

bloom, without the reliefs of light and shade thrown by the more open inflorescence of the yellow-flowered plants on which my other species were chiefly taken. Dr. Leconte records *C. testaceus* from *Baccharis* without specifying more definitely.

Six specimens of *C. pulchellus* from Williams, Ariz., are of a rather dark form, such as shown by *g* and *d*, with the exception of two males which are somewhat lighter, as *h*, and one darker female, like *e*. Four males from Peach Springs and Seligman are a very little lighter than *h*, while two females from the same localities are darker than the males, but not quite as dark as the Williams female. Three examples from Albuquerque are about the same as the Peach Springs specimens. A series of nineteen specimens from Helena Mon., averaging much smaller than those of other localities, are of a type very nearly the same as the Williams specimens, so far as regards the extent of black markings.

Summing up the evidence, then, we find:

1. Light specimens (*C. longipennis*) at Albuquerque, where the precipitation is 7.19 inches.
2. Darker ones (*C. pulchellus*) at Peach Springs and Seligman, where it is about 17. inches.
3. Still darker ones at Williams, where it is about 25.95 inches.
4. Specimens about the same as these last from Helena, Montana, where it is about 13.22 inches.

Now we have to reconcile with it, if we are to accept Mr. Tutt's theory at all, the phenomenon of specimens from Helena, with a precipitation of 13.22, presenting a phase of coloration as dark as those from Williams, with an annual precipitation of 25.95 inches. This, however, is not a great difficulty, since I have before mentioned the fact that the Helena beetles average much less in size than the more southern ones, and here I think it quite possible that we have the keynote to the whole thing. Mr. Tutt has already\* adduced proof that some forms of disease produce melanism, and it has occurred to me that this species (*C. pulchellus*) having its metropolis in the south, where comparatively mild winters prevail, may find it a hard struggle to exist on the plains of Montana, where

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\* Melanism and Melanochroism, p 44 *et seq.*