

in those succulent and nutritious leaves and fruits which are most congenial to land snails. It is to be observed, however, that we know little as yet of the upland life of the Erian or Carboniferous. The animal life of the drier parts of the low country is indeed as yet very little known; and but for the revelations in this respect of the erect trees in one bed in the coal formation of Nova Scotia, our knowledge of the land snails and Millipedes, and also of an eminently terrestrial group of reptiles, the *Microsauria*, would have been much more imperfect than it is. We may hope for still further revelations of this kind, and in the meantime it would be premature to speculate as to the affinities of our little group of land snails with animals either their contemporaries or belonging to earlier or later formations, except to note the fact of the little change of form or structure in this type of life in that vast interval of time which separates the Erian period from the present day.

It may be proper to mention here the alleged Pulmonifera of the genus *Palæorbis* described by some German naturalists. These I believe to be worm tubes of the genus *Spirorbis*, and in fact to be nothing else than the common *S. carbonarius* or *S. pusillus* of the coal formation. The history of this error may be stated thus. The eminent palæobotanists Germar, Gœppert and Geinitz have referred the *Spirorbis*, so common in the Coal measures to the fungi, under the name *Gyromyces*, and in this they have been followed by other naturalists, though as long ago as 1868 I had shown that this little organism is not only a calcareous shell, attached by one side to vegetable matters and shells of mollusks, but that it has the microscopic structure characteristic of modern shells of this type.<sup>1</sup> More recently Van Beneden, Cœnius, and Goldenberg, perceiving that the fossil is really a calcareous shell, but

<sup>1</sup> "Acadian Geology," 2nd edition, p. 205.