

ON THE DISTRIBUTION OF THE GENERA OF CARABIDÆ  
ALONG A RIVER SYSTEM.

BY C. H. T. TOWNSEND, CONSTANTINE, MICH.

The St. Joseph River runs nearly diagonally through the township of Constantine, from N. E. to S. W. A small affluent, called Fawn River, empties into it at the point where the town itself is located.

The characteristic vegetation along the banks of the main river above town is beech, maple, elm, iron-wood, walnut, butternut, papaw, magnolia (or a tree very nearly allied), spice-bush, prickly-ash, sumach, witch-hazel, wild grape, ash, oak and hickory, with many quite rare and beautiful wild flowers, such as are found in rich and favorable places. But that of the affluent region is almost entirely oak and hickory (mostly oak), with hazel, sumach, a few poplars, willows, and in some places cedars, but with few wild flowers of any account. The cedars are also found upon the main river, both above and below town. This difference in vegetation is probably due to a difference in the nature of the soil, the lower and richer soil of parts of the main river producing a richer and more varied flora than the higher and poorer parts adjoining the affluent.

Now I have noticed in collecting that the *Carabidæ* seem to be distributed in a somewhat systematic manner along the main river and its affluent, genera occurring on the former which are not found along the latter, and less frequently *vice versa*. On the main river I have taken *Omophron*, *Helluomorpha*, *Galerita*, *Brachylobus* (*Lithophilus* [Say]), *Dicaelus*, *Hestonotus* and *Amphasia*, which I have not taken on the affluent. *Galerita*, however, I have taken on the prairie to the south, but this partakes more of the nature of the main river region.

While on the affluent I have taken *Notiophilus*, *Calosoma* and *Pasimachus*, which I have not taken on the main river. The *Notiophilus* is a specimen which I have determined to be *sibiricus* Mots. It was taken on 19th October, 1884, while I was chopping over some sod with a hatchet on an elevated grassy bank, which formed an open spot in the woods at this place. As this is the only specimen of the genus I have up to this time met with here, it may be found yet upon the main river. Of *Calosoma*, I have often taken *calidum* (Fab.), and once *scrutator* (Fab.), up the affluent. The latter, a very rare insect here, three or four specimens only having been taken to my knowledge within the last