

scribed by Blatchley. It was collected by Mr. Nathan Banks at Falls Church, Virginia.

—Mr. Currie exhibited a handsome and peculiarly marked lacewing fly, belonging to the genus *Hemerobius* and apparently representing a new species. It was collected by Mr. H. S. Barber at Little River, Humboldt county, California, on the 31st of last May. He then presented for publication the two following papers, in the first of which this insect is described :

#### NOTES ON SOME HEMEROBIIDÆ FROM ARIZONA AND CALIFORNIA.

By ROLLA P. CURRIE.

During the spring and summer of 1903, Mr. H. S. Barber visited the western part of Humboldt county, California, in the interest of the U. S. Department of Agriculture, to investigate forest insects and make collections. *En route* he spent a couple of days at the Grand Canyon of the Colorado river at Bright Angel, where he collected a number of insects. Although not looking especially for Hemerobiids he nevertheless secured a few species—five in all from Arizona and California—and two of the California ones appear to be new to science. None of the three species obtained at Bright Angel are new to Arizona but are included in Mr. Nathan Banks' recent paper on "Neuropteroid Insects from Arizona,"\* although not there listed from this particular locality.

#### *Hemerobius mæstus* Banks.

Bright Angel, Colorado Canyon, Arizona, altitude 3,700 feet, 10 May, two specimens; Samoa, Humboldt county, California, 23 May, one specimen.

The California specimen is teneral, both body and wings being very pale. This species was collected at Williams, Arizona, by Messrs. Schwarz and Barber on July 29, 1901.

#### *Hemerobius bistrigatus*, n. sp.

Alar expanse 15.5 mm. Head, including the antennæ, pale yellowish, the latter darker toward tip; a stripe below each eye, lateral margins of clypeus, a line surrounding the vertex, rear of eyes, and apical joint of palpi, piceous. Pronotum dark each side, pale yellowish in the middle and on posterior lateral angles; meso- and metathorax pale on dorsum, obscurely darker on sides and below, metanotum darker than the mesonotum. Abdomen dark. Legs pale yellowish, tips of tarsi dark.

\* Proc. Ent. Soc., Wash, v, No. 4, pp. 237-245, author's extras published April 29, 1903.

Anterior wings rather narrow—their width slightly more than one-third their length—their tips obtusely pointed, hind margin flattened before tip; costa flattened apically, making this portion of the costal area narrow, the basal half rather narrow; hyaline, with a smoky tinge, the veins pale and marked with minute, indistinct reddish dots; each wing with two broad, longitudinal fuscous streaks, as follows: (1) An anterior streak, arising near base of first radial sector and extending along this vein to the hind margin of the wing, widening at inner gradate series so as to include the second sector and at apex of wing covering the area embraced between the tips of first and third sectors; (2) a posterior streak, arising obscurely near base of wing and extending along the hind margin out to, or almost to, the tip of anterior fork of median vein, darkest along its anterior border which consists of the apical portions of cubitus and of posterior fork of median; posterior fork of median strongly bent toward cubitus, thus making the inner veinlet connecting it with the cubitus much shorter than the outer; radio-median cross vein situated at least as far before the forking of the median as the former is long and joining radius much before origin of first sector; forking of median plainly before origin of first sector; three radial sectors, anterior branch of the third forked before the inner gradate series and before the subpterostigmal radial cross vein, posterior branch simple; five gradate veins in inner series, the last very slightly before the next to the last, seven in outer series. Posterior wings hyaline with a smoky tinge, the veins as in anterior pair, a very faint trace of the two streaks of anterior wings; the first fork of radial sector plainly before forking of median; Pterostigmata of both wings reddish.

Little River, Humboldt county, California, 31 May, one specimen.

*Type*.—No. 7901, U. S. National Museum.

Allied to *H. mæstus* and belonging to the same group and section, but readily distinguished from it and from other known species of the genus by the peculiar wing streaks.

### **Hemerobius pacificus** Banks.

Bright Angel, Colorado Canyon, Arizona, altitude 2,300 feet, 10 May, one specimen.

Collected also at Williams, Arizona, May 27, 1901, by Messrs. Schwarz and Barber.

### **Hemerobius pallescens**, n. sp.

Alar expanse 19.5 mm. Body above and below, including palpi, legs and antennæ, pale yellowish. Head with a stripe below each eye and a line on lateral margins of vertex piceous, basal antennal joint rufopiceous externally. Pronotum with a dark stripe each side, leaving a longitudinal median line and the posterior lateral angles pale. Anterior wings rather broad—their width two-fifths of their length—their tips rather acutely

pointed, hind margin flattened and slightly concave before tip, basal half of costal area rather narrow; hyaline, with pale brown markings, those in apical portion of wing more or less coalescent and forming on each gradate series an oblique streak; pterostigma indistinct, pale; an indistinct pale line bisects the costal space longitudinally through the bases of intercostal forks; veins pale, with numerous brown interruptions, those on radius and cubitus most pronounced; each brown spot on the longitudinal veins between radius and hind margin gives off an oblique pale brown mark each side, thus forming several series of V-shaped markings, the angle of the V's pointing inward; gradate veins almost wholly brown; hind margin of wing brown, interrupted with pale spots; posterior fork of median vein strongly bent toward the cubitus, thus making the inner veinlet connecting it with the cubitus much shorter than the outer; radio-median cross vein situated at least as far before the forking of the median as the former is long and joining radius much before origin of first sector; three radial sectors, anterior branch of the third forked before the inner gradate series and before the subpterostigmal radial cross vein, posterior branch simple; five gradate veins in inner series, the last beyond the next to the last, seven or eight in outer series (seven in left wing, eight in right wing, in the type specimen). Posterior wings hyaline, unmarked; the veins pale, tinged with reddish brown, some of the gradate veins darker; the first fork of radial sector plainly before forking of median.

Fieldbrook, Humboldt county, California, 30 May, one specimen.

*Type*.—No. 7902, U. S. National Museum.

This species, also, is allied to *H. pacificus*, and falls in the same group and section of the genus. It differs from *pacificus* in its larger size, paler color, broader, more pointed, differently shaped and differently marked wings, etc.

#### **Micromus variolosus** Hagen.

Bright Angel, Colorado Canyon, Arizona, altitude 2,300 feet, 10 May, five specimens.

This is a widely distributed species in Arizona and has been recorded from Williams, Hot Springs (in Yavapai county), Prescott, Flagstaff, Winslow and the Santa Rita and Chiricahua Mountains. It is common, also, in other parts of the west.

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#### HEMEROBIIDÆ FROM THE KOOTENAY DISTRICT OF BRITISH COLUMBIA.

By ROLLA P. CURRIE.

The Hemerobiid lace-winged flies collected in British Columbia last summer by Dr. H. G. Dyar, Mr. A. N. Caudell and myself comprised twelve species, represented by eighty-six