

In 1958 E. O. Wilson surveyed the ants of the Florida Keys; the resulting list was published in 1964, along with notes on the geographic origin and distribution of the species. In the ensuing 30 years there have been extensive changes in the habitats of southern Florida, probably affecting the ant fauna. There have also been modifications in our taxonomic concepts of some species. Additionally, more intensive collecting methods, as well as possible influxes of additional species, have more than doubled the number of species known from the Keys. A current survey of the ants of the entire state now provides a better perspective on the biogeography of the ants of the Keys. For these reasons, it seems useful to review the ant fauna.

One purpose of this paper, therefore, is to provide an annotated list of species that can be compared with the earlier study, and that will be a baseline for future documentation of the accelerating disruptions of the ecosystems of tropical Florida. From an ecological standpoint the ants are an excellent group to monitor because they are so dominant in terrestrial tropical ecosystems (Brues 1952). One may say that, as go the ants, so go the arthropods.

A second goal is to examine the biogeography of the ants of the Florida Keys. The diversity and derivation of the fauna is now open to new interpretations. The distribution of exotics and the proportion of exotics in the fauna can be reviewed. The presence or absence of species can often be correlated with habitat and climate, now that we know more about the ecology of Florida ants. We should even be able to make a few predictions about the findings of the next survey, which we might consider scheduling for the year 2018.

METHODS

Ants were collected on numerous trips to the Florida Keys during 1982-87, and on trips made by our colleagues listed below. Specimens were collected by simple searching techniques and by extracting ants from litter samples by standard modified Berlese funnels. A few species were collected in Malaise traps. Voucher specimens are deposited in the following collections, abbreviated in the species list: Archbold Biological Station, Lake Placid, FL (ABS), Museum of Comparative Zoology, Harvard, Cambridge, MA (MCZ), collections of Norman Carlin (NC), Gary Umphrey (GU), James Trager (JT). The additional collectors whose initials are in the annotated list are Dr. Edward Wilson (Harvard Museum of Comparative Zoology, Cambridge, MA), Dr. James Wolfe and David Smith (Archbold Biological Station), Alan Herndon (Everglades National Park, Homestead, FL), Marc Minno (University of Florida, Gainesville), Chester Winegarner (DeFuniak Springs, FL), Dr. Stewart Peck and Dr. Jarmila Kukalova-Peck (Carleton University, Ottawa, ONT), Dr. Stewart Peck and Dr. Jan Klimaszewski (the latter collector from Petawawa, ONT). Some records of species of *Pseudomyrmex* are taken from Ward, 1985, abbreviated (PW). Specimens were identified by the authors.

Since some of the biogeographical discussion is dependent on the geographic origin of the ant populations in the Keys, we explain our presumptions on the provenance of each species in the annotated list. Statements about the presence of a species in other parts of Florida are based on our own unpublished collecting records unless otherwise attributed. Our understanding of the taxonomy of the ants of the Keys also depends to some extent on unpublished work. We briefly mention taxonomic ambiguities, but avoid taxonomic innovations in this paper.

The small size and great dispersion of the islands of the Florida Keys prevents preparation of a compact map of our collecting sites. We refer the reader to the Florida Atlas and Gazetteer, available from the DeLorme Publishing Co., P. O. Box 298, Freeport, Maine 04032.