

Old and New Species of Lopidea from the United States (Hemip., Miridae).*

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(Plate XIII.)

Lopidea media (Say). Heterop. Hemip. N. Amer., p. 22, 1831.
(Plate XIII, fig. 1.)

The various workers on Hemiptera have generally agreed on the species that represents Say's *media*, type of the genus *Lopidea*, there being only one form east of the Mississippi that will fit the original description. Farther west, however, beginning with Colorado, and Texas to the southwest, *media* overlaps with two species, *lepidii* and *intermedia*, forms which could never be distinguished with certainty except by the genital characters. The writer has figured the male genital claspers (Pl. XIII, fig. 1) of a specimen from Missouri which is the same as the generally accepted *media* Say. Males of this species have been examined coming from several States, ranging from Maine to Colorado with two specimens from farther west.

The writer found *media* breeding on *Solidago rugosa* at Four Mile, New York, in company with *Ilacora malina* Uhler, but judging from the distribution of the species, he is of the opinion that it breeds on other plants also.

Records: ♂ ♀, Aug. 16, Ashland Junction, MAINE, ♂ ♀, July 3, Hanover, NEW HAMPSHIRE (C. W. Johnson). ♂ ♀, July 13, Swampscott, MASSACHUSETTS (H. M. Parshley). ♂ ♀, July 4, Four Mile, ♂ ♀, July 12, Batavia (H. H. Knight); ♂ ♀, July 3, White Plains (Torre Bueno); ♂ ♀, July, Staten Island (Wm. T. Davis), NEW YORK. ♂, July 2, Jamesburg, NEW JERSEY, (W. T. Davis). ♂, June 17, Brightwood, DISTRICT OF COLUMBIA; ♀, Aug. 7, 1907, Hyattsville, MARYLAND (O. Heidemann). ♂ ♀, May 30 to June 23, Plummer's Island, ♂ ♀, June 4-15, Beltsville, MARYLAND; ♂ ♀, June 6, Mount Vernon, ♂ ♀, June 23, Glen Carlyn, VIRGINIA (W. L. McAttee). ♂, Ames, IOWA. ♂ ♀, July 15, Springfield, MISSOURI (H. H. Knight). ♂, Aug. 15, Bozeman, MONTANA. ♂ ♀, June 26, July 17, Fort Collins, COLORADO. ♂, July 3, 1891, Ogden, UTAH.

Lopidea intermedia new species. (Pl. XIII, fig. 11).

Similar in coloration to *media* and *lepidii*, to which species

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it is very closely related; differs in being shorter and more compact and in the structure of the male genital claspers.

♂. Length 4.9 mm., width 1.7 mm. Bright red with fuscous and blackish as exhibited in *media*, shorter and more compact, the antennae shorter also; second antennal segment linear, in length (1.31 mm.) less than the width of the pronotum (1.48 mm.) at the base.

♀. Similar to the male in size and coloration.

This species was found breeding on a purple flowering weed that grew in clumps along the small stream that flows by Helotes. Few adults were out at the time of collecting, but the nymphs were found rather plentiful.

Holotype: ♂, July 1, 1917, Helotes, Bexar Co., Texas (H. H. Knight); Cornell University Collection.

Allotype: Taken with the type.

Paratypes: 4 ♂, 5 ♀, taken with the types.

Lopidea robiniae (Uhler). Proc. Ent. Soc. Phila., 1:24, 1861.
(Pl. XIII, fig. 2).

This is a common and well-known species in the Eastern States, breeding on locust (*Robinia pseudo-acacia*) from which its name is taken. The writer has examined specimens from Georgia, North Carolina, District of Columbia, Pennsylvania, New York, Connecticut and Massachusetts.

This species has in the past frequently been confused with *confluens* and even Uhler was willing to place his *robiniae* as a variety of *media* Say (Proc. Boston Soc. Nat. Hist., 19: 406, 1878). The species is easily distinguished by the male genital claspers (Pl. XIII, fig. 2) which are very characteristic; the number of teeth on the basal part of the right clasper and fine spines at the tip of the curved part may vary slightly in number but the general form of the clasper is distinctive.

Lopidea confluens (Say). Heterop. Hemip. N. Amer., p. 23, 1831.
(Pl. XIII, fig. 3).

This species is slightly more ovate and robust than *robiniae*, is frequently very similar in coloration but usually more orange or reddish. It has frequently been labeled *robiniae* in collections and the only certain way of determining the yellow forms is by examining the male genital claspers.

The writer found *confluens* breeding on *Polymnia uvedalia* in Missouri and the species doubtless lives also on *P. canadensis*. There appears to be little doubt but that the species here figured is the form described by Say, since this is the only common form in the Middle States, and the only one from Missouri that will fit the original description.

Records: 2♂, July 29-30, ♂, Aug. 13, Batavia, New York (H. H. Knight). ♂♀, Aug. 28, Honesdale, Penn. (C. E. Olsen). ♂♀, July 19 to Sept. 5, Plummer's Island, Maryland (W. L. McAtee). ♂♀, Aug. 11, Springfield, Ohio (W. S. Adkins). 2♂, 5♀, June 10, Flatwood, Alabama; 42♂♀, July 15-18, Springfield, Missouri (H. H. Knight).

Lopidea sayi new species. (Pl. XIII, fig. 5).

♂. Length 6.1 mm., width 2.1 mm. Slightly smaller than *staphyleae* but very similar in coloration, the antennae being more nearly linear; bright yellow to light orange, the scutellum and more or less on each side of the commissure, fuscous; base of the head and each side of the median line of the front, tylus, rostrum, antennae, membrane, femora and tibiae, black. Sternum and sometimes part of the venter, fuscous; genital claspers distinctive of the species.

♀. Very similar to the male but with more fuscous and less orange in the yellow.

Holotype: ♂, June 6, 1917, Brown's Ferry on Savannah River, South Carolina (H. H. Knight); Cornell University Collection.

Allotype: Taken with the type.

Paratypes: ♂, taken with the types. ♂, June 15, 1902, Plummer's Island, Maryland (O. Heidemann).

Lopidea caesar (Reuter). *Caps. Amer. Bor.*, p. 67, 1876. (Pl. XIII, fig. 4).

This species was described by Reuter (1876) under the new generic name, *Lomatopleura*, with the type locality given as Pennsylvania. It was later found that Uhler's *Lopidea* (1872) was very similar to *Lomatopleura* and the only points of difference between the type species that could be fixed upon in classification was in the linear and incrassate form of the antennae. The writer has shown in a previous paper that the thickness of the antennae varies in the different species, and

that the incrassate form cannot be taken as a basis for generic distinction. Reuter (1909, *Bemerk. u. neark. Caps.*, p. 72) refers to *caesar*, having before him a male specimen from Texas sent by Mr. Heidemann, and a female specimen which may or may not have been *caesar* (1876). In the same note the author remarks that the second antennal segment of the male is "thinner" than in the female, again showing that he had two species under consideration. The male considered above, being the same as *major* n. sp. from Texas, does have more slender antennae than either *caesar* or *reuteri*. The writer finds that the sexes of a given species of *Lopidea* do not differ in the antennal characters.

The writer has seen the more important collections of Miridae from the United States and, after a careful survey of the *Lopidea* material, he feels quite safe in saying that if the type of *Lomatopleura caesar* came from Pennsylvania, as stated in the original description, then it can be only one of two species, that which the writer figures as *caesar* (Pl. XIII, fig. 4) or the species *reuteri*. These two species are indeed very similar in general appearance, having prominent incrassate antennae, and are the only forms coming from Pennsylvania that could be taken for *caesar*. Reuter (1909) determined at least two species as *caesar* and it is not to be wondered at when one sees how closely together certain species run, the only apparent difference being found in the male genitalia. After a careful study of considerable material with reference to the color characters and distribution of the species, the writer has figured what he believes must be *caesar* Reuter (1876).

Lopidea minor new species. (Pl. XIII, fig. 6).

Smaller and more reddish than *nigridca* but larger than *minima*.

♂. Length 4.5 mm., width 1.6 mm. Fuscous, the exterior half of the corium, the cuneus, sides of the body and head, reddish, the embolium paler; prominent dark brownish pubescence; genital claspers distinctive of the species, showing a close relationship to *davisi* which species is much larger.

Holotype: ♂, "Colorado"; Cornell University Collection.

Paratypes: ♂, topotypic; ♂, Dickinson, North Dakota (H. Osborn).

This species stood in the Cornell Collection as *Lopidea nigridea*, being received in an exchange lot from C. F. Baker in 1896. It differs from *nigridea* in its small size, coloration, and genital claspers.

Lopidea picta new species. (Pl. XIII, fig. 7).

Dark fuscous with black and white, differing from most species of *Lopidea* in the absence of any reddish coloration.

♂. Length 5.5 mm., width 1.78 mm. Dark fuscous, calli, base of the head, tylus and each side of the median line of the front, rostrum and antennae, black; anterior part of the pronotum and the head ivory white, excluding the parts given as black; scutellum except the margins, embolium and cuneus, pale. Side of the pronotum, pleurae and venter, white; sternum, sutures of the pleurae and marks on the sides of the venter and genital segment, fuscous. Legs fuscous to black, coxae except base, lower edge of the femora and apices, pale. Second antennal segment nearly linear. Genital claspers distinctive of the species.

♀. Very similar to the male in coloration, certain forms shorter and more robust with membrane abbreviated.

Holotype: ♂, June 15, 1900, Pueblo, Colorado (E. D. Ball); Cornell University Collection.

Allotype: topotypic.

Paratypes: 4 ♂, 2 ♀, topotypic; ♂, 3 ♀, July 24, 1900, Salida, Colorado.

Lopidea incurva new species. (Pl. XIII, fig. 8).

Slightly larger than *minor* and smaller than *davisi*, reddish with the fuscous on the dorsum much as in *minor*; male genital claspers distinctive of the species.

♂. Length 5 mm., width 1.6 mm. Second antennal segment slightly thicker at the middle and tapering toward base and apex. Dorsum fuscous with only the exterior margins of the corium, pronotum and cuneus, reddish; membrane, antennae, eyes, rostrum and most of the face, fuscous. Legs pale fuscous, coxae and basal half of the femora pale to yellowish and pink, tarsi fuscous to black.

Holotype: ♂, July 17, Langdon, Missouri; Cornell University Collection.

Allotype: July 17, 1892, Galesburg, Illinois (Heidemann collection.)

Paratype: ♂, same data as the allotype.

Lopidea major new species. (Pl. XIII, fig. 9).

Very large, slightly more robust than either *caesar* or *reuteri*, carmine red and only narrowly fuscous along the commissure; male genital claspers distinctive of the species.

♂. Length 7.3 mm., width 2.57 mm. Second antennal segment scarcely incrassated, tapering slightly from near the base toward the apex. Carmine red, the scutellum lightly infuscated and very narrowly along the commissure of the hemelytra; calli, antennae, rostrum, head excepting the juga and bordering the eyes, legs, sternum, genital segment, and membrane, dark fuscous to black.

♀. Length 7.5 mm., width 2.74 mm.; slightly more robust but very similar to the male in coloration.

Holotype: ♂, May 5, 1896, San Antonio, Texas (Marlatt); Cornell University Collection.

Allotype: topotypic.

Paratypes: ♂ 6 ♀, topotypic.

This is the same species and some of the same material that Reuter (1909) had before him and took to be *caesar* when he stated: "the structure of the male genitalia is very characteristic, the tip of the left (*sinistra*) forcep being divided into three rather short prongs of equal length, and in addition is armed with a strong tooth nearer the base." It is to be noted that he should have said right clasper instead of left (*sinistra*); also the female that had "thicker" antennae was a different species, and possibly *caesar*. The material was sent to Reuter for determination by Mr. Heidemann when that worker was preparing his paper "Bemerkungen uber nearktische Capsiden nebst Beschreibung neuer Arten."

Lopidea texana new species. (Pl. XIII, fig. 10).

Very similar to *major* in size and general structure, but in color more orange red than carmine; male genital claspers distinctive of the species.

♂. Length 7.3 mm., width 2.45 mm. To be distinguished from *major* with certainty only by the male genital claspers, these structures showing a close relationship between the species.

♀. Length 7.5 mm., width 2.7 mm. Very similar to the male; the more yellowish or orange red coloration serves to distinguish the females from those of *major* in the small series studied.

Holotype: ♂, Austin, Texas (C. T. Brues); Cornell University Collection.

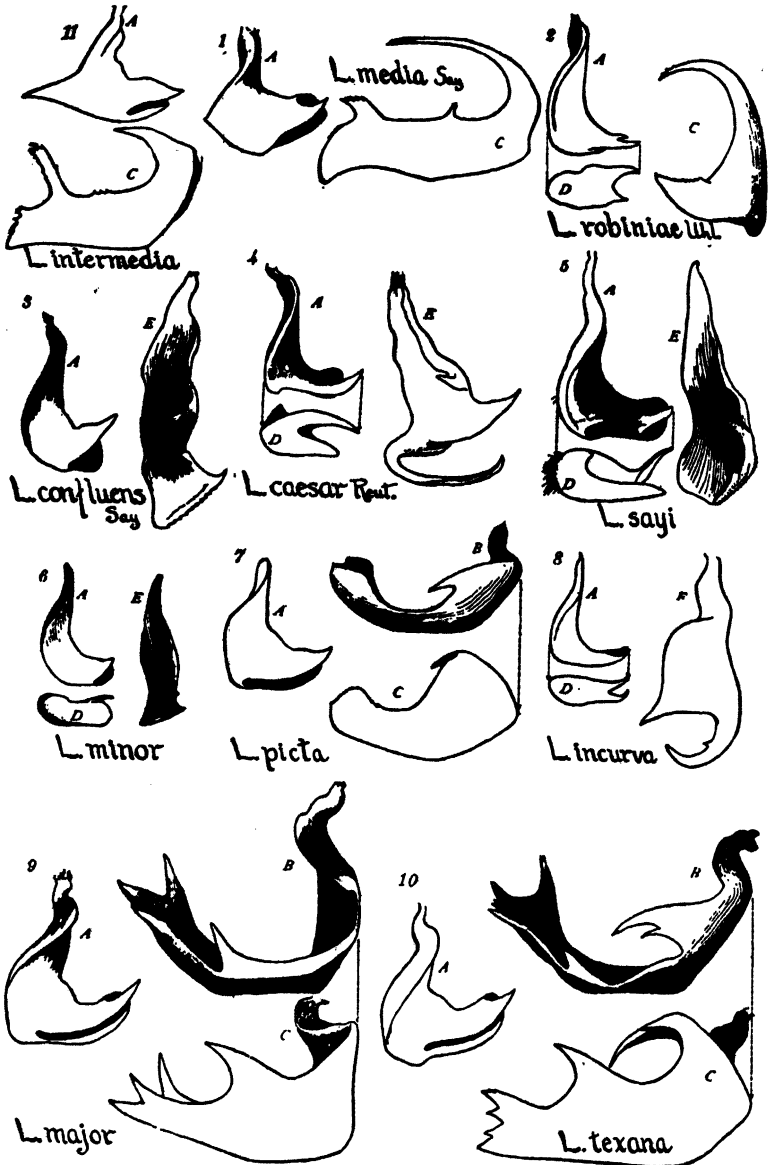
Allotype: topotypic.

Paratypes: 5 ♀, topotypic; ♀, May, 1896, Texas (Marlatt).

EXPLANATION OF PLATE XIII.

Male genital claspers of *Lopidea*.

A. left clasper, dorsal aspect. B. right clasper, dorsal aspect. C. right clasper, posterior aspect. D. left clasper, posterior aspect. E. right clasper, internal lateral aspect. F. right clasper, external lateral aspect.



OLD AND NEW LOPIDEAE FROM THE UNITED STATES.—KNIGHT.