Mr. Schwarz stated that this genus is composed of small weevils, pale yellow, with scarcely any sculpture. Three species have been reported from Florida; one occurs in Texas; two in Mexico (one of these in palmetto), two in Cuba, usually on palmetto flowers. In Cuba an undescribed species lives in the royal palm.

-Mr. Benton exhibited specimens of, and spoke a few minutes on the Caucasus bee. He stated that it resembles the Carniolian type, gray, but more leaden in its ground color. It is very gentle; the Department of Agriculture has had some for two years and so far they require no bee veil nor smoke to handle them. The specimens were obtained from Tiflis, but great difficulty is experienced in getting queens. Mr. Benton stated that he soon expected to go to Tiflis and would try to get queens started for this country by a faster route.

-Mr. Heidemann exhibited specimens of a pretty little Capsid, *Sysinas lineatus*. One specimen was captured by Mr. Banks at Sea Cliff, N. Y.; the species has been hitherto known only from a specimen described by Distant from Mexico.

-The Secretary read the following note:

NOTES ON EULECANIUM FOLSOMI KING.

By T. D. A. COCKERELL.

This species was discovered by J. W. Folsom on pawpaw at Urbana, Ill., and was briefly published by Mr. King in the Canadian Entomologist for 1903, page 193. I was not quite sure of its distinctness from *E. lintneri*, and from the material seen I doubted the advisability of setting the thing forth as a new species. However, Mr. King, probably correctly, believed it to be distinct, and since it has now been published it will be advisable to present a fuller description. Scale about 4 mm. long, $3\frac{1}{2}$ broad and about $1\frac{1}{2}$ high; flat-

Scale about 4 mm. long, $3\frac{1}{2}$ broad and about $1\frac{1}{2}$ high; flattened, rather light brown, with narrow transverse blackish stripes, the whole obscured by a copious white frosting; side more or less reticulately wrinkled. A larger (egg-laying) specimen was about $5\frac{1}{2}$ mm. by $3\frac{1}{2}$ mm. Skin orange-brown, with large gland-pits; margin strongly chitinized; stigmatal spines in threes, one long and two short. Antennæ like those of *E. tarsale;* also resembling those of *E. kingii*, but joint 3 longer. Measurements in μ : Antennal joints: (1.) 24; (2.) 36; (3.) 102-105; (4.) 21; (5.) 21; (6.) 33-37. Anterior leg: femur + trochanter, 155; tibia, 112; tarsus, 76. Eggs white. The following species agree in having 6-jointed antennæ, with 6 very much shorter than 3, 2 longer than 4 or 5, and 4 and 5 equal or almost so: *nigrofasciatum*, *capreæ* (*cf.* Douglas), *rosæ* (on rose), *tarsale* (Mass., on *Cornus*) and *folsomi*. It will be observed that some of the characters of *folsomi* suggest affinity with *E. nigrofasciatum*.

—There being no further notes or papers Dr. Dyar spoke a few minutes on his recent trip to Florida and to the Northern United States and Canada. He stated that the season in Florida was very dry and the trip quite unproductive so far as mosquitoes were concerned. In the North very good results were obtained and larvæ of several of the early spring forms were being bred.

-Mr. Pratt stated that he was now breeding adults from Ceratopogon larvæ from Woodstock, Va.; these had passed the winter as larvæ.

—Some discussion followed on the absence of mosquito larvæ at Key West in the dry season, and also the effect the wholesale killing of mosquitoes would have on various algæ, bacteria, and other growths in the water.

JUNE 1, 1905.

The 197th regular meeting of the Society was held at the residence of Mr. J. D. Patten, 2209 R street, N.W., the President, Mr. Banks, in the chair and the following: Messrs. Ashmead, Benton, Banks, Gill, Hopkins, Marlatt, Patten, Simonds, Schwarz, Titus, and Uhler, members, present.

Mr. Titus, as a member of the committee to inventory the Society publications, presented the following report: Vol. I, 228 full sets; vol. II, 230; vol. III, 285; vol. IV, 292; vol. V, 314; vol. VI, 327; vol. VII, 334 copies of No. 1. The following copies of extras are also on hand: Vol. I, no. 1, 29, no. 3, 78, no. 4, 74; vol. II, no. 1, 15, no. 3, 85, no. 4, 63; vol. III, no. 3, 20, no. 3, 27, no. 4, 21, no. 5, 14; vol. IV, no. 2, 21, no. 3, 24, no. 4, 44; vol. V, no. 2, 8, no. 3, 8, no. 4, 11, (index vol. V, 69); vol. VI, no. 1, 12, no. 2, 8, no. 3, 19. There are also reported to be on hand 2,841 authors' extras of various papers. Upon motion of Mr. Marlatt the Society voted not to break sets of the publications below the 200 volumes.

-Mr. Ashmead exhibited some ants from Mr. Titus' collection from British Guiana and spoke a few minutes on the classification of the superfamily Formicoidea. He stated that while many writers had published articles on this great and complex group few had found, or at least had used, the really important and necessary characters. Among the authors who have written works of value he mentioned Mayr, Forel, and Emery. Dr. Ashmead has formed his classification on what he believes to be natural groups; of these groups he mentioned as examples the Cryptoceridæ, which are all fungus growers, the Myrmicidæ or harvesters, and the Dorylidæ or driver-ants.

—Dr. Ashmead also reported the receipt of many more Hymenoptera from the Philippine Islands through Father Stanton and Father Brown. Almost all of these were collected in the Observatory garden at Manila and represent many new species and several new genera. The number of species secured in so small an area gives some promise of what an enthusiastic and thorough collector should find in the remainder of the Islands.

-Mr. Schwarz exhibited the work of a leaf-rolling weevil (*Attelabus bipustulatus*) taken at Plummer's Island, Md. He stated that he wished to call especial attention to the excellent manner in which the rolls and leaf were preserved. This work had been done by Messrs. Pratt and Titus by putting the fresh green leaf into fine sand and slowly drying it by heat. There were five rolls on one leaf, the arrangement of the rolls giving the appearance of a flower.

In answer to queries on the subject Mr. Titus more fully explained the process of drying in sand and stated that there was much still to be learned about the preservation of colors; some colors could be preserved by this method while some shades of green will change much more rapidly than others. Much seemed to depend on the amount and intensity of the heat applied, the slower steadier heat accomplishing the work much better than swift heat. The finest quality of white sand should be used; this can be procured of dealers in bird supplies.

Who was first responsible for the method seemed to be in doubt, as Mr. Titus had used the method previous to his coming to Washington and had no idea where he first heard of it. Mr. Pratt had stated that he had used this plan for drying for several years.

Dr. Hopkins reported having secured a parasite from the egg of this beetle which Dr. Ashmead stated belonged to the genus Poropia in the Trichogrammidæ.

-Mr. Marlatt spoke of the occurrence this year of brood XIII of the seventeen-year cicada in Wisconsin and Northern Illinois. Dr. Uhler spoke a few moments on the specimens of this cicada in his collection that had been collected in the vicinity of Baltimore, and stated that in his collection were specimens of the brood of 1785. He called especial attention to the variability of the species.

-Mr. Marlatt made a few remarks on the introduction of insects by the importers of plants. He called attention to the present rapid distribution and introduction of new and rare plants from all over the world by the Bureau of Plant Industry, and stated that this was becoming more and more noticeably a means of distribution of injurious insects. Our common injurious insects are doubtless often sent abroad, and although at present all importations by this Bureau are inspected at Washington, still some insects have already been admitted. Pulvinaria psidii had been found some half-dozen times and Aspidiotus rossi from India several times on tropical and subtropical plants from the country just named. Mr. Titus stated that three times during the present year the puparia of the Hessian fly has been found in wheat straw used in packing shipments of plants to this country from Tunis, Malta, and Algeria. With these lots of straw had also come several other wheat insects. Mr. Schwarz stated that the first commission

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for investigating the subject of introduction of insects was Messrs. LeConte, Horn, and Riley at Philadelphia in 1876. Many things of interest were found in packing-straw used by the various exhibitors. Dr. Ashmead reported that a peculiar sawfly belonging apparently to the genus Cimbex was recently bred from an orchid received at London from Ceylon.

-Mr. Marlatt spoke a few minutes on his recent trip to Cuba, Florida, and Porto Rico. He said that the value to one studying the insects injuring any group of plants, by a trip through the region where those plants are cultivated, can scarcely be estimated.

The following papers by members of the Society have been accepted by the Publication Committee during the summer:

DESCRIPTIONS OF SOME NEW MITES.

BY NATHAN BANKS.

In my "Treatise on the Acarina or Mites,"¹ several mites, mostly of genera previously unknown in this country, were referred to, and figures were given of them. I had not then the time for their descriptions, and these are now furnished, together with those of a few other interesting forms that have recently come to my attention. References are given to those figured in the "Treatise." One new genus and twenty new species are added to the fauna of the United States.

Neophyllobius americanus n. sp.

Pale yellowish, body about once and one-third longer than wide. Legs large and long, and arranged in a radiate manner, the creature looking like a minute Phalangid, since leg iv is about as near to tip of body as leg i is to front of body. Above with a submedian row of six stout, simple bristles, and from anterior margin to humeral region an irregular submarginal row of six bristles; two more bristles each side at tip. Legs very long and slender as is usual in the genus. When seen under high power they are minutely, transversely annulate. The tarsal joint is distinctly swollen before the middle. All legs with a few long stout bristles, one from the patellar joint is especially long and prominent; no clavate bristles on tarsi or elsewhere. Last joint of palpus reclinate, much smaller than other joints and slender, with two long bristles near base and about

¹ Proc. U. S. Nat. Mus., XXVIII, No. 1382, pp. 1-114, 1904.

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three shorter ones on tip. Venter with a few long bristles on sides and shorter ones on the disc; the genital opening, a transverse slit, not far behind mouth parts; anus at apex of body.

Body length .12 mm.

Three specimens on oak leaves at Orchard, Mobile Co., Alabama. Figured on page 28 of "Treatise on Acarina."

Gekobia texana n. sp.

Body over once and a half as long as broad, constricted rather beyond middle, rounded in front; beak very small, and not projecting far in front of body. Palpus rather slender, last joint acute, next to last showing a hairy elevation on the side; a long clavate hair each side at base of beak above. Dorsum with many capitate hairs, all of one height; four longer, simple hairs on posterior margin near tip; hairs on venter and legs are simple. Legs slender, in two widely separate groups; all subequal in size, the hind pair scarcely reaching behind tip of abdomen. Mandibles slender, with a triangular apophysis near tip. Tarsi ending in two claws.

Length 1.2 mm.

Several specimens from Austin, Texas, May; taken from a lizard, *Sceloporus floridanus*. I have figured this species on page 22 of my "Treatise on Acarina." It differs much from the other species of the genus in general appearance, but the essential characters, especially the nature of the mandibles, are the same.

Cheyletus ferox n. sp.

Body about twice as long as broad, tapering each way; much narrowed just behind hind coxæ, from thence the posterior sides are parallel, apex truncate. Beak rather short, acute; palpi very heavy, first joint with two simple hairs above, second joint with one above; the papilla bears a comb and two pectinate bristles; at the base of the claw there is a stout tooth. Cephalothorax with a simple bristle in each posterior corner; abdomen with an irregular submarginal row of about eight simple bristles, one on each shoulder, and three each side at tip. Legs quite long and slender; provided with simple bristles; leg i more slender but about as long as leg iv; penultimate joint of leg i is very slender, terminated by two long bristles, and two others near base; the last joint of leg i is short and slender, and furnished with two_fine claws.

Length .45 mm.

Specimens from Marblehead, Mass. (M. J. J. Gregory) found feeding on *Tyroglyphus* among cabbage seed. This species is figured on p. 18 of my "Treatise" as *C. audax*, a preoccupied name.

Cheyletus pyriformis n. sp.

Body nearly twice as long as broad, broadest at shoulders, broadly rounded at tip. Cephalothorax with a pair of feathered bristles in front, and a pair of broad scales, three similar scales on each side, and a long feathered bristle near each hind angle, four scales forming a square in middle. On dorsum of abdomen are four rows each of three broad scales, and four rather more slender ones at the tip. The basal joints of the legs have each one or two scales and one or two feathered bristles; the bristles near the tips of legs are more simple. The palpus is moderately heavy; the femur is almost angularly swollen on outer side, with a long plumose bristle above on middle; the next joint is fully twice as broad as long. with a long plumose hair near outer edge; the third joint has a simple hair on inner side; the fourth ends in a large claw, with a row of hairs on inner side; the fifth, or papilla, bears two long curved claws, and a long comb below, with a simple bristle arising near base of comb. The beak has a pair of long plumose bristles above. Leg i ends in two long bristles, the longer is twice as long as the tarsus.

Length .35 mm.

Several specimens taken under the grape-vine scale, Aspidiotus uvæ, from material collected by Prof. Webster at Lafayette, Indiana, in December. Figured on page 17 of my "Treatise."

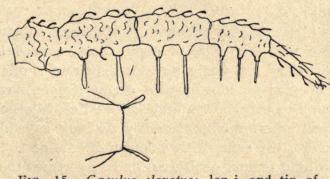


FIG. 15.—*Cæculus clavatus:* leg i, and tip of cephalothorax.

Sarcopterus longipilis n. sp.

Body subquadrate, shoulders not prominent. Dorsum with a broad shield, with sub-parallel sides, and broadly rounded behind, not reaching tip. This shield has each side in front an oblique row of three bristles, and a sub-lateral pair just before, and one just behind the middle. Dorsum outside of shield striate; two long bristles near each shoulder, one near tip each side, and a longer one in front near base of beak. Legs short and robust; i and ii with a few simple bristles, and ending in two claws; leg iii ends in four very long bristles, three of them about as long as the body; leg iv ends in five long bristles, four of them about as long as body. Mandibles with the usual row of serrate teeth above. Length .3 mm. Specimens taken from a tumor under the wing of a crossbill at Washington, D. C., by Dr. A. K. Fisher. Readily separated from the European species by the much longer bristles on legs iii and iv. The adult and larvæ have been figured in my "Treatise on Mites," p. 20. *Cæculus clavatus* n. sp.

Yellow-brown, legs dark brown, tarsi iii and iv black. Body with a median shield on front part, the posterior shields less distinct. The hard parts are roughened, and behind are the clavate hairs as in *C. americanus;* in front the cephalothorax has a clavate hair each side, which is longer than the clavate hair on trochaner i. Legs of the size and roughened as in *C. americanus,* all with short curved white clavate hairs, mostly in rows; on leg i, however, there are spines on inner side of femur, tibia, and metatarsus, each upon an elevation; two on femur with clavate tips, two on tibia barely pointed at tips, and three on metatarsus with acute tips; on the outer side below are three similar spines; one on the tibia, and two on the metatarsus. On leg ii on the outer side below are also three of these spines; one on tibia, and two on metatarsus

Length 1. mm.

Taken among dead leaves, near Washington, D. C. Differs from C. *americanus* in number of spines on leg i, and in that several have clavate tips.

Oribata angustipes n. sp.

Body dark red-brown, legs yellowish. Abdomen subglobose, above with a submedian row each side of eight short, curved bristles, seen under high power these are finely serrate; a pair of similar bristles on base of cephalothorax; pseudostigmatic organ simple, very long and fine, its tip wavy; two pairs of simple bristles on cephalothorax in front. Legs very slender; anterior femora nearly as long as width of body; all with a few hairs, the tibiæ with a longer bristle at tip, and a very long one on each hind femur; genital and anal apertures touching. One claw to each tarsus.

Length .6 mm.

Taken near Mt. Vernon, Virginia, among dead leaves. It is near *O. nodipes* Koch, but has longer bristles on femur iv, the tibia iv is longer, and the hairs on abdomen are thicker. I have figured it on page 69 of my "Treatise on Acarina" under the name of *O. gracilipes*, which name I now find is preoccupied.

Liponyssus americanus n. sp.

Very pale yellowish. Body rather elliptical, but truncate at tip, and slightly pointed in front. Surface minutely and obliquely striate. Dorsum with a broad elongate shield, broadest before middle near shoulders, tapering behind to narrowly truncate tip; with about 60 to 70 stout bristles above, those near tip longer than others; a submedian and a marginal row of these on the shield. Legs quite short, with many short hairs and bristles. Anal shield elongate, broad and broadly rounded in front, tapering and pointed behind, a pair of short bristles in front and three larger ones behind. Sternal shield between coxæ ii broad, sub-quadrangular, straight behind, convex in front, a bristle near each corner.

Length .45 mm.

Several specimens taken from the arm of a person in Washington, D. C. This species is figured on page 53 of the "Treatise."

Hæmagamasus americanus n. sp.

Pale reddish, or yellowish. Body elongate oval; dorsum with many short stiff hairs. Legs moderately slender, tarsi long and slender, tarsus iv but little longer than i; all legs thickly strewn with short, stiff spinelike hairs or bristles. Leg ii (9) very slightly thicker than other legs. Anal shield elongate oval, rounded behind, somewhat pointed in front, fully three times as long as anal opening, a pair of bristles near front, one each side of the aperture, and three in a curved row behind. Peritreme very long and but slightly curved.

Length .9 mm.

In nest of a mouse (*Peromyscus eremicus*), in the Santa Rita Mts., Arizona (Hubbard). It is figured on page 54 of the "Treatise."

Macrocheles carolinensis n. sp.

Body reddish, legs yellowish; soft parts white. Body one and twothirds as long as broad, much narrowed in front, broadly rounded behind. Dorsum smooth, without hairs, nor any on the hind margin. Leg i slender; leg ii noticeably thicker even in female, in the male the lower side of femur ii has two or three rows of several rounded tubercles; at tip of patella below is a sharp projection. The female has the anal plate very broad near base, narrower at base and narrowly rounded behind. The legs bear a few simple hairs.

Length 1.6 mm.

Several specimens from Black Mts., N. Carolina (W. Beutenmüller). I have figured the species on pages 59 and 60 of my "Treatise on Acarina."

Celænopsis americana n. sp.

Body one and a half as long as broad, narrowed in front, broadly rounded behind. Above and below smooth and shining; yellowish. Dorsum with many short fine hairs, two longer hairs each side on posterior margin near tip; two pairs above these on dorsum, one near middle, the other toward tip; one long hair on each shoulder; on the anterior part of dorsum above second legs is an oblique dark mark. Venter with a groove each side reaching from stigmata obliquely backward and uniting behind anal opening and just before tip. The genital area of female is between the second and third pairs of legs; it is longer than broad, pointed on each side, rounded behind, almost truncate in front, and contains a diamond-shaped opening. There is a transverse ridge between coxæ ii. Leg i slender, ending in a number of stiff hairs; other legs larger and subequal in size. Palpi rather short.

Length .75 mm.

Taken from an Histerid beetle (*Hololepta* sp.) at Washington, D. C., and Indianapolis, Indiana (Blatchley). This species is figured on page 61 of my "Treatise on Acarina."

Seius quadripilis n. sp.

Pale yellowish. Body broadly oval. Dorsum smooth, with four long bristles, one on each shoulder, and a submedian pair behind, also a pair of much smaller bristles on the anterior margin over the mouthparts. Each long bristle about one-third the length of the body. Legs short and well forward, with only a few hairs, tarsi very slender. Peritreme long, reaching forward in front of coxæ ii. Sternal shield in male very broad, in fact as broad as long, and united behind to the large ventral shield; in the female there is a quadrate genital shield, about as broad as the sternal, and just behind it is the large subtriangular anal shield, also as broad as sternal shield. Behind coxa iv there are on each side two elongate metapodia.

Length .4 mm.

On orange leaves, Eustis, Florida (Swingle). It is figured on page 58 of the "Treatise."

Lælaps mexicanus n. sp.

Pale yellowish. Body elliptical, a little narrowed in front, barely tapering behind. Dorsum smooth, with about sixty stout short bristles, rather broader at tip than on base, and serrate on the apical half of one side. These bristles are arranged in about six longitudinal rows; the two terminal bristles are longer than the others. The legs a re quite short leg iv about as long as the body, the oth ers shorter, all with short, simple hairs. Peritreme long and slender. Ventral plate of female broken, only at coxæ iv. On the anal plate are three bristles each side of the anus, a pair behind, and a median one at tip.

Length .5 mm.

From Guanajuato, Mexico (Dugès); with some Coccid material; 12 Aug., 1889. This species is figured on page 58 of the "Treatise."



Banks, Nathan. 1905. "Descriptions of some new mites." *Proceedings of the Entomological Society of Washington* 7, 133–142.

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