Tab. 1: General summary of various attine natural-history traits for the five distinct agricultural groups (cont. p. 43).

	Lower agriculture		**Generalized higher agriculture**		
	Most species	*Mycocepurus* spp.	*Sericomyrmex* clade	*T. intermedius* clade	*T. septentrionalis* clade
Geographic distribution	widespread (US to Argentina)	widespread (Mexico to Argentina; Caribbean)	widespread (US to Argentina; Caribbean)	widespread (Central America to Argentina)	US and Mexico
Habitat	diverse	forests, savannahs, cerrados	diverse	diverse	open woodlands, grasslands, mid-elevation deserts
Colony size	small (10 - 500 workers)	intermediate (50 - 1350 workers)	intermediate (< 100 - 3000 workers)	intermediate (< 100 - 3000 workers)	intermediate (< 100 - 1000 workers)
Worker size	monomorphic	monomorphic	monomorphic / weakly polymorphic	monomorphic / weakly polymorphic	monomorphic / weakly polymorphic
Queen mating frequency	monandry	polyandry (*M. goeldii*); parthenogenesis (*M. smithii*)	monandry	monandry	monandry?
Nest-founding behavior	haplometrosis, occasional multiple queens; semi-claustral	haplometrosis, multiple queens common; semi-claustral	haplometrosis, occasional pleiometrosis; semi-claustral	haplometrosis, occasional multiple queens; semi-claustral	haplometrosis, occasional multiple queens; semi-claustral
Substrate use	insect frass, seeds, flower parts, fruit, wood particles, arthropod parts?	insect frass, seeds, flower parts, fruit	insect frass, seeds, flower parts, fruit; some species cut fresh vegetation	insect frass, seeds, flower parts, fruit; some species cut fresh vegetation	insect frass, seeds, flower parts, fruit; some species cut fresh vegetation

wings as platforms, presumably to protect the incipient fungal garden from pathogens in the soil (FERNÁNDEZ-MARÍN 2000, FERNÁNDEZ-MARÍN & al. 2004).

Nest architecture: Depending on the species, lower-attine nests and gardens can occur in chambers excavated in the soil, in cavities in rotten logs, between layers of the leaf litter, and superficially in the soil under rotten logs, stones, or other objects. Perhaps the most common – and possibly ancestral – nesting behavior is the excavation of chambers in the soil (as distinct from nesting superficially in the soil), found in all *Mycocepurus*, some *Myrmicocrypta*, a few *Apterostigma*, all *Kalathomyrmex*, *Paramycetophylax*, *Mycetophylax*, *Mycetarotes*, *Mycetosoritis*, and *Mycetagroicus* species, and some *Cyphomyrmex* (mainly in the *C. wheeleri* group) species. Some *Myrmicocrypta*, some *Apterostigma*, and some *Cyphomyrmex* species (especially those in the *C. strigatus* group) construct their nests in rotten wood. For those lower attines that excavate nests in the soil, nest entrances generally consist of a single hole in the ground, in some cases entirely inconspicuous and in other cases surrounded by a crater of excavated soil pellets, the color of which can serve to indicate excavation depth. The nest entrances of *Cyphomyrmex longiscapus* and *C. muelleri* take the form of elaborate "auricles" constructed in embankments, steep forests, and along human-made trails (MUELLER & WCISLO 1998, SCHULTZ & al. 2002; R. Adams, pers. comm.).

Some lower attine nests, e.g., those of some species of *Myrmicocrypta* and *Mycetarotes*, and of *C. longiscapus* and *C. muelleri*, consist of a single chamber in the soil (MUELLER & WCISLO 1998, SCHULTZ & al. 2002; J. Sosa-Calvo, pers. comm.; T.R. Schultz, unpubl.). Nests of *Mycetarotes parallelus* may occasionally include a second garden-containing chamber (SOLOMON & al. 2004). Most nests of *Mycetophylax simplex* contain two garden chambers, but one-chambered and three-chambered nests also occur (DIEHL-FLEIG & DIEHL 2007). A nest of *Mycetagroicus cerradensis* had two garden chambers (S. Solomon, pers. comm.). *Mycetophylax morschi* has one to two garden chambers, *Mycetophylax conformis* has one to three garden chambers (KLINGENBERG & al. 2007), *Mycetosoritis hartmanni* and *Cyphomyrmex wheeleri* have two to four chambers, and a nest of *M. clorindae* had two chambers (U. Mueller, pers. comm.). Mature nests of *Mycocepurus goeldii* and *M. smithii* excavated by RABELING & al. (2007b) contained as many as 21 and 15 chambers respectively; in multiple-chambered nests, about half of the chambers contained fungus gardens. *Mycocepurus smithii* nests can have as many as 20 chambers (U. Mueller, pers. comm.). In addition to garden-containing chambers, lower-attine nests may contain multiple empty chambers because, as nests mature, new garden chambers may be constructed at deeper levels. In ground-nesting lower attines, the garden chamber typically occurs at depths of ~ 5 - 40 cm below the surface; however, in *Mycocepurus goeldii* and *M. smithii*, garden chambers may occur at depths of 50 - 150 cm (FERNÁNDEZ-MARÍN & al. 2004, 2005, RABELING & al. 2007b; U. Mueller, pers. comm.; T.R. Schultz, unpubl.). The first nests of the genus