I am under obligations to Prof. C. P. Gillette, for the use of the material in the coll. Colo. Agr'l College ; to Mr. W. H. Ashmead, for the loan of specimens from the U. S. Nat. Museum, and from his own collection ; to Prof. Osborn, for specimens loaned me from Ohio University collection ; and to Prof. Cockerell and Mr. W. J. Fox, for determinations and other favours.

THREE NEW SPECIES OF CULICIDÆ.

BY D. W. COQUILLETT, WASHINGTON, D. C.

During his extensive investigation of the mosquitoes of this country, Dr. L. O. Howard encountered three apparently new forms, and in order that these may be referred to intelligently in his correspondence and otherwise, he has instructed the writer to name and characterize them in one of our entomological journals. The descriptions are therefore offered herewith :

Psorophora Howardii, new species.

Male.—Head black, upper half of occiput covered with appressed white scales, except a narrow median stripe, hairs black ; first joint of antennæ yellow, second joint black, its extreme base yellow, the two terminal joints black, remainder of antennæ alternate black and whitish, the plumosity black changing to whitish at the tips ; mouth-parts black, base of third joint of palpi yellow, palpi covered with violet-purple appressed scales, the last joint narrower than the preceding, tapering to the apex, its hairs sparse and very short, the penultimate joint and apical fifth of the preceding bearing many rather long hairs ; body black, the humeri yellow, pleura and sides of mesonotum bearing many appressed white scales, abdomen on upper side covered with appressed violet-purple scales, those on the first segment and a few at the hind angles of some of the other segments white ; wings hyaline, first basal cell much longer than the second, petiole of first submarginal cell subequal in length to the cell ; femora yellow, the apices black and on the under side fringed with rather long, narrow, nearly erect scales, remainder of femora thinly covered with appressed violaceous scales ; front and middle tibiæ yellow, their apices brown, thinly covered with appressed violaceous scales, hind tibiæ brown, the extreme bases yellow, covered with appressed violet-purple scales interspersed with many suberect brown ones ; tarsi brown, the first joint, except its apex, and the base of the second yellow ; claws

of front and middle tarsi very unequal in size, the anterior claw of each pair bearing two teeth, the other with a single tooth, claws of hind tarsi of an equal size, each one-toothed; halteres yellow, becoming brown at the apex.

Female.—Differs from the male as follows: Antennæ dark brown, the first joint and base of the second yellow, the hairs dark brown, palpi dark brown, the basal third yellow, bearing a few rather long hairs; hind tibiæ yellow, the apices brown, tarsal claws equal, each one-toothed.

Length, excluding the proboscis, 6 mm. Three males and one female, received from Dr. W. C. Coker, of the Johns Hopkins University. Type No. 5793, U. S. National Museum.

Habitat.—Hartsville, South Carolina.

This fine species is respectfully dedicated to Dr. L. O. Howard, whose investigations have so much increased our knowledge of the early stages and distribution of the members of this important family.

Culex Curriei, new species.

Head black, scales on lower parts of occiput white, on the upper part light yellow, usually a patch of golden-brown ones between, a few erect black scales and bristles on the sides, antennæ and mouth-parts dark brown, base of the former yellow; body black, scales of mesonotum light yellow, a median and usually a lateral vitta of golden-brown ones, those of the pleura white, of the abdomen yellowish-white, a pair of black-scaled spots on segments 2 to 5; femora and tibiæ yellow, brownish at the apices, covered with mixed yellowish-white and brown scales, tarsi brown, the front ones having the base and apex of the first two joints and base of the third, the middle with the base and apex of the first three joints and base of the fourth, the hind ones with both ends of the first four joints and the whole of the last one, whitish, all claws one-toothed; wings hyaline, scales of the veins mixed yellowish-white and brown, petiole of first submarginal cell about three-fourths as long as that cell; halteres yellow; length 4 to 5 mm. Five female specimens. Type No. 5798, U. S. National Museum.

Habitat.—University, N. Dakota (June, 1896; Mr. R. P. Currie, after whom the species is named); Colorado; Boise, Idaho (Mr. C. B. Sampson); and Palo Alto, Cal. (Nov. 8, 1900; Prof. V. L. Kellogg).

Near the European *C. dorsalis*, Meigen, but according to Theobald that species has simple tarsal claws.

Aedes Smithii, new species.

Black, the pleura largely, venter, bases of halteres, coxæ and bases of femora yellow, scales of upper sides of body dark brown, some on the abdomen having a violaceous reflection, scales of femora black, those on the under side light yellow, scales of hind tibiæ black, those on the inner side and on the front and middle tibiæ and their tarsi light yellow, tarsal claws simple; wings hyaline, first submarginal cell nearly twice as long as its petiole; length 3 mm. Two males and three females bred from material received from Prof. J. B. Smith, after whom the species is named. Type No. 5799, U. S. National Museum.

Habitat.—Lahaway, New Jersey.

At the suggestion of the writer, Prof. Smith submitted specimens of this species to Mr. Samuel Henshaw, of the Museum of Comp. Zoology at Cambridge, Mass., for comparison with the type of *Aedes fuscus*, and Mr. Henshaw replied that the two forms are very distinct. The new species will readily be recognized by the absence of cross-bands of yellowish scales at the bases of the abdominal segments.

BOOK NOTICE.

CATALOG DER LEPIDOPTEREN des Palæarctischen Faunengebietes von Dr. Phil., O. Staudinger und Dr. Phil., H. Rebel. Dritte Auflage des Cataloges der Lepidopteren des Europäischen Faunengebietes: Berlin. Friedländer & Sohn, Mai 1901.

This is an old friend in a new dress, and yet the dress is not at first so different, for general arrangement, typography, method of citation, etc., are very much like those of the preceding edition. Part I., *Papilionidæ* to *Hepialidæ*, is by Staudinger and Rebel, and contains 411 pages, aside from the 30 pages of introduction and explanations. Part II., *Pyralidæ* to *Micropterygidæ*, is by Dr. Rebel, and contains 368 pages, which, however, include the generic and specific indices to both parts. That the work fully equals in all respects the previous edition goes without saying; it does even much more, and represents, though not fully, the intermediate progress in classification.

No one who has not met both authors can understand the real marvel of this combined work.

Dr. Staudinger, old, slow and conservative; utterly out of touch with modern methods; distrustful and suspicious of characters unfamiliar to