NEW NEARCTIC SPECIES OF THE GENUS ERIOPTERA MEIGEN (TIPULIDÆ, DIPTERA).

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During the past few years, several new species of the genus *Erioptera* Meigen have come to hand. Some of these have been characterized in other papers, but a few still remain undescribed. Most of these belong to the group of *E. chlorophylla* O. S., a small assemblage of species whose limits of distribution are still not well understood. I am greatly indebted to Mr. Nathan Banks for data on the types of *E. chlorophylla*, in the collection of the Museum of Comparative Zoology, and to Mr. Johnson and Mr. McAtee for specimens of the *chlorophylla* group. Unless stated otherwise the types of the new species are contained in the author's collection.

*Erioptera margarita* new species.

Male.—Length, 3.8-4 mm.; wing, 5.3-5.6 mm.

Female.—Length, 4 mm.; wing, 4.8 mm.

Antenna with the basal segments light yellow, the flagellum brown; flagellar segments cylindrical, rather elongate, with coarse verticils. Head yellowish.

Mesonotum reddish brown, the lateral margins and the humeral region yellow. Wings pale yellowish, the costal region more suffused; stigma indistinct, pale brown; veins brown. Venation almost as in *E. microcellula* Alex., cell first *M₃* closed, very small; second anal vein straight, diverging from the first anal vein; basal deflection of *Cu₁* immediately before the fork of *M*.

Male hypopygium with the pleurites short and stout, the dorsal angle produced caudal into a pale fleshy lobe that is sparsely provided with coarse setæ. Pleural appendages two in number; the large one complex, bifid, the outer arm produced into a long, slightly curved, chitinized point whose surface is covered with very minute appressed teeth; the inner arm a broad, flattened chitinized blade with the apex truncated, in its angle at the base with a single conspicuous blackened conical point; the smaller pleural appendage is a slender arm whose acute chitinized apex is curved slightly caudal. The gonapophyses consist of six blackened chitinized hooks, a lateral pair that are very widely separated, the tips chitinized and covered with microscopic teeth. The four intermediate hooks consist of a pair of median slender, acutely pointed rods that are smooth, almost straight, with the tips contiguous or slightly decussate. Besides the above there is a transverse flattened plate whose lateral angles are produced into stout, curved chitinized hooks that are directed proximad; the posterior median portion of this plate is still further produced into a small, flattened bifid blade.

The female is similar to the male but the abdominal tergites are darker; the ovipositor is very long, especially the tergal valves which are slightly upcurved at their tips.

Habitat.—Colorado.

Holotype, δ, Platte Cañon, altitude 10,000 feet, August 29, 1915 (E. J. Osler).

Allotopotype, 9.

Paratopotype, δ, August 21, 1915; paratypes, 2 9's, Colorado Springs, June 8, 1915 (M. C. Van Duzee).

A paratype is in the collection of Mr. Van Duzee.

*Erioptera margarita* is close to *E. microcellula* Alex. (Proc. Acad. Nat. Sci. Phila., for 1914, p. 585), but the structure of the male hypopygium is different. In *microcellula* the outer arm of the appendage is blunt and sparsely hairy at the apex, the inner flattened blade with a group of small teeth in its angle instead of a single powerful conical tooth. The gonapophyses of *E. microcellula* have numerous appressed teeth along their margins. *E. lucia* Alex., a third member of this group, is a very different fly and needs no comparison with this new species. It is probable that these three species belong to the group of *Erioptera trivialis* Meigen, of Europe, deviating from the general characters of the subgenus *Erioptera* in the often closed cell 1st *M₃*, the straight second anal vein and a more or less tumid second antennal segment.

**The Chlorophylla Group.**

As stated in the introduction to this article, several species were found to be confused under the name of *Erioptera chlorophylla* O. S. It will be necessary to review the specimens in the different museums to get a clear idea of the distribution of the species.

The species known to the writer may be separated in accordance with the following key:
Erioptera chlorophylla Osten Sacken.


In the type series as now represented in the Museum of Comparative Zoology are three specimens, a male from Bethel, Maine, which is chosen as the lectotype, a female and a broken specimen. I am indebted to Mr. Banks for the above data.

The male hypopygium has the pleurites much stouter than in chlorophylla; the dorsal pleural appendage is a little longer than the ventral, of nearly equal width for the entire length or the apex a very little expanded, obliquely truncated, with the extreme outer angle blackened. The shorter and more slender ventral appendage is suddenly flattened and expanded at the tip, on the caudal or outer margin before the apex with a small, usually slender, blackened spine which is shorter than the width of the blade at this point. The tip beyond this spine is sometimes blackened and, in the type, one of the appendages appears claw-like. Gonapophyses small, each side consisting of a flattened plate whose inner posterior angle is produced strongly laterad into a short blackened horn whose tip is thus strongly divergent from its mate of the opposite side; the penis-guard has a slender arm on either side which form a collar-like structure passing beneath the hooks of the gonapophyses.

Lectotype, Bethel, Maine (Miss Edmands); Blue Hills, Massachusetts, July 16 (C. W. Johnson), Sacandaga Park, New York, June 18, 1914 (C. P. Alexander); near Philadelphia, Pennsylvania (C. W. Johnson).

Erioptera subchlorophylla new species.

Generally similar to E. chlorophylla. Male hypopygium with the pleural appendages very dissimilar in shape, the dorsal one expanded into a flattened blade at its apex; ventral appendage shorter and more slender, at the extreme tip with a long, stout blackened spine, directed caudal and placed at right angles to the appendage. Gonapophyses complex, the lateral chitinized arms slender, at the tips expanded into flattened paddle-like blades whose outer margin bears several minute acute teeth; horns of the penis-guard curved, projecting slightly beyond the level of the gonapophyses.

Holotype, c, Riverton, New Jersey, June 3, 1910 (C. W. Johnson).
Associated with this male type were several females which have an ovipositor of the type of *E. chlorophylloides* and it is possible that the female of *E. subchlorophylla* is similar to that species. Specimens in copula should be pinned together when captured.

**Erioptera furcifer** new species.

Generally similar to *E. chlorophylla*. Male hypopygium with the pleural appendages very dissimilar in shape; dorsal appendage slender, broadest and flattened at the base, narrowed to the blunt rounded apex which is heavily chitinized. Ventral pleural appendage slender, on the outer (posterior) margin far before the tip a very long, slender, blacked spine which is almost straight, the proximal face with subappressed hairs, the tip blackened. The slender tip of the appendage beyond this spine is a little shorter than the spine itself, the two appearing as a forked apex to the appendage, diverging at an angle of about 125°. Penis-guard as in the group, at the apex on either side with a long recurved chitinized hook; gonapophyses in caustic potash mounts, pale, flattened, the distal portion only a little wider than the base, the outer margin with minute teeth which extend down to about midlength of the gonapophyse.

*Holotype, ♂, Plummer's Island, Maryland, June 24, 1908 (H. S. Barber).*

Of the above species, *E. chlorophylla* and *E. chlorophylloides* form one group of species, *E. subchlorophylla* and *E. furcifer* a second group, separated by the form of the gonapophyses.

Mr. Edmund H. Gibson has resigned from the U. S. Bureau of Entomology to enter upon a new field of endeavor. He believes that entomology can be put on a dignified professional business basis just as law, medicine or engineering. He is breaking away from custom believing that after the pioneer work is in hand the field will welcome other entomologists. Mr. Gibson's headquarters, for the time being, will be Alexandria, Virginia.

**Gerris argenticollis** Parshley originally described from Massachusetts was taken in White Plains, N. Y., April 29, 1917.

J. R. de la Torre-Bueno.