**APHIDIUS GRANARIAPHIS, n. sp.**

BY PROF. A. J. COOK, AGRICULTURAL COLLEGE, MICHIGAN.

Black above, yellowish brown beneath. The antennae are black, the front, mouth parts and legs yellowish brown. Rarely the femora and tarsi are dusky, and the ventral surface quite dark. Very rarely the dorsal surface is brownish, except the pedicel and tip. The occiput or collar is brown. The antennae are sixteen jointed in the female, and seventeen in the male, and are cylindrical, recurved, and thickly set with short, light colored hairs. The first two joints are shorter and larger than the others; the succeeding joints are cylindrical, close together, and equal in length, except the last, which is longer and conical. The abdomen is lanceolate, and all the segments are freely moveable on each other, so it can be easily bent under the thorax. The venation of the wings—see figure—is simple, and the first discoidal cell incomplete. We know from the simple venation of the wings that this is a Braconid. It belongs to the genus Aphidius, as the first discoidal cell is incomplete, the abdomen lanceolate, the antennae sixteen or seventeen-jointed, and the ventral valves in the female simple. It is 2½ mm. (1-10 in.) long.

This species differs from *Aphidius avenaphis* Fitch, as that species has nineteen or twenty joints to the antennae, is honey yellow where this is brown, and the first two joints of the antennae, the pedicel of the abdomen, and a spot on the suture between the first and second joints of the abdomen are honey yellow and not black as in Granariaphis. The joints of the antennae are also less pedicellated, or closer together than in the Avenaphis.

This species is interesting from the fact that it was the principal agent in exterminating the countless millions of grain Aphides last season—1889—in Michigan and adjacent States. While Aphidius avenaphis and other enemies, like Syrphus flies, Coccinellids and Chrysopa fly larvae were
numerous and very active. Yet, by far the greater part of the louse de-
struction here was accomplished by this new species—Aphidius gran-
ariaphis. June 30th.—The heads of
wheat were thronged with healthy
vigorous lice, with but few of the light
colored rounded parasitized lice—see
figures. Ten days later the lice were
nearly gone, and the parasitized ones
were largely in the majority. Rapidly
as the lice increase, they seem to be
no match in this respect for the parasites.

I think the grain lice Aphis (Siphonaphora) aveucC destroyed at
least one-third of the wheat crop of Michigan last year, and greatly
injured the balance of the crop. Had it not been for these parasites we
should have had, I think, no crop at all.

THE BUTTERFLIES OF LAGGAN, N. W. T.; ACCOUNT OF
CERTAIN SPECIES INHABITING THE ROCKY
MOUNTAINS IN LATITUDE 51° 25'.

BY THOMAS E. BEAN, LAGGAN, ALBERTA.

(Continued from page 99.)

Definite Marks of the ♀.—Observation of 62 caught specimens
enables me to supplement, in some degree, Mr. Strecker's description.
The smallest measures 46 mm., equal to 1.8 inch. The largest is
58.5 mm., or 2.3 inches. The average expanse of the 62 is 52.5 mm., or
2.07 inches. The cell spot above primary is larger than in the males,
and has never that semi-obsolete appearance which it presents in some of
the males; it varies from a small but definite spot of .5 mm. in diameter
to a spot of 1.5 mm., is usually sub-rotund, sometimes sub-linear, and is
frequently centered with yellow in moderate degree. On under side hind
wing the dark nucleus or "patch" of costa is lacking in all, and the sub-
marginal series of dark spots beneath both wings is found to be plainly
presented only in three specimens, with slight traces in fifteen others.
 Elis ♀ varies greatly as to condition of border above primary; a few of
my specimens have a completed dark border, much as in an average
Hecia, with the yellow spots small and entirely enclosed. These, how-
ever, are extreme instances. At the opposite extreme are specimens

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