## A Preliminary List of the Ants of Kansas<sup>1</sup> (Hymenoptera, Formicidae).

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The ants occurring in Kansas have given little concern to collectors and, consequently, our knowledge of the different species in the state is meager. Only four general lists of Kansas Hymenoptera with records of ants found within the boundaries of the state are available. Snow's list of Kansas Hymenoptera is conspicuous by its lack of specific reference to ants and only two are cited with generic names. Bridwell (1899), in his "List of Kansas Hymenoptera," makes reference to 15 ants occurring in Kansas and among these only four were specifically identified. These records were made from specimens in the State Agricultural College collection and in the collection of Baker University. Tucker (1909), in a list of "Hymenoptera collected in Kansas and Colorado," enumerates 21 Kansas ants, most of which were collected in the vicinity of Lawrence. The fourth list which contains reference to Kansas ants is found in Volume 30 of the Transactions of the Kansas Academy of Science in which Crevecoeur (1922) in "Additions to the List of Kansas Hymenoptera" mentions 27 ants. Of these, eight are without specific or varietal designation, and four of the remainder were previously reported in the Tucker list.

The writer collected a number of ants in Cowley County in 1914 and in 1915. These were determined by Dr. W. M. Wheeler. More recently, ants collected in the vicinity of Manhattan by the writer and those in the collection of the Kansas State Agricultural College were determined by M. R. Smith of the Agricultural and Mechanical College of Mississippi, one of the American authorities on the family Formicidæ to which the ants belong. Since these determinations include many ants previously unrecorded from the state, the following list was prepared which adds 31 species, subspecies, or varieties.

It is of interest to note that Kansas occupies an unique position in respect to the ant fauna of the United States. Here are found species whose range is northern, some which inhabit

<sup>&</sup>lt;sup>1</sup>Contribution No. 334 from the Entomological Laboratory, Kansas State Agricultural College.

the southern states, others from the eastern states and finally those found only in the western states. With this ideal collecting ground, it is more than probable that by systematic collecting a large number of other species may be found in the state. It is probable, therefore, that the list here presented is far from complete.<sup>2</sup>

PONERINAE.

STIGMATOMMA PALLIPES Haldeman. This species was collected by the writer April 14, 1914, at Winfield, and determined by Wheeler. Its colony was found under a stone which also sheltered a colony of *Solenopsis molesta* Say. Specimens determined by M. R. Smith are in the Kansas Agricultural College collection from Riley County, collected by J. B. Norton, April 30. The range of this species as given in Wheeler's list is Canada to Texas and hence it can be expected to be found widely scattered over the state. This is believed to be a new record for the state, however.

PROCERATIUM CROCEUM Roger. Tucker (1909, p. 288) cites the occurrence of this species in Kansas with the following comment: "Proceratium croceum Roger, Kansas, Lawrence; August, a single male specimen; 'probably this species,' according to Professor W. M. Wheeler, who further remarked: 'This is an extremely rare ant—with the exception of a male of *P. crassicorne* in my collection—the only known male of this interesting genus. The workers are yellow and live in small colonies in rotten wood in rich forests.' New to Kansas list." The range of this species, according to Wheeler, is "Southern states to Texas."

Ponera coarctata subsp. Pennsylvanica (Buckley) Emery. Workers of this species were collected by the writer in Riley County. In the Agricultural College collection are workers collected by J. B. Norton, March 20. These specimens were determined by M. R. Smith as merely *Ponera pennsylvanica*. In the Crevecoeur list, two separate species are cited as *Ponera coarctata* Latr. and *Ponera pennsylvanica*. It is believed that there has been a misconception of these two names and that both refer to this species and subspecies.

Acknowledgments: The writer is indebted to Dr. W. M. Wheeler and Mr. M. R. Smith for the identification of specimens. The authority for determinations where cited are referred to by the use of initials W. M. W., and M. R. S. To Mr. Smith the writer is also further indebted for supplying the names of several Kansas ants in his own collection. The references to the range of species, when cited, are taken from Wheeler's List of Described North American Ants (1910), which is also followed in the order of arrangement.

The range of this species is the Northeastern states and Canada, according to the Wheeler list. It nests under stones and in rotten logs in small colonies and according to Wheeler (1916, p. 581) the males and females appear in late August and

early September.

P. TRIGONA var. OPACIOR Forel. Mr. M. R. Smith of the Mississippi Agricultural and Mechanical College writes that he has specimens of this species in his collection from Kansas. It has not previously been recorded in state lists. It is recorded by Wheeler as a Texas species.

## DORYLINAE.

Eciton (Acamatus) schmitti Emery. Workers of this species were collected by J. B. Norton, in Riley County, on April 28 and September 27, which have been determined by M. R. Smith and are now in the collection of the State Agricultural College. Smith also has this species in his collection from Kansas. It is recorded in the Crevecoeur list as *Eciton schmittii*. The range of this species is Texas to Missouri and

Colorado (Wheeler).

E. (Acamatus) opacithorax Emery. Workers of this species were collected by the writer in April, 1916, and were determined by M. R. Smith. The record is thought to be new for the state. Wheeler's check list gives the distribution of this species from Texas to Missouri and Smith (1916, p. 110) records its occurrence in South Carolina with a later notation (1918, p. 18) that the workers "have vestigial eyes, hence lead hypogæic or subterranean lives. Specimens were captured while they were trailing over the ground in single file."

E. (Acamatus) commutatus Emery. Workers of this species determined by Wheeler were collected by the writer April 19, 1914, at Winfield. This is a southern form recorded only from Texas in the Wheeler list and this record of its occurrence in Kansas gives a new state record. M. R. Smith

also has this species from Kansas in his collection.

E. sp. Seven males in the State Agricultural College collection were placed in this genus by M. R. Smith. They were collected by C. L. Marlatt in September, probably in Riley County. These are probably the specimens cited in the Bridwell list from the State Agricultural collection as *Eciton sp*.

E. (Acamatus) nigrescens Cresson. This species has not been seen by the writer, but is recorded in the Wheeler list as occurring from Kansas to Texas, and M. R. Smith has speci-

mens from this state.

(To be continued)