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STEPHEN A. FORBES, Chief

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BULLETIN

Article II.

Notes on a Collection of Erythroneura and
Hymetta (*Eupterygidae*) chiefly from
Illinois, with Descriptions
of New Forms

BY
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ERRATA

Page 57, statistical headings: for *Year 1920* read *Year 1910*; for *Year 1909* read *Year 1920*; in the ratio heading, for *1909* read *1920*, and for *1920* read *1910*.
The entries in the Year columns should change places.

Page 85, line 13 from bottom, for *87* read *86*.

Page 88, line 20, delete *red*.

Page 115, line 6, over the column of figures read *Acres*.

Page 136, line 5, for *135* read *131*.

Page 145, *First table*, 4th column, for *35.97* read *33.40*; last column, for *.052* read *.0418*.

Second table, second column, for *.2158* read *.2004*; 5th column, for *.1131* read *.0977*; last column, for *.0926* read *.0772*.

Last table, second column, for *.714* read *.663* and for total read \$4.710; 5th column, for *.374* read *.323* and for total read \$2.201; the last column, for *.307* read *.256* and for total read \$1.700.

Page 146: *First table*, second column, for *8.02* read *7.45* and for total read *52.92*; third column, for *3.45* read *2.88* and for total read *19.10*; 4th column for *19.28* read *17.90* and for total read *127.18*; last column, for *8.29* read *6.92* and for total read *46.35*.

Second table, for *43.02* read *38.66*.

Last table, for *8.0* read *6.7*.

Page 382, line 10 from bottom, for *Platythemis* read *Plathemis*.

Page 385, in list, the specific names of No.'s 33, 35, and 40 should end in *us* instead of *a*.

Pages 445 (line 4), 448 (line 4), 449 (line 23), 454 (line 8 from bottom), read *Belostomidac* for *Belostomatidac*.

Page 457, line 21, for *cornutus* read *cornuta*.


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ARTICLE II.—Notes on a Collection of *Erythroneura* and *Hymetta* (*Eupterygidae*) chiefly from Illinois, with Descriptions of New Forms.
BY W. L. McATEE.

The collection here reported upon was identified and descriptions of new forms written several months ago, completion of the report being delayed by lack of time to trace out a few loose ends. As a new revision of the genus *Erythroneura* is under way it is thought best to put on record now these Illinois data. The *Eupterygidae* were long a favorite group with the late Charles A. Hart, who substantially assisted Gillette's revision (*Proc. U. S. Nat. Mus.* 20, 1898, pp. 750-773) with loans of material. He had sorted subsequent collections of the State Natural History Survey and had invented manuscript names for most of the undescribed forms. A number of these were independently named in the Key to the Nearctic Species and Varieties of *Erythroneura* (*Trans. Am. Ent. Soc.*, 46, pp. 267-321, August, 1920) by the writer, who did not have Hart's material at hand at the time. Some of the others are here described and the writer is glad to adopt Hart's MS. names for three of them, namely *lunata*, *oculata* and *rufomaculata*. Many of the specimens of more recent date here recorded were collected by J. R. Malloch, and some of an intermediate period by J. D. Hood. Many records here given are the first since the original description of the forms involved.

GENUS ERYTHRONEURA FITCH

E. vulnerata var. *vulnerata* Fitch, red form.—Urbana, Jan. 11, 1908, Nov. 11, 1915; St. Joseph, Sept. 3, 1916; No. 25069; also Brownsville, Tex., Nov. 21, 1911, palm jungle sweepings, C. A. Hart.

E. vulnerata var. *niger* Gillette.—Danville, March 12, 1910; Dongola, Aug. 22, 1916; also Nos. 23671 and 25019.

E. vulnerata var. *nigerrima* McAtee.—Dongola, Aug. 23; Urbana, Sept. 20, 1916; Algonquin, Oct. 5, 16, 1895; and Nos. 23671, and 25783.

ERYTHRONEURA OCLATA, NEW SPECIES

In outline as seen from above this species resembles *E. vulnerata* Fitch, the shape of the vertex being nearly the same; the venation however is as in my Group 2 (i. e. like that of *E. obliqua* Say). The ground color of the present species is pale greenish yellow, and the most distinctive markings are: a pair of round velvety black spots on the upper part of face near eyes, and a similar pair, closer together on vertex just back of apex; there are also four dark spots in a transverse row on anterior

disk of pronotum, a spot on each anterior angle back of eye and a falcate vitta near middle of each lateral margin; the basal triangles of scutellum are velvety black. There are no other dark markings above, but the apical cells and clearer parts of corium especially the long cells between the sectors are chiefly dusky fumose. Red markings are present as follows: a broad, anteriorly convex lunate vitta on middle of pronotum, 3 blotches on each clavus, the middle one largest, 2 blotches between third sector and claval suture, and 2 short lines on second sector; the wings are dusky fumose. Color below smoky-brown, a pale-yellow area about each velvety black spot on face and a top-shaped pale area on middle of front; antennae and legs pale yellowish. Length 3 mm.

Holotype, ♀, Brownsville, Tex., Nov. 30, 1910, in sweepings from weeds, C. A. Hart (Ill. State Nat. Hist. Survey).

E. obliqua var. *obliqua* Say, red form.—Urbana, Nov. 13, 1915, Nov. 22, 1906; St. Joseph, Nov. 10, 1906; White Heath, May 7, 1909, April 30, 1916; Hopedale, Oct. 2, 1917; and Nos. 156, 279, 3341, and 25018. Yellow form.—White Heath, May 7, 1909; Dubois, Aug. 8, 1917; and Nos. 25764, and 25789.

E. obliqua var. *dorsalis* Gillette, red form.—White Heath, May 7, 1909; Algonquin, June 12, 1897; and Nos. 4459, 14873, and 25742; also Iowa, Ac. Cat. 910.

E. obliqua var. *stolata* McAtee.—Savanna, June 12, 1917.

E. obliqua var. *noevus* Gillette, red form.—White Heath, May 7, 1909; Urbana, Oct. 22, 1916. Yellow form.—Muncie, May 24, 1914.

E. obliqua var. *fumida* Gillette, red form.—St. Joseph, Nov. 10, 1906; Hopedale, Oct. 2, 1917; and No. 156.

E. obliqua var. *electa* McAtee.—St. Joseph, Nov. 10, 1906.

E. rubroscuta Gillette.—No. 3171.

E. dentata Gillette.—Meredosia, Aug. 20, 1917. Previously known only from the type material which was collected in California.

E. abolla var. *abolla* McAtee, red form.—Urbana, Nov. 10, 11, 1915; Dongola, May 10, 1916; Dubois, May 23, 1917. Yellow form.—Monticello, Ill., June 28, 1914; Dongola, Aug. 22, 1916. The specimen from Monticello has diffuse red markings along posterior parts of the sectors especially the third.

E. abolla var. *varia*, McAtee, red form.—White Heath, June 2, 1917; St. Joseph, Nov. 10, 1906; Urbana, March 24, 1916; Meredosia, May 29, 1917; Dubois, May 22, 1917; and No. 25792. Yellow form.—Dongola, Aug. 23, 1916.

E. abolla var. *accensa* McAtee.—White Heath, April 30, 1916; Dubois, May 22, 1917.

E. tecta var. *tecta* McAtee.—No. 16064. *E. seripunctata* Malloch (Bul. Brooklyn Ent. Soc. 16, No. 1, Feb. 1921, p. 25) is a synonym.

ERYTHRONEURA MALLOCHII, NEW SPECIES

Belongs in Group 4 of my Key, being somewhat intermediate between *E. tecta* and the remaining species; vertex more pointed than in that species and first apical cell small. Color of head and thorax above, pale yellow; scutellum with basal triangles nearly black; tegmen with dusky streaks which occupy nearly all of its surface except inner base of clavus, base of corium, most of costa and distal parts of 3rd and 4th apical cells. Face pale yellow, a v-shaped mark bounding it and clypeus, bluish black, cheeks whitish; body bluish black with pale yellow edgings. Length 3 mm.

Holotype, ♂, Meredosia, Ill., May 30, 1917. (Ill. State Nat. Hist. Survey.)

ERYTHRONEURA LUNATA, NEW SPECIES

Belongs to Group 4 of my Key, having the vertex without dots and more pointed than in *E. tecta* and diverging greatly in coloration from any of the other species. Ground color somewhat opaque whitish, more or less tinged with reddish throughout and with the following distinct pinkish-red markings: fine irrorations tending to be grouped in a transverse band between anterior angles of eyes, and a short posterior median vitta on head, a spot in each anterior angle, more or less of front margin, and a median vitta on pronotum; four posteriorly oblique red streaks from costa of tegmen, one at front of corium, one at each end of costal plaque and one more or less ramose overlying cross-veins. The scutellum has the base narrowly, the basal triangles, and apex dusky to black, and there are two triangular markings on middle of clavus, and two elongate posteriorly directed markings on the corii just outside these, dusky to black, that form when tegmina are folded a broken posteriorly open semi-circle; a dusky band extends from hind edge of costal plaque to radial margin, leaving costa and most of the exceptionally long first apical cell clear; this band is interrupted near radial margin by the paler veins; first apical cell with a dark dot near apex, second nearly filled by a dusky marking; fourth dusky at base. Face with an irregular cross-band and short median vitta reddish; genitalia tipped with black, and dorsum of abdomen with two broad dusky vittae. Length 3 mm.

Holotype, ♂, Urbana, Ill., Nov. 11, 1915; and allotype, ♀, White Heath, Ill., May 7, 1909. (Ill. State Nat. Hist. Survey.)

E. aelys McAtee.—White Heath, May 7, 1909.

E. illinoiensis var. *illinoiensis* Gillette, yellow form.—Hopedale, Oct. 2, 1917; Dongola, Aug. 24, 1916, on grape; and No. 1992. The latter specimen is marked type but it is not referred to in the original description so does not help to settle the question as to what specimen may properly be regarded as the holotype of this species.

E. morgani De Long, red form.—White Heath, April 28, 1916. Yellow form: Kampsville, Aug. 21, 1913, on sycamore; Meredosia, May 28, 1917; St. Joseph, Sept. 3, 1916, on grape.

E. hartii Gillette.—Algonquin, June 12, 1897; Nos. 14873, 18036, 25019, 29785.

E. basilaris var. *basilaris* Say, red form.—White Heath, April 17, 1909; Urbana, Nov. 13, 1915, Nov. 22, 1906; St. Joseph, Nov. 10, 1906; Hopedale, Oct. 2, 1917.

E. maculata var. *maculata* Gillette, red form.—Urbana, March 24, 1916, among leaves; Olney, Sept. 21, 1916, on apple; Metropolis, Aug. 20, 1916. Yellow form: Sumner, Aug. 2, 1914; Kampsville, Aug. 21, 1913, on sycamore; White Heath, May 7, 1909; Havana, April 30, 1914; Muncie, May 24, July 5, 1914; Nos. 25, 764, 25805, 40309, 43384, 50835; also Colo. 1751.

E. maculata var. *era* McAtee, yellow form.—Muncie, Nov. 1, 1913.

E. maculata var. *osborni* De Long, red form.—No. 156, Hart Coll. Yellow form: St. Joseph, Sept. 3, 1916, on grape.

E. ligata var. *ligata* McAtee.—Algonquin, May 18, 1896.

E. ligata var. *allecta* McAtee.—Algonquin, Oct. 29, 1896.

ERYTHRONEURA LIGATA VAR. PUPILLATA, NEW VARIETY

Like *Erythroneura ligata* var. *allecta* McAtee, with the addition of dusky coloration over anterior half of clavus and 2 dusky to black vittae on middle of pronotum and scutellum sometimes coalescing to form large blotches. Length, 3 mm.

Holotype, ♂, No. 25069 Ill.; paratypes, same data, also No. 152 Hart Coll., and Urbana, Ill., July 7, 1915, on window. One paratype in writer's collection; other material in collection of Illinois State Natural History Survey.

E. infuscata Gillette.—Dongola, Aug. 27, 1916; and No. 156.

E. vitis var. *vitis* Harris.—White Heath, May 7, 1909; Clayton, Sept. 30, 1916; Urbana, March 24, 1916, among leaves; Nos. 25018, 25150.

E. vitis var. *corona* McAtee.—White Heath, May 7, 1909, and No. 156.

E. vitis var. *bistrata* McAtee.—White Heath, May 7, 1909; Dongola, Aug. 27, 1916.

E. tricincta var. *tricincta* Fitch, red form.—White Heath, May 7, 1909; Nos. 156, 10819, 25019. Yellow form, White Heath, May 7, 1909; No. 10819.

E. tricincta var. *calycula* McAtee, red form.—Danville, March 12, 1910. Yellow form, No. 5672.

E. comes var. *comes* Say, yellow form.—Clay City, Sept. 2, 1909, and No. 17398.

E. comes var. *vitifex* Fitch, yellow form.—Meredosia, May 28, 1917.

ERYTHRONEURA COMES VAR. PALIMPSESTA, NEW VARIETY

Like *E. comes* var. *vitifex* Fitch except that the red vitta on anterior half of clavus and the adjacent short vitta on corium are overlaid or replaced by black; the lateral vittae on pronotum and the sides of the scutellum also may be dusky to black, and the oblique dusky band across apical cells is well marked. Triangular area below base of antenna, pro- and meso-pleura, base and apex of genitalia and broad vittae on dorsum of abdomen also may be dusky to black. Length 3 mm.

Holotype, ♂, and two ♀'s, one of which is allotype, Forest City, Ill., April 3, 1917. (Ill. State Nat. Hist. Survey.)

E. comes var. *elegans* McAtee.—Urbana, July 8, Oct. 12, Nov. 14, 1915; McLeansboro, Sept. 3, 1914, on *Ampelopsis*; White Heath, May 7, 1909; Algonquin, Aug. 28, 1894, Sept. 15, 1895; Nos. 15474, 25018; also Colorado, 1748.

E. comes var. *rubrella* McAtee.—White Héath, May 7, 1909; Algonquin, Oct. 5, 1895.

ERYTHRONEURA COMES VAR. REFLECTA, NEW VARIETY

Much like *E. comes* var. *rubra* Gillette in connection with which it was mentioned in my Key, but the pale markings are more extensive, and the red ones instead of being a solid jasper-red as in that form are dilute bluish-red with carmine edgings; the fact that all of the red vittae are of this compound character gives the variety the appearance of having the most complex pattern of any of the *comes* varieties.

Type, ♀, Plummers Island, Md., Dec. 14, 1913, W. L. McAtee; paratypes same locality and collector, Nov. 30, Dec. 21, 1913; Great Falls, Va., April 20, 1916, W. L. McAtee; Chain Bridge, Va., April 16, 1922, J. R. Malloch; Centerville, Ill., Aug. 16, 1914 (Ill. State Nat. Hist. Survey); Iowa City, Iowa, June 4, 1915, L. L. Buchanan; Onaga, Kansas, Jan. 6, 1921, F. F. Crevecoeur.

E. comes var. *compta* McAtee, red form.—Urbana, Nov. 22, 1906; White Heath, April 17, 1909; Hopedale, Oct. 2, 1917. Yellow form, Du Bois, May 24, 1917.

ERYTHRONEURA COMES VAR. RUFOMACULATA, NEW VARIETY

Like *E. comes* var. *compta* McAtee, yellow form, except that the anterior two-thirds of clavus is occupied, saving a clear dot at inner angle, by an orange-red spot, and the adjoining markings of the corium are of the same color.

Holotype, ♀, Clay City, Ill., Aug. 17, 1911; paratypes, same data, also Urbana, Ill., Aug. 23, 1914, on grape; and Ill. 1992 (Ill. State Nat. Hist. Survey).

E. comes var. *amanda* McAtee.—Nos. 17398, 17399.

E. comes var. *ziczac* Walsh, yellow form.—Meredosia, May 28, 1917;
St. Joseph, Sept. 3, 1916, on grape.

GENUS HYMETTA McATEE

H. trifasciata var. *balteata* McAtee.—Urbana, March 24, 1916,
among leaves; Dongola, May 10, 1916; Muncie, Dec. 13, 1913; and Nos.
15416, 25807.

H. trifasciata var. *albata* McAtee.—Clayton, Ill., Sept. 30, 1916.

H. trifasciata var. *anthisma* McAtee.—Dubois, May 22, 1917;
Brownfield, Aug. 17, 1916; Muncie, June 3, 1917; and No. 1992.