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An Annotated list of the Orthoptera of Nebraska
Part II The Tettigidae and Acrididae

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An Annotated List of the Orthoptera of Nebraska

Part II

The Tettigidae and Acrididae

By

Harold A. Hauke

CONTRIBUTION OF THE DIVISION OF ENTOMOLOGY

JUNE, 1953
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An Annotated List of the Orthoptera of Nebraska
Part II
The Tettigidae and Acrididae

HAROLD A. HAUKE

This is the second of a series of papers on the Orthoptera of Nebraska. It is a continuation of the revision of an unpublished thesis on this subject by the author in 1934.

The purposes of the present paper are threefold. First it is a list of the grasshoppers which are or should be found in the state. Secondly the distribution of each species is shown for this or adjoining states and the specimens in the insect collection of the Nebraska State Museum at the College of Agriculture are recorded. Many references to Nebraska species by earlier workers in the field have also been cited.

The specimens of Tettigidae and Acrididae in the Nebraska collection were all examined. Much identification work was necessary on most of the material. The original descriptions were all checked and listed and a partial synonymy given. Hebard’s lists were, for the most part, used as an outline for this paper. Roberts (1941) was followed in listing the genus Tetrix.

A great deal of collecting needs to be done in the state to bring the collection up to the place where it will be truly representative of all species of grasshoppers native to this area. A total of 7 species of pygmy locusts are listed. The Acrididae are represented by 126 species of which 98 are represented in the Museum collection. As with the other families of Orthoptera the nucleus around which the present collection has been built is material which was gathered by Lawrence Bruner and his students. In later years additions have been made to the collection by various instructors and students in Entomology.
There are four species of grasshoppers in Nebraska which from time to time are of great economic importance to crops. They are *Melanoplus mexicanus mexicanus* (Saussure), *M. differentialis* (Thomas), *M. bivittatus* (Say), and *M. femur-rubrum femur-rubrum* (DeGeer).

In recent years it has been recognized that mixed populations of rangeland grasshoppers can cause serious damage to grazing lands. Some of the more important species of grasshoppers found on rangeland grasses are *Ageneotettix deorum* (Scudder), *Melanoplus mexicanus mexicanus* (Saussure), *M. bivittatus* (Say), *Aulocara elliotti* (Thomas), *Cordillacris occipitalis occipitalis* (Thomas), *Amphitornus coloradius* (Thomas), *Philbiostroma quadrimaculatum* (Thomas) and *Phoetaliotes nebrascensis* (Thomas).

Nebraska terrain is quite diverse. The altitude of the state ranges from 825 feet in the southeast (Richardson County) to 5340 feet at the western border (western Banner County). Nebraska extends approximately 450 miles from the Missouri River on the east to the Wyoming line on the west, and 207 miles from South Dakota on the north to Kansas on the south. The state has three climatic belts—humid, sub-humid, and semi-arid—and fourteen topographic regions. Two of these regions have been referred to as localities by various collectors. One of these, Pine Ridge, is composed of rough, broken escarpments covered with pine trees. It runs east and west through most of the north half of Sheridan, Dawes and Sioux counties. At one time there was a Pine Ridge post office in this region in Dawes County. For this reason the Pine Ridge locale has been placed in Dawes County in the text. The Sand Hills locality is another which has been used by collectors. It covers about 22,500 square miles in the northcentral counties. Sand hills are also found in the southwest half of Dundy County. For the distribution of species in this list, the locality has been referred to the northcentral counties.

Distribution records for the various species, unless otherwise stated, are listed from the east to the west and from north to south.

The writer wishes to express his appreciation to Dr. R. E. Hill and other members of the Department of Entomology who have been of great assistance in the preparation of this paper and especially to Dr. M. H. Muma under whose guidance it was prepared. The assistance of Mr. James A. G. Rehn in past years and more recently that of Dr. Ashley B. Gurney of the
U. S. National Museum, in the determination of some of the more difficult species has been invaluable. Dr. Gurney has also helped the writer solve many of the taxonomic problems encountered. Mr. Herbert S. Wallace kindly determined specimens of *Aeolopus*.

**Family TETRIGIDAE**

**Subfamily TETRIGINAE**

**Nomotettix parvus** (Morse)


This insect should be found in extreme eastern Nebraska counties. It has been recorded from Douglas County, Kansas. Hebard (1925) stated that there was a possibility of it being taken in southeastern South Dakota because of this record and also that of the type locality, St. Anthony Park, Minnesota. It is not represented in the present collection.

**Specimens examined:** None.

**Tetrix subulata** (Latreille)


Bruner (1893), in writing of this pygmy or grouse locust as *Tettix granulatus* Kirby, mentioned that it was "especially numerous northward." This species is represented in the Nebraska Museum collection by two specimens, a male and female, collected by Bruner at Fremont, in Dodge County. Hebard (1928) mentioned that Holt County, in northern Nebraska, was the southern limit of this species.

**Specimens examined:** *Dodge County, Fremont, April 17, 1915, (L. Bruner), 1 ♂, 1 ♀.*
Tetrix acadicum acadicum (Scudder)

1875. Tettigidae acadica Scudder, Dawson's Rept. Geol. 49th Parallel, p. 345.

A single male specimen of this species is in the Nebraska collection. It was collected in the extreme northwest corner of the state at a light. Bruner (1893) wrote of Tettix acadicus Scudder as follows: "A species that I imagine to be this insect is occasionally taken within the state northward." Hebard (1928) recorded this species as being found also at Halsey and (1925) stated that it is "Found usually on moist soils of sandy character."

SPECIMENS EXAMINED: Sioux County, Monroe Canyon, August 7, 1908, (C. H. Gable), 1 ♂.

Tetrix ornata (Say)

1824. Acrydium ornatum Say, Amer. Ent., I, pl. 5.
1920. Acrydium ornatum Blatchley, Orth. of Northeastern America, p. 165.

This species of grouse locust is one of the most abundant in Nebraska. It has been found over the entire northern two-thirds of the state. Thirty-seven males, forty females and eight nymphs have been collected between March 20 and October 24, with the majority being taken in April and May. These specimens were found in such localities as Platte River sandpits, stone quarries, dry creek beds, and in marshy areas along creeks. It was recorded by Bruner (1893) as "Quite general in its distribution over the state. Very common."

SPECIMENS EXAMINED: Burt County, Tekamah, July 27, 1949, (M. H. Muma), 1 ♂. Douglas County, Omaha, June 13, 1913, (L. T. Williams), 1 ♂. Sarpy County, Gretna, May 27, 1933, (H. A. Hauke), 1 ♂. Cass County, Plattsmouth, March 20, 1923, 1 ♀. Louisville, May 20, 1948, (M. H. Muma), 1 ♀, 1 nymph. South Bend, May 27, 1914, (L. Bruner), 1 ♀. Otoe County, Nebraska City, June 4, 1948, (O. S. Bare), 1 ♀. Dixon County, Maskell, July 17, 1915, (E. G. Anderson), 1 ♂, 2 ♀♀. Cuming County, West Point, April, 1884, 1 ♀; April 15, 1889, 1 ♀; May, 1 ♂. Dodge County, Fremont, April 15, 1949, (M. H. Muma), 1 ♂; April 17, 1915, (L. Bruner), 15 ♂♂, 11 ♀♀; May 5, 1948, (C. A. Sooter), 2 ♂♂, 1 ♀, 3 nymphs. Lancaster County, Roca, April 11, 1993, (H. A. Hauke), 9 ♂♂, 4 ♀♀. Lincoln, April 13, 1924, (D. B. Whelan), 1 ♂; April 16, 1908, 1 ♀; April 18, 1949, (R. E. Hill), 1 ♂, 1 ♀, 1 nymph; April 20, 1908, 2 ♀♀; May 9, 1908, 1 ♀; May 16, 1908,
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Tettix arenosa angusta (Hancock)

Four specimens, three males and one female, taken in Otoe and Lancaster counties in eastcentral Nebraska are in the present museum collection. Hebard (1931) recorded a female from Cedar Bluffs, in Saunders County. Central Nebraska was listed by the same author (1925) as a western limit of distribution. Bruner (1893) wrote that Tettix arenosus Burm. "has been taken only in the eastern part of the state . . ."

SPECIMENS EXAMINED: Otoe County, Nebraska City, June 4, 1948, (M. H. Muma), 1 ♂. Lancaster County, Lincoln, May 16, 1908, 1 ♂, and Roca, April 11, 1933, (H. A. Hauke), 1 ♂, 1 ♀.

Paratettix cucullatus cucullatus (Burmeister)
1894. Paratettix cucullatus Morse, Psyche, VII, p. 163.

The hooded grouse locust is represented in the collection by twenty-seven males, thirty-six females and one nymph. They have been collected from March 16 to October 8 in the eastern and southern parts of the state. This species is largely confined to river valleys and is known to swim with ease should it alight in water. Bruner (1893) wrote of it as "Found occasionally along the different streams of the state."

SPECIMENS EXAMINED: Dakota County, South Sioux City, June 28, 1912, (L. T. Williams), 1 ♂. Douglas County, Omaha, June 12, 1914, 1 ♀, and June 14, 1913, 1 ♀, (L. T. Williams); July 6, 1938, (E. C. Klostermeyer), 1 ♀. Millard, July 25, 1935, (E. C. Klostermeyer), 1 ♀. Cass County, South Bend, June 23, 1915, (E. G. Anderson), 1 ♂. Otoe County, Nebraska City, June 4, 1948, (O. S. Bare), 1 ♀, and (M. H.

**Tettigidea lateralis parvipennis (Harris)**


This species is represented by six males and nine females collected in the eastern section of the state and by one female collected at Scottsbluff in western Nebraska. The latter locality record is possibly in error as Hebard (1925) stated that “Westward it was previously known from Minnesota and eastern Nebraska, so that the present constitute the most northwestern records.” In Bruner’s lists (1893 and 1897) he recorded it as *Tettigidea lateralis* Say and mentioned that it was “One of our most abundant ‘grouse locusts’ in eastern Nebraska…”

Family ACRIDIDAE
SUBFAMILY ACRIDINAE

Pseudopomala brachyptera (Scudder)


This species appears to be very scarce in Nebraska. Specimens at hand are from Cuming and Lancaster counties in east-central Nebraska and Cherry County in the northcentral part of the state. Five females, four males and one nymph were taken between July 7 and September 10. Hebard (1929) recorded one “female from Stratton, Nebraska, taken July 14, 1899, on the Republican River...” In this state it probably can be taken along streams, irrigation ditches and marshy spots. According to Morse (1920) it normally is found in the short-winged form but occasionally a long-winged form is seen. Bruner (1893) recorded a species “Mermiria (?) brachyptera, Scudd. Not at all rare over the entire state. Most common eastward and northward.”

SPECIMENS EXAMINED: Cuming County, West Point, September, 1884, 1 ♀. Lancaster County, Lincoln, July 6, 1928, 2 ♂♂, August 30, 1928, 1 ♂, September 10, 1928, 1 ♀, and 1 nymph, (D. B. Whelan). Cherry County, Valentine, 1 ♀.

Mermiria neomexicana (Thomas)


Two specimens, which appear to be nymphs, have been collected in Keya Paha County in the northcentral part of the state in June and August. Blatchley (1920) stated that “Specimens at hand received from Bruner are labelled ‘Western Nebraska’.” It was recorded by Bruner (1893, 1897) as being “abundant in middle and western regions, where it frequents rather high grounds in preference to low grounds.” Rehn (1919) recorded it from “Sidney, Cheyenne county,” and from “Southwest Nebraska.” Hebard (1928) listed it as being found at Capa and Hot Springs, South Dakota, and at Julesburg, Colorado. Additional collecting in western Nebraska should add new distribution records for this species.
SPECIMENS EXAMINED: Keya Paha County, Springview Bridge, June 18, 1902, (W. D. Pierce), 1 ♀ nymph. Sioux County, Glen, August 8, 1905, 1 ♀ nymph.

*Mermiria bivittata* (Serville)


This species is quite often confused with the following one, *Mermiria maculipennis macclungi* Rehn. Rehn (1919) stated that the “two are very hard to separate, particularly in the female sex. The most conspicuous feature of the species is found only in the male sex and is purely a color character, i.e., the absence of a pale subcostal stripe on the tegmina.” In the same paper he listed a male specimen from West Point, in Cuming County. Specimens in the collection which have been determined as this species are all from Lancaster County. These two counties are in eastern Nebraska. There are five male and ten female specimens in the collection at this time.

SPECIMENS EXAMINED: Lancaster County, Lincoln, July 6, 1939, (W. Darlington), 1 ♀; July 8, 1939, (R. Roberts), 1 ♂; July 12, 1939, (W. Darlington), 3 ♀ ♂; July 18, 1911, (R. W. Dawson), 4 ♂, 4 ♀; August 10, 1939, (R. L. Gates), 1 ♀; September 18, 1923, 1 ♀.

*Mermiria maculipennis macclungi* Rehn


There are eighty-nine specimens (thirty-seven males, forty-six females and six nymphs) of this interesting form which have been gathered from over the entire state. The nymphs were collected the last week of June and the adults from July 1 to September. The species is commonly found in grassy areas in river valleys, bench lands, and rolling hills. It was probably this species to which Bruner (1893, 1897) referred as *Mermiria bivittata* Serville and as being found sparingly over the entire state. In addition to the localities listed below Rehn (1919) recorded Nebraska specimens from Washington, Custer, Hitchcock, Cheyenne and Sioux counties.

SPECIMENS EXAMINED: Nebraska, 1 ♀. Cuming County, West Point, July, 1884, 1 ♂; July, 1888, 1 nymph; September, 1884, 2 ♀ ♂. Lancaster County, Lincoln, July, 1 ♂, and August 28, 1828, 1 ♀. (D. B. Whelan); September, 1 ♀. Knox County, Niobrara, (M. H. Swenk), 1 ♂; August 2, 1902, (W. D. Pierce), 9 ♂ ♀, 8 ♀ ♂. Antelope County,
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Acrolophitus hirtipes (Say)

1825. Gryllus hirtipes Say, Amer. Ent., II, pl. 34.

This is a very interesting species of grasshopper because of its solid green color and highly arched metazona. It has been taken in several localities across the northern half and in the southwestern corner of the state. Hebard (1925) recorded this insect from middle and western Nebraska. The seven males and nineteen females were secured between June 21 and August 12.


Syrbula admirabilis (Uhler)

The males of this distinctive slender streamlined grasshopper are considerably smaller than the females and much quicker in movement. When disturbed they are rapid flyers and soon drop into grass clumps where they are hidden from view. This probably accounts for the fact that of the thirty-nine specimens in the collection only eight are males. These specimens have been taken from June 20 to October 16. Bruner (1893) listed this species as being found over the entire state, but nowhere common. Hebard (1931) indicated that eastern Nebraska was the northern limit. The western limits of distribution in the state of the present series are Antelope and Buffalo counties.

**SPECIMENS EXAMINED:** Nemaha County, Peru, August 12, 1939, (R. L. Gates), 1 ♂. Cass County, September 18, 1930, (L. C. Jackson), 1 ♂. South Bend, October, 1889, 1 ♂. Weeping Water, July 20, 1930, (L. C. Jackson), 1 ♂. Saunders County, Ashland, August 16, 1938, 4 ♀♂, August 19, 1938, 1 ♂, August 20, 1938, 1 ♂, 1 ♀, and August 22, 1938, 1 ♀, (R. L. Gates). Lancaster County, Lincoln, June 20, 1930, (G. Dunn), 2 ♀♀; August 12, 1931, (P. Harvey), 1 ♂; August 18, 1934, (H. A. Hauke), 2 ♀♂; September, 2 ♀♂; September 3, 1928, (D. B. Whelan), 1 ♂; September 25, 1927, (R. H. Nelson), 1 ♂; October, 1 ♂; October 4, 1932, (C. Gollehon), 1 ♂; October 9, 1922, (C. B. Philip), 1 ♂, 1 ♀; October 16, 1 ♂. Saline County, DeWitt, June 25, 1931, (W. Waldo), 1 ♀. Antelope County, Neligh, August 24, 1904, (Cary), 5 ♂♂, 4 ♀♀. Buffalo County, Shelton, August 9, 1932, (H. A. Hauke), 2 ♀♀.

*Opeia obscura* (Thomas)


This small grasshopper is very common over the state in native grama or buffalo grass pastures and range land areas. One hundred and three specimens in the collection were examined. Adults were taken from late July to October 9 with the majority being found in August. Bruner (1897) recorded it from middle and western Nebraska. Hebard (1925) stated that it did “not occur in eastern Nebraska” but several specimens have been secured at Lincoln, in Lancaster County.

**SPECIMENS EXAMINED:** Lancaster County, Lincoln, July, 1 ♂; August 5, 1902, (W. D. Pierce), 1 ♀; September 12, 1894, 1 ♀; October 9, 1922, (C. B. Philip), 5 ♀♀. Knox County, Niobrara, (M. H. Swenk), 2 ♀♂, 2 ♀♂; August 2, 1902, (W. D. Pierce), 5 ♂♂, 5 ♀♀. Antelope County, Neligh, August 12, 1901, (M. Cary), 2 ♀♀. Buffalo County, Shelton, August 18, 1933, (H. A. Hauke), 3 ♀♀. Keya Paha County, Carns, August 29, 1902, (W. D. Pierce), 1 ♀. Custer County, Arnold,

**Amphitornus coloradus** (Thomas)


Thomas found his name *Stenobothrus bicolor* to be a homonym so proposed the name *Stenobothrus coloradus*. This species is quite common throughout the rangeland areas of northcentral and western Nebraska counties. Bruner (1897) listed it as "another of the characteristic locusts of the Great Plains." Its "bullet-shaped" head and the striped appearance of the head and tegmina make it a species easily recognizable in both the nymphal and adult stages. In the last two or three years it has increased somewhat in economic importance among the rangeland species of the state. Fifty specimens are in the present collection. The nineteen males and thirty-one females were collected between June 28 and August 29.

Eritettix simplex tricarinatus (Thomas)


Bruner (1897) listed this grasshopper as Eritettix naviculus Scudder, E. tricarinatus Thomas and E. virgatus Scudder and recorded them as occurring in most parts of the state. This grasshopper is another which is taken in short-grass areas. It lives through the winter in the nymphal form and as a result matures early in the season. There are sixty-six specimens in the collection of which thirteen are in the immature stage. Three of the nymphal forms were collected in February, April and May, one in July and the remainder from August 2 to October 8. The adults were all taken between May 10 and July 8.


Philbosromma quadrimaculatum (Thomas)

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Twelve male and twenty-six female specimens of this species have been collected in the western half of the state. Hebard (1936) listed Valentine, Cherry County, and Broken Bow, Custer County, as eastern limits in the state and this distribution remains unchanged. The grasshopper is quite common in the rangeland areas.


Cordillacris occipitalis occipitalis (Thomas)


Distribution of this grasshopper is confined to the drier grassy areas of the northern and southwestern counties. Seven males and twenty-five females have been taken as adults from June 23 to August 15. Bruner (1897) recorded it as being found westward in the state upon the plains and high prairies.


Cordillacris occipitalis cinerea (Bruner)


Confined in distribution to the panhandle area of western Nebraska this species is not too abundant except in local areas. It is commonly found in the drier grassy areas but has also been taken in the pine-covered hills in Dawes and Sioux counties. The one male and nine females were collected in July and August.

Bruner in 1893 recorded this species as *Orchridia cinerea* (Bruner). He listed it as being found upon the high sand hills adjoining Pine Ridge in Sioux and Dawes counties.


*Cordillacris crenulata crenulata* (Bruner)


Seven female specimens believed to represent this small species of grasshopper are in the collection from the Sand Hills in northcentral Nebraska and Dundy County in the southwest corner. This species was recorded from Fort Robinson in northwestern Nebraska by Hebard (1925). Bruner (1893) found it to be common upon the higher and drier portions of the state. Extensive collecting would probably reveal a wider distribution.

**SPECIMENS EXAMINED:** Sand Hills, 1940, 1 ♀. Dundy County, Haigler, August 12, 1901, (L. Bruner), 6 ♀ ♀.

*Orphulella pelidna* (Burmeister)


This is a species which is found throughout the northern half and the extreme southwest corner of the state. Morse (1920) wrote of it as being "active and alert, leaping well and also flying freely and well." It is confined mostly to the grasses of open or partially wooded areas. Fifty-nine specimens, sixteen males and forty-three females, were secured between July and October.

**SPECIMENS EXAMINED:** Cass County, South Bend, October 5, 1904, 1 ♂; Cuming County, West Point, 2 ♀ ♂, 1 ♂; Dodge County, Fremont, October 18, 1922, (C. B. Philip), 3 ♂ ♂, 5 ♀ ♀; Lancaster County, Lincoln, July 12, 1939, (W. Darlington), 1 ♂, 4 ♀ ♀; August 7, 1920, (C. B. Philip), 2 ♀ ♀; August 18, 1934, (H. A. Hauke), 1 ♀; September, 2 ♂ ♂, 13 ♀ ♀; September 17, 1917, (L. Bruner), 7 ♂ ♂, 6 ♀ ♀; October 8, 1922, (C. B. Philip), 2 ♀ ♀; Antelope County, Neligh, August 9, 1901, (M. Cary), 1 ♂; Thomas County, Halsey, May 16, 1912, (J. T. Zimmer), 1 ♀; Dundy County, Haigler, August 11, 1901, (L. Bruner), 5 ♀ ♀; Dawes County, Chadron, August 8, 1884, 1 ♀.

**Orphulella speciosa** (Scudder)


Listing it as *Orphula aequalis* (Scudder), Bruner (1897) found this small grasshopper to be "very common on the open prairies over the entire state." The material at hand is from all sections of the state. One male and seven females were taken at an electric light in July at Lincoln, Lancaster County. A total of forty-eight males and seventy-five females have been taken between May 15 and October 31 with most of them being secured in August.

**SPECIMENS EXAMINED:** Douglas County, Omaha, 1 ♀; Cuming County, West Point, 7 ♂ ♂, 19 ♀ ♀; July, 1888, 3 ♂ ♂; September, 1884, 2 ♂ ♂; October, 1884, 1 ♀; Lancaster County, Lincoln, July, 1 ♂, 7 ♀ ♀; July 9, 1921, (C. B. Philip), 1 ♀; July 12, 1938, (W. Darlington), 3 ♂ ♂; July 18, 1920, (C. B. Philip), 1 ♂; July 15, 1929, 1 ♀, and July 20, 1929, 1 ♂; (D. B. Whelan); August, 2 ♀ ♀; August 1, 1920, (C. B. Philip), 1 ♂; September, 14 ♀ ♀; September 8, 1928, (D. B. Whelan), 1 ♂; September 17, 1917, (L. Bruner), 4 ♂ ♂; October, 2 ♂ ♂, 1 ♀; Rock, October 31, 1933, (H. A. Hauke), 1 ♀; Dodge County, North Bend, October, 1894, 1 ♂; Knox County, Niobrara, August 2, 1902, (W. D.
Pierce), 6 ♂, 9 ♀. Thayer County, Deshler, August 9, 1949, (H. A. Hauke), 1 ♂, 3 ♀. Buffalo County, Shelton, August 18, 1933, (H. A. Hauke), 1 ♂, 2 ♀. Keya Paha County, Carns, August 20, 1902, (W. D. Pierce), 1 ♂, 1 ♀; Hogan's Bridge, August 3, 1902, (W. D. Pierce), 1 ♂.


Dichromorpha viridis (Scudder)


Quite common over the state but does not appear in large numbers in any one place. It is usually found in humid areas where there are coarse weeds and grasses, such as fence rows or along the edges of ponds and streams. The insect has been collected in both the green and brown color phases. Both Bruner (1893) and Hebard (1925) recorded the western limit of this species as “middle Nebraska” but some specimens are at hand from Red Willow and Scotts Bluff counties. All thirty-four specimens are of the short-winged form and were collected between June 30 and October 10.

Specimens Examined: Douglas County, Omaha, 5 ♀♀; July 29, 1936, 1 ♂, 1 ♀, and August 13, 1936, 1 ♂, (E. Klostermeyer); August 23, 1935, 1 ♀. Richardson County, Rulo, June 30, 1915, (L. Bruner), 1 ♂. Cuming County, West Point, 3 ♀♀. Dodge County, Fremont, October 10, 1892, (C. B. Philip), 1 ♂, 1 ♀. Lancaster County, Lincoln, July, 1 ♂, 1 ♀; August, 1 ♀; August 9, 1920, (C. B. Philip), 1 ♂, 1 ♀; September 17, 1917, (L. Bruner), 1 ♀; October 10, 1939, (L. E. Watson), 1 ♀. Knox County, Niobrara, (M. H. Swenk), 1 ♀. Buffalo County, Shelton, August 8, 1933, (H. A. Hauke), 4 ♂♂, 2 ♀♀. Red Willow County, Bartley, August 14, 1949, (H. A. Hauke), 1 ♂, 1 ♀. Scotts Bluff County, Scottsbluff, October 5, 1904, 3 ♀♀.

Chloealtis conspersa Harris


1896. Chloealtis conspersa Morse, Psyche, VII, p. 419.

Bruner (1897) listed this species as from the “eastern and northern parts of the state. Most frequently found in groves and ravines where the vegetation is quite rank.” Four female specimens, taken during July and August in northwestern Nebraska, are in the collection. Hebard (1936) mentioned that
"Buffalo and the Black Hills, South Dakota, are western limits of reasonably continuous distribution in this longitude, though the Rocky Mountains carry the species south to northern Colorado." There is a possibility that this insect might also be found in the pine-covered Wildcat Hills south of Gering in Scotts Bluff County. One of the most interesting things about this grasshopper is the fact that it is sometimes known to oviposit in bits of soft or decaying wood.


Neopodismopsis abdominalis (Thomas)


One female specimen collected in Knox County is in the collection. This locality in northcentral Nebraska does not agree with Bruner’s (1897) list. He stated that it “is to be met with once in a while in extreme western Nebraska where it is partial to north hill-slopes and steep canon walls.” Blatchley (1920) stated that records show it to be essentially a mountain loving species.

Specimens examined: Knox County, Niobrara, August 2, 1902, (W. D. Pierce), 1 ♀.

Chorthippus longicornis (Latreille)


This species is quite common in the northern half of the state. Twenty specimens, eleven males, and nine females are in the collection. They were gathered between June 23 and September 17. Bruner (1897) recorded this insect as Steno-
bothrus curtipennis Harris and Stenobothrus coloradensis McNeill. Of the latter he wrote that it “is rather numerous on meadow and other low, wet lands throughout the state.” This species is widely scattered over North America, Europe and northern Asia. In addition to the localities listed below, Hebard (1936) recorded it from North Platte in Lincoln County. One male specimen collected at Omaha, Douglas County, in 1875 is of special interest as it is probably the oldest specimen of Orthoptera in the entire collection.

**SPECIMENS EXAMINED:** Douglas County, Omaha, 1875, 1 ♂. Cass County, South Bend, June 23, 1915, (L. Bruner), 1 ♂. Dakota County, South Sioux City, June 27, 1912, 1 ♂, July 12, 1912, 1 ♂, July 14, 1912, 1 ♀, and July 16, 1913, 1 ♀, (L. T. Williams). Cuming County, West Point, July, 1884, 1 ♀. Lancaster County, August, 1 ♀; September 17, 1917, (L. Bruner), 1 ♂, 1 ♀. Antelope County, Neligh, August 9, 1901, (M. Cary), 1 ♀. Cherry County, Valentine, 1 ♂. Thomas County, Dismal River, July, 1 ♂, 1 ♀. Sand Hills, 1940, 2 ♂ ♀. Sioux County, War Bonnet Canyon, 3 ♂ ♀. Scotts Bluff County, Gering, (M. A. Carriker, Jr.), 1 ♀.

*Aeropedellus clavatus* (Thomas)


Seven specimens of this grasshopper, three males and four females, are in the Museum collection from Dawes and Sioux counties in northwestern Nebraska. Bruner (1897) mentioned that it seemed to occur throughout the plains region of Nebraska. Hebard (1935) listed it from West Point, in Cuming County. Future collectors should find this species in localized grassy upland areas. It evidently is able to survive under varying conditions as Ball, et al., (1942) reported it from mountain meadows at altitudes of 9,000 to 10,500 feet.

**SPECIMENS EXAMINED:** Dawes County, Pine Ridge, July, 1 ♀; July 8, 1910, 2 ♀ ♀. Crawford, June 10, 1910, (L. Bruner), 1 ♂, 1 ♀. Sioux County, 1 ♂, War Bonnet Canyon, 1 ♂.

*Bruneria brunnea* (Thomas)


No specimens of this grasshopper are in the collection. *Stenobothrus brunnea* Thomas, was reported by Bruner (1897), as
extending eastward nearly to middle Nebraska. According to Hebard (1928) this species "has been taken in North Dakota, the Black Hills of South Dakota, western Nebraska, central and northern Colorado and Idaho, but the higher portions of Montana and Wyoming are apparently its main stronghold. There, in short, dry grass of open mountain glades, it occurs locally . . . ." This species should be found across western Nebraska in the higher short grass areas.

**Specimens Examined:** None.

**Stethophyma platyptera** (Scudder)


This distinctive species was referred to by Bruner (1897) as *Mecostethus*-sp.? and as being "met with at rare intervals in wet places in the extreme northwestern part of the state." Hebard (1925) stated that it prefers bogs and sedgy areas. The seven specimens of this species in the collection were taken at Cambridge (Furnas County) in August, 1920, by A. P. Morse. Hebard (1931) wrote of it as follows: "Though known over a very wide area this large and handsome grasshopper is rarely encountered. Like its allies, it is probably sometimes abundant in extremely limited areas of high rich grasses. This is indicated by the large series which Morse has secured at Cambridge, Nebraska." Cambridge is on the north edge of the Republican River Valley in the southwestern corner of the state. This grasshopper has been taken at Springfield, South Dakota, so should be found locally throughout most of Nebraska.

**Specimens Examined:** Furnas County, Cambridge, August 20, 1921, (A. P. Morse), 4 ♂♂ ♀ ♀ ♀.

**Stethophyma gracile** (Scudder)


Recording it as *Mecostethus gracilis* (Scudder), Bruner (1897) stated that “this locust is quite common in meadows and along streams in the eastern half of the state.” It is represented in the Museum collection by one male and one female collected at West Point, Cuming County, in the northeast quarter of Nebraska. According to Hebard (1925) it has a very local distribution, is found inhabiting wet sedgy meadows, and becomes adult in August in South Dakota.

**SPECIMENS EXAMINED:** Cuming County, West Point, 1 ♂, 1 ♀.

### Stethophyma lineatum (Scudder)


No specimens of this grasshopper are in the present collection. A thorough search of wet, swampy spots in eastern Nebraska should show its presence in local areas. Bruner (1897) reported it from groves in eastern Nebraska. Hebard (1925) recorded it as a larger and darker insect than *gracile* and as having a pale tegmental line.

**SPECIMENS EXAMINED:** None.

### Ageneoetettix deorum (Scudder)


This species is quite generally distributed over Nebraska. It is an inhabitant of grama and buffalo grass pasture or range areas. During the past three or four seasons it has increased in importance as one of the species causing economic damage to the ranges of western Nebraska. One hundred and sixty specimens (seventy-two males and eighty-eight females) have been gathered between June 23 and October 11 over the greater part of the state.

**SPECIMENS EXAMINED:** Douglas County, Omaha, July 11, 1913, (L. T. Williams), 1 ♂; September 10, 1913, 1 ♂. Dakota County, South Sioux City, July 26, 1912, (L. T. Williams), 1 ♀. Cuming County, West Point, 2 ♂, 3 ♀; July, 1888, 1 ♀; September, 2 ♀; September, 1884, 2 ♂, 2 ♀. Lancaster County, Lincoln, June 28, 1934, (H. A. Hauke), 1 ♀; July, 8 ♀; July 9, 1921, (C. B. Philip), 1 ♀; July 9, 1934, (R.
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Bruner (1897) listing this insect both as Psoloessa maculipennis Scudder and P. ferruginea Scudder stated that it was common westward and quite common in the Sand Hills in early spring. Rehn (1942) listed its northern limit of distribution as the Pine Ridge country of southern South Dakota. From there it extends southward across central and western Nebraska. He recorded specimens from Holt County; the Sand Hills; Halsey, Thomas County; and North Platte and Brady Island, both in
Lincoln County. Five specimens, taken from May to July, are in the collection. It is possible that this grasshopper, like the following, lives through the winter in the nymphal stage.

**SPECIMENS EXAMINED:** Holt County, May, 1 ♂, 1 ♀; June, 1 ♀. Thomas County, Halsey, June, 1 ♂. Dismal River, July, 1 ♀.

**Psoloessa delicatula delicatula** (Scudder)


This diminutive grasshopper is found in the northcentral counties and westward in the state. The present southern limit of distribution is Boyd, Perkins and Deuel counties. It overwinters in the nymphal form and adults appear early in the spring. Two nymphs were taken on September 26 in a native grass pasture in Deuel County. The nine adults in the collection were taken in June and July. According to Hebard (1925) the species prefers gravelly areas scantily clothed with short grasses. Four adults of this species were collected by L. Bruner at Worland, Wyoming, on April 25, 1916. In Bruner's 1897 list this grasshopper was referred to as Stirapleura decussata Scudder.


**Boopedon nubilum** (Say)

1873. Boopedon nubilum Thomas, Syn. Acrid. N. Amer., p. 141, pl. 1, fig. 11.
The eastern limits of distribution in Nebraska for this very distinctive grasshopper are Furnas, Frontier and Lincoln counties. Bruner (1897) listed it both as *Boopedon nubilum* Say and *B. flavofasciatum* Thomas, the first name referring to the black males and females and the latter to the females of the greenish-brown phase. All males are a shining black color with wing length varying from three-fourths the length of the femora to even with the end of them. The females are usually brachypterous and of the greenish-brown phase. Black ones are rare. There are eleven males, nine females, and one nymph in the collection. Two of the female specimens are black. One of these has wings extending to the tip of the femora. Those of the greenish-brown phase all have short wings except one. All of the specimens, except one, were collected in August. This species sometimes becomes of local economic importance in some of the short grass rangeland areas and also occasionally in pastures adjacent to cultivated fields. Ball, et al., (1942) recorded it as common in Arizona at altitudes from 2,200 to 5,500 feet. It is known as far north as North Dakota and south to Texas.


**Boopedon maculatum** Caudell


Two male specimens of this grasshopper are in the Museum collection from Nuckolls and Thayer counties in southcentral Nebraska. They both were taken on pasture grasses and constitute the first records of this species in Nebraska. Prior to this it had been found as far north as Jewell County, Kansas, which is just south of Nuckolls County.

**SPECFEMENS EXAMINED:** Nuckolls County, Superior, July 27, 1932, (H. C. Jones), 1 ♂. Thayer County, Deshler, August 9, 1949, (H. A. Hauke), 1 ♂.

**Boopedon auriventris** (McNeill)


A single brachypterous female specimen from West Point, in the northeast corner of the state, is in the collection. Bruner (1904) in describing the synonym, *savannarum*, stated that it was "Found on the sand-hills and prairies in central and eastern Nebraska." It is quite rare in this area now as there are but few plots of prairie remaining and no specimens have been picked up in recent years. Hebard (1934) stated that "though known from very few localities, the species undoubtedly occurs over a wide area in eastern Nebraska, Kansas, southwestern Iowa, western Missouri . . . ."

**SPECIMENS EXAMINED:** Cuming County, West Point, 1 ♀.

**Drepanopterna femoraturn** (Scudder)


This is another species found in extreme southwestern and western Nebraska and one which has been taken but rarely. Nineteen adults have been collected in Dundy, Sioux and Dawes counties in August. One nymph from Sioux County is also in the collection. Hebard (1928) recorded its known eastern limits of distribution as Newell, South Dakota; Glen, Sidney and Haigler, Nebraska; Lakin, Kansas; and Quanah, Texas. In the summer of 1951 this species was observed to be quite numerous in rough hilly country north of Northport, Morrill County. It was listed as the "white cross grasshopper" by Ball, et al., (1942) who stated that the two white diagonal marks on the pronotum suggested the name. It is generally local in distribution and not so abundant as the following species.

**SPECIMENS EXAMINED:** Dundy County, Haigler, August 11, 1901, (L. Bruner), 2 ♀ ♂, 2 ♀. Dawes County, Chadron, August, 1888, 1 ♀. Sioux County, 1 nymph, Harrison, August 2, 1951, (H. A. Hauke), 8 ♀ ♂, 6 ♀.

**Aulocara elliotti** (Thomas)


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Thirty-one specimens of this rangeland grasshopper are in the Museum collection from the western three-fourths of the state. Seven males and twenty-four females were taken between June 26 and August 24. Two females were collected at Lincoln, in Lancaster County, which establishes a new eastern limit of distribution in this state. One male specimen from Lexington, in Dawson County, was obtained on June 26, 1936, together with several other species when a large flight of grasshoppers alighted in that area. During periods of abundance this grasshopper becomes quite injurious to the range grasses in the western half of the state. According to Bruner (1897) it was common in the middle and western part of the state but rather rare to the east.


SUBFAMILY OEDIPODINAE

Arphia sulphurea (Fabricius)


1920. Arphia sulphurea Blatchley, Orth. of Northeastern America, p. 252.

This grasshopper has quite a wide range east of the Mississippi River but is not too common on westward into eastern Nebraska according to Blatchley (1920). It overwinters in the nymphal stage and adults appear early in the spring. Hebard (1931) stated that this species “is known as far west as Pipestone, Minnesota; Iowa City, Iowa; and Stillwater and Sewayer, Oklahoma; it should be found in extreme southeastern South Dakota, and eastern Nebraska and Kansas.” Bruner (1897) found it to be not common in the eastern portion of the state. No specimens are in the present collection.

SPECIMENS EXAMINED: None.
Arphia conspersa Scudder


Like the preceding species this one becomes adult early in the spring and most likely overwinters in the nymphal form. Adults have been collected at scattered localities over the state in April, May, and June. Seventeen males and eighteen females are in the collection. Holt and Cass counties are the eastern limits of distribution in the state.


Arphia xanthoptera (Burmeister)


This is a common species in the eastern half of the state. It might be found locally to the southwest as one male specimen in the collection is from Imperial in Chase County. Adults appear in the prairie grass areas in the fall and have been taken from June 21 to November 2. Unless the label is in error one female specimen was taken in Cass County in May. The majority of the seventy-one specimens (thirty males and forty-one females) were secured in August, September, and October. Hebard (1931) gave eastern Nebraska as a western limit of distribution in the state while Bruner (1897) stated that it was found “also in the western part of the state.”

**SPECIMENS EXAMINED:** Douglas County, Omaha, September 20, 1935, (E. C. Klostermeyer), 1 ♂. Cass County, Weeping Water, May, 1894, 1 ♀. Murdock, September 18, 1930, 1 ♀. Cuming County, West Point, August, 1888, 1 ♂; September, 1 ♂; September, 1886, 1 ♀; October, 1884, 1 ♂. Lancaster County, Lincoln, June 21, 1 ♀; June 27, 1930, (G. Dunn), 1 ♂; July, 1 ♂; July 31, 1921, (R. E. Weir), 1 ♀; August, 1 ♀; August 16, 1926, 1 ♀; August 20, 1928, 1 ♂; August 26, 1928, 1 ♀; August 29, 1928, 1 ♂, and August 30, 1928, 1 ♂, 1 ♀, (D. B. Whelan);
September, 1 δ, 1 η; September 6, 1908, (J. T. Zimmer), 1 η; September 8, 1928, 2 η η, and September 13, 1928, 1 η, (D. B. Whelan); September 30, 1932, (H. A. Hauke), 1 δ, 4 η η; October, 1 η; October 3, 1928, 2 δ δ, and October 3, 1929, 1 η, (D. B. Whelan); October 7, 1932, (H. A. Hauke), 2 δ δ, 1 η, (C. Gollehon), 2 δ δ, 2 η η; October 9, 1922, (C. B. Philip), 3 η η; October 9, 1927, 1 η; October 10, 1922, (C. B. Philip), 1 η; October 10, 1928, (D. B. Whelan), 1 η; October 26, 1 η; October 28, 1926, (D. B. Whelan), 2 δ δ, 2 η η; November 2, 1927, 1 η. Saline County, DeWitt, August 5, 1931, (W. Waldo), 1 δ. Knox County, Nebraska, August 2, 1901, (D. W. Pierce), 1 η. Antelope County, Neligh, August, (Cary), 1 δ, 3 η η; August 9, 1901, 2 η η, and August 14, 1904, 1 η, (Cary). Nance County, Genoa, September 30, 1928, (D. E. Eckhoff), 19. Thomas County, Halsey, August 13, 1920, 1 δ, 1 η, and August 14, 1920, 1 δ, (C. B. Philip); August 19, 1912, (J. T. Zimmer), 1 δ; August 19, 1920, (C. B. Philip), 1 δ, 1 η; August 29, 1912, (J. T. Zimmer), 1 η. Chase County, Imperial, July 30, 1930, (Heady), 1 δ.

Arphia simplex (Scudder)


The western limit of this species of Arphia in the state is Buffalo County in the southcentral part. Hebard (1931) recorded it from Lincoln and Roca, both in Lancaster County. It has not been taken very often and only twenty-five specimens (nineteen males and six females) are in the collection. The adults were secured between May 27 and July 23. Three males and two females were taken at Lincoln at an electric light on June 1, 1934.

Specimens examined: Douglas County, Omaha, June 11, 1 δ, July 3, 1 δ, July 7, 1 η, and July 14, 1913, 1 δ, (L. T. Williams). Otoe County, Nebraska City, May 27, 1933, (H. A. Hauke), 2 δ δ. Lancaster County, Lincoln, June 1, 1934, (H. A. Hauke), 3 δ δ, 2 η η; June 13, 1931, 2 δ δ; June 24, 1929, 2 δ δ, and July 9, 1921, 1 δ, (C. B. Philip); July 12, 1928, (D. B. Whelan), 1 δ; July 18, (R. W. Dawson), 2 η η; July 18, 1920, 2 δ δ, and October 9, 1922, 1 δ, (C. B. Philip). Jefferson County, Fairbury, July 23, 1932, (H. C. Jones), 1 η. Buffalo County, Shelton, July 2, 1932, (H. A. Hauke), 1 δ.

Arphia pseudonietana pseudonietana (Thomas)


Bruner (1897) in recording this species as *Arphia tenebrosa* (Scudder) mentioned that “This bright red-winged species is very common over the entire state.” The present series of thirty-four males and twenty-one females verifies this distribution. This grasshopper is very conspicuous in flight as its bright-colored red wings are showy against the dull dry grasses late in the season. Adults have been taken from late July to October 10. According to Hebard (1925) the species prefers areas of poor soil in a dry environment and is always found in the open.


**Chortophaga viridifasciata** (DeGeer)


A common species of grasshopper over the entire state. It is found in two color phases, green and brown. It overwinters in the nymphal form and appears as adults early in the spring. On warm days during the winter the nymphs become quite active and many people believe that grasshopper eggs are hatching. Thirty-one nymphs are in the collection. They were taken between February 7 and April 6 and again on October 15. The seventy-three adults were secured between March 20...
and October 6 with the majority being found in April, May, and June. Bruner (1897) listed this grasshopper as *Chimarrcephala viridifasciata* DeGeer = vars. radiata and infuscata. According to Hebard (1925) this species is “probably double brooded in South Dakota, adults being consequently found occasionally in the fall...” The same is probably true in Nebraska and would account for the wide range in time during which the following adult specimens were taken.

**SPECIMENS EXAMINED:**

**Encoptolophus sordidus costalis** (Scudder)


Only thirteen specimens of this open grassland grasshopper are in the collection. The material was secured from two areas at opposite ends of the state, Douglas (eastcentral) and Sioux (extreme northwest) counties. It should be more numerous in the western part of the state than in the east. Hebard (1925) mentioned a green color phase as being found occasionally in South Dakota. It is a species which matures late in the season and is usually present as long as any other grasshopper.


**Encoptolophus pallidus subgracilis** Caudell


This species has not as yet been taken in Nebraska but extensive collecting may show it to be rather abundant over the eastern and southern parts of the state. It has been recorded in South Dakota from Elk Point and Capa. The species is a southwestern one and is quite abundant in southwestern Kansas.

**SPECIMENS EXAMINED:** None.

**Encoptolophus sordidus sordidus** (Burmeister)


Bruner (1897) found this grasshopper to be "quite common over most of the eastern half of the state in late fall." The present series of twenty-eight males and twenty-one females were secured in Douglas, Cuming and Lancaster counties, all in the east. It matures late in the season, the adults being taken between August 22 and November 1.

**SPECIMENS EXAMINED:** Douglas County, Omaha, August 22, 1936, (E. Klostermeyer), 1 δ; September 4, 1935, 1 δ., Cuming County, West Point, 2 η; September, 1 δ; October, 1884, 1 η. Lancaster County, Lincoln, August 28, 1928, (D. B. Whelan), 1 δ; September, 1928, (C. H. Jorgensen), 1 η; September 6, 1928, 1 δ, 1 η; September 7, 1928, 1 η; September 8, 1928, 1 δ, 1 η, (D. B. Whelan);
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September 20, 1932, (Hill), 1 ♂; September 22, 1926, (G. W. Deming), 1 ♂; September 27, 1929, (D. B. Whelan), 1 ♂; September 30, 1932, (H. A. Hauke), 1 ♂, 1 ♀; October 3, 1928, (D. B. Whelan), 1 ♂, 2 ♀ ♂; October 31, 1933, (H. A. Hauke), 2 ♀; October 11, 1932, (H. A. Hauke), 4 ♀; October 18, 1922, (C. B. Philip), 3 ♀; October 25, 1928, (D. B. Whelan), 2 ♂; November 1, 1927, (R. Poch), 1 ♀. Roca, October 31, 1933, (H. A. Hauke), 2 ♂, 2 ♀.

Camnula pellucida Scudder


Twelve specimens of this interesting grasshopper collected in Sioux County are in the present collection. Bruner (1893) indicated that it had reached the western and northwestern parts of the state. One of the southern limits of distribution recorded by Hebard (1925) is western Nebraska. The species has been quite abundant in recent years in the Black Hills area of western South Dakota and northeastern Wyoming. There it is found in open short grass areas of the pine-covered hills where it sometimes is very destructive to the grasses. Blatchley (1920) stated that “The only species of the genus occurs throughout the northernmost United States and southern Canada from the Atlantic to the Pacific. In the marking of the tegmina, form and color, it looks much more like a diminutive Hippiscus.”


Hippiscus ocelote Saussure

1892. Hippiscus variegatus Scudder, Psyche, VI, pp. 268, 301.

Material has been taken in the eastern half of the state as far west as Thomas and Harlan counties. It was recorded by Bruner (1897) as Hippiscus rugosus Scudder from the greater part of the state and as H. variegatus Scudder in the eastern and south-
eastern sections. Hebard (1925) stated that it occurred as far west as western Nebraska. The twenty-four adults (eleven males and thirteen females) were collected in July, August, September, and October.


**Pardalophora apiculata** (Harris)


This is another of the grasshoppers which overwinter in the nymphal stage and which appear in the adult form early in the spring. Eight nymphs were secured in a hay meadow in Brown County on February 2. Others were taken at various localities in April, August, and September. The thirty-one males and twenty-four females were secured between April 15 and September 17 from as far west in the state as Thomas and Dundy counties. This species was reported over the entire state as *Hippiscus tuberculatus* Pal. Beauv. by Bruner (1897). According to Hebard (1925) the insect prefers upland meadows and is usually found in small colonies. He also stated that this "insect has frequently been recorded as tuberculatus, due originally to an error by Beauvois."

**SPECIMENS EXAMINED:** *Douglas County, Omaha, June 11, 1913, 1 ♂*. *Cass County, Weeping Water, June 12, 1913, 1 ♂*. *South Bend, 2 ♂♂*. *Dodge County, Nickerson, September 10, 1931, (Awn), 1 ♂*. *Lancaster County, Lincoln, 1 ♂; April, 3 ♂♂, 2 ♀♀; April 15, 1908, 1 ♀; April 16, 1931, (Muhle), 1 ♀; April 17, 1909, (J. T. Zimmer), 1 ♂; April 23, 1930, 1 ♂, 1 ♀, and April 25, 1929, 1 ♂, (D. B. Whelan); April 26, 1902, (J. C. Crawford), 3 ♂♂; May 1, 1931, (A. J. Ebers), 1 ♀; May 9, 1929, 3 ♂♂, 1 ♀, and May 10, 1929, 1 ♂, (D. B. Whelan); May 13, 1930, (A. L. Roberte), 1 ♂; May 16, 1929, 2 ♂♀, and May 17, 1928, 2 ♂♂, 2 ♀♀, (D. B. Whelan); May 20, 1928, (Nelson), 1 ♂; May 20, 1929, (F. Ingersol), 1 ♂; May 23, 1928, 3 ♂♂, and June 1, 1928, 1 ♂, (D. B. Whelan); June 12, 1930, (Berger),
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Pardalophora haldemanii (Scudder)


1892. Hippiscus xanthippus tigrinus Scudder, Psyche, VI, p. 394.

The original description of this insect was from specimens collected at Nebraska City and on the banks of the Platte River. Hebard, in 1925, wrote as follows: “We select as single type of Scudder's tigrinus the only non-alcohol specimen of the original series bearing definite data, taken at West Point, Nebraska, July, 1887, by L. Bruner; (Hebard collection, Type no. 977).”

Eighteen males and seventeen females were secured at a light in Lincoln on June 1, 1934. One female specimen was obtained from a flight of grasshoppers at St. Paul, in Howard County, on June 16, 1939. Five females were secured at McCook, in Red Willow County, from a swarm arriving during a storm on June 6, 1939. Adults have been taken between June 1 and August 14. There is a series of three nymphs, thirty-four males and sixty-six females in the museum collection.

Xanihippus monianus (Thomas)


1892. Hippiscus (X.) mantanus Scudder, Psyche, VI, p. 361.

The genus Xanihippus was originally described by Saussure (1884). It was used intermittently by various workers and Hebard (1928) finally separated the group Hippisci into the following seven genera: Hippiscus, Pardalophora, Xanthippus, Cratypedes, Stichippus, Agymnastus, and Leprus. Bruner (1897) listed this insect as Hippiscus montanus Thomas and mentioned that it was common in the sand hill region. It appears as adults in the spring and is usually found in extremely sandy areas. No specimens are in the collection but it has been recorded by Hebard (1925) from southwestern Holt County; War Bonnet Canyon and Glen, in Sioux County; Halsey, in Thomas County; and Brady Island, in Lincoln County. Holt County and Brady Island are eastern limital points for Nebraska.

Specimens Examined: None.

Xanihippus corallipes laterfasciatus Scudder

1892. Hippiscus Xanihippus laterfasciatus Scudder, Psyche, VI, p. 359.


This species is not represented in the present collection. Its eastern limit of distribution in Nebraska was listed by Hebard (1925) as War Bonnet Canyon, Sioux County, and Alliance, Box Butte County; both localities are in northwestern Nebraska.

Specimens Examined: None.
Cratypedes neglectus (Thomas)


Only one specimen, a male, is in the collection from Sidney, in Cheyenne County. Bruner in a manuscript marginal note on his 1897 list had added the name Hippiscus neglectus Thomas and stated that "This mountain inhabiting locust occurs sparingly along Pine Ridge in Sioux county." Extensive collecting in extreme northwestern Nebraska will probably reveal the presence of this species in the localities of higher altitude. According to Hebard (1936) the known eastern limits of Cratypedes neglectus (Thomas) in the United States are Billings, Montana; Fort McKinley, Wyoming; and the eastern foothills of the Rocky Mountains in Colorado and northern New Mexico.

Specimens examined: Cheyenne County, Sidney, August 12, 1901, (L. Bruner), 1 ♂.

Tropidolophus formosus (Say)

1825. Gryllus formosus Say, Amer. Ent., II, pl. 34, fig. 2.

This is probably one of the most unusual and beautiful grasshoppers found in the state. The highly arched crest of the pronotum together with the green body and orange wing colors make it most distinctive. Four male specimens are in the present collection from Red Willow and Dundy counties. It undoubtedly will be found in additional local areas in southwestern Nebraska. Bruner (1897) recorded it as occurring sparingly along the extreme southwest border of the state. Hebard (1929) doubted the validity of Bruner's 1905 "Nebraska" record and gave Greeley, Colorado, and southeastern Kansas as northern limits of distribution. The specimens listed below will confirm Bruner's record.


Dissosteira carolina (Linnaeus)

A very common grasshopper found throughout the whole state. It frequents dusty roads and field margins and is commonly called the "Roadside Grasshopper," "Dusty Road Grasshopper," or the "Carolina Locust." Ninety-one adult specimens (forty-three males and forty-eight females) and two nymphs are in the collection. The adult material was secured between May 20 and October 26 with most of it being taken in July and August. One of the male specimens from Lancaster County was taken in coitus with a female of Dissosteira longipennis (Thomas).

Dissosteira longipennis (Thomas)


This large and strong flying Oedipodinae has been taken in Nebraska as far east as West Point, Cuming County, and Lincoln, Lancaster County. In the past it has appeared in the state during periods of grasshopper outbreaks and migrations. Bruner (1897) wrote very interestingly of this insect as follows: "During the autumn of 1876, when the true Migratory Locust was passing over the eastern part of Nebraska, a large specimen of this long-winged hopper was seen to alight at West Point, in that state. . . . It was captured and shortly afterwards described as Oedipoda nebrascensis. . . . It has been quite destructive to crops of nearly all kinds in some parts of this and adjoining states, and has shown a tendency towards becoming a leading member among the list of destructive grasshoppers." In 1925 Hebard stated that "The species is widely distributed over the Great Plains in Colorado, western Nebraska, Kansas and Oklahoma; northwestern Texas, and northern New Mexico." It has not become a destructive grasshopper in Nebraska as Bruner feared it might. During recent years it has been held in check through control measures at the egg beds in areas south and southwest of Nebraska. Thirty-four adults (fifteen males and nineteen females) of this species, probably mostly migrants, are now in the museum collection. As mentioned under the preceding species, one female from Lancaster County was taken in coitus with a male Dissostera carolina (Linnaeus). Another of the females was collected at a light in August, 1914. All specimens were secured between July 9 and September 14.

Specimens examined: Lancaster County, Lincoln, 3 δ, 1 θ; July 9, 1939, (R. L. Gates), 1 θ; August, (in coitus with D. carolina), 1 θ; August 15, 1914, (E. M. Partridge), 1 θ; September, 1 δ, 1 θ; September 14, 1895, 7 δ, 5 θ. Cherry County, Valentine, July 20, 1939, (D. E. Eckhoff), 1 θ. Red Willow County, McCook, August 10, 1901, (M. A. Carriker, Jr.), 1 θ; August 17, (D. E. Eckhoff), 1 θ. Dundy County, Haigler, August 11, 1901, (L. Bruner), 1 δ. Deuel County, Big Springs, August, 1896, 1 δ, 4 θ. Box Butte County, September, 1 θ. Cheyenne County, Sidney, August 14, 1895, (Raymond and Moffit), 1 δ, 1 θ. Sioux County, War Bonnet Canyon, 1 δ.
Spharagemon bolli Scudder


Bruner (1897) recorded this species as rather common in the timbered portions eastward and northward. He also recorded the synonym *balteatum* as moderately common over the state on the prairies. According to Hebard (1925) this species prefers a woodland environment. No specimens are in the present collection. It should be found at least over the northern half of the state.

**SPECIMENS EXAMINED:** None.

Spharagemon collare (Scudder)


A common species over the entire state. It is represented in the collection by a series of twenty-two males and thirty-one females collected from July 7 to October. The majority of them were taken in July and August. This species was found by Bruner (1897) to be plentiful in the central and western portions of the state. At the same time he listed *S. wyomingianum* Thomas which he recognized as possibly a variety of *S. collaris* (Scudder). Hebard (1931) referred to it as a "sand loving insect."

AN ANNOTATED LIST OF THE ORTHOPTERA OF NEBRASKA

1912, 1 ♂, and August 9, 1912, 1 ♂, (J. T. Zimmer); August 13, 1920, 1 ♂, August 14, 1920, 1 ♂, and August 19, 1920, 1 ♀, (C. B. Philip); August 28, 1912, 1 ♀, and August 29, 1912, 1 ♀, (J. T. Zimmer).

Lincoln County, August 10, 1939, (R. Roberts), 5 ♀♀.

Red Willow County, McCook, August 9, 1901, (M. A. Carriker, Jr.), 1 ♂.

Hitchcock County, Trenton, July 30, 1947, (H. A. Hauke), 1 ♀.

Dundy County, Haiger, August 10, 1901, 1 ♂, and August 11, 1901, 2 ♀♀, (L. Bruner).

Box Butte County, Alliance, August 14, 1937, (N. Tolman), 1 ♂.

Spharagemon equale (Say)


According to Bruner (1897) this species was quite generally distributed over the state but nowhere numerous. Specimens have been taken in Hall and Custer counties in the central part of the state and from Sheridan, Sioux, Scotts Bluff, and Kimball counties in western Nebraska. The twelve males and eleven females have been taken during July, August, and September.


Deroimema haydenii haydenii (Thomas)


Seven male and seven female specimens from Thomas, Red Willow, and Dundy counties are in the collection. This narrow-winged grasshopper has been taken in both the yellow and pink wing-disc forms. In 1897, Bruner listed it from western Nebraska where it occurred quite plentifully on gravelly and sandy grounds along Lodge Pole Creek and the Platte River. Hebard (1925) reported it from Glen, in Sioux County, and Sidney, in Cheyenne County.
specimens examined: Thomas County, Halsey, August 19, 1920, (C. B. Philip), 1 ♂. Red Willow County, McCook, July 3, 1904, 2 ♀♂; August 8, 1901, (M. A. Carriker, Jr.), 2 ♂♂, 1 ♀; August 13, 1909, (C. H. Gable), 4 ♂♂, 2 ♀♀. Dundy County, Haigler, August 11, 1901, (L. Bruner), 1 ♂, 1 ♀.

Trachyrhachis kiowa kiowa (Thomas)


A series of two nymphs, thirty-five males and fifty-nine females, represent this species. The nymphs were taken on June 15 and the adults between June 27 and September 1. It is common over the entire state but the collection is lacking in material from southcentral Nebraska. It usually frequents the buffalo and grama grass pastures and range. One male specimen was collected at a light in July at Lincoln. Two female specimens were secured from the dry sandy bed of the Platte River at Grand Island in July, 1933, and one male and two females were secured on July 8, 1936, from a migration flight at Overton in Dawson County. Bruner (1897) recorded this species as common over the entire state.

Trachyrhachis kiowa thomasi (Caudell)


According to Hebard (1931) this species of grasshopper is known as far north as Kansas. Since distribution records show that it has been taken over eastern Kansas it should be found in southeastern Nebraska. No specimens have been collected to date.

specimens examined: None.

Trachyrhachis aspera Scudder


This species is not represented in the present collection but is included in this list since it has been reported from Pine Bluffs, Wyoming. The town of Pine Bluffs is just west of the Kimball County Nebraska line. This grasshopper is likely to be found in the extreme southwestern part of the Nebraska Panhandle. Bruner, in 1897, listed a species Traychyrhas mexicana Saussure which probably should have been Traychyrhachis mexicana Saussure. He undoubtedly referred to T. aspera Scudder and stated that it was found in moderate numbers near the Wyoming line in this state.

specimens examined: None.

Mestobregma plattei plattei (Thomas)


Writing of this species in 1893, Bruner stated that although “it is rare in the state it has been taken on several occasions in the extreme southwestern part.” The present series of three
males and four females are from Dawes and Scotts Bluff counties. Since this species is found in western Kansas, Colorado, Wyoming, and South Dakota, it should be found over the western end of the state.


**Metator pardalinus** (Saussure)


Eleven specimens are in the present collection. This species should be found north and south across the western half of Nebraska. This rather striking short-grass species has been found in western Kansas, South Dakota, Colorado, and Wyoming. Bruner (1897) listed it as very common upon the prairies over the entire state.

**SPECIMENS EXAMINED:** Cherry County, Valentine, 1 ♂. Red Willow County, McCook, July 3, 1904, 1 ♀. Morrill County, Northport, August 2, 1951, (H. A. Hauke), 1 ♂, 1 ♀. Sioux County, Harrison, August 1, 1951, (H. A. Hauke), 5 ♂♂, 2 ♀♀.

**Psinidia fenesteralis fenesteralis** (Serville)


It is entirely possible that this species will be found in the eastern half of Nebraska although it is not represented in the present collection. Bruner (1897) recorded it as rare in northwestern Nebraska but Hebard (1925) questioned this record and stated that the northwestern limits of this insect were eastern Iowa and southeastern Minnesota. It has been recorded in Kansas, however, from as far west as the middle portion of the state, (Hebard, 1931). Beamer (1917) stated that “It usually chooses low sandy locations and is accompanied by species of *Arphia, Trimerotropis* and *Mestobregma (Trachyrhachis)*.”

**SPECIMENS EXAMINED:** None.

**Trimerotropis gracilis gracilis** (Thomas)


In his lists of 1893 and 1897, Bruner recorded *Conozoa gracilis* Thomas as “found occasionally in southwestern Nebraska along the Platte river.” Hebard (1925) believed this listing was based on material of a different species. There is no definite record of it having been taken in Nebraska but it has been recorded from Buffalo, South Dakota; Douglas, Wyoming; and Greeley, Colorado. It would appear logical, therefore, to assume that it might be found in sage-brush areas of western Nebraska where ecological conditions are very similar to the above mentioned localities.

**SPECIMENS EXAMINED:** None.

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**Trimerotropis sparsa** (Thomas)


The only known records of this species in Nebraska are from Bruner’s description in 1889 of the synonym *Trimerotropis perplexa* and from the material in the collection of the Philadelphia Academy of Science. It was described from specimens collected in the Badlands north of Chadron during the month of August. Bruner referred to it as a “peculiarly perplexing form belonging to the group of non-banded winged species . . .” He further wrote “This peculiar locust . . . is partial to nearly bare surfaces . . . more or less strongly impregnated with alkalies. It is a noisy insect and produces a very decided clatter when upon the wing.” It was included in his lists of 1897 and 1899. According to Hebard (1936) it is also known from the Badlands in Sioux County. This area in northwestern Nebraska is a few miles west of the Chadron Badlands. Since it is known from Buffalo and Interior, South Dakota, and from Worland, Wyoming, this species should be found in future collections from northwestern Nebraska.

**SPECIMENS EXAMINED:** None.
**Trimerotropis fratercula** McNeill


*T. fratercula* was described from specimens taken at Pine Bluffs, Wyoming, just west of the Kimball County Nebraska line. This grasshopper should be found across the extreme west end of Nebraska. Seven specimens (four males and three females) are in the collection from Dawes and Sioux counties.

**SPECIMENS EXAMINED:** Dawes County, Pine Ridge, July, 2 ♀♂, 1 ♀. Sioux County, Hat Creek, August, 2 ♀♂, 1 ♀. Monroe Canyon, August 12, 1908, (L. Bruner), 1 ♀.

**Trimerotropis pallidipennis pallidipennis** (Burmeister)


Ball, et al., (1942) reported this grasshopper in Arizona as being one of considerable economic importance. According to them “Migrations occur especially in June and July at which time much damage may be done in cultivated areas.” It is not of economic importance in western Nebraska and adjacent areas. Twenty-one specimens (nine males and twelve females) represent this species in the collection. They are from the western one-third of the state and were taken in August. In the eastern portion of Nebraska this race is replaced by *pallidipennis salina*. Bruner in 1896 listed this insect as *Trimerotropis vinculata* Scudder and as found rather frequently in middle and western Nebraska.

**SPECIMENS EXAMINED:** Dundy County, Haigler, August 11, 1901, (L. Bruner), 1 ♀. Cheyenne County,Sidney, August 12, 1901, (M. A. Carriker, Jr.), 5 ♀♂. Sioux County, Monroe Canyon, August 12, 1908, (L. Bruner), 5 ♀♂, 2 ♀♀. Glen, August 7, 1905, 3 ♀♂; August 8, 1905, 4 ♀♂, 1 ♀.

**Trimerotropis pallidipennis salina** McNeill


This species is found locally at alkaline or saline depressions in the plains area. It is found in the Dakotas, eastern Kansas and south into Oklahoma. According to Hebard it is also found
about alkali depressions on the Great Plains of Colorado. The entire series of forty-seven specimens in the collection are from Lincoln. Bruner in his 1897 list recorded this insect as *Trimerotropis*-sp. He stated that “There is a form of locust that approaches the preceding (*T. vinculata* Scudder) found upon the salt basins here at Lincoln that may be new.” Later in a manuscript note appended to this list he recorded it at *T. salina* McNeill.

**SPECIMENS EXAMINED:** *Lancaster County*, July, collected at electric light, 3 ♂ ♀; July 4, 1920, (R. W. Dawson), 3 ♂ ♀; July 11, 1920, 1 ♂, July 15, 1920, 2 ♀ ♀, July 16, 1920, 1 ♂, and July 19, 1920, 1 ♀, (C. B. Philip); September, 1886, 2 ♂ ♀, 1 ♀; September 17, 1917, (L. Bruner), 3 ♂ ♀; October 10, 1922, 1 ♂, and October 18, 1922, 1 ♀, (C. B. Philip); July 11, 1920, 5 ♂ ♀, 4 ♀ ♀; September, 12 ♂ ♀, 5 ♀ ♀. Salt Basin, (Lincoln), 1 ♀.

**Trimerotropis campestris** McNeill


Not represented in the present collection. This species should be found in western Nebraska as it has been taken in South Dakota as far south as Martin and Pine Ridge. It was described by McNeill (1901) from Pine Bluffs, Wyoming. Hebard (1936) stated that “It is very frequently taken in company with *Spharagemon equale* (Say), the resemblance between individuals of these two species being often remarkable.”

**SPECIMENS EXAMINED:** None.

**Trimerotropis citrina** Scudder


Although recorded by Hebard (1931) as a southeastern species found north to “central Nebraska,” this insect is not represented in the present collection.

**SPECIMENS EXAMINED:** None.

**Trimerotropis agristis** McNeill


This species is found in western Nebraska as far east as Thomas and Dundy counties. A series of eight male and six females are in the collection.

Trimerotropis pistrinaria Saussure


In 1893 and 1897 Bruner recorded this insect as Hadrotettix gracilis Bruner and stated that it was quite abundant in some portions of the west and northwest. Eastern limits in the state are the extreme western counties and Dundy County in the southwest. McNeill (1901) described this insect as T. brunei. The localities from which he had recorded the insect at that time were Hot Springs, South Dakota; Cheyenne, Wyoming; and Chadron, Nebraska. Sixteen adult specimens (ten males and six females) are in the present collection. They were collected during the months of July and August.


Trimerotropis laticincta Saussure


This species has not been taken in the state in recent years. Specimens in the collection are from Dawes, Sioux, and Scotts Bluff counties, all in the extreme west end of the state. The three males and three females were collected in July and August.


Trimerotropis cincta (Thomas)

This species has been taken in northern Sioux County in the northwest corner of the state. It has also been taken in South Dakota at Game Lodge and Hot Springs, to the north of Sioux County. Hebard (1925) recorded it from “the Rocky Mountains of Colorado and New Mexico; from Amidon, North Dakota and from Pine Ridge, Nebraska.” The twelve male and four female specimens in the collection were all taken in August.

**SPECIMENS EXAMINED:** Sioux County, August 8, 1905, 11  ♂  4 ♀. Monroe Canyon, August 28, 1908, (R. W. Dawson), 1 ♂.

*Hadrotettix trifasciatus* (Say)


This insect is distributed over most of Nebraska and has been taken as far east as Cuming, Knox, and Lancaster counties. With its heavy body it is easily recognized in both the immature and mature stages. Bruner (1897) listed it as occurring sparingly over the central and western parts of the state. A series of twenty-one male and twenty-four female specimens were secured between June and September 1.


*Circotettix rabula rabula* Rehn and Hebard

Whether or not this race will be found in Nebraska is not known. It is included here since a large collection of Circotettix in the state might show a series typical of *rabula rabula*. Bruner undoubtedly meant this or the following species when he listed *Circotettix undulatus* (Thomas) from the sand hill region and western portion of the state in 1897. Rehn in 1921 listed material as a typical *C. rabula rabula* toward *C. rabula nigrafasciatus* from the Bad Lands in Sioux County and from Gordon in Sheridan County.

**SPECIMENS EXAMINED:** None.

**Circotettix rabula nigrafasciatus** Beamer


This interesting species is represented in the collection by a series of twelve males and six females secured in Sheridan, Dawes, Box Butte, and Sioux counties in northwestern Nebraska. Hebard in 1925 wrote of this species as follows: "Largest and handsomest of the races of *rabula*, *nigrafasciatus* represents one of the most striking forms of insect life on the bare slopes and precipices of mesas and hillsides, as it crackles loudly in vigorous and erratic flight over its favorite habitat." He recorded it from Fort Robinson, Sidney, Dismal River, and Broken Bow.


**Heliaula rufa** (Scudder)


This rather scarce species is represented in the collection by a series of six female specimens from Sidney at the south edge of the Nebraska Panhandle. They were collected in 1901 by Bruner. He listed this species in a manuscript note on the margin of a copy of his 1897 list and indicated that it was "found on high ground among short grasses" and "apt to occur where
the slopes are strewn with gravel.” According to Hebard (1925) Sidney is an eastern point of distribution. Eastern limits to the south are Greeley, La Salle, Colorado Spring, and Canon City, Colorado.

specimens examined: Cheyenne County, Sidney, August 12, 1901, (L. Bruner), 6 ♀ ♂.

**Subfamily BATRACHOTETRIGINAE**

**Brachystola magna** (Girard)


Quite common over the state, this large grasshopper is locally called the “Lubber” and the “Homesteader.” Its large size when compared to other species of grasshoppers and wingless condition make it a conspicuous insect. As it jumps about it is rather clumsy and is easily captured. A series of nineteen males, nineteen females, and nine nymphs are in the collection. The nymphs were secured between June 19 and July 18 while the adults were taken between July 14 and October 12.


**Subfamily CYRTACANTHACRINAE**

**Paropomala wyomingensis** (Thomas)


1899. Paropomala wyomingensis Scudder, Psyche, VIII, p. 437.

Recorded by Bruner (1889) as Mesops cylindricus sp. nov., this interesting locust has been found as far east in the state as Wheeler, Cherry, Thomas, and Dundy counties. Bruner found it at Valentine and Chadron from whence he described it. Twenty-six male and twenty-seven female specimens are in the collection. Material has been gathered between July 29 and September.


Schistocerca americana americana (Drury)


A series of sixteen specimens of this distinctive grasshopper are in the present collection. Fifteen of these are from southeastern Nebraska and one is from Phelps County in the south-central part of the state. Hebard (1931) listed southeastern Kansas as the probable northern limit of continuous distribution of this species. It becomes quite numerous in states to the east and south. The "Bird Locust" as it is sometimes called is quite difficult to capture because of its powerful flight. In many localities where this species occurs in large numbers it is of economic importance. According to Riley (1891) it "was very abundant in 1876 in Missouri, Tennessee, Indiana, Ohio, North Carolina, Georgia, and Virginia. They caused much devastation, devouring in many places everything green, even alighting on trees. . . ." Control of this species has been necessary in some localities in southeastern states in recent years. The five males and eleven females have been taken between May 25 and October 31. One adult female specimen was col-
lected in a greenhouse on the Agricultural College campus in Lincoln on December 22.

**SPECIMENS EXAMINED:** Cass County, South Bend, June 25, 1915, (M. H. Swenk), 1 ♀. Richardson County, Barada, September 1, 1949, (H. A. Hauke), 1 ♀. Otoe County, Syracuse, October, 1932, (L. Antes), 1 ♀. Lancaster County, Lincoln, May 25, 1928, 1 ♀; June 7, 1900, 1 ♀; July 3, 1939, (R. Roberts), 1 ♀; July 7, 1932, (Vance), 1 ♀; September 30, 1932, (H. A. Hauke), 1 ♀; October 2, 1921, (R. W. Dawson), 2 ♀; October 7, 1932, (H. A. Hauke), 1 ♀; October 18, 1922, (C. B. Philip), 1 ♀; October 31, 1949, (E. Hamilton), 1 ♀; December 22, 1937, (in college greenhouse), (O. S. Bare), 1 ♀. Fillmore County, Fairmont, August, 1913, (G. W. Deming), 1 ♀. Schistocera lineata Scudder


This insect is quite common throughout Nebraska. It is an inhabitant of grassland areas. Thirty-three males and twenty-nine females have been taken between July 21 and October 11. This species is probably not of any economic importance in the state except as it appears in mixed populations of grass feeders.

Schistocerca obscura (Fabricius)


Bruner (1897) listed this species from Nebraska as “only met with occasionally in the southeastern part of the state.” This record was questioned by Hebard (1931). He believed it to be incorrect and that richly colored specimens of S. lineata had been so identified. In 1916 Rehn and Hebard discussed obscura and gave its range as the extreme southeastern states. Hebard in 1931 listed it as being found in southeastern Kansas. Four specimens, one male and three females, have been taken in southern Nebraska west to the southcentral part of the state in recent years. The females are considerably larger and heavier than the preceding species, S. lineata. It evidently is a strong flier and a migrant into this area.

Specimens Examined: Pawnee County, Table Rock, September 11, 1949, (On rosebush), (O. S. Bare), 1 ♂, 1 ♀. Gosper County, Elwood, 1 ♀. Furnas County, Beaver City, August 28, 1940, (H. A. Hauke), 1 ♀.

Hypochlora alba (Dodge)


This species was originally described by Dodge from specimens collected at Glencoe, in Dodge County. Bruner (1897) listed it as quite common on sage in eastern, middle, and northwestern parts of Nebraska. With the exception of those specimens taken in Lancaster County the present series is from counties north of the Platte River. Extensive collecting should reveal the presence of this species in more counties south of the river. All of the fifty-eight specimens in this series are brachypterous. They were collected between August 2 and October.

Specimens Examined: Cuming County, West Point, 1 ♂, 3 ♀; August, 1884, 1 ♂, 1 ♀; September, 1884, 5 ♂♂, 12 ♀♀. Lancaster County, August 16, 1928, 2 ♀; August 18, 1 ♀; August 20, 1929, 1 ♀; August 23, 1928, 1 ♀; August 29, 1929, 1 ♀; 2 ♀; September 7, 1928, 2 ♀; and September 10, 1928, 1 ♀, (D. B. Whelan); September 13, 1917, (L. Bruner), 1 ♀; September 14, 1913, (E. G. Anderson), 1 ♀; September 17, 1917, (L. Bruner), 3 ♂♂, 1 ♀; October, 1 ♀. Knox County, Niobrara, August 2, 1902, (W. D. Pierce), 1 ♀. Cherry County, Valentine, August, 4 ♂♂, 3 ♀♀. Arthur County, Arthur, August 12, 1950, (H. A. Hauke), 1 ♀. Deuel County, Big Springs, September 26, 1950, (H. A. Hauke), 1 teneral ♀. Sheridan County, Gordon, 1 ♀.
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Campylacantha olivacea olivacea (Scudder)


Bruner (1897) recorded this species from the eastern and middle portions of the state where it was not rare. This olive-green brachypterous grasshopper prefers weedy areas. It should be found throughout the eastern and northern parts of Nebraska. The forty-seven specimens in the collection are from three localities in Lancaster County in eastern Nebraska and Cherry and Sheridan counties in northwestern Nebraska. Four nymphs were taken in July and the adult specimens from August to October 9.

SPECIMENS EXAMINED: Lancaster County, Lincoln, 1 ♀; July 4, 4 nymphs; August, 20 ♂ ♂, 5 ♀ ♀; September 7, 1926, (D. B. Whelan), 1 ♀; September 17, 1917, (L. Bruner), 3 ♀ ♀; September 27, 1926, 1 ♀, and October 6, 1931, 2 ♂ ♂, 1 ♀, (D. B. Whelan); October, 2 ♀ ♀; October 9, 1922, (C. B. Philip), 1 ♂, 2 ♀ ♀. Cherry County, Valentine, 1 ♂. Nenzel, September 28, 1950, (H. A. Hauke), 1 ♂. Sheridan County, Niobrara River, September 27, 1950, (H. A. Hauke), 2 ♂ ♂.

Aeolplus turnbulli bruneri Caudell


The name Aeolplus is used in this paper for the present, in place of Aeoloplides. Henderson (1941) wrote that "Hebard formerly regarded Caudell's name Aeoloplides as unnecessary and held to Scudder's name of Aeolopus as proper for the genus. However, he is apparently now [letter from Hebard to Henderson, dated February 21, 1941] in agreement with Caudell, so that the name Scudder proposed has become a synonym."
All specimens in the museum collection were determined by Herbert S. Wallace as *Aeolopidès turnbulli bruneri* Caudell. A series of two males and seventeen females has been taken from Lancaster County on west. This grasshopper at times builds up large populations in localized areas but is not of economic importance. It is usually found in places where the Russian thistle plant is abundant—along weedy roadside margins and in wheat stubble.


**Hesperotettix viridis viridis** (Thomas)


This species is not represented in the present Nebraska collection. Hebard in 1925 stated that Sidney was an eastern limit of distribution for Nebraska and that he could “not recognize as valid Bruner’s . . . assertion that viridis occurs everywhere on the prairies of Nebraska and Kansas.”

**SPECIMENS EXAMINED:** None.

**Hesperotettix viridis pratensis** (Scudder)


A series of ten males and thirty-one females of *Hesperotettix* in the collection has been placed under this name for the present. In correspondence with Dr. Gurney of the U. S. National Museum he stated that “until a good revision can be done on this group, spending very much time on color forms is probably not justified.” The specimens listed below are all from the north half of the state.

1928, (D. B. Whelan), 1 $\delta$, 1 $\varphi$; July 8, 1929, (R. Roberts), 4 $\delta$, 2 $\varphi$; July 10, 1929, 1 $\varphi$, and September 14, 1929, 1 $\delta$, (D. B. Whelan). Knox County, Niobrara, August 2, 1902, (W. D. Pierce), 1 $\delta$, 1 $\varphi$. Antelope County, Neligh, (Cary), 2 $\varphi$. Boyd County, Manawi, June 28, 1933, (D. B. Whelan), 1 $\varphi$. Greeley County, Spalding, July 1, 1931, (Klingman), 1 $\delta$. Cherry County, Valentine, August, 2 $\varphi$. Thomas County, Halsey, July 29, 1912, 1 $\delta$, 1 $\varphi$, and August 9, 1912, 1 $\varphi$, (J. T. Zimmer); August 13, 1920, 1 $\varphi$, August 14, 1920, 2 $\varphi$, and August 20, 1920, 1 $\varphi$, (C. B. Philip). Dismal River, July, 2 $\varphi$. Dakota County, Big Springs, July 19, 1932, (H. C. Jones), 1 $\varphi$. Dawes County, Pine Ridge, July, 2 $\varphi$. Sioux County, July, (M. A. Carriker, Jr.), 2 $\varphi$. Glen, August 8, 1905, 1 $\delta$, 4 $\varphi$. Bad Lands, August 10, 1908, 1 $\varphi$. Scotts Bluff County, Mitchell, (E. E. Wehr), 1 $\varphi$.

**Hesperotettix speciosus** (Scudder)


The “Sunflower” grasshopper, as this species is commonly referred to, is quite common over the state. Bruner (1897) found the same to be true and stated that “it has been known to occur in sufficient numbers to do some harm to growing crops of certain kinds. It is one of the few insects that has been included among the destructive species of North America.” This has not been the case, however, in more recent years in this area and the species is not now considered as one of major economic importance. It is usually found on or close to wild sunflower plants and in weedy areas. Fourteen males, twenty females, and four nymphs were taken between July and August 29.

**Specimens Examined:** Cuming County, West Point, 2 $\delta$ $\delta$; July, 1884, 1 $\delta$; July, 1888, 1 nymph; September, 1884, 1 $\varphi$. Lancaster County, Lincoln, July, 1 $\delta$, 2 $\varphi$ $\varphi$; August 24, 1929, 1 $\varphi$, and August 29, 1929, 1 $\varphi$, (D. B. Whelan). Webster County, Red Cloud, August 2, 1910, (J. T. Zimmer), 4 $\delta$, 3 $\varphi$ $\varphi$. Knox County, Niobrara, August 2, 1902, (W. D. Pierce), 1 $\delta$. Buffalo County, Shelton, August 18, 1933, (H. A. Hauke), 1 $\delta$, 1 $\varphi$. Franklin County, Franklin, July 29, 1947, (H. A. Hauke), 2 nymphs. Thomas County, Halsey, July 25, 1912, (J. T. Williams), 1 $\varphi$; August 13, 1920, 1 $\varphi$, and August 19, 1920, 1 $\delta$, 1 $\varphi$, (C. B. Philip). Lincoln County, August 10, 1938, (R. Roberte), 1 $\delta$, 2 $\varphi$ $\varphi$. Red Willow County, McCook, 1 $\varphi$. Keith County, Ogallala, August 1, 1947, (H. A. Hauke), 1 $\delta$, 1 nymph. Dundy County, Benkelman, July 31, 1947, (H. A. Hauke), 1 $\delta$, 3 $\varphi$ $\varphi$. Haigler, August 11, 1906, (L. Bruner), 2 $\varphi$.
Paratyloptropidia brunnieri Scudder


This species is not represented in the present museum collection. It has been recorded from Cowley County in southeastern Kansas. Hebard (1931) stated that “In 1925 we omitted the Dakota record from our South Dakota paper... and we believe that there is doubt as to the accuracy of the labeling.” Scudder (1897) described this species from one male collected in “Dakota” by L. Bruner and one female from Dallas, Texas. It has been taken at Sargent’s Bluff, Iowa, just across the Missouri River from Dakota County, Nebraska. Rehn and Rehn (1943) stated that it “is definitely a prairieland type... while having an extensive north and south distribution it apparently does not enter the Great Plains area...” They also recorded it as spotty, or local, in distribution. On the basis of the above records, this species should be present in eastern Nebraska but might not be very common.

Specimens examined: None.

Paroxya hoosieri (Blatchley)


Although there is no actual record of this species having been taken in Nebraska there is a possibility that it might be found in the extreme southeastern part of the state. Bruner in 1897 recorded the grasshopper Paroxya atlantica Scudder, or hoosieri Blatchley as follows: “I have never taken this locust within the state, but have been informed that one occurs along the Missouri river that answers the description of either quite well.” Hebard (1931) believed that it might be found along the Missouri River forming the northeastern boundary of Kansas, and that it was undoubtedly this insect to which Bruner referred in his 1893 Nebraska list as Paroxya atlantica (?). Scudder (1897) listed it from Indiana and Ohio.

Specimens examined: None.

Melanoplus discolor (Scudder)


This species is included in the present list since it has been recorded from Grant, Osborn, and Clark counties in Kansas, and from Capa, in Lyman County, South Dakota. It should be found in the western half of the state.

**SPECIMENS EXAMINED:** None.

**Melanoplus beameri** Hebard


There is a possibility that this grasshopper might eventually be found in extreme southeastern Nebraska. It was described by Hebard (1931) from specimens taken at Kansas City, Missouri, and Leavenworth, Kansas. He stated that the Leavenworth series "was collected a half mile north of the city on the southeast slope of a hill covered with trees and heavy underbrush. Some were out in the open along a pasture fence."

**SPECIMENS EXAMINED:** None.

**Melanoplus gracilis** (Bruner)


According to Bruner (1897) this insect was "found quite abundantly in the eastern part of the state in woods." In his original description of this species he listed the habitat as "Omaha, Nebraska; August to October," (1876). A single female specimen taken at Omaha in September is in the Nebraska collection.

**SPECIMENS EXAMINED:** Douglas County, Omaha, September, 1♀.

**Melanoplus scudderi scudderi** (Uhler)


This brachypterous grasshopper is found across eastern Nebraska. It has been taken in extreme southeastern South Dakota, the northwestern limit of the species. Hebard (1925) recorded it as an eastern form with its western limits of distri-
bution as Springfield, South Dakota; eastern Nebraska; Brown County, Kansas; South McAlester and Caddo, Oklahoma, and Myra, Texas. A series of twelve males and thirteen females taken in September and October is in the collection.

**Specimens Examined:** *Douglas County*, Omaha, 6 ♂♂, 4 ♀♀. *Cuming County*, West Point, 1 ♀; September, 1884, 1 ♂, 1 ♀. *Cass County*, South Bend, October 2, 1904, 4 ♀♀. *Dodge County*, North Bend, 1894, 1 ♂. *Lancaster County*, Lincoln, August, 1 ♂; September 14, 1929, 1 ♂, 1 ♀; October 3, 1929, 1 ♂; October 22, 1928, 1 ♀, and October 25, 1928, 1 ♀, (D. B. Whelan). Roca, October 31, 1933, (H. A. Hauke), 1 ♂.

**Melanoplus scudderii latus** Morse


This grasshopper has been taken across eastern Kansas as far north as Brown County which adjoins Richardson County, Nebraska, on the south. It should, therefore, be found in the southeast corner of Nebraska.

**Specimens Examined:** None.

**Melanoplus walshii** Scudder


Bruner in his 1897 Nebraska list recorded *Melanoplus blatchleyi* Scudder as "found in the eastern part of the state in woods where it is moderately common." Blatchley (1920) indicated that the name *blatchleyi* was a synonym of *walshii*. He also mentioned that this insect frequents upland woods and thickets. It is rather a clumsy bodied insect and is brachypterous. Hebard (1931) gave its western limit of distribution in Nebraska as Omaha and Peru. Both localities are in the Missouri River valley in extreme eastcentral and southeast Nebraska. Two female specimens, both from Omaha, are in the collection.

**Specimens Examined:** *Douglas County*, Omaha, September, 1 ♀; September 7, 1935, 1 ♀.

**Melanoplus huroni** Blatchley


This species is found in extreme northwestern Nebraska. One female specimen from Sioux County is in the collection. It was
recorded from the Black Hills in South Dakota and the Big Horn Mountains in Wyoming by Hebard in 1925 and 1936.

Specimens examined: Sioux County, 1 ♀.

**Melanoplus differentialis** (Thomas)


This is the largest and one of the most destructive species of this genus in the state. It is very common in all crop land districts and under optimum conditions for development causes crop losses of great economic importance. The color of this insect usually becomes darker as the season progresses. In some localities colonies exhibiting varying degrees of melanism are to be found. Nymphs usually appear during the last of June or the forepart of July although one was taken in Sioux County as late in the season as August 22. The eighty-seven adults in the collection were taken between June 27 and October 23.


Melanoplus bivittatus (Say)

Like the preceding species bivittatus is common over the crop land areas of the state and at times causes crop damage of great economic importance. It also is sometimes very numerous in weedy spots in range land areas. Bruner (1897) mentioned both of these species in his list as being destructive to crops and gardens. This insect is a little smaller than differentialis but is one which is readily recognized as the “two-striped” grasshopper by most farmers. This grasshopper usually hatches a little earlier in the season than does differentialis. Three nymphs in the collection were taken on June 15 and a series of seventy-six adults were taken between June 21 and October 18.

Melanoplus punctulatus (Scudder)


This species was recorded by Bruner (1897) as “Found in rather small numbers in oak groves in the extreme eastern part of the state.” Hebard (1931) stated that “It is an arboreal species, so resembling the bark of trees that individuals are very easily overlooked by the collector.” Blatchley (1920) quoted E. M. Walker as having found this species ovipositing on old tree stumps and logs.

specimens examined: None.

Melanoplus ponderosus viola (Thomas)


There is a possibility that this species might be found in the extreme southeastern section of the state. Bruner (1897) listed a species “*Melanoplus violus* Thomas” as being found in that area. Hebard (1931) thought that it might be found “in the forest undergrowth of river bottoms in extreme eastern Kansas” as it had been reported from central Missouri.

specimens examined: None.

Melanoplus dawsoni (Scudder)

Twenty-five specimens of this brachypterous grasshopper are in the present collection. The eight males and seventeen females were taken between August 3 and October 23. Lincoln and Lancaster counties are the southern limits of distribution of the species in the state. Bruner (1897) listed it as not rare in the state on low grounds. In addition to localities recorded below, Blatchley (1920) listed this species from Valentine, Cherry County, and Hebard (1925) listed it from Ft. Robinson, Dawes County.

**SPECIMENS EXAMINED:** Cuming County, West Point, 5 ♀ ♀; September, 1 ♀ ♀; October, 1884, 1 ♂, 1 ♀. Lancaster County, Lincoln, August 9, 1928, 1 ♀ ♀, August 20, 1928, 2 ♀♀, August 28, 1928, 1 ♂, 3 ♀♀, August 29, 1929, 1 ♂, August 30, 1928, 2 ♀♀, September 13, 1928, 1 ♂, 1 ♀ ♀, September 27, 1928, 1 ♂, 1 ♀ ♀, and October 25, 1928, 1 ♂. (D. B. Whelan). Knox County, Niobrara, August 3, 1902, (W. D. Pierce), 1 ♀. Lincoln County, August 10, 1939, (R. Roberts), 1 ♂.

**Melanoplus gladstoni** Scudder


The eastern limits of distribution of this species in the state are Sheridan, Deuel, and Dundy counties. A series of fourteen male and eleven female specimens taken between July and September 26 are in the collection.


**Melanoplus arizonae** Scudder


There is no record of this insect having been taken in Nebraska but it should be found in the extreme southwestern two or three counties along the Republican River valley. It has been taken in western Kansas as far north as Rawlins County. This county is immediately south of Hitchcock County, Nebraska. Ball, et al., (1942) listed it from "Arizona to Oklahoma, Kansas, southwestern Texas, and Mexico."

**SPECIMENS EXAMINED:** None.
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**Melanoplus regalis** (Dodge)


According to Hebard (1931) this species has been known from Dodge County and the Republican River in Nebraska. In a marginal manuscript note on a copy of his 1897 list Bruner listed this species from “S. W. Nebraska and Dodge county?” Dodge described this species from specimens collected at Glenco, in Dodge County. It is known from southwestern Kansas and to the south and west of Kansas. It has not been taken by collectors in Nebraska in recent years.

**SPECIMENS EXAMINED:** None.

**Melanoplus confusus** Scudder


This species is quite common in both cultivated areas and grass lands of the entire state. It hatches early in the season and the nymphs are difficult to separate from those of three or four similar species of this genus. Adults have been taken between June 7 and August 31. Bruner (1897) listed it as *M. minor* Scudder. One female specimen in the collection from War Bonnet Canyon in Sioux County is labelled “Mel. minor Scudder’s Type, 1895.” A series of thirty-three males and nineteen females is in the collection.

Melanoplus femur-rubrum femur-rubrum (DeGeer)


Another very common species throughout the state is one known as the “Red-legged” grasshopper. It becomes quite numerous in cultivated areas and at times very much so in alfalfa fields. It is one of the four important species of Melanoplus in the state. The mature adults vary somewhat in coloration from a rather drab appearance to a brilliant plumbeus and yellow. A series of eighty-six males and sixty-five females have been taken between June 19 and October 21.


**Melanoplus infantilis** Scudder


*Melanoplus infantilis* is scattered throughout the short grass areas of extreme western Nebraska. Bruner (1897) listed this species as “a very characteristic little species that is found quite plentifully on the high plains of the western third of the state.” This is the smallest winged species of this genus found in the state. The present series of twenty-six adults and three nymphs was taken in August and September.


**Melanoplus lakinus** (Scudder)


Only seven specimens of this interesting grasshopper from southwestern Nebraska are in the collection. All are brachypterous. It should also be found northward across western Nebraska since it has been taken at Capa, South Dakota (Hebard, 1925). At times it has been observed to be quite numerous in weedy margins of alfalfa fields adjacent to pastures.


**Melanoplus occidentalis occidentalis** (Thomas)


Since it is found in the western parts of Kansas and South Dakota, this grasshopper should be found across the entire western end of Nebraska. A series of five males and eight females is in the collection from the Sand Hills, Red Willow County, and Dundy County. Bruner (1893 and 1897) listed it from the middle and western portions of the state where it was “not at all common.” Hebard (1936) listed it from Philip and Pine Ridge, South Dakota, and from Glen and Sidney, Nebraska.

**SPECIMENS EXAMINED:** Sand Hills, 1940, 2 ♂, 2 ♀. Red Willow County, McCook, August 9, 1901, (M. A. Carriker, Jr.), 1 ♀. Dundy County, Haigler, August 11, 1901, (M. A. Carriker, Jr.), 2 ♂; (L. Bruner), 1 ♂, 5 ♀.

Melanoplus fasciatus (F. Walker)


Bruner (1897) listed this species as being found only in northeastern Nebraska. Blatchley (1920) gave its distribution as “north and west nearly or quite across the continent and south and west to New Jersey, northern Indiana, Missouri and Colorado.” Hebard (1931) expressed surprise at finding this boreal species recorded from as far east as Chautauqua and Crowley counties in Kansas. Three male and two female specimens from Cass County, in eastcentral Nebraska, are in the present collection.

**SPECIMENS EXAMINED:** Cass County, South Bend, June 23, 1915, (L. Bruner), 3 ♂, 2 ♀.

Melanoplus borealis junius (Dodge)


Melanoplus junius Dodge was recorded by Bruner (1893) as “an eastern species that is of rather common occurrence on low meadows during June and July.” It is a species which prefers
the lush green grass in open spots of swamps. The original description of this species by Dodge was made from specimens taken in Dodge County. Having been found in North Dakota, western South Dakota and Iowa, it should be found locally in the northern half of Nebraska.

specimens examined: None.

*Melanoplus mexicanus mexicanus* (Saussure)


This is usually a very common grasshopper throughout the state and is also one of the most destructive. The "Lesser Migratory Grasshopper," as it is called, is found both in cultivated areas and range grasses. This species at times builds up greatly in population and has a tendency to migrate. It was one of the species responsible for the great economic damage to crops in the 1930's. Bruner (1893) recorded it as being found over the entire state. A series of two hundred and thirty-seven specimens taken between June 6 and October 31 is in the Museum collection. This species at times has two generations in the state, particularly during a long dry season. At such times the eggs of the first generation have been known to hatch in late April or early May. Mature adults of the first generation usually deposit their eggs early in July. The second generation adults mature and oviposit late in the season. The nymphs and adults of the second generation often cause severe marginal damage to fall wheat and new alfalfa seedings. A series of two males and twelve females were secured from a large flight of grasshoppers at Nebraska City on June 24, 1936, by workers for the Lincoln Telephone and Telegraph Company. On the same date M. H. Swenk and R. E. Hill secured single male and female specimens from a flight passing over the city of Lincoln. On June 26 of the same year a series of four males and three females were secured from a flight passing over Lexington by J. C. Adams, Dawson County Extension Agent. In 1937 R. E. Hill and R. Roberts secured a series of eight males and nine females from a flight moving south over Lincoln on September
10. One specimen of this species, taken at Pine Ridge in Sioux County, is a gynandromorph. Rehn, in 1933, determined it as being virtually of the phase *spretus*. Severin (1943) described and figured such an insect which he had taken in Hand County, South Dakota, in 1933.


**Melanoplus mexicanus** migratory phase *spretus* (Walsh)

1929. *Melanoplus mexicanus* migratory phase *spretus* Hebard, *Proc. Acad. Nat. Sci. Phila.*, LXXXI, p. 390. *Melanoplus spretus* was listed by Bruner (1893) as being found over the entire state where it was at times very destructive to all kinds of crops. Much has been written about this insect which was commonly called the “Rocky Mountain Locust.” Thomas (1875) gives a very interesting account of *Caloptenus spretus* as it appeared throughout the midwestern states in the early days of this country. The report of the U. S. Entomological Commission composed of Riley, Packard, and Thomas (1878) also gives an interesting account of it in Nebraska. Records of its appearance in the state were reported as early as 1856. It caused untold damage to crops and range in the early days. In more recent years this grasshopper was believed to have disappeared. However, there is no doubt but that the migrations of *Melanoplus mexicanus mexicanus* Saussure in the 1930’s might have consisted, in part, of specimens very near to the migratory phase *spretus*.

**SPECIMENS EXAMINED:** Cuming County, West Point, 1 ♂, 4 ♀ ♀.

**Melanoplus bruneri** Scudder

As *M. bruneri* is known from the Black Hills in South Dakota
and from Colorado it should be found across the western end of Nebraska. Hebard (1925) referred to it as “strictly sylvan in the United States, here living in bushy forest undergrowth.” In Scudder’s (1897) original description of this species he listed specimens in the U. S. N. M. collection from Gordon, in Sheridan County.

**SPECIMENS EXAMINED:** None.

**Melanoplus keeleri luridus** (Dodge)


Common throughout most of the state. The present series of forty-four males and sixty-two females are, however, all from the northern half. The material has been taken between July 1 and October 31.

**SPECIMENS EXAMINED:** Nebraska, 1 ♂, Cass County, South Bend, October 5, 1904, 10 ♂♂, 8 ♀♀; Cuming County, West Point, 3 ♂♂, 2 ♀♀; August 1884, 1 ♀; September, 1 ♂, 3 ♀♀; September, 1884, 3 ♂♂. Saunders County, Cedar Bluff, October 2, 1913, (E. G. Anderson), 1 ♀. Lancaster County, Lincoln, August 2, 1928, 1 ♂, August 8, 1929, 1 ♀, August 15, 1929, 1 ♂, 1 ♀; August 16, 1928, 1 ♂, August 20, 1928, 1 ♀, August 23 1928, 3 ♀♀, August 29, 1928, 1 ♂, August 30, 1928, 1 ♂, 1 ♀, September 6, 1928, 1 ♀, September 7, 1928, 1 ♀, September 8, 1928, 1 ♀, September 10, 1928, 1 ♀, September 12, 1928, 1 ♂, September 13, 1928, 1 ♂, September 14, 1928, 1 ♂, 2 ♀♀, September 20, 1928, 2 ♂♂, and September 27, 1928, 1 ♂, (D. B. Whelan); October, 2 ♀♀; October 3, 1928, 2 ♂♂, 1 ♀, October 10, 1928, 1 ♂, 1 ♀, October 25, 1928, 2 ♂♂, 1 ♀, and October 30, 1928, 1 ♀, (D. B. Whelan). Knox County, Niobrara, 1 ♂; (H. M. Swenk), 2 ♂♂, 1 ♀; August 2, 1902, (W. D. Pierce), 4 ♂♂, 4 ♀♀. Antelope County, Neligh, August, (Cary), 1 ♂, 10 ♀♀; August 9, 1901, (M. Cary), 1 ♀, Creek County, Spalding, July 1, 1931, (Klingman), 1 ♀. Scotts Bluff County, Scottsbluff, October 5, 1904, 2 ♂♂, 5 ♀♀. Dawes County, Ft. Robinson, August, 1886, 1 ♂.

**Melanoplus packardii** Scudder


This species, which is distributed over the entire state, has not been taken very often in the southern countries. It has in the past often been confused with *foedus*. Hebard (1925) in-
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specified that "The insect is a prairie and plains dweller, but is very fond of cultivated patches in such regions and undoubtedly is one of the most destructive species annually present, due to its large size and frequent abundance. It is very active, jumping powerfully as well as being able to fly well." In Nebraska this species has never been considered as causing damage of great economic importance. At times of peak populations it might, together with other species, cause serious crop or grass females, and three nymphs has been taken between July 9 and October 7. One female specimen from Pine Ridge, in Dawes County, is labelled "Mel. packardii, Scudder's Type, 1895."


**Melanoplus foedus foedus** Scudder


This and the preceding species are so nearly alike in general appearance that it is necessary to examine the aedeagus in order to separate the two. McPherson County in the central part of the state and Franklin County in southcentral Nebraska are the eastern limits of distribution of this insect.

Melanoplus foedus fluviatilis Bruner


Bruner in his original description stated that this "locust is rather common along river valleys in eastern Nebraska, where it is to be found among the vegetation growing on sandbars." He described specimens from Ashland, Nebraska. All specimens in the present collection are from the eastern third of the state with Knox, Cuming, and Saunders counties the western limit of distribution.


Melanoplus angustipennis (Dodge)


Dodge originally described this insect from male and female specimens collected on the banks of the Elkhorn River in Dodge County, Nebraska. Bruner (1897) recorded it as quite common in the eastern half of the state. The synonym *Melanoplus compactus* Scudder was described in 1897 from specimens taken at Sidney in Cheyenne County. The thirty-one male and thirty-four female specimens have been taken between July 7 and October 5 in all parts of the state.

Melanoplus impiger Scudder


This species has not been recorded from Nebraska. Hebard (1931), in the *Orthopetera of Kansas*, stated that "the validity of *impiger* is somewhat doubtful and it may well prove to be a geographic race or indeed nothing more than a local environmental adaptation of *angustipennis*." If this is a valid species it should be found in southeastern Nebraska with the western limit of distribution running diagonally from the eastcentral part of the state to the extreme southcentral counties. It is known from Kansas, Iowa, and southeastern Minnesota.

**SPECIMENS EXAMINED:** None.

Melanoplus bispinosus Scudder


It is entirely possible that this species might be found in southern Nebraska counties of the southcentral area. It is a species which is more common in the southern states but which has been taken as far north as Osborne County in Kansas. This county is about twenty-four miles south of the Nebraska-Kansas border.

**SPECIMENS EXAMINED:** None.

Melanoplus flavidus flavidus Scudder


This species is known from Waubay, Chamberlin, Martin, and Buffalo in South Dakota; Julesburg and Fort Collins, Colorado; and from western Kansas. It has been found in scattered localities throughout Nebraska. A series of five males and eight females in the collection have been taken between July and October.
Melanoplus bowditchi bowditchi Scudder


Bruner (1897) found this species to be rare in the southwestern part of the state. Specimens in the collection, five males and nine females, are from Dundy and Sioux counties. The eastern limits of this insect, according to Hebard (1931), are extreme western Kansas and Glen and Haigler, in Nebraska.

**SPECIMENS EXAMINED:** Dundy County, Haigler, August 10, 1901, (L. Bruner), 3 ♂, 8 ♀; August 11, 1901, (L. Bruner), 1 ♂, 1 ♀. Sioux County, July, (M. A. Carriker, Jr.), 1 ♂.

Melanoplus bowditchi canus Hebard


Five specimens from northwestern Nebraska were taken in September in Cherry and Sheridan counties. They were found in sandy and weedy areas adjacent to sage brush covered range. This race is known from North Dakota, western South Dakota, eastern Wyoming, and eastern Colorado.


Phoetaliotes nebrascensis (Thomas)


This grasshopper occurs over the entire state. It is a grassland species and in some localities, particularly in the western half, may be found in rather large numbers. Normally brachypterous, it is sometimes found in the long-winged form as well. A series of fifty-two males, forty-one females, and one nymph
of this interesting grasshopper are in the collection. One male
and three females are of the long-winged form. Between
August 18 and September 20, 1928, D. B. Whelan collected a
series of thirty-seven adult specimens from a section of native
prairie near Lincoln, Lancaster County. The rest of the material
was secured between July and October 3.

**Specimens examined:** Douglas County, Omaha, 1 ♂. Cuming
County, West Point, 9 ♂♂, 8 ♀♀; September, 3 ♂♂, 2 ♀♀; September,
1894, 2 ♂♂, 1 ♀. Lancaster County, Lincoln, July, 1 ♀; August
18, 1928, 3 ♂♂, August 20, 1928, 1 ♂, 1 ♀, August 22, 1928, 2 ♂♂, 3 ♀♀,
August 28, 1928, 3 ♂♂, August 29, 1928, 1 ♂, 3 ♀♀, August 30, 1928,
1 ♂, 2 ♀♀, September 3, 1928, 2 ♀♀, September 6, 1928, 3 ♂♂, 2
♀♀, September 7, 1928, 2 ♂♂, September 10, 1928, 2 ♂♂, September
13, 1928, 1 ♂, 1 ♀, September 14, 1928, 1 ♂, 1 ♀, and September 20,
1928, 1 ♂, 1 ♀, (D. B. Whelan); September 30, 1932, (H. A. Hauke),
2 ♂♂, October, 1 ♂, 2 ♀♀; October 3, 1929, (D. B. Whelan), 1 ♀.
Knox County, Niobrara, (M. H. Swenk), 1 ♂; August 2, 1902, (W. D.
Pierce), 1 ♂. Antelope County, Neligh, (Cary), 1 ♀. Cherry County,
Lincoln County, August 10, 1939, (R. Roberts), 1 ♂, 1 ♀. Red Willow
County, McCook, August 9, 1901, (M. A. Carriker, Jr.), 1 ♂. Dundy
County, Haigler, August 10, 1901, (L. Bruner), 1 ♂, 1 ♀. Parks,
August 22, 1947, (H. A. Hauke), 2 ♂♂, 2 ♀♀, 1 nymph. Sheridan
County, Gordon, 1 ♂, 1 ♀. Dawes County, Chadron, August, 1888,
1 ♂. Sioux County, Montrose, August 24, 1947, (H. A. Hauke), 1 ♂,
1 ♀. Glen, August 24, 1947, (H. A. Hauke), 1 ♂, 1 ♀. Scotts Bluff
County, Gering, 1 ♀.

*Dactylotum pictum* (Thomas)


This is the most brilliantly colored grasshopper to be found in
the state and is often referred to as the “Rainbow” grasshopper.
Bruner (1897) found it to inhabit the high prairies of middle
and western Nebraska. The present series of twenty-eight
males, forty-one females, and four nymphs is from the western
three-fourths of the state with Knox and Gage counties as the
eastern limit of distribution. The insect is brilliantly marked
with pale bands of yellow and black. The yellow bands usually
have some orange or pink markings. This grasshopper is
brachypterous and is rather clumsy in movement. They generally
are never found in very large numbers at any one place. A series
of twelve males, nineteen females, and three nymphs was taken at Thedford, in Thomas County, on August 3, 1948,
by O. S. Bare. He reported that a colony of this species ex-
tended over approximately an acre of sand hill range at that location. Nymphs have been taken between June 28 and August 3, and adults secured between July 19 and September 3.

**Specimens Examined:**
- **Gage County,** Ellis, August 8, 1938, (H. E. Foster), 1 ♀.
- **Knox County,** Niobrara, August 13, 1902, (W. D. Pierce), 1 ♂; August 27, 1938, (A. A. Soulek), 1 ♀.
- **Boyd County,** Naper, June 28, 1933, (D. B. Whelan), 1 nymph.
- **Webster County,** Red Cloud, July 19, 1925, 2 ♀♂.
- **Harlan County,** Alma, August 12, 1901, (G. Ashby), 1 ♀.
- **Blaine County,** Dunning, August 2, 1948, (M. H. Muma), 1 ♀.
- **Custer County,** Arnold, September 1, 1935, (Darlington), 1 ♀.
- **Cherry County,** Simeon, August 21, 1929, (C. Reece), 1 ♂.
- **Thomas County,** Halsey, July 24, 1912, 1 ♀; July 25, 1912, 1 ♀, and August 7, 1912, 1 ♂, (J. T. Zimmer); August 14, 1920, (C. B. Philip), 1 ♀.
- **Thedford,** August 3, 1948, (O. S. Bare), 12 ♀♂, 18 ♀♀, 3 nymphs.
- **Lincoln County,** August 10, 1938, (R. Roberts), 1 ♂.
- **Blaine County,** Dunning, August 2, 1948, (M. H. Muma), 1 ♀.
- **Cherry County,** Simeon, August 21, 1929, (C. Reece), 1 ♀.
- **Thomas County,** Halsey, July 24, 1912, 1 ♀; July 25, 1912, 1 ♀, and August 7, 1912, 1 ♂; August 14, 1920, (C. B. Philip), 1 ♀.
- **War Bonnet Canyon,** August 12, 1908, 1 ♀.
- **Monroe Canyon,** August 20, 1908, (J. T. Zimmer), 1 ♀; September 3, 1921, (R. E. Weir), 1 ♂.

**Fig. 1**

Several of the localities in which considerable collecting of grasshopper specimens has been done are shown on the above map. Numbers 34, 35, and 39 represent two or more localities in the same general area. An alphabetical list of these locations follows:
Agate—37
Arnold—23
Ashland—11
Bartlett—18
Big Springs—30
Blair—2
Cambridge—24
Carns—20
Chadron—31
Crawford—34
Deshler—13
Falls City—6
Fremont—10
Fort Robinson—34
Gering—39
Glen—36
Gordon—29
Grant—26
Haigler—28
Halsey—22
Imperial—27
Kimball—40
Lincoln—12
McCook—25
Mitchell—38
Monroe Canyon—35
Montrose—35
Nebraska City—4
Neligh—15
Niobrara—14
Northport—32
Omaha—3
O’Neill—17
Peru—5
Scottsbluff—39
Shelton—19
Sidney—33
South Bend—7
South Sioux City—1
Superior—16
Valentine—21
War Bonnet Canyon—35
Weeping Water—8
West Point—9
BIBLIOGRAPHY


