Crocigrapha Normani Grote. Quercus.

Xylomiges confusa Hübn. Quercus.

Scopelosoma Moffatiana Grote. Hamamelis.

Litoprosopus futilis G. & R. Sabal palmetto (Lec., Chapman).

Marasmalus ventilator Grote. Rhus typhina.

" histrio Grote. Rhus.

Deva purpurigera Walk. Thalictrum cornutum.

Plusia Putnami Grote. Poa, Agrostis, etc.

Plusia monodon Grote. Liatris, Helianthus.

Pyrrhia exprimens Walk. Rhus., Robinia.

Catocala relicta Walk. Betula, Populus.

- " Briseis Edw. Salix.
- " habilis Gr. Juglans.

Panopoda carneicosta Guen. Quercus.

" rufimargo Hübn. Quercus, Lilia.

Homoptera minerea Guen. Salix.

TEN NEW SPECIES OF ORTHOPTERA FROM NEBRASKA—NOTES ON HABITS, WING VARIATION, ETC.

BY LAWRENCE BRUNER, LINCOLN, NEBRASKA.

A trifle more than two years ago the writer first entertained the idea of preparing a synopsis of the Orthoptera of Nebraska, with the intention of publishing it as a special bulletin from the Agricultural Experiment Station. With that end in view, work was immediately begun; and in the course of a few months the greater portion of the manuscript was ready for the printer. At this time other matters that were considered of more immediate importance came up at the Station, and that of the Orthoptera was laid aside. It has now been lying nearly two years.

As the result of special collecting and study on the order for the past eighteen years within the State, my collection contains 241 species that have been taken within its boundary. Among these there are about two dozen species that appear to be new to the science of entomology. From among these apparently new things, the following are selected for publication at this time:

GRYLLIDÆ.

Cycloptilus borealis n. sp.—Head and pronotum of both sexes, together with the two basal abdominal segments of the female, light mahogany brown above; abdomen dark brown inclining to black on the dorsum which is more or less densely covered with silvery grey scales, giving the insect a grizzled appearance. Tibiæ and apical portion of the femora indistinctly fasciate with brown. Underside and basal portion of the legs pale yellowish.

Moderately robust, fusiform; the middle pair of legs rather small; posterior femora not very much inflated. Anal cerci of the female a little more than half as long as the body, quite stout and somewhat hairy; those of the male shorter and slenderer; those of the female directed backward, those of the male considerably divergent.

Length of body, f and f, 7.5-8 mm.; of pronotum, f, 2.15 mm.; f, 1.85 mm.; of antennæ, f and f, about 10 mm.; of hind femora, f, 3.5 mm.; f, 4 mm.; of anal cerci, f, 3 mm.; f, 4.1 mm.; of ovipositor, 4 mm.

This active little cricket was first taken by me on the 10th of August, 1888, at Valentine, near the Niobrara river. It was found among dead grass upon sandy soil on a south hill-slope. It was again met with on the margins of the large salt basin west of Lincoln on the 15th of the following month. These latter specimens were under boards lying upon sandy soil. Judging from the fact that all the specimens thus far taken have been found upon sandy soil, it will be safe to call it a frequenter of sand districts, where it may be looked for under boards, loose stones, sticks and loose debris of all kinds during daytime.

Tow other representatives of the genus have been described from North American localities, i. e., Cycloptilus squamosus Scudder, a Texan species, and Cycl. Americanus Saussure, a Cuban species.

LOCUSTIDÆ.

Ceuthophilus pallescens n. sp.—This wingless cricket is very similar in appearance to C. pallidus Thos., but differs from that species in its markings and in the number and arrangement of the femoral and tibial spines. In size it is similar to C. maculatus, than which it is slightly less arched.

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A moderately long legged species in which the spines are arranged as follows: Anterior femora with two spines beneath internally; the middle, with about four pairs and an outer apical one; posterior femora with both the inner and outer carinæ of the lower edge very thickly set with minute teeth-like spines, the inner row doubled near the middle. Posterior tibiæ furnished with five spines on each edge, somewhat alternately arranged and with the intermediate spaces filled with teeth-like shorter ones; the lower edge is also supplied with three sub-apical and two apical spines only a little less prominent than those above. Middle and anterior tibiæ with three pairs of spines each on the under side. Antennæ moderately long. Eyes of medium size, pyriform.

General color very pale straw color. The middle and hind thoracic segments, together with the first abdominal, marked above with a narrow transverse black patch each. Through these there is drawn a narrow dorsal line that severs them into lateral halves. Eyes shining black. Spines of legs tipped with brown. In addition to the usual spines this insect is characterized by the presence of numerous smaller, almost microscopical spines that are scattered over the general surface of the femora and tibiæ. These latter are entirely brown.

Length of body, Ω , 19 mm.; of antennæ, 30 mm.; of hind femora, 12.5 mm.; of hind tibiæ, 14 mm.; of ovipositor, 12.25 mm.

Described from one female and one immature male.

Habitat.—Dawes and Sioux counties in northwestern Nebraska. The female specimen was taken in a shallow well 17 miles north of Harrison. The male was found under a timber at the tunnel on the line of the Burlington & Missouri R. R., south of Crawford, in Dawes Co.

Udeopsylla compacta n. sp.—About the size of Daihinia* brevipes Hald., to which it bears a very striking resemblance; but is darker coloured than that insect, and at once distinguishable from it in having the tarsi of anterior and posterior legs four-jointed instead of only three-jointed. The posterior femora of this insect also lack the heavy spines that are so characteristic of the other.

Legs short and heavy, the posterior femora in the male very similar to those of the female, very minutely spined below; the posterior tibise not.



^{*}The genus Daihinia is based on the abnormal number of tarsal joints in the anterior and posterior feet, where there are three instead of four. Haldemann's type was not an unique in that respect. I have fully a dozen specimens all of the typical form.

bowed, strongly spined above and below. Antennæ heavy, about as long as the body.

Length of body, 3 and \mathcal{Q} , 22 mm.; of antennæ, about 24 mm.; of posterior femora, 3 and \mathcal{Q} , 12.5-14 mm.; of hind tibiæ, 3 and \mathcal{Q} , 16 mm.

This hitherto undescribed cricket is a native of the sandy districts of Nebraska, Dakota and Kansas; and like the *Daihinia brevipes* Hald., to which it has been compared, also burrows into the sand. So closely do these two insects resemble each other at a cursory glance that I did not distinguish their difference until about to label them for cabinet specimens. It is to be distinguished from *Udeopsylla robusta* and *nigra* by the greater size of its pronotum, also by its less glossy appearance. In colour it is a pitch-brown above and paler beneath.

There is still another species of these large, wingless "sand crickets" to be occasionally met with here in the West. It is the insect that I have called *Udeopsylla gigantea*.* As that characterization was very brief, the following description is herewith presented:—

Very dark brown, almost black, with an interrupted dorsal line and a few mottlings of a lighter shade. The posterior femora are very heavy and clumsy in the male, reaching more than half their length beyond the extremity of the body, furnished below with a row of nine short strong spines; posterior tibiæ three-sided, more strongly bowed than usual, and furnished above with two rows each of four spines which alternate, and between these smaller ones; the lower side also spined on apical half. Legs of female less inflated and not so strongly spined.

Length of body, \mathcal{J} , 30 mm.; \mathcal{Q} , 26 mm.; of antennæ, \mathcal{J} ar 1 \mathcal{Q} , about 30 mm.; of hind femora, \mathcal{J} , 24.5 mm., \mathcal{Q} , 17 mm.; of hind tibiæ, \mathcal{J} , 25 mm., \mathcal{Q} , 19 mm.

This insect appears to be much scarcer than either brevipes, robusta, nigra or compacta, and is confined in its distribution to a much smaller area. It also burrows in the ground and lives solitary. It has been seen by me but once within the State, viz., in the vicinity of Lincoln, near the large salt basin. It is also to be met with in Kansas and the Indian territory—the pair upon which this description is based having been taken in Kansas.



^{*}Bulletin of the Washburn Laboratory of Natural History, Vol. I., p. 127.

Thus far comparatively little attention has been paid to the conocephalids among the Locustidæ of North America. Especially is this true with reference to the genera *Xiphidium* and *Orchelimum*, both of which are rich in species here in Nebraska as well as in almost every other State of the Union. When I undertook to work over the specimens of these insects in my collection, it was but a very short time before the discovery was made of a number of new things. Some of the most striking of these are now described.

(To be continued.)

NOTES.

PHRAGMATOBIA RUBRICOSA HARRIS.

There is no doubt but that our specimens which go by the above name are referable to the European P. fuliginosa Linn.

Prof. Smith has noticed their superficial resemblance* which amounts to identity. I have compared examples from France with a series from New York and I can find no difference in ornamentation. Neither do they differ structurally. The venation is identical.† The genitalia of the male also are the same within the limits of variation of the species, which appear to be wide. In the specimen from Europe examined the supraanal plate is elongate-triangular, produced to a point, concave below, slightly curved down and bulging a little laterally at the base. pieces are very long and narrow, gradually tapering and curved inwards, They are strongly concave on the inside, the sides being almost curved over, with a short, sharp projection above and below at a little more than half their length. Of rubricosa three specimens were examined. two the anal plate was aborted, being represented only by a short, square piece; in the third it was present, of the same shape as in the specimen of fuliginosa, but a little narrower. The side pieces also varied. first and third specimens their edges were so much incurved that the two points came together and were united in one piece; in the other specimen they were as in fuliginosa, perhaps even a little less incurved.

From the above it will be seen that *rubricosa* cannot stand as a distinct species.

HARRISON G. DYAR, New York.

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^{*}CAN. ENT., XXII., 120.

†My specimens differ from Prof. Smith's figure on page 235 (fig. 8) in that the second subcostal venule branches off before the fifth, while in the figure the reverse is the case. This is so in both European and American examples.

Arthemis, the yellow female Turnus alone is found. Along the southern boundary the black one appears; here and there a single individual, and having once got a foothold the black form gradually gains the mastery, and in the south alone rules. There are no yellow females of Turnus there.

It seems to me not improbable that Arthemis, of all its group, is nearest the parent species. Every character, from egg to imago, shows that all these species are very closely related, and apparently not more than one remove from a common form. Arthemis being so dominant, occupying the north, whence most species are supposed to have come, it may even be identical with that form. Having once given rise to a black co-form, this last has gone southward and become modified in shape of imago and color, and in the southwest is itself replaced by its own variety Arizonensis.

That two distinct species wherever they come in contact can cross freely, and originate a permanent, intermediate and hybrid race, I do not believe. And, in the present case, the so called hybrid race is not intermediate, but entirely on the side of one of the supposed parents, to wit, *Arthemis*, and a long way from the other, to wit, *Ursula*. Analogy shows us that it is a case of dimorphism, not hybridism.

TEN NEW SPECIES OF ORTHOPTERA FROM NEBRASKA—NOTES ON HABITS, WING VARIATION, ETC.

BY LAWRENCE BRUNER, LINCOLN, NEBRASKA.

(Continued from page 40.)

Xiphidium modestum, n. sp.—Related to X. saltans Scudd. and X. strictum Scudd., from both of which species it differs in its smaller size, slenderer form and in colour.

Vertex or cone of the head not quite so broad and shorter than in saltans, its closest ally; pronotum with the sides less bulging, and not reaching as low as in that species. Tegmina very short, only about one-third as long as the abdomen, with the shrilling organ of the male narrower and a little further removed from the base of the wing than in its allies. Posterior femora quite slender, of moderate length. Tip of male abdomen but slightly enlarged, the cerci elongate, tapering, a little curved outward and furnished with a rather long sub-basal tooth. Ovi-

positor about as long as the body, quite slender and tapering, with a gentle upward curve.

Dull testaceous, sometimes with a very faint greenish tinge, the usual markings of the genus deep chocolate-brown and well defined.

Length of body, \$\frac{1}{3}\$, 10.5 mm., \$\frac{1}{2}\$, 11 mm.; of antennæ, \$\frac{1}{3}\$, 30 mm., \$\frac{1}{2}\$, 40 mm; of tegmina, \$\frac{1}{3}\$, 3.25 mm., \$\frac{1}{2}\$, 2.75 mm; of hind femora, \$\frac{1}{3}\$, 9 mm., \$\frac{1}{2}\$, 10 mm; of ovipositor, 11.75 mm.

This modestly coloured little grasshopper is very plentiful upon uplands throughout eastern and middle Nebraska, where it is to be met with among the short grasses in company with saltans and strictum. While long-winged f rms of both of its near allies are quite common, no specimen of modestum has been taken to my knowledge, save of the typical form. This insect also occurs in middle Kansas, Western Iowa and South Dakota.

Xiphidium attenuatum Scudd.—Generally dull testaceous with the usual brown markings of the genus, in some specimens tinged with greenish. Tegmina and wings either abbreviated or fully developed—when the former, about reaching, and when the latter, considerably surpassing the tip of the abdomen in both sexes. Antennæ very long and slender. Ovipositor long, slender, straight or but very gently curved, the apex very acuminate.

Apex between the eyes rather narrow, with the sides abrupt and sharp, the cone but little rounded, not expanding, obliquely docked. Face nearly straight, oblique as in X. strictum to which it bears the closest general resemblance. Head and pronotum a little shorter than in that species. Abdomen tapering but slightly posteriorly, with the base of the ovipositor only a trifle enlarged. Posterior femora heavy on their basal two-fifths, slender beyond; the tibiæ also quite slender. Tip of male abdomen a little enlarged, the cerci long, broad and but gently tapering apically, the basal tooth minute, slender.

Length of body, £, 12 mm., \mathcal{Q} , 15 mm; of antennæ, £, 55 mm., \mathcal{Q} , 60 mm.; of pronotum, £, 2.60 mm., \mathcal{Q} , 3.3 mm.; of tegmina, short form, £, 8.5 mm., \mathcal{Q} , 9 mm.; of long form, £ and \mathcal{Q} , 19 mm.; of hind femora, £, 12 mm., \mathcal{Q} , 14 mm; of ovipositor, 22–29 mm.

This beautiful species is quite common at West Point, Nebraska, along the lakes and old river beds of the Elkhorn river, where it is found among a rank grass growing near the water's edge and on very damp meadows. The females insert their slender ovipositors and lay their eggs between the blades and stem. It is very active in its movements, and when disturbed easily eludes pursuit by creeping down among the dense mass of grass.

Xiphidium nigropleurum, n. sp.—In its general structure very similar to the preceding, but with a much shorter ovipositor. Bright transparent green, with eyes, stripe on the occiput and the sides of the abdomen shining black.

This meadow grasshopper is a moderately robust species, with narrow vertex, short occiput, large globular eyes, broad pronotum and strongly veined tegmina which in the male are furnished with a large shrilling organ. The tegmina are usually abbreviated, reaching only four-fifths the length of the abdomen; but an occasional specimen is to be found in which the wings are fully developed and then reach to the extremity of the ovipositor in the females. Ovipositor straight, quite broad and heavy, about as long as the body. Male cerci of medium length, rather stout, tapering gently towards the apex, and with a strong sub-basal tooth. Antennæ long and slender.

General colour bright transparent-green, with the markings on the occiput, pronotum and abdomen bordered with yellowish-white which contrasts strongly with the other colours, which character taken together with the vitreous or glassy appearance of the entire surface, render this insect quite conspicuous among the members of the genus.

Length of body, f, 13.5 mm., Q, 15 mm.; of antennæ about, f, 43 mm., Q, 50 mm.; of pronotum f, 3 mm., Q, 36 mm.; of tegmina f, 9 mm., Q, 8 mm, short, 19 mm., long; of hind femora, f, 13 mm., Q, 15 mm.

This beautiful insect, which is our most active species of the genus, is quite plentiful among the rank vegetation on low, moist grounds, and is especially common in wet places where the "cut grass" (Leesia oryzoides) grows. The supposition is that this grass offers a better place than usual for the deposition of its eggs which, like those of the "lance-tailed" meadow hopper, are deposited between the leaves and stems of grasses. Grape vines and other creeping plants which form matted clusters that afford shelter from the noonday sun and the bright light of day are

favorite haunts for this and other species of our nocturnal grasshoppers and a few of the arboreal crickets.

The "black-sided grasshopper" is found throughout the eastern half of the State along all of the streams, the banks of which are lined with shrubs and trees. Whether or not it is to be found beyond the region of "forests," I am not prepared to say at present. In a collecting trip taken during the summer and fall of 1888, for the purpose of ascertaining the approximate range of various species of our Nebraska orthoptera, this species was not seen west of Antelope County, on the upper Elkhorn river.

While speaking of the members of the genera Xiphidium and Orchelimum it might be well to record a few notes relative to their variation in wing-length and habits. Undoubtedly everyone who has had occasion to examine any of our common species of these grasshoppers, has noticed that wing-length was a character not to be relied upon as specific or even varietal difference. A very little examination will at once suffice to show this. So far I have long and short winged specimens of the following species in my collection: - Xiphidium brevipenne, ensiferum, saltans, strictum, lanceolatum and nigropleurum. Of X fasciatum I have only long-winged, and of nemorale and ictum I have only those with short wings. X. gossypii is not definitely known to me, and therefore it is not possible for me to venture any remarks upon its wing characters. Many of these insects are quite active fliers and are often attracted after night to bright lights. All of the long-winged forms mentioned above have been taken by me in such locations. That they often fly to great distances is evident, from the fact that both the lanceolatum and nigropleurum, described in this paper, have been captured at the electric lights in cities at points upwards of a mile from their natural haunts.

The various species of *Orchelimum* also vary somewhat in wing-length; but in no case, so far as I am aware, is the variation so great as in the insects alluded to above. These too are attracted by lights; and it is often the case that the best things are captured here.

Among our grasshoppers of the genus *Orchelimum* I find several forms that do not appear to have been characterized. Of these two of the most interesting will be described.

(To be continued.)

specimens of very interesting species of Lepidoptera, exhibited by Messrs. Fletcher and Lyman, the meeting adjourned.

March 11, 1891.—The 161st meeting of the Branch was held at 74 McTavish St., Mr. H. H. Lyman, President, in the chair. There was a fair attendance of members, and the Rev. T. W. Fyles, of South Quebec, was also present. Mr. Winn read an interesting paper entitled "Notes on Some Methods of Collecting Insects," giving his experience in this connection and in the breeding of larvæ. Mr. Lyman read a "Report on a Collection of Lepidoptera from the North of Lake Huron," made by Dr. Robert Bell, F. R. S. C., Assistant Director of the Geological Survey. The collection contained fifty-four species, and the report will be published in the Annual Report of the Geological Survey. Mr. Hausen exhibited the proofs of his forthcoming plate in the Canadian Record of Science, and a number of interesting specimens were exhibited by the members.

TEN NEW SPECIES OF ORTHOPTERA FROM NEBRASKA—NOTES ON HABITS, WING VARIATION, ETC.

BY LAWRENCE BRUNER, LINCOLN, NEBRASKA.

(Continued from page 59.)

Orchelimum gracile, n sp.—A slenderer and somewhat smaller insect than either O. vulgare or O. concinnum, from both of which it differs in the form of its pronotum and of the ovipositor. The tubercle of the vertex is short, broad, and has the apex rounded. The tegmina and wings are of moderate length, very delicate in texture, and in the male furnished with an inconspicuous musical apparatus very similar in proportions to that of agile and longipennis. Legs slender, the posterior femora not quite reaching the tips of the closed tegmina. Terminal segment of the male abdomen quite broad; the anal cerci stout and acuminate, with the internal tooth minute; subgenital plate broad and long, reaching beyond the tips of the cerci. The ovipositor unusually long, broad, nearly straight and fine pointed.

In colour it is pale transparent-green with a broad reddish-brown band upon the head and pronotum, continuous from the tip of the vertex to the posterior transverse indentation of the pronotum, somewhat paler in the middle; upon the latter, rather broadly bordered by yellowish-white throughout. Face and mouth parts together with the genital arma-

ture of the male ochreous; ovipositor light reddish brown. Tarsi and sometimes also the tibiæ a trifle infuscated.

Length of body, \mathcal{J} , 16 mm., \mathcal{P} , 17.5 mm.; of antennæ, \mathcal{J} and \mathcal{P} , about 50 mm.; of pronotum, \mathcal{J} , 3.8 mm., \mathcal{P} , 4 mm.; of tegmina, \mathcal{J} , 19 mm., \mathcal{P} , 20 mm.; of hind femora, \mathcal{J} , 14 mm., \mathcal{P} , 15 mm.; of ovipositor, 11-12 mm.

This particular species is quite common in the vicinity of West Point, Nebraska, about the margins of ponds and along the edges of streams where it frequents rank growing grasses and sedges. I have also taken it several times at the electric lights in the city of Lincoln, while it was observed to be very common in the sand hill region of Wheeler, Garfield and Holt counties. It has never been found by me outside of the State, nor has it been sent to me from beyond our boundary.

Its song is very low and more rapid than that of O. glaberrimum and O. vulgare.

The uncommonly long ovipositor of this insect would indicate a slight variation from the normal egg-laying habits of the other members of the genus; but just what this variation is has not been ascertained.

Orchelimum gladiator, n sp.—This second species of meadow grass-hopper of the genus Orchelimum which is now characterized, appears to be quite distinct from all other described North American forms. Its chief distinguishing character is its very broad, nearly straight ovipositor of more than the ordinary length. In its general structure it resembles the more robust species like O. glaberrimum and O. concinnum. It differs from these, however, in having shorter legs and antennæ. The posterior femora are rather slender; the cone of the vertex is short and obtuse, with the extreme tip shallowly sulcate; the eyes are rather large but not prominent, the hind wings are little if any longer than the tegmina, which do not quite reach the tip of the ovipositor.

Colour, pale transparent grass-green throughout, save the usual markings upon the occiput and disk of the pronotum which are dark brown, on the latter composed of two well defined narrow, slightly diverging lines. The dorsal portion is also tinged with brown. Antennæ rufous; feet and extreme tip of the ovipositor tinged with rufous.

Length of body, \mathcal{Q} , 18 mm.; of antennæ, 35 mm.; of pronotum, 4.75 mm.; of tegmina and wings, 19 mm.; of posterior femora, 15.5 mm.; of ovipositor, 10 mm.; greatest width of ovipositor, 1.82 mm.

Described from two female specimens taken upon the flowers of one

of the golden rods (Solidago rigida) at West Point, Nebraska, during the latter part of the month of September, 1886. Male not known to me.

The species is evidently quite local in its distribution; and perhaps also quite rare. A better knowledge of the habits of our North American Orthoptera may also aid in finding them.

There is a single female specimen of a closely allied, though distinct species, in my collection, which was taken in the District of Columbia. This latter form is also undescribed, and can be known temporarily as Orchelimum minor, from its rather small size and short wings. It is slenderer and in every way smaller than O. gladiator. In colour it is rather less green than usual, and has the brown markings very decided. Its ovipositor which resembles that of gladiator is also brown instead of green.

I have still other undescribed *Orchelimums* in my cabinet, but must postpone their description for a future paper. If others who have specimens of these insects in their collections which do not appear to have been described, and they do not care to work them over themselves, it would be deemed a favour if they were sent to the writer, who would then endeavour to prepare a paper on the two genera which would include all of the known as well as any new forms that might still remain undescribed.

In addition to several described species of *Conocephalus*, we have here in Nebraska a heavier bodied and shorter winged form than the *C. ensiger* Harris, which appears to be new.

Conocephalus nebrascensis, n sp.—Most closely related to C. ensiger. Cone of the vertex entirely black beneath; ovipositor long and lance-like.

Cone of the vertex rather slender, its sides parallel from a little in advance of the eyes to its middle, from which point it tapers to the rounded apex; the basal tooth quite prominent. Eyes large and prominent, usually dark coloured. Pronotum large and broad, the shoulders well defined, the posterior extremity broadly rounded, the deflected lobes or "side laps" spreading below; the entire surface rather shallowly punctate, glabrous. Tegmina coriaceous, with large coarse tympanum in the male—very similar to that of C. crepitans and C. robustus Scudd. Posterior femora moderately slender, short, and with both the inner and outer lower carinæ provided with spines. Anal cerci stout, with strong internal hooks; sub-genital plate quite large and broad; the projecting "digits" widely separated and small. Ovipositor long and slender,

lanceolate, a little curved upwards and extending about one-fourth of an inch beyond the closed tegmina.

General colour bright grass-green, with yellowish lines along the lateral carinæ of the pronotum. Posterior tibiæ together with all the feet more or less infuscated. Antennæ testaceous or rufous.

Length of body, \mathcal{Z} , 28 mm., \mathcal{P} , 32 mm.; of cone, \mathcal{Z} and \mathcal{P} , 3.5 mm.; of pronotum, \mathcal{Z} and \mathcal{P} , 8 mm.; of tegmina, \mathcal{Z} , 36 mm., \mathcal{P} 40 mm.; of hind femora, \mathcal{Z} , 20 mm., \mathcal{P} , 23 mm.; of ovipositor, 30 mm.

Habitat.—Found throughout the eastern part of the State, where it occurs most frequently in the natural groves growing along our principal streams. I have also seen specimens of it that were taken in Iowa and Illinois, and have specimens from both of these last named States in my collection.

Amblycorypha Scudderæ, n sp.—Very similar to, but smaller than the A. oblongifolia.

Pale to dark green. Disk of the pronotum flat, gradually expanding posteriorly; the lateral angles or shoulders quite sharp; the lateral lobes with their posterior lower edge broadly rounded. Tegmina quite heavy and opaque, rather rough and of a dull green colour—especially so in the female specimens; the costal area full and evenly rounded. Posterior femora moderately stout, slightly surpassing ($\mathfrak P$) or not quite reaching ($\mathfrak P$) the tips of the tegmina, their inner margin furnished with $\mathfrak P$ or 8 short spines. "Shrilling" field of the tegmina large and flat, as in oblongifolia, a little broader than the posterior extremity of the pronotum. Ovipositor evenly curved, the apical third strongly toothed.

Length of body, \mathcal{J} , 22 mm., \mathcal{P} , 22 mm.; of pronotum, \mathcal{J} , 6 mm., \mathcal{P} , 6.65 mm.; of tegmina, \mathcal{J} , 33 mm., \mathcal{P} , 32 mm.; width of tegmina, \mathcal{J} , 10 mm., \mathcal{P} , 10.5 mm.; length of hind femora, \mathcal{J} , 28 mm., \mathcal{P} , 29 mm.; of ovipositor, 11 mm.

One of our commonest katydids throughout the eastern or wooded portion of Nebraska. It is especially numerous among the groves of oaks and other hard wood trees.

Like oblongifolia, this katydid produces the peculiar chick-chick noise which is so characteristic a sound in our groves at night during the months of August and September. Scudderæ is to be distinguished from that species by its smaller size, the more evenly rounded or arcuate edges of the tegmina, the comparatively shorter hind legs, and the more strongly serrated point of the female ovipositor.