

Contents

ACKNOWLEDGMENTS	ix
1. Introduction	1
2. Bee Phylogeny, Bee Diversity, and the Distinction between Solitary and Social Bees	6
3. The Solitary Bee Life Cycle	37
4. Alternative Male Mating Tactics: The Race to Be First and the Race to Be Last	70
5. The Surprising Utility of Males	93
6. Nest Architecture and Brood-Cell Construction	104
7. The Tools of the Trade: Floral Rewards and How Bees Harvest Them	146
8. Foraging and Provisioning Behavior	187
9. The Microcosm of the Brood Cell: A Bestiary of In-Nest Mutualists	224
10. Brood-Parasitic (Cuckoo) Bees	240
11. Non-Bee Parasites and Predators	264
12. Bees and Plants: Love Story, Arms Race, or Something in Between?	289
13. Solitary Bees and Agricultural Pollination	318
14. Threats to Solitary Bees and Their Biological Conservation	341
15. Epilogue: The Scala Naturae	379
LITERATURE CITED	385
SUBJECT INDEX	443
TAXONOMIC INDEX	456