

Of the 72 species which I am able to record, only 16 inhabit the land, and even they are only found in moist situations where the fire seldom penetrates. This great dearth of terrestrial species might, on first thoughts, very naturally be attributed to the excessive frosts, but I believe I am able to assign to it a much more direct cause, viz., Fire. If it were attributable to cold, how is it that thousands of individuals are able to exist in shallow ponds that must certainly become frozen solid during winter? I have elsewhere entered fully into the subject of the effect produced on the face of the country by the extensive prairie-fires that have annually swept over it for generations past.* There are good reasons for believing that the very prairies themselves, their treelessness, and their fertility are all due, to a large extent, if not entirely, to the action of these fires. I have further stated my belief† that the complete absence of earth-worms of every kind from the surface of the prairies is, in all probability, due to the same cause; and I see no reason to suppose that the remarkable absence of land shells is due to any other. The fire annually burns the grass over which it passes, completely down to the ground, and I have had many occasions of observing that this would effectually kill any mollusks that were harbouring among its roots. On the drier portions of the prairies, settlers often cut their hay round the margins of small depressions in which water collects, and shells—especially *Limnæidæ*—live during the spring. This done, they set fire to the remaining grass-stalks in order, as they say, that the grass may come up greener and more succulent the following spring. Under such conditions I have often seen the shells lying on the dry pond-bottom completely scorched and calcined by the flames. It seems to me, therefore, in every way probable that these prairie fires are the cause of this absence of terrestrial mollusks from the face of the country, especially

* 'Manitoba Described,' p. 20. Wyman & Sons, Great Queen Street, W.C. 1885.

† 'Nature,' Jan. 3, 1884, p. 213.