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INa is a nest which probably originated by swarming from IN, but note that the percentage of hairless workers (75%) is quite different from that in the parent colony IN (42%). The mixed colonies are undoubtedly polygynous, with females of both species present but this explanation is hardly adequate.

Trials have shown that alate *Formica fossaceps* females are not rejected by small aggregations of *Formica obscuriventris clivia* workers, and vice versa. Small groups of workers of the two species from different colonies will also work out a peaceful *modus vivendi*.

Literature Cited

1. King, R. L. 1949. Proc. Iowa Acad. Sci. 56: 367-370.
2. King, R. L. and R. M. Sallee. 1951. Proc. Iowa Acad. Sci 58: 487-489.
3. King, R. L. and R. M. Sallee. 1952. Proc Iowa Acad. Sci. 59: 469-474.
4. King, R. L. 1955. Proc. Iowa Acad. Sci. 62: 509-513.
5. King, R. L. and R. M. Sallee. 1957. Proc. Iowa Acad. Sci. 64: 667-669.
6. King, R. L. and R. M. Sallee. 1959. Proc. Iowa Acad. Sci. 66: 472-473.
7. King, R. L. and F. Walters. 1950. Proc. Iowa Acad. Sci. 57: 469-473.
8. Gosswald, K. and K. Bier. 1954. Insectes Sociaux 1: 229-246.

Spiders of Dubuque County

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Abstract. A collection of spiders, taken from Dubuque County and neighboring counties in 1961, consisted of representatives of 13 families and 54 species.

Between the years 1938 and 1944 a systematic collection of Iowa spiders was inaugurated by Karl Stiles and students at Coe College. In the interval between 1944 and the present, no published reports have been given on the distribution or taxonomy of Iowa spiders. Since the work of Stiles and his students was obviously incomplete, the author thought it worthwhile to add to this beginning in the classification and distribution of Iowa spiders.

METHODS AND MATERIALS

The spiders were caught during the spring, summer, and fall of 1961 in Dubuque and its neighboring counties. Most were caught by hand, since this afforded an opportunity for observation of the type of web, which was an aid in the classification of the spider. A sweep net was used to cover wide areas or inaccessible habitats as nettles or thistles. This usually obtained a

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large numbers of specimens. The spiders were then killed and preserved in alcohol.

Classification of specimens was based primarily upon *The Spider Book* by J. H. Comstock (1948), with B. J. Kaston's *How to Know the Spiders* (1953) used as a supplement. A list of Wisconsin spiders by Herbert Levi and Howard Field (1954) and a list of Nebraska spiders by Leonard Worly and Gayle Pickwell (1927) were used as cross references to narrow down the possibilities. These lists included a total of 395 species. The ranges of those found in both states could reasonably be expected to extend through Iowa.

Records were kept on each specimen; the ecological habitat, location, date of capture, and sex of each spider recorded. Slightly over 200 spiders were classified, representing 54 different species and 13 families.

Classification

The following list added 18 new species not found by Stiles.

Family Pholcidae
Pholcus phalangioides
Spermaphora meridionalis

Family Amaurobiidae
Amaurobius bennetti

Family Dictynidae
Dictyna annulipes

Family Theridiidae
Teutana triangulosa
Steatoda borealis
Theridion tepidariorum
Theridion frondeum
Theridion studiosum

Family Argiopidae
Tetragnatha elongata
Tetragnatha extensa
Tetragnatha laboriosa
Tetragnatha veriformis
Nephila clavipes
Argiope aurantia
Argiope trifasciata
Aranea gigas
Aranea trifolium
Aranea frondosa
Neoscona arabesca
Micrathena sagittata
Micrathena gracilis
Micrathena reduviana
Leucauge venusta

Family Agelenidae
Agelenopsis naevia
Agelenopsis pennsylvanica
Coras medicinalis

Family Pisauridae
Dolomedes tenebrosus
Pisaurina mira

Family Lycosidae
Lycosa helluo
Lycosa frondicola
Lycosa aspersa
Lycosa pratensis
Lycosa punctulata
Schizocosa crassipes
Pardosa destinata

Family Gnaphidae
Gnaphosa (juv.)
Sosticus continentalis

Family Linyphiidae
Linyphia marginata

Family Clubionidae
Aysha (juv.)

Family Thomisidae
Misumenops asperatus
Misumenops aleatorius
Philodromus pernix
Ebo latithorax
Xysticus transversatus
Xysticus triguttatus
Xysticus elegans
Xysticus funestus

Family Attidae
Salticus scenicus
Marpissa undata
Wala mirata
Phidippus audax
Dendryphantes marginatus
Maevia vittata

The spiders in this collection are deposited in the permanent spider collection at Loras College, Dubuque. It is hoped that further collection will be done by others to the still quite incomplete list of Iowa spiders.

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Literature Cited

Comstock, J. H. 1948. The Spider Book. Comstock Publishing Co., Ithaca, N. Y.
Kaston, B. J. 1953. How to Know the Spiders. Wm. C. Brown Co., Dubuque, Iowa.
Levi, H. W., and Field, H. 1954. Am. Midland Naturalist 51:444-467.
Stiles, K. 1938. Proc. Iowa Acad. Sci. 45:285-207.
Stiles, K. 1940. Proc. Iowa Acad. Sci. 47:333-342.
Stiles, K. 1944. Proc. Iowa Acad. Sci. 54:473-484.
Worly, L., and Pickwell, G. 1927. Univ. of Nebr. Studies 27:1-129.

An Analysis of Mite Populations in Muskrat Houses[1]

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Abstract. During the summers of 1960 and 1961, samples of material from muskrat houses in Goose Lake, Hamilton County, Iowa, were analyzed for their acarine content to obtain information on the factors influencing the composition of mite populations. Representatives of 18 different families or groups were obtained. Their ecology is discussed from the following relationships: (1) immediately available flora and composition of muskrat houses, (2) size of houses and occurrence of mites, (3) utility of houses and occurrence of mites, (4) sampling area of houses and occurrence of mites, and (5) the mite populations themselves.

INTRODUCTION

Houses for the muskrat, *Ondatra zibethicus* (L.), afford opportunities for studying an interesting complex of mite populations. The profuse organic material, both of plant and animal origins and in varying degrees of decay and wetness, constitutes an abundant food supply for detritus feeders. These are utilized by predaceous mites, some of which, in turn, are preyed upon by other mites.

The area chosen for study was Goose Lake, located one-half mile east of Jewell, Iowa, in Hamilton County. This lake, private-

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