Spiders Collected in Southeast Arkansas by the Pit Trap Method

Peggy Rae Dorris

Henderson State University

Follow this and additional works at: http://scholarworks.uark.edu/qaas

Part of the Entomology Commons

Recommended Citation
Available at: http://scholarworks.uark.edu/qaas/vol45/iss1/8

This article is available for use under the Creative Commons license: Attribution-NoDerivatives 4.0 International (CC BY-ND 4.0). Users are able to read, download, copy, print, distribute, search, link to the full texts of these articles, or use them for any other lawful purpose, without asking prior permission from the publisher or the author.
This Article is brought to you for free and open access by ScholarWorks@UARK. It has been accepted for inclusion in Journal of the Arkansas Academy of Science by an authorized editor of ScholarWorks@UARK. For more information, please contact scholar@uark.edu, ccmiddle@uark.edu.
SPIDERS COLLECTED IN SOUTHEAST ARKANSAS
BY THE PIT TRAP METHOD

PEGGY RAE DORRIS
P.O. Box 744
Henderson State University
Arkadelphia, AR 71923

ABSTRACT

By employing the pit-trap method, thousands of spiders were collected from primarily pine-hardwood stands which had undergone different forestry treatments in Bradley and Drew counties. Fourteen families and 120 species of spiders were collected, two of which were new state records.

INTRODUCTION

In Arkansas, spiders have rarely been collected by means of pitfall traps (Heiss, 1977 and Dorris and Thompson, 1986). If large areas of the state are researched, it is difficult to check traps frequently. This study was made over only two counties so that traps could be checked weekly during a four-year period from 1984-1988. The purpose of this research is two-fold: to determine species captured by the pit-trap method and to determine whether new additions can be added to the state record. A future paper will address species differences in various forestry treatment practices.

METHODS AND MATERIALS

Pitfall traps with rain covers were constructed in the following way: A 16 oz. plastic drinking cup was placed in a 1 quart metal oil can opened at both ends and inserted into a hole in the ground. The cup contained 5 fl. oz. of a 1:1 mixture of antifreeze (ethylene glycol) and water. The cup could be easily removed and contents placed in baby food jars for transportation to the laboratory where identifications were made with a stereo-microscope. A 1 ft. square plywood rain lid, held 1 in. over the cup with rocks or wood blocks, reduced the amount of rain entering the trap. Traps were emptied weekly, sorted by forest treatment, and placed in 80% ethyl alcohol. Weekly collections from all traps within each treatment area were pooled for storage. Specimens were later identified and placed in screw cap vials of 70% alcohol and placed in spider storage cabinets. Taxonomic names used here are those employed by Gertsch (1979), Comstock (1982), Kaston (1978), and Heiss and Allen (1986). Species are listed alphabetically and families are in the phylogenetic order used by Kaston.

RESULTS

Thousands of spiders were collected with families of ground spiders such as Gnaphosidae and Lycosidae being the most numerous. Two new species for Arkansas were revealed bringing the total number of species for Arkansas to 509. New species for the state are identified with an asterisk. From the 1984-1988 collections 14 families and 120 species of spiders have been identified from pitfall traps located in Bradley and Drew counties. They are as follows:

ANTRODIÆTIDÆ
Antrodiaetus unicolor (Hentz)

THERIDIDÆ
Lairorhachis macilans (Fabricius)

ARANEIDÆ
Aranea cavaiacoa (Keyserling)
Aranea nordmannii (Thorell)
Euctata anastata (Walckenaer)
Mangora giberossa (Hentz)
Microathena sagiitata (Walckenaer)
Neoscona arabesca (Walckenaer)

AGELENIDÆ
Agelemonopsis naevia (Walckenaer)
Agelemonopsis pennsylvanica (C. L. Koch)
Coras medicinalis (Hentz)

PISARIDÆ
Dolomedes viitatus (Walckenaer)

HANIIIDÆ
Neoscona abilis Keyserling

LYCOSIDÆ
 Allocosia funerea (Hentz)
Arctosa emerenti Gertsch
Arctosa viridida (Keyserling)
Arctosa viridida (Chamberlin)
Lycosa antelucana Montgomery
Lycosa aspera Hentz
Lycosa carolinens Walckenaer
Lycosa frondicola Emerton
Lycosa gulosa Walckenaer
Lycosa helluo Walckenaer
Lycosa punctulata (Hentz)
Lycosa rabilda Walckenaer
Lycosa riparia (Hentz)
Pardosa milvina (Hentz)
Pardosa distincta (Blackwall)
Pardosa moesta Banks
Pardosa ramulosa (Hentz)
Pirata insularis Emerton
Pirata maculata Emerton
Pirata minutum Emerton
Pirata piratica (Clerk)
Paradosa saxatilis (Hentz)
Schizocosa avida (Walckenaer)
Schizocosa bilineata (Emerton)
Schizocosa crassipes (Walckenaer)
Schizocosa creata (Hentz)
Schizocosa scalaris Walckenaer
*Sossipus minus Chamberlin
Tarentula australis (Clerk)
Tarentula kochei Keyserling
Trabue aurantiaca (Emerton)
Trachosa pratensis (Emerton)
Trochosa terricola (Thorell)

OXYPIDÆ
Oxyopes salticus Hentz
Peucetia viridans (Hentz)

GNAPHOSIDÆ
Callilepis imbecilla (Keyserling)
Callilepis pluto Banks
Cesona bilineata (Hentz)
Drassodes auriculoides Barrows

Spiders Collected in Southeast Arkansas by the Pit Trap Method

Draasodes neglectus (Keyserling)
Draasodes robinsoni Hentz
Draassylus cronus Chamberlin & Gertsch
Draassylus covensis Etleine
Draassylus aprilianus Banks
Draassylus depressus (Emerton)
Draassylus dixinus Chamberlin
Draassylus elliptes Chamberlin & Ivie
Draassylus gynopaeus Chamberlin
Draassylus niger (Banks)
Draassylus virginianus Chamberlin
Gnaphosa muscorum (L. Koch)
Gnaphosa sericata (L. Koch)
Heryllus ecclesiasticus (Hentz)
Litorhina temporaria (Chamberlin
Pseudocrocos capulata (Walckenaer)
Rachodrassus exlineae Platnick & Shadab
Synapsus paludis (Chamberlin & Gertsch)
Zelotes duplex (Chamberlin)
Zelotes hentzi (Barrows)
Zelotes laccus (Barrows)
Zelotes rusticus (L. Koch)
Zelotes subterraneus (C. L. Koch)

CLUBIONIDAE
Castianeira amonea (C. L. Koch)
Castianeira cingulata (C. L. Koch)
Castianeira descripta (Hentz)
Castianeira gertschi Kaston
Castianeira trilineata (Hentz)
Castianeira lenta (Hentz)
Castianeira longipalpus (Hentz)
Clubiona exspecta Koch
Clubiona pullens (Hentz)
Marcellina pascatoria (Hentz)
Micaria aurata (Hentz)
Phrurotimnus formica Banks
Stenochroa pascatoria (Hentz)

ANYPHAENIDAE
Anyphaena celer (Hentz)
Ayska gracilis (Hentz)

ZORIDAE
Zora punilia (Hentz)

THOMISIDAE
Coriarachne floridana Banks
Coriarachne lenta (Walczenaur)
Misumenoides formosipes (Walckenaer)
Misumenoides sericata (Walckenaer)
Misumenops asperatus (Hentz)
Misumenops celer (Hentz)
Misumenops oblongus (Keyserling)
Oxytilla americana Banks
Oxytilla conspircata Thorell
Synema parvula (Hentz)
Xysticus elegans Keyserling
Xysticus gulosus Keyserling
Xysticus luctans (C.L. Koch)
Xysticus transversatus (Walckenaer)
Xysticus triangulatus Keyserling
Xysticus tumefacius (Walckenaer)

SALTICIDAE
Eris aurantia (Lucas)
Eris marginata (Walckenaer)
Habrocestum pulex (Hentz)
Habronattus decorus (Blackwall)

Maevia inclemens (Walckenaer)
Metacyzra saeniola (Hentz)
Metaphidippus exigus (Banks)
Metaphidippus galatea (Walckenaer)
Metaphidippus manni (G. & E. Peckham)
Neon neili Peckham
Philippus audax (Hentz)
Philippus fasciata (Hahn)
*Plexippus paykulli (Audouin)

DISCUSSION
As was expected, the most numerous spiders collected in the pit traps were of the families, Gnaphosidae (ground spiders) and Lycosidae (wolf spiders). Other species found in large numbers included the family Thomisidae (crab spiders). These families of wandering spiders are more likely to fall into pitfall traps than families of spiders that construct webs to trap prey. New records for the state were Sossius minus Chamberlin, a lycosid and Plexippus paykulli (Audouin), a salticid. Emphasis on the use of pit traps was expected to yield additional records since this method has rarely been used in Arkansas.

ACKNOWLEDGMENTS
This study was funded in part by a Henderson State University faculty grant. Gratitude is expressed to Dr. Lynn Thompson and his students at the University of Arkansas in Monticello for aid in collecting and to the following Henderson State University students for aid in identification: Betty Davidson, Susan Johnson, Deborah Wilson, Mona Ward, John Hopson, James Pate, and Susan Schirmshire. Also assisting in computer work for this research were Randy Stiffler, Rhonda Golden, Stephanie Modisett, and Elwyn Perser, to whom I am indebted.

LITERATURE CITED


