SOME ARACHNIDA FROM ALABAMA.

BY NATHAN BANKS.

The following spiders and allied Arachnids were collected in Alabama, for the most part, by Prof. Carl F. Baker and his students. Some, however, were gathered by Prof. Baker's predecessor, Dr. L. M. Underwood. A few very interesting ones were taken by the late Mr. Hugo Soltau near Mobile. When no locality is given the specimens come from the vicinity of Auburn. The following students assisted in making the collections: Messrs. Allen, Dixon, Dobbin, Eppes, Farley, Houghton, McCalla, Minge, Ransom, Shevers, Stewart and Warwick from Auburn, and Hudnion from Opelika. All the localities are in the southern portion of the State; collections in the hilly northern part would doubtless add many forms to the list, while on the Gulf coast a few semi-tropical forms would be found.

The Arachnid fauna of Alabama is of much interest to the modern student since this State was one of the collecting grounds of Prof. Hentz, the father of American Arachnology. A number of species described by Hentz have been unknown to later naturalists, and the systematic position of some of them in much doubt. In this collection several of these forms appear which enables me to place them in their proper position.

Perhaps the most interesting of these species is the one described by Hentz as *Katadysas pumilus*. Hentz believed this spider to be intermediate between the two great divisions of the Araneida—those with four lung-slits and vertically moving fangs, and those with two lung-slits and laterally moving fangs. *Katadysas* was reputed to have but two lung-slits, yet with vertically moving fangs. The general appearance of Hentz' figure led several writers to believe that *Katadysas* was a *Zora* or near that genus. In this collection there is one specimen of *Katadysas pumilus* which proves to belong to the genus *Zora*, a genus new to our country.

Of scarcely less interest was the scorpion, of which Prof. Baker sent me many specimens. This scorpion proves to be quite differ-

ent from the ordinary scorpion of the Southern States, long known as *Centrurus carolinianus* Beauv. This species is the form described by C. L. Koch as *Vejovis carolinus*. I had no idea that there were two scorpions common in the Southern States, and its discovery was of much concern to me. In looking up the literature on the subject, however, I found that what was evidently the same species had been recorded by Mr. J. P. Stelle in 1870, in the *American Entomologist*, as occurring in Tennessee. This species is abundantly different from our common *Centrurus*, belonging to another family and exhibiting many minor points of difference.

A few other interesting species may be mentioned: *Myrmecophila foliata* Atk., which proves to be the same as *Mygale fluviatilis* Hentz; *Anyphæna piscatoria* Hentz, one of the lost species, easily recognized by the peculiar shape of the male palpus; *Dolomedes albineus* Hentz, a pale species of the genus, and *Lycosa missouriensis*, a curious species which I described several years ago from one Missouri specimen, is represented by many examples.

Mr. Soltau sent several small forms that add interest to the list; one, a new genus of *Dictynidæ*, is remarkable on account of its near approach to certain six-eyed forms.

Except in the small *Theridiidæ*, where the woodland species have not been well collected, this collection gives one a fair idea of the spider fauna of the region. Most of the species are widely distributed in the Atlantic States, very few but are found in more northern regions. A few forms are more common in regions to the south; such are *Anyphæna striata*, *Gaucelmus angustinus*, *Argyrodes nephilæ*, *Prostheclina aurata* and *Lyssomanes viridis*. Altogether one hundred and thirty-three spiders are recorded and twelve other Arachnids—a total of one hundred and forty-five species. The *Epeiridæ* leads with twenty-four species; then follow the *Lycosidæ* and the *Attidæ*. Twenty families are represented, seven by but one species. One hundred of the spiders were described by Hentz; three are described as new.

THERAPHOSIDÆ.

Pachylomerus carolinensis Hentz.

One female.

Myrmeciophila fluviatilis Hentz.

M. foliata Atkinson.

Several specimens.

FILISTATIDÆ.

Filistata capitata Hentz.

Many specimens; also Opelika.

DYSDERIDÆ.

Ariadne bicolor Hentz.

One specimen.

PHOLCIDÆ.

Pholcus phalangioides Fuess.

Several specimens. September.

Spermophora meridionalis Hentz.

A few specimens.

DRASSIDÆ.

Sergiolus variegatus Hentz.

Several examples, one from Mobile.

Prosthesima atra Hentz.

A few. October.

Prosthesima ecclesiastica Hentz.

Several specimens. October.

Prosthesima decepta n. sp.

Length ♀ 7.5 to 8 mm.; tibia plus patella IV, 3 mm. Cephalothorax yellow-brown, rather darker on head, mandibles red-brown, legs brownish yellow, sternum pale reddish brown, abdomen above and below dark gray, spinnerets yellowish. Cephalothorax as long as tibia plus patella IV, much narrowed in front; posterior eye-row slightly procurved, P. M. E. largest, oval and oblique, not half their diameter apart at their posterior ends, much farther from the P. S. E., A. M. E. nearly their diameter apart, closer to the equal A. S. E., S. E. quite widely separated; mandibles stout, vertical; legs of usual length, no spines under tibiæ I and II, a pair under metatarsus II, none under metatarsus I, posterior pairs with many spines, none above; sternum plainly longer than broad, truncate at base, broadest in middle, pointed at the tip; abdomen once and one-half as long as broad, truncate at base, depressed; the epigynum shows a broad area, traversed by a rather narrow pale septum, and a dark ridge on each side.

Several specimens. Resembles *P. insularis* Banks, but the epigynum is quite different and the P. M. E. are larger and closer together.

Gnaphosa sericata Koch.

Herpyllus bicolor Hentz.

Many specimens, some from Opelika.

CLUBIONIDÆ.

Clubiona abottii Koch.

A few small specimens.

Chiracanthium inclusa Hentz.

Many examples. October.

Chiracanthium albens Hentz.

One young specimen.

Phrurolithus alarius Hentz.

One from Mobile.

Thargalia bivittatus Keys.

Young specimens from Mobile.

Anyphæna striata Becker.

One male of this rare species. Readily known by small size and dark color, as well as by structure of palpus.

Anyphæna piscatoria Hentz.

Two males are evidently this species, which is easily recognized in this sex by the very long process to the tarsus of the palpus. One is from Opelika.

Gayenna celer Hentz.

Anyphæna incerta Keys.

One young specimen from Opelika.

ZOROPSIDÆ.

Zora pumilis Hentz.

Katadysas pumilis Hentz.

One immature specimen. It has the characteristic appearance of the other species of the genus.

AGALENIDÆ.

Agalena nævia Hentz.

Various specimens, some of the form described by Becker as *A. hentzi*, which I do not think is specifically different. September.

Tegenaria derhami Scop.

Several examples.

Cœlotes medicinalis Hentz.

One specimen.

THERIDIIDÆ.

Theridium tepidariorum Koch.

Great numbers of specimens. There is considerable variation in color and markings, and the males vary in size and length of legs.

Gaucelmus angustinus Keys.

One female.

Theridula sphærula Hentz.

A few specimens. October.

Teutana triangulosa Walck.

Numerous examples, some from Opelika. September.

Lathrodectes mactans Koch.

Many specimens. September.

Lithyphantes fulvus Keys.

One female.

Crustulina guttata Rossi.

One from Mobile.

Mysmena bulbifera Banks.

One specimen. March.

Argyrodes trigonum Hentz.

A few specimens. September.

Argyrodes nephilæ Cambr.

One specimen. October.

Argyrodes cancellata Hentz.

Two from Mobile.

Spiropalpus spiralis Emer.

One example.

Linyphia communis Hentz.

Several specimens. September.

Bathyphantes maculata n. sp.

Cephalothorax black on sides and above in the middle, leaving an irregular pale yellowish area each side, eyes on black spots, with a black line extending back from each P. S. E.; mandibles dark on base, pale on apex; legs pale, a dark band on middle of the tibiæ, and frequently a spot above on middle of femora; sternum black, a narrow black band on apex of each

coxa; abdomen black, a pale space at base and three chevrons behind, four spots on each upper side, the posterior ones often connected to the chevrons, toward the base on each side is a long pale spot, and two smaller near the spinnerets; venter black. Head rather high; the P. M. E. less than their diameter apart, scarcely as far from the P. S. E.; A. M. E. smaller, hardly their diameter apart, farther from the larger A. S. E.; legs long and slender; abdomen high and convex, rounded at the base, pointed behind; epigynum shows a finger bent in, and holes each side much as in *B. zebra*. Length ♀ 1.8 mm.

Two specimens from Mobile. Differs from *B. zebra* in larger size, markings, etc.

DICTYNIDÆ.

Dictyna sublata Hentz.

Many specimens. October.

Dictyna volucripes Keys.

A few examples. October.

Dictyna foliacea Hentz.

D. volupis Keys.

Several specimens.

DICTYOLATHYS n. gen.

Much like *Dictyna*, but apparently six-eyed, three in a group each side; but the A. M. E. are present, although very small, and situate close to and a little higher than the A. S. E. Head not much elevated; legs of moderate length, not spined, but very hairy; accessory spinning organs like *Dictyna*.

Dictyolathys maculata n. sp.

Cephalothorax, legs, mandibles and sternum pale, rather yellowish, eyes on black spots; abdomen whitish, with a basal black mark and four rows of transverse dark marks, the submedian pairs being more or less connected, the lateral rows extending obliquely down on the sides, the hind ones converging to the spinnerets, venter with a few median black dots, region of epigynum reddish. P. M. E. are more than their diameter apart, close to the equal P. S. E; A. S. E. of about equal size; A. M. E. very small and close to and slightly higher than the A. S. E.; sternum broad, sides rounded; abdomen rather truncate at base, moderately broad; genital region semicircular, showing a dark mark on each

outer lower side, with a narrow median septum, and each side at base an oval opening. Length 1.4 mm.

Several specimens from Mobile; also from Meridian, Miss.

ULOBORIDÆ.

Uloborus plumipes Lucas.

A few specimens. September.

EPEIRIDÆ.

Gasteracantha cancer Hentz.

Several specimens.

Acrosoma spinea Hentz.

A few specimens.

Acrosoma rugosa Hentz.

A few examples of several color varieties.

Mahadeva verrucosa Hentz.

One female.

Ordgarius cornigerus Hentz.

One female from Mobile.

Argiope aurantia Lucas.

Epeira riparia Hentz.

Several specimens.

Argiope transversa Emer.

Many examples.

Epeira scutulata Hentz.

A few, mostly young specimens.

Epeira insularis Hentz.

Many specimens.

Epeira trifolium Hentz.

One specimen.

Epeira domiciliorum Hentz.

Several examples, some very dark.

Epeira thaddeus Hentz.

A few examples.

Epeira prompta Hentz.

E. parvula Keys.

Many specimens, representing many color varieties.

Epeira globosa Keys.

A few specimens. October. It is curious that Hentz did not find this species, which he certainly would recognize as distinct.

Epeira displicata Hentz.

Several specimens.

Epeira trivittata Keys.

A few examples.

Epeira labyrinthea Hentz.

A few specimens.

Epeira vulgaris Hentz.

E. volucripes Keys.

A few young specimens.

Abottia gibberosa Hentz.

Several examples. October.

Abottia placida Hentz.

A few specimens.

Argyrœpeira hortorum Hentz.

Many specimens.

Plectana stellata Hentz.

A few, mostly young specimens.

Cyclosa conica Pallas.

Many examples. September.

Larinia directa Hentz.

A few specimens. October.

TETRAGNATHIDÆ.

Tetragnatha grallator Hentz.

A few specimens.

Tetragnatha laboriosa Hentz.

More common than the preceding species. October. Also Opelika.

THOMISIDÆ.

Xysticus gulosus Keys.

A few specimens.

Xysticus quadrilineatus Keys.

Several examples. October.

Xysticus nervosus Banks.

Several specimens. October.

Xysticus maculatus Keys.

One specimen, probably this species. October.

Synema parvula Hentz.

An immature specimen.

Oxyptila monroensis Keys.

One female from Mobile.

Coriarachne versicolor Keys.

A few specimens. October.

Runcinia aleatoria Hentz.

Several specimens.

Misumena vatia Clerk.

Two females. May.

Misumena rosea Keys.

Many specimens. October.

Misumena georgiana Keys.

A few examples. October.

Tmarsus caudatus Hentz.

Several specimens. October.

Tibellus duttoni Hentz.

A few specimens. October.

Thanatus rubicundus Keys.

Several examples. October.

Philodromus rufus Walck.

A number of young specimens.

Philodromus aureolus Walck.

Three females.

Philodromus vulgaris Hentz.

Many specimens.

Philodromus laticeps Keys.

One immature specimen; the species is quite rare, but very distinct.

Philodromus infuscatus Keys.

One male.

LYCOSIDÆ.

Pisaurina undata Hentz.

Several specimens; also from Opelika.

Dolomedes sexpunctatus Hentz.

Many specimens, mostly young.

Dolomedes scriptus Hentz.

Three specimens.

Dolomedes albineus Hentz.

A few specimens of this rare species.

Dolomedes urinator Hentz.

Several examples.

Lycosa scutulata Hentz.

Many specimens. October.

Lycosa punctulata Hentz.

A few specimens. October.

Lycosa carolinensis Hentz.

Several specimens.

Lycosa missouriensis Banks.

Many specimens of this very distinct and pretty species. September.

Lycosa fatifera Hentz.

L. tigrina McCook.
L. vulpina Emer.

A few specimens.

Lycosa erratica Hentz.

Many specimens, most of them small and with the black venter with a large median yellow area. Also from Opelika. March, October.

Lycosa ocreata Hentz.

L. rufa Keys.

Many specimens, both of pale and dark varieties. Also from Opelika.

Lycosa lenta Hentz.

L. ruricola Hentz.

Many specimens. Quite readily known by the generally pale color and black venter; there is much variation in size.

Lycosa babingtoni Blackw.

L. nidicola Emer.

Smaller than *L. lenta;* darker above, with three pale stripes on cephalothorax, the median one extending between M. E. Several specimens; also from Opelika.

Lycosa riparia Hentz.

One female. This has the pale median stripe like *L. babingtoni*, but with banded legs.

Lycosa sp.

One female; dark; legs dark; venter dark, but not black; somewhat like *L. floridana* Banks.

Lycosa sp.

One male; pale, resembles *L. ocreata* Hentz, but there are no stiff hairs on the anterior tibiæ.

Trochosa cinerea Fabr.

A few specimens.

Allocosa funerea Hentz.

Several specimens. March, October.

Pardosa milvina Hentz.

Many specimens.

Pardosa minima Keys.

Several examples. October. Also from Opelika.

OXYOPIDÆ.

Oxyopes salticus Hentz.

Many specimens. October.

Oxyopes scalaris Hentz.

A few specimens. October.

Peucetia viridans Hentz.

Many specimens.

PODOPHTHALMIDÆ.

Thanatidius dubius Hentz.

One specimen.

CTENIDÆ.

Ctenus punctulatus Hentz.

Several specimens; also from Opelika.

ATTIDÆ.

Phidippus mystaceus Hentz.

One example.

Phidippus audax Hentz.

Attus tripunctatus Hentz.

Many specimens. September, October.

Phidippus rufus Hentz.

Several specimens.

Phidippus insolens Hentz.

A few specimens.

Phidippus cardinalis Hentz.

Three specimens. October.

Phidippus obscurus Peck.

One female.

Dendryphantes octavus Hentz.

Many specimens. October.

Dendryphantes retarius Hentz.

A few examples. October.

Icius palmarum Hentz.

A few specimens. October.

Icius mitratus Hentz.

A few specimens. October.

Icius elegans Hentz.

One example.

Cyrba tæniola Hentz.

Many specimens. February, October.

Marptusa familiaris Hentz.

Many specimens. September, October.

Habrocestum cœcatum Hentz.

Two specimens.

Habrocestum cristatum Hentz.

A few examples; also from Opelika.

Prostheclina aurata Hentz.

P. cambridgei Peck.

Several specimens.

Saitis pulex Hentz.

Many specimens, mostly young.

Zygoballus parvus Hentz.

A few examples. October.

Homalattus cyaneus Hentz.

One female. October.

LYSSOMANIDÆ.

Lyssomanes viridis Hentz.

Two specimens. October.

PHALANGIDA.

Liobunum vittatum Say.

Several specimens.

Liobunum politum Weed.

One specimen.

Liobunum hyemale Weed.

Two specimens.

Liobunum flavum Banks.

One specimen.

Liobunum speciosum n. sp.

The female shows two pale lines extending from the eye-tubercle to the anterior margin; the male has black trochanters.

Color of female brown; a dark central mark on the cephalothorax, with two pale lines extending from the eye-tubercle to the front margin; eye-tubercle dark brown; palpi pale; legs pale, patellæ light brown, tips of tibiæ brown; venter pale; dorsum of abdomen with a vase-mark margined with clear pale yellow, the mark extending to near tip of body; sides of cephalothorax brown, widest behind, and enclosing a yellow dot. Male nearly uniform reddish yellow above, pale beneath; palpi paler; trochanters black as well as the bases of the femora, rest of legs pale, except light brown patellæ and tips of the tibiæ; eye-tubercle black.

Legs long and slender, eye-tubercle with a few spinules above. Body of female not very slender, of male broad and short, finely granulate, the skin rather hard. Femur I of female twice as long as body; of male two and one-half times as long as body.

A few specimens. September. Separated from *L. bicolor* by pale color, absence of the tubercles mentioned by Wood, markings of the female, etc.

Cynorta sayi Simon.

Several specimens, some in December.

SCORPIONIDA.

Vejovis carolinus Koch. *Die Arachniden*, vol. 10, p. 7.

Body nearly uniform light reddish brown, palpi same color, legs and venter paler, under side of tail dark like the upper side,

cephalothorax with pale spots. Cephalothorax longer than broad behind, with a median sulcus throughout, anterior margin emarginate, about one-half as long as posterior margin, surface with groups and rows of granules, these are dark, elsewhere the surface is pale. Median eyes at anterior third, three small side-eyes in a curved row, the third smaller than the others; abdominal segments with granules most numerous on the posterior portion, and a row of larger ones along the hind margin, and a faint median ridge indicated on the middle of the segments, last segment with four granulate ridges, the side pair not reaching the hind margin, the submedian pair outline a broad area, slightly wider in front than behind; tail short, stout, the first four segments short, each a little longer than the preceding one, the fifth nearly twice as long as the fourth; the first segment has three granulate ridges on its sides, the second and third segments have the intermediate ridge arising from near the middle of the upper ridge, while on the fourth segment the intermediate ridge is wanting; all have a ridge each side above, in the fourth terminating much before the tip; the fifth has a ridge each side above, an upper lateral one on the basal part and a lower lateral one for the whole length; on the lower side the first four segments have a low submedian ridge each side, and the fifth has a median ridge; the bulb is nearly smooth above, granulate below, leaving a submedian smooth space each side, the sting is black at tip, of moderate length and curved, no spine below. The palpi are short, about the length of the cephalothorax and abdomen; femur four-sided, broader than high, scarcely broader in the middle than at either end, a granulate ridge at each angle; tibia about as long as femur, broader than high, broader in the middle, being swollen on the inner side, four-sided, with a granulate ridge on each angle and one on the middle of the inner side; hand scarcely as long as tibia, swollen, with seven faint ridges and granules near some of them; fingers rather longer than hand, paler, gently curved, finely denticulate, and with five pairs of larger teeth at about equal distances apart. Sternum five-sided, broad in front; thirteen teeth in each comb; each ventral segment paler on posterior part. Length, 36 mm.

Many specimens. Easily separated from *Centrurus carolinianus* by darker nearly uniform color, by broader five-sided sternum, by absence of spine under the sting, by broader central area of last

abdominal segment, by stouter hands and shorter fingers, by lateral eyes farther from anterior margin, by shorter second joint of tail, and by fewer number of teeth in the comb.

PSEUDOSCORPIONIDA.

Chelifer cancroides Linn.

Several specimens crawling over moss in February.

Chelifer muricatus Say.

One specimen.

ACARINA.

Bdella oblonga Say.

One under stones, January; another from Mobile.

Gamasus spinipes Say.

Two specimens of this large and well-marked species.

Gamasus sp.

Many specimens of a small pale species, probably new; abundant in greenhouses in January.