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Notes on Iowa Ants

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- Bovbjerg, R. V. 1959. *Ecology* 40: 504-506.
 ----- 1960. *Ecology* 41: 668-672.
 Bovee, E. C. 1950. *Proc. Iowa Acad. Sci.* 57: 439-444.
 Embody, G. C. 1911. *Internat. Revue (Leipzig, 1912) Hydrobiol. u. Hydrog.* Bd. 4, Biol. Supp. 3 series: 1-33.
 Gaylor, D. 1921. *Proc. Indiana Acad. Sci.* (1921): 239-250.
 Geisler, Sister F. S. 1944. *Biol. Bull.* 86: 6-22.
 Hubricht, L. 1943. *Amer. Midl. Nat.* 29: 683-712.
 Jackson, H. H. T. 1912. *Bull. Wisc. Nat. Hist. Soc.* 10: 49-60.
 Lack, D. 1954. *The Natural Regulation of Animal Numbers.* Oxford Univ. Press, London.
 Odum, E. P. 1959. *Fundamentals of Ecology.* W. B. Saunders, Philadelphia.
 Pennak, R. W. 1953. *Fresh-water Invertebrates of the United States.* Ronald Press, New York.
 Sexton, E. W. 1928. *J. Mar. Biol. Assoc. (n.s.)* 15: 33-55.
 Ward, H. B. and G. C. Whipple (Ed. W. T. Edmondson). 1959. *Fresh-water Biology (2nd Edition).* John Wiley and Sons, New York.
 Weckel, Ada L. 1907. *The fresh-water Amphipoda of North America.* *Proc. U. S. Nat. Mus.* 32: 25-58.

Notes on Iowa Ants

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Abstract. Data are presented for 19 years (1945-1963 inclusive), and include collections of *Formica rubicunda*, *Formica spatulata*, *Formica reflexa* and *Polyergus rufescens breviceps*. Included also is information on longevity records and additional slave species (*Formica ravidata* and *Formica spatulata* slaves with *Formica rubicunda*).

The following brief notes refer to ants collected at the Iowa Lakeside Laboratory, Dickinson County, Iowa, during the years 1945-1963.

Formica rubicunda Emery

We now have records of 108 nests of this species with eight species of slaves: 67 with *Formica montana* Emery, 43 with *Formica fusca* Linné, 7 with *Formica fossiceps* Buren, 3 with *Formica lasoides* Emery, 2 with *Formica pallidiflava nitidiventris* Emery, and one each with *Formica obscuriventris clivia* Creighton, *Formica ravidata* Wheeler, and *Formica spatulata* Buren. There are 96 colonies with one species of slaves (57 with *F. montana*, 34 with *F. fusca*, 3 with *F. lasioides*, one with *F. fossiceps* and one with *F. p. nitidiventris*); 8 colonies with two species of slaves (4 with *F. montana* and *F. fusca*, 3 with *F. montana* and *F. fossiceps*, and one with *F. fusca* and *F. p. nitidiventris*); 3 colonies with three species (one with *F. montana*, *F. fusca* and *F. fossiceps*, one with *F. fusca*, *F. fossiceps* and *F. o.*

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clivia, and one with *F. montana*, *F. fusca* and *F. spatulata*); and one colony with four species of slaves (*F. montana*, *F. fusca*, *F. fossiceps* and *F. ravidia*).

The colony with four slave species was found in 1693; collections included a total of 1030 workers, (350 were *F. rubicunda*, 316 *F. montana*, 4 *F. fusca*, 178 *F. fossiceps* and 182 *F. ravidia*). This is the first record of *Formica ravidia* Wheeler as a slave.

Two of the colonies with three slaves were reported in 1959 (2). Collections from the third colony, found in 1959, included 242 workers (190 *F. rubicunda*, 6 *F. montana*, 33 *F. spatulata*, and 13 *F. fusca*). This is the first record of *Formica spatulata* Buren as a slave.

The colony known as "three spot" found in 1957 was reported in 1959 (2). We now have collections for 1959 to 1963, a total of 5284 workers (1564 *F. rubicunda*, 340 *F. montana*, 3380 *F. fossiceps*) and 127 females (121 *F. rubicunda*, 6*F. fossiceps*). No *montana* workers have been collected since 1959, when only six were taken. Only *rubicunda* females were present in 1957 to 1962, inclusive, and only *fossiceps* females in 1963. Apparently this colony is on the way to becoming pure *fossiceps*. Probably the last *rubicunda* nest mother has died and her place has been taken by adopted *fossiceps* females.

Formica spatulata Buren

We have found 20 nests of this species in the period 1945-1963, inclusive. The records of two are particularly noteworthy: a colony at the east door of Pammel Laboratory, first found in 1950, has survived for 14 years; the other (at Jemerson's Slough) for a period of nine years (1953-1961).

Formica Reflexa Buren

We have found (1945-1963) a total of 42 nests of this species, invariably associated with *Formica fusca*. As reported in 1949 (1), these colonies are relatively short-lived; they rarely survive more than one winter. However, we have records of one colony (51 P) which was found in four seasons, having survived three winters, and of another (50 H) in three collecting seasons, having survived two winters.

Polyergus rufescens breviceps Emery

We now have records for 19 colonies of this species covering the years 1945 to 1963, inclusive. All of these except one had enslaved *Formica montana*; that other had *Formica fusca* as a slave.

Literature Cited

1. King, R. L. 1949. Proc. Iowa Acad. Sci. 56:367-370.
2. King, R. L. and R. M. Sallee. 1959. Proc. Iowa Acad. Sci. 66: 472-473.