours
DAY THREE		
Morning		
1. Collect one log	1.0	1.0
2. Direct collecting	1.0	1.0
3. Scrape soil	1.0	1.0
Afternoon		
1. Analyze soil samples	2.0	1.0
2. Collect pitfall traps	2.0	1.5
3. Collect Winkler samples	2.0	1.5
4. Check all labeling	<u>0.5</u>	<u>0.5</u>
Total	9.5 hours	7.5 hours

### Laboratory Work, Identification, and Analyses

Mounting, labeling, and identifying specimens from Winkler samples	60
Mounting, labeling, and identifying ant specimens from pitfall traps	60
Mounting, labeling, and identifying ant specimens from other samples	10
Entering and analyzing data	<u>10</u>
Total	140 hours

Data on ant diversity collected using this protocol can be compiled and compared, thereby providing the context needed to begin looking at truly global ant diversity patterns. We encourage researchers who use the ALL Protocol to provide their data to the social insects Web site ([http://research.amnh.org/entomology/social\\_insects/](http://research.amnh.org/entomology/social_insects/)) for inclusion in a global database on ant diversity.