

NATURAL HISTORY NOTES ON COLEOPTERA.

No. 2.

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Harpalus viduus Lec. The type of this species was taken at Rock Island, Illinois. It must be somewhat rare, as it does not appear in any local catalogue nor exchange list under my notice. Here it is found in one place only, and that in some abundance—on the side of a high hill in its primitive state, possessed of a warm, friable, vegetable soil, with a scanty vegetation, and flat stones on the surface. The females have the elytra opaque, but not pubescent, as one of my correspondents claims they should be to meet the description of Dr. Leconte—"sericeo-opaca," which here evidently means opaque with a silky lustre. The males are moderately shining. The beetle makes its appearance during September and October, though few of them mature till the following spring, remaining under the shelter of the stones, where from one to half a dozen are often associated. At first the beetles are of a pale color, the elytra gradually changing to black; but the head and thorax mostly remain red till winter. In the spring they are shining black, and are only then fit to be placed in a collection. In the great struggle for "survival of the fittest" the chances seem to be against this insect.

Quedius fulgidus Fab. The descriptive synopsis of the species of this genus by Dr. Horn is so lucid that anyone with a little practice should be able to separate them without trouble, but in some individuals the departure from the normal form is so great and the approach to some other form so close as occasionally to produce perplexity. In the present species, as will be seen by reference to the synopsis cited, the color is so very variable as to be of no separative value, and the principal characters to be depended on to distinguish it from *peregrinus* Grav., which is equally variable, are the shorter, broader head, and the series of three punctures on the thorax external to the discal series. The form with the elytra red is the more common, and usually has the full number of punctures; but a totally black form occurs (legs brown), with the external series often reduced to two, or to the marginal puncture alone, and with the head considerably elongated, thus approximating it closely to black forms of *peregrinus*. When one has a number of both species of normal form to compare with, the determination of these abnormalities can be