

Notes on and Records of Some Invertebrates Collected in Oklahoma

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During the summer of 1961 the members of a class in the natural history of invertebrates at the University of Oklahoma Biological Station, Willis, Marshall County, Oklahoma, were required to conduct some short investigations upon various groups of animals. Since most of the smaller invertebrate classes are poorly known in Oklahoma several species are worthy of recording. Each student is given credit for his work (below), but several changes have been made in the original manuscripts to save space. Unless otherwise indicated, collections were made on or near the campus of the University of Oklahoma Biological Station.

ARACHNIDA: ARANEIDA

The spiders utilized as food by the larvae of the muddauber.

Sceliphron cementarium (Drury) by Avalee Cox

Muddauber nests were collected from the exterior and interior of buildings on the campus during the period extending from 29:VI:1961 through 13:VII:1961. A total of 15 nests were collected but only three are reported here (the remaining 12 will be incorporated in a larger report). Each nest was carefully dissected and the lethargic spiders placed immediately in small jars or vials containing 70 per cent ethanol. Each container was marked to correlate it with specific nests. Since it has been suggested (Dr. George Bick, personal communication) that *Chalybion californicum* (Saussure) parasitizes the nests of *Sceliphron* (only one was observed crawling over the surface of a nest during this study), some nests containing pupae were placed in a jar and allowed to remain there until the adults emerged; they were all *S. cementarium*. The following forms were removed from the three nests.

TABLE I. SPIDERS FOUND IN THE NESTS OF *SCELIPHRON CEMENTARIUM*

Family Araneidae	
<i>Mangora gibberosa</i> (Hentz)	11
<i>Wizia extypa</i> (Hentz)	1
<i>Metespeira labyrinthea</i> (Hentz)	1
<i>Neoscona</i> sp.	1
<i>Eustala anastera</i> (Walckenaer)	106
<i>Argiope aurantia</i> Lucas	88
Family Attidae	
<i>Myrmarachne hentzi</i> Banks	1
<i>Thiodina</i> sp.	1
Family Oxyopidae	
<i>Peucetia abboti</i> (Walckenaer)	1
Family Tetragnathidae	
<i>Tetragnatha versicolor</i> (Walckenaer)	1
Family Thomisidae	
<i>Philodromus</i> sp.	1
Total number of spiders taken from the three nests 214*	

*One nest contained 106 spiders.

It is obvious from the above that by far the largest percentage of spiders found were orb weavers. This is probably correlated with the habits of the spiders, since they build their webs in the open and thus are easy prey for the wasps.

ARACHNIDA: PSEUDOSCORPIONIDA

by Teresa Janovy

Since these arachnida are so small and have such clandestine habits, they are very often overlooked in collections. Consequently, very little is known about them in Oklahoma. The specimens observed during this study were secured from beneath the loose bark on dead trees. Additional specimens should be sought under dead leaves and in rotten logs. Three species were found, all belonging to the family Chernetidae: *Lamprochernes oblongus* (Say), *L. minor* Hoff and an unidentified species of *Pseudozoaona*. The first is the most abundant; all appear to be new state records.

ARACHNIDA: PHALANGIDA

by James R. Worsham

Although some species of harvestman (daddy longlegs) may be seen in daylight hours most species are nocturnal, probably because of their relatively high moisture requirements.

The following is a species list in order of abundance, of the harvestmen collected during June and July of 1961.

Mesosoma nigrum (Say)

This species is distributed in southern and western states. It is recognized by its very hard and granulated body which is dark above and light below. The legs are short and black, except at the base. The ocular tubercle is devoid of spines but armed with obtuse granules. The body length ranges from about 7 to 10 mm.

This species is by far the most abundant one in the area and can be found under almost any large rock or decaying piece of wood. About 200 specimens were taken from such places and many others observed.

Cynorta sayi Simon

This is one of the most widely distributed species of harvestman and occurs throughout the Gulf States and as far north as Kansas and Missouri. Its body is about one-fourth of an inch in length and is of a rusty color mottled by darker shades. In well-marked individuals a Y-shaped stripe is located behind the eyes and a light band also sometimes occurs along the posterior edge of the carapace. Near the middle of the carapace is found a small pair of tubercles and a somewhat larger pair near the posterior edge.

Twenty-five specimens were secured beneath decaying logs and under large, flat limestone rocks.

Two specimens were collected in Platt National Park, Sulfur, Oklahoma.

Leiobunum ventricosum (Wood)

This form is distributed in the southern and southeastern United States where it is characterized by marginal rows of denticles on the coxa. The cuticula is subcoreaceous and the anterior and lateral surfaces of the carapace are small. The eye tubercle is smooth, small and widely sepa-

rated from the anterior border. The body is moderately spinose, rather granulated and of moderate size. The species, of which eight specimens were collected, seems to be mostly nocturnal and has a rather wide ecological spectrum, i.e., crevices of walls, in grass, etc.

Cynorta ornata (Say)

This species is distributed throughout southeastern United States but this seems to be a new state record. It closely resembles *Cynorta sayi* in body size, but can be recognized by a pair of acute spines situated on a pair of lobes in the position occupied by the second pair of tubercles in *C. sayi*. Only four specimens were collected, all from beneath a large slab of limestone.

Leiobunum sp.

Two underdetermined species of this genus were collected. They resemble *L. ventricosum* but lack the marginal dentition of the coxa. It is possible that they are *L. ventricosum* which for some reason or another lack the typical spines.

DIPLOPODA

by Mary Catherine Hale

Very little information is available on the diplopods of Oklahoma. Consequently a brief survey of the species occurring on and about the campus was conducted. Thirty-seven specimens representing four species were taken.

Oxidus gracilis (Koch)

This is an exotic species which is found throughout the country in green-houses, being well established in the southern and western United States. Twenty-one specimens were taken on 20:VI:1961 from beneath loosely-packed leaf and grass litter under persimmon trees. This is the smallest of the four species collected, the larger ones averaging about 1.0 cm in length. The coloration varies from soft orange-red to nearly white. There are 18 to 20 segments; paranota (lateral projections from the back) are well-developed; eyes are lacking; and a conspicuous longitudinal furrow extends through the plates for the entire length of the body.

Eurymerodesmus birdi Chamberlin (= *Leptodesmus hispidipes* Wood, 1864)

Nine specimens of this species, the type locality of which is in Murray County, were collected on 26:VI:1961; four on 5:VII:1961 and one on 27:VII:1961; all from beneath logs or in surrounding litter. This is a pale, cylindrical and elongated millipede, stouter and larger (averages about 2.75 cm) than either *O. gracilis* and *Oriulus venustus*. It has 18 to 22 segments, convex dorsal plates and is glabrous. The anal segment is pointed, the legs bear stiff, spiny hairs and a dark line extends mid-dorsally for the entire length of the body.

Oriulus venustus (Wood) (= *Julus venustus* Wood)

This form ranges from New York to Colorado and Utah but the southern limits are not known. One specimen was taken about 0.25 mile west of U. O. B. S. on 29:VII:1961. The third segment lacks legs and only the ventral plates of the first segments are free. There are four mandibular teeth and a number of ocelli on either side. This reddish-brown species bears about 52 segments and is usually about 2.0 cm long.

Narceus americanus (Beavois) (= *Spiroboles marginatus* Wood)

This form has been said to range from Maryland to Georgia and Alabama, but, although the exact limits are not known, it obviously extends much farther westward. One specimen was taken below the Denison Dam, Grayson County, Texas on 6:VII:1961. Additional specimens were seen on the U.O.B.S. grounds but not collected. This is a dark brown form, almost cylindrical with a reddish ring on each segment. The feet and antennae are red and the segments range from 53 to 57; each eye is composed of 30 to 40 ocelli. The body length is about 10.0 cm and its width about 1.0 cm.

CHILOPODA

by Francis Horne

Since the only recent work on this group in Oklahoma is a short paper by Chamberlin (1931), little is known of our centipedes. In general the taxonomy of this class has been neglected; the only taxonomic key available is that of Bollman (1893). Therefore some of the identifications below are subject to correction. The characteristics given are based upon single specimens.

Scolopendra heros (Girard)

Two large specimens of this greenish-black species with yellow antennae and legs were taken in debris and under rocks. Chamberlin (1931) reported *Scolopendra* in Oklahoma for the first time. There are 21 pairs of legs, 25 antennae segments and the body may attain a length of 100 mm.

Scolopocryptops scarpinosa (Say)

This species appears to be the most common one in the area and was collected in many habitats, especially in leaf litter, rotting logs and under rocks. The body, about 47.0 mm in length, is orange, with 23 pairs of legs and no eyes.

Scutigera forceps (Rafinesque).

Five specimens of this species were taken from piles of debris and rocks. However, it is very abundant in this region and has been observed on numerous occasions. It is a light brown form, about 14.0 mm in body length, with very long legs (nearly equal to the body) and 15 body segments.

Stigmatogaster sp.

This form was very common in leaf litter, rotten logs, under bark of fallen trees and beneath rocks. It is yellowish in color, has a rounded body of about 39.0 mm, antennae with 14 segments, approximately 67 pairs of legs and lacks eyes.

Lithobius multidentatus (Newport)

Only two specimens of this species were discovered beneath a decaying board. It is reddish-brown, has a body about 17.0 mm in length, antennae of 23 segments, 27 to 35 ocelli, and 15 pairs of legs.

CRUSTACEA (CLADOCERA)

by Charles Clinton Smith Jr.

Little investigation has actually been accomplished on the *Cladocera* of southern Oklahoma. Mackin (1931) published a short list of 27 species

from various small lakes, ponds and streams of southeastern and south-central Oklahoma. Jones (1954) reported 57 species, nine of which were taken from Marshall County. Plankton-net samples were randomly taken from Lake Texoma near the station, killed and fixed in 95 per cent ethanol (Pennak, 1953) and stored in vials. The *Cladocera* were separated by means of micropipettes and mounted in glycerin on slides. The following forms were identified from these collections.

Sida crystallina (Mueller)

In weeds along the lake margin.

Diaphanosoma brachyurum (Lievin)

In marshy or weedy areas.

Daphnia pulex (de Geer)

Found both in temporary and permanent bodies of water.

Moina brachiata (Jurine)

One of the most common forms in all kinds of water.

Bosmina longirostris (Mueller)

Equally plentiful in pools, open water and in weedy margins.

Eurycerus lamellatus (Mueller)

Very plentiful in weedy margins; bore numerous summer eggs.

Of the six species above Jones (1954) listed only one, *Moina brachiata*, as occurring in this region. The others are new county records. This survey is by no means comprehensive, but it does point out the need for systematic surveys of our larger bodies of water.

COELENTERATA

On 15.VII:1961 Mr. Carl Fletcher, Oklahoma Department of Wildlife Conservation, and Mr. Earl Winn, Marietta, Oklahoma, collected several specimens of the freshwater medusa, *Craspedacusta sowerbyi* Lankester, from Lake Murray, Oklahoma. Two days later Messrs. Francis Horn and Charles Smith returned to the lake and secured 75 to 100 specimens of this peculiar coelenterate. To my knowledge this form has heretofore escaped notice in this body of water.

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