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Letter to Mr. Wickham

T. D. A. Cockerell
New Mexico Agricultural Experientment Station

Las Cruces, N. M., Feb. 9th 1894.

Dear Mr. Wickham.

Thanks for your p.c. I am glad of the correction as to Pyrota postica, for mylabrina would have been new to our local fauna, whereas postica was found by Prof. Townsend.

The Mesilla Valley Coleoptera, so far as identified, now amount to about 1140. Of these, the following are common to the Wet Mtn. Valley (Custer Co., Colo.) list:-

1. Hippodamia convergens, Guer. ALSO HIGH ALPINE!
2. Exochomus marginipennis, Lec.
3. Attagenus piceus, Oliv.
4. Sapinus oregonensis, Lec. (but the Mes Vall. form is var. distinguendus, Mars.)
5. Dolopius lateralis, Esch. (but the Mes. Vall. form is a var.) ALSO HIGH ALPINE!
6. Melanophila longipes, Say.
7. Collops vittatus, Say. (but the Wet Mtn. Vall. form is a var.)
8. Aphodius granarius, L.
9. Prionus californicus, Mots.
10. Haltica foliacea, Lec.
11. Phyllotreta pusilla, Horn. ALSO HIGH ALPINE!
12. Monoxia guttulata, Lec.
13. Blapstinus lecontei, Mulsl.

A little less than 10 per cent! The altitude here is 3,800 ft.

Did I tell you, that I am at work on a Mesilla Valley paper similar to the Colorado one? I do not know whether health and other circumstances will permit me to complete it; but I hope that if it is completed, it will be a more valuable paper than the Colo. one, as I shall not only have learned more, but shall have profited by the criticisms and comments made on the earlier attempt. Should I fail to complete it, I should wish to turn over to you the MS. on the Coleoptera, to make any use of you thought fit.

I am sorry the Mycetophagus was crushed. I send another beetle (my no. 596) which is superficially somewhat similar, but I have not examined it critically. It was taken by myself at Las Cruces, Aug. 16th., 1893.

Yours sincerely

Theo. D. A. Cockerell.

Las Cruces.
New Mexico.
Feb. 5. 1894.

My dear Mr. Wickham.

You say I must not take offense at your criticisms. I should think not! They are exactly what I want, nothing could please me better. There is nothing more detestable than the way some naturalists delight to pick holes in one another's work, just for jealousy or spite; but on the other hand, there is nothing a true naturalist desires more, than intelligent and truth-seeking criticism. Let me assure you, I am not one of those people who imagine that they don't make mistakes; nor do I hold cast-iron opinions which must be defended against any evidence! If you should ~~should~~ write a review and criticism of my paper, as you suggest, I should feel much honoured. When I wrote the paper, I was well aware that in many points it might require correction; and perhaps had I been less impetuous or enthusiastic, I should have never written it at all. But I thought that the facts given would be useful, however mistaken my interpretation of them; and further, I hoped that the introductory part would stimulate thought and perhaps incite others to study a subject which has been too much neglected.

Now as to the difference between the High Alpine and Mid Alpine: all you write is very interesting. I am sure there is a real distinction to be made, because it is seen in the plants, which have been more completely studied than the insects. But whether my arbitary line at 10,000 ft. is the best, may be very much open to question: I rather think the line should have been 1,000 ft. lower, but as I did very little collecting at 9,000 ft., I cannot say with any certainty. If you fix the line at 9,000 ft. — instead of 10,000, the distinction between the High Alpine & Mid Alpine beetles will probably be clearer. Nearly all my High Alpine Coleoptera were taken at the Micawber mine, supposed to be 10,000 - but I had no aneroid, and it may have been 2 or 3 hundred feet lower. Unfortunately my high alpine beetle-list is very small, anyhow,

and it is much to be desired that better collections should be made.

As to the occurrence at low altitudes of high alpine genera, in some cases that may prove nothing. For instance, if I were writing on plants, I should cite Papaver as a high-alpine genus not found lower — the mid- & sub-alpine poppies belonging to the totally different (mexican) genus Argemone. Nevertheless, in Europe, many species of Papaver abound at sea-level.

So again the Blue Columbine marks the high-alpine, as defined in my paper, very clearly. Except for an occasional seedling (carried down by the creeks) no Aquilegia occurs in the mid-alpine of Colo., at least in Custer Co., so far as I am aware. Except that I have a record of Aq. canadensis, the altitude of which I do not know. But in the Eastern states & in Europe Aquilegia occurs at little above sea-level.

+ - + — The Aquilegia is not so good a case as the Poppy, for on looking at my records, I find 2 or 3 cases of the occurrence of the genus below the high-alpine in other parts of Colorado.

I may be wrong, but I have fancied there was a similar break in the vertical distribution of Chrysobothris: 2 or 3 regular mountain species, then none until you come to the several regular subalpine (or lower) forms. Do it so? Possibly also with Glyptina??

Dr. Horn's remarks (my paper, p. 313) should be considered to have some weight. You see he recognizes the high-alpine as distinct from the mid-alpine (subalpine he calls it) — but he draws the line at 8,000 ft. This certainly seems to me too low for Custer Co., judging from the plants; but as my list is almost entirely based on specimens obtained from 7,700 to 8,200 ft., I cannot make any definite statements about the insects occurring — say at 8,500 ft. — If you write your criticism of my paper, I should be glad if you would point out that I had practically nothing from between 8,200 or 8,300 and 10,000 or thereabouts and that therefore my opinion as to the lower limit of the high-alpine is weak and liable to correction. The insects recorded from Smith's Park, however, are in this debatable area — being from somewhere about 9,500 ft.

As favouring the view that the high-alpine goes lower than I supposed, take the butterflies found by Mr. Nash at Rosita, which is 8,736 ft. This town is all on the side of a mountain, and very likely Nash collected several hundred feet above the town, & gave all his captures the label "Rosita." But observe, that he took there

Colias meadii.
Papilio zolicaon.
Melitæa nuligena.
Chionobax chryxus.

Alpine species! Colias meadii & Chion. chryxus I found in the high alpine, NEVER in my mid-Alpine (8,200 ft.). Had they occurred so low, I should have surely seen them there.

So there the matter stands, for the present — surrounded by uncertainty. I will, however, see if I cannot by a careful consideration of the plants arrive at a better decision. I published a list of the high-alpine plants in the Bull. Torrey Botan. Club, & I have a great number of MS. notes on the mid-alpine ones. At the best, of course, the dividing line will be an arbitary one, like a degree of latitude. No-one disputes that the insects between say 30° & 40° N. Lat., and 40° & 50° N. Lat. are largely different; yet no one imagines that there is any absolute break at the dividing line. In studying Geog. distribution, one is surprised to find such sharp changes as exist in faunæ, not that they are not sharper.

As to the central region, I have only seen statistics actually given for vertebrates; but I imagine that you could only produce a very small number of insect genera absolutely peculiar to it. I wish you would compile a list of beetle genera confined to the Central Region; because according to my views they ought to be survivals of an ancient fauna, vide p. 320. Such a list might help a good deal to test the correctness of my opinion.

I take pleasure in sending you the last duplicate copy I have of my paper on variation (it is, in fact, the copy I sent to my wife before we were married). I shall be interested to know what you think of it. There has been much activity in this line of research since it was written. so that were it to be re-written

now, it would doubtless require some alterations & several additions.

I am much interested to learn you are English; and curiously, you were born in the very same year as myself.

Many thanks for the names of the beetles. I see a new Hyperaspis: but I suppose you will not describe it? I wish someone would work up the Coccinellidæ in this country. They are interesting for their variation, & their curious larvæ; and I am constantly running across them as enemies of various Coccidæ.

I fear there is no-one to help you very much with the Bahamas Coleoptera. Very likely many are new: so very little is known of the West Indian insects. If you want references to West Indian species of any particular genera, I think I can give you a good many. I have an immense index compiled in Jamaica, of all west Indian species mentioned in works available at the Jamaica Institute.

I examined today the little Coccids without locality from Cactus, which you sent. Unfortunately they were not in condition to describe, but they belong to a species of Dactylopius, possibly new. They resemble D. citri in their antennæ, & differ from D. mamillariæ, Bouché, as described by Signoret. Yet, being on cactus, I can hardly suppose they are D. citri.

Yours sincerely.

Theo. D. A. Cockerell.